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ABSTRACT

Questionnaires completed by 374 teachers were used to determine differences in the instructional and noninstructional responsibilities of elementary teachers in very small, small, and medium school districts in Montana. Questions about instructional duties related to number of courses and grade levels taught, pupil/teacher ratio, teacher role in curriculum development, availability of specialists and administrative supervision, and clock hours spent in teaching and in-service training. Questions about noninstructional duties related to supervision of students and various administrative tasks. Data were analyzed using gamma to measure the association between school district size and the duty performed and were further analyzed to determine the duties performed more often by teachers in very small school districts as compared to teachers in small school districts. A comparison of duties of teachers in small and medium school districts was also made. Teachers in very small school districts were found to perform more instructional and noninstructional duties than either small or medium district teachers. Likewise, teachers in small districts performed more of the duties than teachers in medium districts. The majority of the differences were accountable between the duties reported to be performed by teachers in the very small and small districts. (JHZ)

THE INSTRUCTIONAL AND NONINSTRUCTIONAL DUTIES OF PUBLIC ELEMENTARY SCHOOL TEACHERS IN THE VERY SMALL, SMALL, AND MEDIUM DISTRICTS IN MONTANA

BY

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A Dissertation submitted to the Graduate School
in partial fulfillment of the requirements
for the Degree
Doctor of Education

Major Subject: Educational Management and Development
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"The Instructional and Noninstructional Duties of Public Elementary School Teachers in the Very Small, Small, and Medium Districts in Montana," a dissertation prepared by Clark Edward Gardener in partial fulfillment of the requirements for the degree, Doctor of Education, has been approved and accepted by the following:

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ABSTRACT

THE INSTRUCTIONAL AND NONINSTRUCTIONAL DUTIES OF PUBLIC ELEMENTARY SCHOOL TEACHERS IN THE VERY SMALL, SMALL, AND MEDIUM DISTRICTS IN MONTANA

BY

CLARK EDWARD GARDENER, B.S., M.S.

Doctor of Education

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Few studies have been completed which compare the duties of teachers in elementary schools of various sizes. The purpose of this study was to determine if there were differences in the instructional and noninstructional responsibilities of elementary teachers in the very small, small, and medium school districts in Montana.

A random sample of approximately twenty percent of the districts willing to participate from each size category was selected. Questionnaires were sent to eighty-eight school districts and distributed to the six hundred six teachers employed by the

districts. Approximately sixty-two percent of the questionnaires were returned.

The data were analyzed using the gamma to measure the association between school district size and the duty performed. After an analysis of each duty was completed, the data were further analyzed to determine the duties performed more often by teachers in the very small school districts as compared to the teachers in the small school district. A comparison of duties of teachers in the small school districts and the medium school districts was also analyzed.

The very small school districts were found to perform more instructional and noninstructional duties than either the small or medium districts. Likewise, the teachers in the small districts performed more of the duties than teachers in the medium districts.

The results indicate that as school district size increases, the number of instructional and noninstructional duties required of the teachers decreases.

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CHAPTER I

INTRODUCTION

Much of the literature from the early part of the twentieth century indicated that teaching in the small school was different from teaching in the larger school (Betts & Hall, 1914; Cubberley, 1922; Slacks, 1938; Wofford, 1949; Woofter, 1917). It has been assumed that teaching in the small school of today is also quite different than teaching in larger school systems (Horn, 1983; Nachtigal, 1980; Sher, 1977; Sher, 1981). Many of the differences stem from the duties the teachers perform in the classroom and in extracurricular assignments.

Although teachers in any school system have a multiplicity of tasks and duties to accomplish outside of school hours as well as within the school day (Bagley & Keith, 1929), it appears that as the school size decreases the instructional and noninstructional duties increase (Wofford, 1949). Sher (1981) stated that teachers in rural or small schools perform a wide variety of tasks and that these tasks would seem extraordinary in any large metropolitan school. McGuffey (1928) surveyed teachers in one-room schools and graded schools to ascertain the differences of the duties between the two groups. His survey, although dated, indicated that the teacher in the one-room school had several more duties of an instructional and noninstructional nature than teachers in the graded schools.

A later report by Heck, Hendrix, Manlove, Rummel, Slaughter,

and Owen (1965) looked at the noninstructional duties of elementary (grades 1-6), junior high (grades 7-9), and senior high (grades 10-12) teachers in Illinois. Their general conclusions were that elementary teachers did not have the preparation time available during the school day; that the number of hours spent on extracurricular activities for which the teacher is paid sharply increases in the junior and senior high levels; and that the amount of time spent in a supervisory capacity was nearly the same at all three levels. At all three levels, the greatest amount of time spent in non-teaching activities was related to functions necessary for the successful operation of a school day such as planning, preparing for classes, and marking papers. There was no differentiation made as to the size of the school in the report.

Horn (1983) initiated a study which addressed the noninstructional duties performed by teachers in relation to school size. He concluded that the teachers in the smaller schools were more often asked to supervise students during the school hours and to attend and/or supervise extracurricular activities. Horn's report surveyed both elementary and secondary teachers, but they were not analyzed separately.

Williams (1979) found that heavy teaching loads, lack of preparation time, and extra responsibilities hindered all the teachers from performing to their best capabilities. These duties also prevent them from pursuing advanced education and keeping abreast with educational developments. In the smaller school, the

problem is compounded by isolation factors and the limited staff at the school. Bailey (1982), Edington (1976), and the Oregon State Board of Education (1969) claim that major problems for teachers in small schools include heavy preparation loads and excessive outside duties. Horn (1983) hypothesized that the extra duties may cause teachers to be less effective and/or even leave the profession.

Small schools generally fare less well than larger urban schools in regard to variables assumed to be related to school quality such as high teacher salaries, more degrees possessed by teachers, lower teacher turnover, and presence of educational specialists (Hobbs, 1979). Inadequate facilities, equipment, and instructional materials hinder the quality of teaching in small schools (Tamblyn, 1977) as well as a meager social life--especially for single teachers--and limited housing (Jacobsmeyer, 1981).

Edington and Stans (1973) listed two factors that are related to teacher quality for small schools. First, there are inadequate programs at teacher education institutions for preparing teachers for small schools, and secondly, the deficient socioeconomic environment in the small community caused difficulty in recruiting and maintaining qualified teachers.

Benson and Barber (1974) further added:

> Because of the disadvantages of lower pay, isolation, restricted cultural and entertainment-oriented opportunities, as well as study and professional growth provisions, teachers prefer urban school employment. (page 9)

Presently, the majority of the teacher education programs are large school-oriented, and small schools are viewed as training grounds or stepping stones, either directly or indirectly, by educators (Edington, 1976; Moriarty, 1981; Nacntigal, 1980; UNESCO, 1974; Warner & Kale, 1981).

One of the most frequently cited problems that confronts the small school is the inability to recruit and retain qualified staff for those schools (Bailey, 1982; Beck & Smith, 1982; Edington, 1976; Farr & Reavis, 1981-82; Fitzsimmons, 1979; Hobbs, 1979; Horn, 1982; Isenberg, 1971; Jacobsmeyer, 1981; Sasser, 1975; Sher, 1977; Swick & Henley, 1975; Tamblyn, 1977; UNESCO, 1974). To alleviate the problem, it has been suggested that colleges of education, particularly those in areas of high concentration of small schools, should develop preparation programs for small school educators (American Association of School Administrators, 1982; Brimm & Hanson, 1980; Charles, 1969; Edington, 1976; Horn, 1982; Ivey, 1979; Jacobsmeyer, 1980; Meier & Edington, 1983; Moriarty, 1981; Muse, 1977; Sher, 1978; Smith, Barker, & Muse, 1983; Tamblyn, 1977; Warner & Kale, 1981).

Statement of the Problem

Further studies comparing the duties of teachers in large and small schools need to be completed before a well-developed program for preparing teachers for various settings can be designed. Additionally, further research that explores and compares the duties of elementary teachers in various sizes of schools is

inadequately addressed in the present literature.

The majority of the studies concerning small schools have not compared the various sizes of the schools. The surveys completed by (Amodeo, Martin, and Reece [1982]), Charles (1969), Dunne and Carlsen (1981), Hegtvedt (1979), Muse and Parsons (1976), Oelschlager (1980), and Smith, Barker, and Muse (1983) were all sent to small schools without a comparative reference to a larger setting.

Additionally, the majority of the studies named above and others have concentrated on the high school level assuming that teaching at the elementary level and the duties of an elementary teacher do not change in various sizes of schools or school settings. Although Sher (1981) and Nachtigal (1982) mention that teachers in small schools have many duties and may teach several grade levels in elementary schools, neither author has noted a reference to authenticate their statements. Therefore, more data must be collected.

Seven of the ten states containing the greatest percentage of districts with less than 300 students are located in the western states area (Table 1). Six of the seven states are also included in the states that contain the greatest percentage of students enrolled in school districts with less than 300 students (Table 2). Therefore, Parks, Ross, and Just (1982) suggest that more research needs to be completed on the problems of small schools in the western states area. The research may lead to differentiations in

Table 1

The Ten States Containing the Greatest Percentage of Districts With Less Than 300 Students

State	Percent of districts
Nebraska	84.9
Montana	79.5
North Dakota	70.2
Vermont	63.6
South Dakota	46.5
Oregon	46.3
New Hampshire	44.9
Oklahoma	44.8
Maine	42.1
Alaska	37.7

Source: National Center for Education Statistics. (1983). Number of operating public school systems by state and enrollment. Washington, DC: National Center for Education Statistics, Marie Eldridge, Administrator.

Table 2

The Eleven States Containing the Greatest Percentage of Students Enrolled in School Districts With Less Than 300 Students

State	Percent of districts
Montana	23.7
North Dakota	21.6
Vermont	20.4
Nebraska	16.8
South Dakota	13.1
Oklahoma	7.4
New Hampshire	6.4
Maine	5.4
Arkansas	4.2
Alaska	3.3
Iowa	3.3

Source: National Center for Education Statistics. (1983). Number of operating public school systems by state and enrollment. Washington, DC: National Center for Education Statistics, Marie Eldridge, Administrator.

preservice programs for teachers in various settings.

Friedman, Brinlee, and Hayes (1980) state:

> The need for teachers who are aware of and able to accommodate the needs of students from a variety of cultural backgrounds has become increasingly apparent during the past two decades. Teachers need to develop skills for relating to students from different ethnic groups, socioeconomic groups, sexes, religions, lifestyles and locals (inner city, rural and so forth). (page 145)

They also stated that a preservice program should take into account the available instructional resources, feasible field experiences, and the needs of the area served in order to produce the type of teacher required by the public school environment.

As society becomes more complex, there is a greater division of labor (Durkeim, 1933). In turn, educators must acknowledge that the educational process will become more specialized to reflect the realitites of that division of labor. Curriculum design and content mdust be attuned to that increasing specialization that youth might be adequately prepared.

Purpose of the Study

The purpose of this study is to determine if there are differences in the instructional and noninstructional responsibilities of elementary teachers in very small and small school districts as compared to the medium school districts in Montana. Once the differences have been found, a description of the duties performed more frequenlty by teachers in the very small districts as compared to the duties performed by those in the small districts will be

addressed. Also a description of those duties performed more often by the teachers in the small districts as compared to the duties teachers in medium districts perform will be listed. The study may provide a starting point to the establishment of a separate preparation program for teachers preparing for various settings.

Assumptions

The basic assumption in this study shall be that rural schools and small schools can be thought of as nearly the same. Sher (1977) noted that the majority of the small public schools are located in rural areas. Therefore, the problems inherent in small schools are also rural school problems.

Limitations

The study will be limited to the state of Montana for the following reasons:

1. Montana has the second greatest percentage of small school systems in the United States.
2. Montana has the largest percentage of students attending small schools in the United States.
3. Montana is one of the few states in which the elementary districts are separate from the high school districts.
4. Montana's elementary districts are nearly all 1-8 or K-8 districts.

Therefore, any inferences or conclusions may not be appropriate for other areas or states.

Hypotheses

1. There are no associations between school district size and the following instructional duties:
   a. The number of subjects taught by one teacher
   b. The number of grade levels taught by one teacher
   c. The teacher involvement in designing the curriculum
   d. The teacher involvement in the selection of textbooks
   e. The teacher's ability to keep several groups busy while another group is reciting or being taught
   f. The number of specialists available to assist in the instructional process
   g. The number of times the supervisor assists the teacher
   h. The number of times the teacher goes to the supervisor for assistance.
2. There is no association between school district size and the number of clock hours per year of inservice received by the teachers.
3. a. There is no association between school district size and the number of clock hours teachers spend in the classroom actually teaching.
   b. There is no association between school district size and the number of clock hours teachers will have per week for planning or preparation.
4. There is no association between school district size and the noninstructional duties peformed by the teachers in the areas

listed below.

a. Supervisory duties in the following areas:

1. lunchroom
2. playground
3. athletic events
4. plays, concerts, assemblies
5. supervising/chaperoning student social events
6. halls

b. Administrative duties in the following areas:

1. Meeting with the school board
2. Ordering, purchasing, and receiving school supplies
3. The amount of authority the teacher has to discipline students
4. The amount of authority the teacher has in making final decisions in cases of classification or promotion
5. Enforcing school attendance laws
6. Keeping all school records.

c. Other noninstructional duties in the following areas:

1. Coaching competitive athletics
2. Directing musical groups
3. Planning/attending school carnivals/fairs or similar fund-raising event

4. Attending school events (football games, plays, concerts, etc.)
5. Planning/directing seasonal presentations (Christmas play, all school track meet, play day, etc.)
6. Attending PTA or similar organization's meetings
7. Work (e.g. sell tickets, keep time) at school events (football games, plays, concerts, etc.)
8. Serve on grade-level committees
9. Serve as subject area or grade level department head
10. Make visitations to students' homes
11. Attend teacher-parent conferences
12. Be a sponsor for class organizations, school publications, school academic organizations, and school social or service clubs.

5. There is no association between school district size and the number of clock hours spent by the teachers supervising students.

6. There is no association between school district size and the types of noninstructional duties for which the teacher receives extra pay.

Definition of Terms

School district--(1) the area that is under the supervision of a given school board; (2) that territory within which children may attend a given school building or center (Good, 1973, page 1982).

Elementary school district--a school district that serves grades K-8 or 1-8 or any combination of grades up to grade 8 except in the 10 school districts in Montana which include grades 7 and 8 in the high school district. For the 10 school districts, an elementary school district will be defined as a school district that serves grades K-6 or 1-6.

Very small elementary school district--an elementary school district with a student enrollment of less than 50.

Small elementary school district--an elementary school district with a student enrollment between 50 and 199.

Medium elementary school district--an elementary school district with a student enrollment between 200 and 666.

Large elementary school district--an elementary school district with a student enrollment of 667 or more.

Duty--what one is under obligation to do, such obligation being usually moral but sometimes legal or contractual (Good, 1973, page 199).

Instructional duties--a general term inclusive of classroom teaching and the supervision and administration of instruction (Good, 1973, page 307).

Noninstructional duties--those duties performed by the teacher that are not considered part of the curriculum or included within the instructional objectives of the school.

Instruction--the kind of teaching that obligates the instructor to furnish the learner with some lasting direction and is

accountable for pupil performances commensurate with precise statements of educational objectives (Good, 1973, page 304).

Instructional objectives--a definite learning specification in behavioral terms; it states exactly what the student should be able to do after having received the instruction (Good, 1973, page 393).

Metropolitan--urbanized areas with at least 50,000 inhabitants. When combined with the county containing the urbanized area, a metropolitan area will also be called a metropolitan statistical area (U.S. Bureau of the Census, 1983).

Nonmetropolitan--all farms, open countryside and places of less than 50,000 residents outside metropolitan statistical areas (Sher, 1977, page 377).

Rural--all farms, open countryside and places of less than 2,500 residents.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Chapter II will review the pertinent literature concerning the differences in the duties teachers perform within the school district size categories as well as background information which leads to some of the causes for the performance of those duties. Comparisons between the larger and smaller school districts, when available, will be reported.

Many of the instructional and noninstructional duties that the teachers perform in the various size categories of school districts are related to or caused in part by a multitude of factors that are related to the community, the school, the students, and instructional staff. Therefore, the chapter begins with a brief review of the small community, the small school, the small school student, and the instructional staff as they relate to the larger system.

The last portions of the chapter are directed to the instructional and noninstructional duties of the teachers in the schools related to the size of the student body. The instructional duties normally are those the teacher performs with the students in the classroom that are part of the general curriculum of the school. The noninstructional duties are usually considered to be those performed by the teachers that are not part of the general curriculum of the school or included within the instructional objectives of the school.

The Small Town Community

The small town community has some unique characteristics in comparison to larger communities. Cushman (1954) reported that there were two common denominators of small communities: (1) low population density, and (2) the people's livelihood was dependent on agriculture or the extraction of natural resources. Smith, Barker, and Muse (1983) in a national study of small schools found that the primary occupation of school patrons as reported by superintendents of the schools was agriculture followed by businesses or services in ranching. Because residents of most small communities have similar occupations, there exists some uniformity in most small communities.

Nachtigal (1982) noted that within the small community the people were more likely to have homogeneous socio-cultural backgrounds with the community being more personal and tightly linked together. The larger communities, in general, have a more heterogeneous socio-cultural background and are likely to be more impersonal and not as tightly linked together. Nachtigal (1980) also noted that rural or small communities often differ from each other depending upon the type of community and the portion of the country in which they are located. Further differences that Nachtigal (1982) has noted are in Table 3. Many of the differences noted reflect upon the schools.

Although Nachtigal has shown the differences as being

Table 3

Rural/Urban Differences

Rural	Urban
Personal/tightly linked	Impersonal/loosely coupled
Generalists	Specialists
Homogeneous	Heterogeneous
Nonbureaucratic	Bureaucratic
Verbal communication	Written memos
Who said it	What's said
Time measured by seasons of the year	Time measured by time clock
Traditional values	Liberal values
Entrepreneur	Corporate labor force
Make do/respond to environment	Rational planning to control environment
Self-sufficiency	leave problem solving to experts
Poorer (spendable income)	Richer (spendable income)
Less formal education	More formal education
Smaller/less density	Larger/greater density

Source: Nachtigal, Paul M. Rural Education: In Search of a Better Way. Westview Press, Boulder, Colorado, 1982, figure 16.1, page 270.

dichotomous, some of the differentiations between rural and urban are merging. Still some of the differences may persist in various areas depending on the community. The major differences between rural and urban are in population density, development, and provision of services, economic base, and transportation and communication (Gilford, Nelson & Ingram, 1981). Believing that all rural and urban differences are dichotomous will frequently lead to a trap. Many of the differences noted will depend upon size of community, relative isolation, age, income, education, sex, race and ethnicity of the people (Willets, Bealer & Crider, 1982). More research is needed to determine th rural/urban differences, particularly because of the hetrogeneity that exists among rural communities.

Financial support for education is one of the most pressing problems in the small school that is linked to the community. The population shift from metropolitan to nonmetropolitan areas in the 1970's (Beale, 1975) caused an interest in the study of the financial status of the small community in relation to its support of education. Fliegel (1980) found that the nonmetropolitan origin migrant was more favorable to increasing taxes for the improvement of schools than either the metropolitan origin migrant or the resident of the nonmetropolitan community. Marans and Dillman (1980) reported that the majority of rural people viewed the quality of public schools quite positively. Their results were obtained through a meta-analysis of three national surveys and one regional

survey completed between 1971 and 1976.

Although the small communities rated their schools quite positively, Fratoe (1978) reported that the educational attainment of adults in the smaller communities is still lower than those adults in the metropolitan areas; however, the difference is slowly diminishing. Marans and Dillman (1980) also found that the educational attainment level of adults was less in the rural areas. They reported that the rural Americans tend to be older, mostly Caucasians, and have a lower income level than their urban counterparts.

Long and DeAre (1983) found that the educational attainment level in the rural areas has increased, which has increased the skills of workers. Therefore, the incomes in the small communities increased by 19.1 percent from 1970 to 1980 compared to an increase of 3 percent in the metropolitan areas. Even with the narrowing of incomes, the median annual family income in the metropolitan areas is still much higher than in nonmetropolitan areas--metropolitan, $21,074; nonmetropolitan, $16,975. Long and DeAre's report indicated that as the size of the community decreased, so did the median family income. The median family incomes ranged from $22,096 in metropolitan areas of one million or more people to $14,791 in nonmetropolitan areas of less than 2500.

The 1980 census report also indicates that the median family income in the ten most rural states is approximately $4000 a year less than the income in the ten most urban states (see Tables 4 and 5). The support that the local community is willing to give to

Table 4

Median Rural, Urban, and State Family Income in the Ten Most Rural States

State	Percent of population that is rural	Urban family income	State family income	Rural family income
1. Vermont	66.2	18,633	17,205	16,653
2. West Virginia	63.8	19,350	17,308	16,296
3. South Dakota	53.6	18,474	15,993	13,997
4. Mississippi	52.7	16,065	14,591	13,382
5. Maine	52.5	16,842	16,167	15,631
6. North Carolina	52.0	17,591	16,792	16,195
7. North Dakota	51.2	20,257	18,023	16,199
8. Kentucky	49.2	18,295	16,444	14,727
9. Arkansas	48.4	15,918	14,641	13,436
10. New Hampshire	47.8	19,533	19,723	19,928

Sources: U.S. Bureau of the Census (1983, June). Characteristics of the population: General social and economic characteristics. Washington, DC: U.S. Government Printing Office, U.S. Department of Commerce, 1980 Census of the Population.

Sources: U.S. Bureau of the Census (1983, April). Characteristics of the population: Number of inhabitants, United States summary. Washington, DC: U.S. Government Printing Office, U.S. Department of Commerce, 1980 Census of the Population.

Table 5

Median Rural, Urban, and State Family Income in the Ten Most Urban States

State	Percent of population that is rural	Urban family income	State family income	Rural family income
1. California	8.7	21,730	21,537	19,645
2. New Jersey	11.0	22,835	22,906	459
3. Rhode Island	13.0	19,107	19,448	21,706
4. Hawaii	13.5	23,835	22,750	19,148
5. Nevada	14.7	21,409	21,331	20,776
6. New York	15.4	20,329	20,180	19,490
7. Utah	15.6	20,286	20,024	18,453
8. Florida	15.7	17,670	17,280	15,426
9. Arizona	16.2	19,569	19,017	16,120
10. Massachusetts	16.2	20,894	21,166	22,356

Sources: U.S. Bureau of the Census (1983, June). Characteristics of the population: General social and economic characteristics. Washington, DC: U.S. Government Printing Office, U.S. Department of Commerce, 1980 Census of the Population.

Sources: U.S. Bureau of the Census (1983, April). Characteristics of the population: Number of inhabitants. United States summary. Washington, DC: U.S Government Printing Office, U.S. Department of Commerce, 1980 Census of the Population.

education is, therefore, limited. The amount of support to education is not only affected by the economics of the community, but it is also affected by the type of community.

Gjelten (1982) indicated that there were five types of small communities within the United States. Since the majority of small schools are in the small communities, his definitions help to give insight into the problems faced by the communities and the schools.

The stable small school, although rare, will be found in a prosperous, peaceful, and traditional community. Within the community, change happens slowly as the people are satisfied with the status quo and accustomed to regularity. Poverty and unemployment are minimal within the community, and the majority of the people residing in such communities are white and relatively affluent. Usually the stable communities will be found in the Farm Belt region of the Midwest.

The second type of community in which small schools are located is the depressed community. The depressed community offers very few employment opportunities for its young people who, if they seek a secure economic future, must migrate from the community. Normally the local economy has not been well developed. Often there is a moderate to large minority population within the community.

The third type of small community is the high growth community. These communities are usually found where gas, oil, or coal fields have been developed since the energy crises of 1973.

With the influx of various social and cultural values of the immigrants, these communities are often sites of conflict between the cultural and social interests of the people. Many of these communities have developed in the West where a great deal of energy development has taken place.

The fourth type of small community Gjelten has named the "reborn" community. The majority of these communities are located in the more s[illegible]c areas of the country and often are where recreational facilities are located. Many of the people in these communities are urban people who have become disenchanted with urban life and have a strong desire to go "back to the land." Often they are strong zealots of the small community way of life.

Finally, there are small isolated communities. These places may also be designated as any of the other types of communities, but they are unique in the one factor of isolation. Most of these communities are isolated because of the geographic region in which they are located. Mountains, water, or other natural barrier separate them from other areas. Usually transportation, commerce, and cultural activities will be minimal in these communities.

Nachtigal (1982) has also classified small communities. He has classified the communities into three broad categories and also addressed their priority for schools.

Nachtigal's first category is called the rural poor community. In these communities, most of the people have traditional values, which means they are more opposed to modernism, liberalism, or

radicalism. The community is more uniform economically and socially. The families have fairly low incomes and often the controlling political structure lies outside the local community. Their priority for schools will be mixed and low.

The traditional middle American community holds to the traditional values and would typify the classic areas where the "little red schoolhouse" sat. The community is fairly homogeneous and the political structure is more open and dispersed throughout the community. In this type of community the schools have a fairly high priority.

Nachtigal's last type of community is called the community in transition. Usually there will not be a commonly agreed upon set of values followed by the community members as these areas have had an increase of population. The economy and the people will range from poor to fairly affluent. The political arena will see a shifting of the "old timers" to the "newcomers," which can often cause the school to become a battleground for the various political factions.

The type of community, the industry and/or employment of the people, the geographic location, and the isolation of the community all are factors which may affect the schools within the community. Table 6 lists other advantages and disadvantages that small communities may face. This list is a compilation of several author's reports found in the literature.

Table 6

Advantages and Disadvantages of the Small Community

Advantages
1. A homogeneous socio-cultural background
2. Community spirit of cooperation
3. Close relationship between parent, community and school setting
4. Ability to maintain local control
5. School staff involvement with community
6. Personal identification with community life
7. Power structure relatively open
8. More satisfied with life style
9. Lower crime rate (currently increasing rapidly)

Disadvantages
1. Low population density
2. Higher rate of poverty
3. Lack of future
4. Physical isolation
5. Resistance to change
6. Limited economic support
7. Limited social and cultural activities
8. Lower educational attainment level of adults
9. Disadvantaged in quality and quantity of public services: fire and police protection; educational, religious, and transportation facilities; welfare activities; health care; water and refuse; recreational opportunities; and shopping.
10. Less accepting of minority rights
11. More likely to oppose federal government
12. Overpresense of older persons

All of the above advantages and disadvantages are dependent upon the following: type of community; industry; geographic location; and degree of isolation.

The Small School

There is no one currently accepted definition of a small school. Some authors claim that a small school district has less than 300 students enrolled in grades K-12 or 1-12 (Horn, 1983; Nachtigal, 1982; Smith, Barker, & Muse, 1983). Helge (1976) defines a small school district as one with an average daily membership (adm) of 300 or less in which the population density is less than 150 people per square mile or a county in which 60 percent or more of the people reside in towns of less than 5000 people. Good (1973) defines a rural or small school as any school that is located in the open country or in a village or town of less than 2500 population and may include the elementary grades or the high school grades or both.

The North Central Association Committee on Small Schools defined small high schools as those schools with an enrollment of less than 300 students in grades nine through twelve (North Central Association of Colleges and Schools, 1974: page 2). However, the Association does not define the enrollment size for identifying small elementary schools.

The National Center for Education Statistics has divided the school systems and number of pupils enrolled into eight categories, the smallest category being from 1-299 pupils enrolled. These small districts of less than 300 pupils enrolled account for 26.5 percent of all districts in the United States (Grant & Eidens, 1982, p. 61). Although they serve only 1.2 percent of the total pupil

population in the United States, some areas have higher concentrations of such districts.

A further problem exists in defining small schools on a district basis. Often a small school is a part of a district which is composed of one or more larger schools and possibly several smaller schools. For example, according to the Digest of Education Statistics (Grant & Eidens, 1982), South Dakota has 188 operating school districts in the state. By counting the number of districts within the state with an enrollment of less than 300, a total of 79 such districts was identified. But, South Dakota has 132 one-teacher schools (U.S. Department of Education, 1983). A similar situation also arises in the state of Wyoming. Wyoming has 49 school districts, five of which have enrollments of less than 300, but there are 42 one-teacher schools in Wyoming.

Montana and New Mexico also have small schools that are part of districts that have enrollments of more than 300 students (Montana State Department of Education, 1983; New Mexico State Department of Education, 1982-83). Several other states have similar situations. There are also many private schools found in urbanized and rural areas of the United States that can be classified as small schools (Edington, 1976; Schneider, 1980).

Usually small schools are associated with the rural areas of America. Sher (1977) maintains that ". . . small-school issues (at least in the public domain) will be almost exclusively rural, for that will be the only place in which more than a handful of such

schools will continue to exist" (page 8).

Small schools have many strengths and weaknesses. Most often cited as a weakness is inadequate financial support (Bailey, 1982; Dunne, 1978; Edington, 1976; Farr & Reavis, 1981-82; Hobbs, 1979; Parks, Ross & Just, 1982; Parks & Sher, 1979; Sher, 1977; Wirth, 1982). The majority of the financial support for the small schools appears to be derived from the local community as indicated by a national study by Smith, Barker, and Muse (1983).

Often the school building is inadequate (Edington, 1976; Farr & Reavis, 1981-82, Muse, 1977; Sasser, 1975, Wirth, 1982). This is, of course, caused by the lack of financial support from the community. Also lacking in the small school are adequate supplies and equipment such as furniture, machinery, audio-visual equipment, art supplies, various types of paper and other materials used in the classroom. Often the schools are using books which are out of date due to the lack of adequate funds (Muse, 1977).

The per student cost of education in the small schools for staffing is much greater than in the larger districts. This cost is felt more severely at the secondary level rather than the elementary level because the teachers are more specialized and endorsed to teach in only one or two subject areas. Despite the higher per pupil cost of staff, per pupil expenditures are, in general, lower in rural than in urban areas (Tamblyn, 1973) except in the very small districts. Thomas (1968) found that for the very small districts the costs increased as compared to the small district.

The small school does have more local autonomy than the larger school and, therefore, the community has a greater potential for involvement in school affairs (Bailey, 1982). There is also a greater potential for better relationships between the school and the community (Bailey, 1982).

The majority of the small schools are meeting the perceived needs of their constituencies reasonably well. Nearly 75 percent of the people in the small school districts are satisfied with their schools in the areas of achievement, drug and alcohol control, and teacher quality (Dunne, 1983).

> The fact remains that rural schools are different. . . the differences tend to spring from two sources: first, the close relationship between rural communities and their schools; and second, the size of rural schools and school districts. (Sher, 1977; page 5)

Table 7 lists the advantages and disadvantages of the small or very small school. The list is a compilation of the advantages and disadvantages reported in the literature.

The Small School Student

There is no one best portrait of all rural students (Parks, Ross, & Just, 1982). The various areas that they reside in, the economic foundation of the community, and the degree of isolation all contribute to the diversity of rural youth.

Walberg (1979) reported that geographic area, level of adult education, low percentage of minority groups, small populations, moderate public school enrollments, and low pupil-teacher ratios

Table 7

Advantages and Disadvantages of the Small School District

Advantages
1. Potential for close-knit educational organization
2. High potential for community involvement
3. Close relationship between parent, community and school setting
4. Close relationship between students, teachers and administrators with school board
5. Students can develop and grow within their own natural environment
6. Slower paced environment
7. Fewer discipline problems
8. Smaller classes

Disadvantages
1. Poor organizational structures
2. Difficulties in the recruitment and retention of qualified staff
3. Inadequate facilities
4. Curriculum deficiencies
5. Per pupil costs
6. Providing special services
7. Limited appropriate educational materials, supplies and equipment
8. Inadequate financial base

had a positive effect on test failure (i.e., fewer students failed). The upper Northeast and Northwest had the lowest rate of failure, followed by the Mid-Atlantic and Midwest, Southwest, Peripheral South, and, last, the Core South. La Chopra (1968) found that when socioeconomic status is accounted for, no difference has been found between rural and urban students' I.Q.

The census of 1950 through 1970 showed a steadily increasing difference between metropolitan and nonmetropolitan educational levels (Fratoe, 1978; Hobbs, 1979). Fratoe noted that students in rural public schools were lagging behind metropolitan central and suburban public schools in virtually all areas. His study did indicate that the nonmetropolitan areas are approaching the median of the metropolitan youths in educational attainment.

Although the educational attainment level of the nonmetropolitan youth is lower as a composite in the United States, it has been shown that smaller class sizes increase student achievement. Glass and Smith (1979) in a meta-analysis of student achievement in relation to school size concluded that average pupil achievement increased as class size decreased. Also, they found that a stronger relationship existed between class size and achievement in the secondary grades compared to the elementary grades. It was indicated at the elementary level that the smaller classes had higher achievement. At both the secondary and elementary level, achievement increased dramatically as the class size decreased below twenty.

Glass, Cahen, Smith, and Filby (1979) concluded:

> Although we can expect that on the average, reducing class size will increase pupil achievement, this improvement will not necessarily result in every case. Instances of substantially larger classes outperforming smaller classes have been recorded, although they are, of course, less common than the converse finding. Researchers must take account of what actually occurs in smaller classes: the instructional procedures used, the beliefs and capabilities of teachers, the demonstrated backgrounds of pupils, the subject matter and the like. These ultimately determine whether the potential for increased learning that smaller classes create will be realized. (page 43)

After reading the Glass-Smith report, Hobbs (1979) concluded that "the . . . data present evidence in the direction of an educational advantage for the small school and the small class sizes associated with the smaller school" (page 18).

The small school with its small classes and groups offers other advantages to the students. The teachers and the pupils have a greater opportunity for closer relationships (Bailey, 1982; Craig, 1981), which has been assumed as an advantage. The small classes offer the students a chance to receive more individual attention through individualized instruction and to have the potential to participate in class discussions (Bailey, 1982). The small school and particularly the one- or two-teacher school offers significantly more opportunities for students in various grade levels to interact (Bailey, 1982).

Not only are there greater opportunities to interact, but there

is a greater opportunity to participate in extracurricular activities (Barker & Gump, 1964; Bailey, 1982; Wirth, 1982) Although there are more activities in the larger schools, a smaller percentage of the student body is actually involved in the extracurricular activities. Often in the small schools, nearly everyone in the student body is involved in some way in the extracurricular activities.

Other advantages for the pupils in small schools that are mentioned by various authors in the literature are listed in Table 8. Although the students in the small schools have some advantages, they are also disadvantaged in some areas.

The greatest disadvantage for the small school student is associated with the length of travel time to and from school. Smith, Barker, and Muse (1983) in their national study found that the average distance traveled one-way was about 17 miles and that about 70 percent of the students were bussed to school. Although an average distance is quite interesting, Lu and Tweeten's (1973) study on bussing as related to student achievement bears more weight. They found that achievement scores were reduced by 2.6 points for fourth-grade students for every hour spent riding a bus. For eighth-grade students, achievement test scores were reduced by four points for every hour spent riding a bus. High school students were not affected as adversely as students in elementary school, losing only 0.5 points per hour spent riding a bus.

Other disadvantages inherent in the small school are usually related to the financial support of the school. There are limited curricular alternatives because of a limited staff and budget (Hobbs, 1979; Parks & Sher, 1979; Sher, 1977). Also there is a lack of special education or other specialized services and support personnel (Nachtigal, 1982).

The students in the small communities must be prepared for rural or urban occupations (Cushman, 1954; Sher, 1977). Often, because of the lack of guidance opportunities and inadequate curricula, the small schools have not met this need (Cushman, 1954). The lack of knowledge of available career opportunities often limits the students' upward mobility and limits their future ambitions (Edington, 1976).

Despite the disadvantages that are in many of the small schools, many of the teachers, particularly in the very small elementary schools, feel that their students do quite well once they leave the little school (Gardener, 1983-84). Given dedicated teachers, the students in the small schools can receive a quality education.

Table 8 lists other disadvantages that have been gleaned from a review of the literature as well as the advantages for the students in the small schools. Many of the advantages and disadvantages may seem to be more appropriate at the secondary level, but are often appropriate for the upper elementary grades also.

Table 8

Advantages and Disadvantages of the Small School for the Students

Advantages
1. Close student/teacher relationships
2. Close relationship of students, teachers and administrators with school board
3. Personal identification with community life
4. Greater opportunity for individual instruction
5. Students can develop and grow within their own natural environment
6. Greater opportunity to participate in extracurricular activities
7. Empathy for learner
8. Slower paced environment
9. More relaxed personal atmosphere
10. More opportunities for interaction by students between grade levels
11. Greater potential for class participation

Disadvantages
1. Lack of special education or other specialized services
2. Lack of future
3. Limited social activities
4. Lack of upward mobility
5. Limited appropriate educational materials, supplies and equipment
6. Limited curricular alternatives
7. Longer travel to/from school
8. Lack of knowledge of available career opportunities
9. Cannot change instructors if a conflict exists

The Instructional Staff

Chandler, Stiles, and Kitsuse (1967) claimed that the teachers in smaller schools have a better public image than teachers in urban areas. The urban teacher is not as likely to be known by the community and is likely to be a stranger to the parents of his/her pupils. Even the pupils are in some sense strangers to the urban teacher as the teachers are with the students for fewer years and sometimes urban teachers see their students for only an hour a day per semester.

The small school teacher, in contrast, is usually better known in the community. The parents and the students have more contact with the teachers in school and also after school hours. Many of the teachers in the small schools have taught the parents of their current students (Chandler, Stiles, & Kitsuse, 1967).

The close relationship extends beyond the parents, teachers, and students to the community. The close relationship between the school and the community has been reported by several authors as one of the greatest advantages of teaching in the small school (American Association of School Administrators, 1982; Alexander, 1978; Brimm & Hanson, 1980; Craig, 1981; Dunne & Carlsen, 1981; Massey & Crosby, 1983; McPherson, 1972). Brimm and Hanson (1980) noted that there is a closer relationship between the students, teachers, administrators, and the school board. The close relations allow for more ease in communication between the various groups and the community (Dunne & Carlsen, 1981).

There are also other advantages noted because of the close relationships. Garbarino and Plantz (1980) claimed that the stronger the relationship between the community and the school, the more beneficial the influence on the child's development. This close relationship also influences the teacher's awareness of the abilities of his/her students as well as the social and cultural values of the students and the community.

This close relationship between the school and the community allows the teachers a greater opportunity to become involved in the community they serve (AASA, 1982; Alexander, 1978; Craig, 1981; Massey & Crosby, 1983; Moriarty, 1981; National Education Association [NEA], 1962). The study completed by the NEA in 1962 found that teachers in metropolitan areas are less inclined to be joiners of community organizations than are teachers in the smaller districts.

The smaller student-teacher ratio in the small school allows for more opportunities for student-teacher contact (Alexander, 1978; Bailey, 1982; Brimm & Hanson, 1980; Craig, 1981; Wirth, 1982). The smaller classes increase the opportunities for individualizing instruction (Bailey, 1982; Brimm & Hanson, 1980) and allows for flexibility in scheduling (Alexander, 1978; Bailey, 1982; Brimm & Hanson, 1980; Dunne & Carlsen, 1981).

Although the smaller classes allow for ease in implementation of change, the innovations are adopted more frequently if the change has been locally initiated (Deal & Nutt, 1979). The smaller

classes in the small school have classroom environments that are more conducive to innovative techniques (Brimm & Hanson, 1980). Because of the closeness of the organization, the teachers in the small schools usually have more freedom from administrative bureaucracy resulting in a less cumbersome organization, and the teachers have more influence on questions concerning school policy and change (Brimm & Hanson, 1980).

The survey completed in 1981 by Dunne and Carlsen summarizes the advantages of small schools for teachers rather well. The teachers noted that the close interaction, small classes, individual instruction, peer teaching, cooperation, administrative support, fewer discipline problems, freedom, and flexibility were all seen as attributes of the small school. The teachers also perceived the list as being advantageous to effective teaching in the small school.

In the same survey, Dunne and Carlsen found that inadequate facilities was the number one difficulty hindering the effectiveness of the teachers. Many other authors and studies have concluded that inadequate facilities is one of the major weaknesses of the small school (Cushman, 1954; Edington, 1976; Farr & Reaves, 1981-82; Muse, 1977; Sasser, 1975; Tamblyn, 1975; Wirth, 1982).

The second most common disadvantage of teaching in the small school has been reported as the number of preparations and grade levels taught by each teacher (Bailey, 1982; Beck & Smith, 1982; Brimm & Hanson, 1980; Dunne & Carlsen, 1981; Massey & Crosby, 1983;

Williams, 1979; Wirth, 1982). Sher (1981) reported that as the school size decreases, the number of grade levels and the number of preparations will be magnified.

Not only will the number of preparations and grade levels increase for the teachers in the smaller schools, but they will also have more noninstructional duties to perform. Teachers in the smaller schools are more likely to have extracurricular responsibilities (Bailey, 1982; Beck & Smith, 1982; Horn, 1983; Pelton, 1983; Williams, 1979). Although the high school and junior high school teachers are usually considered to have more extracurricular assignments, many elementary teachers also have been assigned extracurricular responsibilities. Amodeo, et al. (1982) found that elementary teachers often had more extracurricular assignments than did the secondary teachers. Often teachers who are not qualified or properly trained are called upon for these extracurricular assignments (Pelton, 1983).

In addition to more preparations and extracurricular duties, limited supplies and equipment hinder the teachers in the small schools from performing effectively (Burke, Luckey, Steinruck, Toretlli, Winkeljohann, & Goodman, 1977; Dunne & Carlsen, 1981). The teacher, therefore, must be creative, imaginative, and resourceful. Many of the instructional aides used in the classroom must be made by the teacher. Isolation, limited resources, and limited time often create problems in the development of classroom aids.

One disadvantage that many teachers in small schools generally agree upon is the low salary schedules. Teachers in small schools usually receive lower salaries than teachers in larger schools (Bailey, 1982; Chandler, et al. 1967; Hobbs, 1979; Jacobsmeyer, 1980; Sher, 1977; Sher, 1981; Wirth, 1982). Sher (1981) reported that in the United States, rural teachers average 40 percent less in pay than their urban counterparts. But, as Chandler, et al. (1967) reported, although the rural teachers' pay is inadequate and poor, their incomes are more likely to compare favorably with the average income of their community compared to teachers in urban areas.

Table 9 lists the advantages and disadvantages for instructional personnel in small schools as reported by various authors found in the literature. Many of the advantages and disadvantages are directly related to school size while others are related more to the financial capabilities of the community and the type of community.

Many of the advantages and disadvantages listed in Table 9 indicate that teachers in small schools must be "jack-of-all-trades." Ivey (1979), Sher (1977), Muse (1977), and others imply that rural or small schools do not need specialists, but rather that they need generalists who are proficient in many areas.

Table 9

Advantages and Disadvantages of the Small School for the Instructional Staff

Advantages
1. Close student/teacher relationships
2. A classroom environment conducive to innovative techniques
3. Freedom from administrative bureaucracy
4. Close relationship of students, teachers, and administrators with the school board
5. Personal identification with community life
6. Close relationship between parent, community, and school setting
7. Small class enrollment
8. Greater opportunity for individual instruction
9. Flexible scheduling
10. Fewer discipline problems
11. Greater potential for staff involvement in the community
12. Greater opportunity for teachers to influence school policy

Disadvantages
1. Inadequate facilities
2. Inability to provide special education and other specialized services
3. Lack of future or upward mobility
4. Isolation from teaching peers
5. Limited social activities
6. Limited appropriate educational materials, supplies, and equipment
7. Limited time available for curriculum development activities
8. Greater likelihood for multiple teaching responsibilities
9. Lower salaries
10. Limited inservice
11. Greater likelihood for extracurricular responsibilities and assignments
12. Excessive outside duties

> Rural schools need teachers who are (contradictory as it may sound) specially trained to be generalists. The best rural teachers are the ones who are able to cope with sparsity, utilize community resources, invent curricular materials, and, above all else, are oriented toward teaching children rather than subjects. (Sher, 1977: page 287)

Instructional Duties

In a study completed earlier in the century by McGuffey (1928), a comparison of the activities of teachers in one-room schools and graded schools, schools in which there was one teacher per grade level, were examined. Of the 112 activities that were listed in the survey only one was completed more often by teachers in the graded schools: 62 percent walked less than a mile to school. Many of the activities that McGuffey listed, such as distance walked to school and keeping a fire in the stove, are, generally, no longer applicable today even in the one-teacher school; but there are many other duties that the very small and small school teachers must still perform, particularly in the area of instructional responsibilities.

One of the activities McGuffey addressed was teaching all subjects in all grades. This situation still exists in the one-room school, but in the small school districts, teachers may not have all the grade levels (Sher, 1981). In the small school of less than 200 students in grades K through 8 or 1 through 8, the teacher may have to teach in a multigrade room, but usually it will only involve two grade levels rather than several. In the very small school, the teacher will have at least four grade levels to

teach on the average (Montana State Department of Education, 1983).

Teaching in a multigrade level situation means that the teacher's program must be adjusted to accommodate two or more grade levels. The teachers in these situations must often be able to keep several groups profitably busy while they are presenting to small groups (Gardener, 1983-84). Keeping students profitably busy means that the students should be working on something that is an effective use of their time and not just "busy work" to keep them occupied without a well thought-out purpose in their learning.

To accomplish this task, teachers have used learning centers, file folders of seat work, shelves filled with free time activities such as games or other instructional media, and ongoing projects such as book reports, fair projects, or other reports. Often all of the assignments are written on the board and the students work on each of the various subjects at their own pace until the work has been completed for the day (Gardener, 1983-84). If they need individual assistance, they either wait patiently for the teacher or receive their assistance from an older student or peer (Dodendorf, 1983).

> The interdependence among the children was the most striking quality in this school. The younger children often approached the older children for help with their school work. Urban schools artificially try to create this by setting up peer teaching programs. The younger children commented that one learns more this way because you get help from other kids. The older children are learning by teaching others; this is often cited as the

> most effective way to learn. (Dodendorf, 1983: page 101)

Teaching in a multigrade level situation means that subject matter must be presented in shorter periods to allow time for each class. It can logically be inferred that in the very small schools teachers could have from fourteen or sixteen up to some fifty preparations daily dependent upon the number of grade levels taught. Some of the burden can be lifted by combining grade levels for some subjects and by altering some of the subjects to every other day or some other staggered schedule. The use of peer tutoring, as Dodendorf (1983) mentioned, also helps to regulate the teacher's time.

Wofford (1949) summarizes the task of planning for teachers in small schools as follows:

> [The teacher in the small school] must develop a workable plan which can accomplish at least three results: (1) the number of classes must be reduced, (2) the classes formed must be large enough for socialization and group work, (3) there must be adequate provision for the effective use of time when children work alone and unsupervised. (pages 103-104)

The teacher in the very small and many of the small districts must be able to accomplish the given tasks with minimal supervision (Castro, Davis, Galey, Garner, Hutinger, Pillans, Porter & Soloman, 1981). The supervision of personnel in the various states will depend upon the administrative design of the district. If the school is part of a larger district, the district superintendent or principal may be the supervisor. In other states, the

supervision in the very small or small district may be accomplished through county superintendents. Often the county or district superintendent will have to travel several miles to provide supervision, therefore limiting the amount of focal attention the teacher will receive. Also the county or district superintendent is limited in time spent at the schools because of other commitments or duties and the number of schools he or she must supervise. Normally a supervisor from the district or county will appear at the school approximately three times during the school year in the very small schools (Gardener, 1983-94).

The National Center of Teachers of English (1964) found that the larger elementary schools (over 600) received more assistance in teaching English from supervisors than the small elementary school (less than 150). The survey addressed the supervision the teachers received from general elementary supervisors or curriculum specialists, district librarians, meetings with English teachers with similar problems, college specialists in English, and college specialists in English education.

Not only do the smaller schools receive less supervisory support, Nachtigal (1982) claims that in schools or districts with less than 1000 students there are fewer support personnel, curriculum specialists, and a limited administrative staff. Often the specialist and administrative staff may be fewer in number than required by state and/or federal programs. In Montana the district superintendent in the small school is often the high school princi-

pal .d the elementary principal (Montana Education Directory, 1982-83). In the small school, the superintendent is limited in the amount of time he or she can offer teachers as a supervisor or developing curriculum.

Without curriculum specialists, often the subject matter taught in the school is not relevant to the out-of-school knowledge of the students. Hobbs and Hobbs (1979) found that one of the major contributing factors to school drop-out rate was the lack of a perceived relevance of education by students. American Asociation of School Administrators (1982), Edington (1976), Hull (1980), Isenberg (1971), Nachtigal (1980), and Sher (1977) all mention that the small schools need changes or assistance in the area of curriculum development. The majority of the curriculums are based on the available textbooks, which tend to be oriented to the larger schools.

The National Commission on Excellence in Education (1983) made the following statement concerning textbooks used in the public schools:

> Because no textbook in any subject can be geared to the needs of all students, funds should be made available to support text development in 'thin-market' areas. (Page 28)

The commission further reported that individual teachers often have little control in such critical professional decisions as textbook selection and/or curriculum design.

In the small or very small schools, the teachers usually will

have more control over the selection of textbooks and curriculum design. Gardener (1983-84) found that the curriculum in the very small schools of Montana was generally developed by the teacher. Along with developing the curriculum, the teacher in the small school is also usually responsible for the selection of textbooks to be used in the school (Gardener, 1983-84).

Although the teachers in the smaller schools may have more influence in the development of the curriculum and in the selection of the textbooks, they have less time available to develop curriculum or select textbooks because of the heavy preparation loads (Edington, 1976; Gardener & Edington, 1982; Sher, 1977). The small school teachers' time is also limited because of the responsibilities for extracurricular duties and assignment. With the increase in instructional and noninstructional duties, the teachers may not be able to devote the required time to effectively develop the curriculum and make it relevant to the needs of the students. In most cases, the curriculum is designed around the textbooks that are available and, as reported earlier, they are not "geared to the needs of the students."

Also hindering curricular design and development of materials to fit the needs of students in the smaller schools is the limited budget often associated with the small district. Many of the schools' facilities, instructional equipment such as overhead projectors, copiers, film projectors, etc., and materials are of poorer quality and/or, in the case of materials, often not availa-

ble (Edington, 1976; Farr & Reaves, 1981-82; Muse, 1977). Therefore, many of the instructional materials that are to be used in the classroom must be developed and made by the teacher. This means that the teacher must be able to make long range plans in order to have the necessary materials, which often must come from a larger community of some distance, available for the project. If they are not available, the teacher must be resourceful and creative to find alternative supplies to accomplish the planned task (Cyr, 1959; Edington, 1976; Cyr, 1959; Moriarty, 1981).

Not only are curriculum specialists lacking in the small school, but also librarians, counselors, special educational personnel, and other specialists that may be needed for instructional assistance (Green, 1971; Warner & Kale, 1981). The majority of these tasks are also a part of the small school teachers' duties. Some of the smaller schools may have regional service centers that can supply specialized personnel, but often they must travel over one hundred miles from the center to the school to provide the services.

The review of the literature concerning the instructional duties of teachers in the small schools reiterates the need for teachers who are generalists rather than specialists as noted by Ivey (1979), Muse (1977), Sher (1977), and others. The teachers not only need to be generalists with regard to the instructional duties they perform but also with regard to the noninstructional duties performed within the school setting.

Noninstructional Duties

McGuffey's survey (1928) also revealed that the teachers in the very small schools performed more noninstructional duties than teachers in the graded schools. Later reports by Cole (1939) and Wofford (1949) confirmed that many of the noninstructional duties teachers in the smaller schools performed were apparent ten to twenty years after McGuffey's survey. Although there have been several changes in education during the last fifty to sixty years, some of the noninstructional duties addressed by McGuffey are still performed by teachers in the very small schools.

The noninstructional duties noted by McGuffey that may still be performed by teachers in the very small schools of today could best be described as administrative duties. Kate Wofford (1949) reported in her book, Teaching in Small Schools:

> The smaller the school, the more difficult the problem of planning is likely to be. A small school in which there are several grades presents a more complicated problem than does a single grade, for not only must the teacher of many grades keep the interests and needs of children in mind. . ., but he must also meet administrative problems inherent in the small school. (page 103)

The very small school teachers would appear to have the heaviest administrative load. Since the majority of these schools do not have an administrator, per se, the duties fall upon the supervising or head teacher, or all of the teachers. According to McGuffey's survey (1928), the teacher in the one-room school must

keep all of the school records. These records include pupil attendance, medical records, progress charts, and making all school reports. Cole (1939) and Wofford (1949) also reported that teachers in the elementary schools and particularly the small schools were required to keep the permanent cumulative records of the students.

Other administrative duties noted by McGuffey include ordering and purchasing school supplies as well as receiving and auditing the supplies received. Although teachers in larger systems are often involved in ordering supplies, it is usually the administration who is ultimately responsible for purchasing the necessary supplies.

The supervising, head teacher, or all teachers in the very small schools must enforce the attendance laws, investigate absences, and make any final decisions in cases of classification and promotion of the students (McGuffey, 1928). In larger schools, these tasks are handled by the administrative staff of the school.

Recent studies also indicate that the teacher in the small school, in general, appears to have a greater likelihood of being involved in extracurricular responsibilities and assignments (Bailey, 1982; Edington, 1976; Horn, 1983. Horn (1983) found that, no matter what the size of the school district, there was a high degree of similarity in the noninstructional duties performed by the teachers. Within the larger school systems, more of the teachers' noninstructional duties involved faculty and

grade level committee meetings. Horn suggests that this is caused by the more formal, bureaucratic structure of the larger school system as compared to the smaller school system. Horn (1983) concluded:

> It does appear that teachers in smaller schools are more often required to perform noninstructional duties. Overall, teachers in the small schools are more often asked to assume supervision of students during the school day, as well as attend and/or supervise extracurricular activities. (page 12)

Horn's survey sampled 167 teachers from small schools (less than 300 students), 63 teachers from medium schools (500-999 students), and 152 teachers from large schools (1000 or more students). About 35 percent of the respondents were elementary teachers and the remaining 65 percent were secondary teachers. He did not attempt to separate the responses of elementary and secondary teachers. Also, from the reported data, there was no indication of whether the teachers were paid for the extra duties or how often each individual had to perform the extra duties.

In the study by Heck et al. (1965) an analysis of 630 teachers was completed to determine the types of nonteaching activities, the amount of time spent in nonteaching activities, and for which nonteaching duties the teachers received extra pay. Three hundred eleven elementary, 166 junior high, and 153 high school teachers in the Phi Delta Kappa area of the Gamma Epsilon Chapter of Illinois answered the questionnaire.

The general conclusions by Heck et al. (1965) showed that

teachers spent from 25 to 30 hours per week in nonteaching activities such as supervision, coaching or sponsoring organizations, attending school-related meetings, preparing for classes, and chaperoning or other duties at school functions. At all levels, teachers spent nearly the same number of hours per week in noon supervision and similar supervisory duties. They also concluded that the number of hours spent yearly in nonteaching activities involving extra pay sharply increased from the elementary to the junior high level, but remained relatively constant from junior high to senior high. The greatest number of nonteaching hours per week for all levels were spent in reading, planning, preparing for classes, and marking papers.

Although the study by Heck et al. did not compare the nonteaching duties of teachers in various sizes of schools, it appears that elementary teachers have fewer duties for which they receive extra pay and have less free time available during the school day for conferences or preparation. In contrast, the majority of the junior high and high school teachers were allocated free time for such activities.

Amodeo et al. (1982), in a study which surveyed the rural schools in the nine westernmost states of the North Central Association region, found that the elementary teachers in those schools performed as many if not more noninstructional duties than did high school teachers. In particular, the elementary teachers coached more intramural sports and chaperoned more

special events than did high school teachers.

The extracurricular duties of teachers in schools can be categorized into three general areas: (1) supervision, (2) administrative, and (3) other. The supervisory duties will be addressed first. These duties are out-of-class responsibilities and include such tasks as supervising the lunch room, halls, playgrounds, school bus loading and unloading, and supervising school events such as football games, plays, concerts, etc. (Balassi, 1968; Green, 1971; Heck et al., 1965; Horn, 1983).

The majority of the supervisory duties are assumed to be a part of the teachers' duties by contract. Many of the teachers' contracts read that the teacher will have other duties as assigned. In some cases (Heck et al., 1965), the teachers have been paid an extra remuneration for such duties as lunch room supervision. In most cases the teacher received no remuneration for the supervisory duties although many teachers were of the opinion that supervising noon hours, sports events, school patrol, and the school grounds prior to school should merit extra pay for teachers.

It might be assumed that teachers in the smaller schools may have more supervisory responsibilities and (because of the limited number of teachers) will be required to supervise more often (Horn, 1983). In the very small schools of one or two teachers, the teacher or teachers will, of necessity, be required to supervise all activities before, during, and after school. In the larger systems, many teachers will have duty-free lunch periods, which also

may be extended to other supervisory duties such as recesses (American Association of School Administrators, 1968). In the national study by the AASA, lunch room supervision was provided by nonprofessional personnel, parent volunteers, administrative personnel, student monitors, or teachers with alternate lunch periods in the large school systems of more than 12,000 students.

The majority of the evidence seems to indicate that the teachers in the small schools will have more supervisory duties and will also be called upon more often to perform those duties. The teachers in the larger elementary schools will not have as many supervisory duties because many have been relegated to nonprofessional staff members or scheduled on a rotating basis among the professional staff.

The second general area of noninstructional duties that appears to differ dependent upon school size, is administrative duties. Not only does school size determine the administrative duties, but also the level of grades taught appears to influence the administrative responsibilities of teachers. Heck et al. (1965) reported that elementary and junior high teachers spent more time keeping records, reports, and consulting with parents than do high school teachers.

Since there is no administrator in the very small school, it is up to the supervising or head teacher to advise the school board as to the needs of the school. Although the teachers in the very small schools should attend the school board meetings,

Gardener (1983-84) found that a majority of the teachers in the very small schools in Montana were not asked to attend school board meetings. Along with attending the school board meetings, the teacher in the very small school must also determine the school calendar noting holidays and vacations during the school year (Gardener, 1983-84.

Because there usually is not a principal in the very small school, disciplinary action is carried out entirely by the teacher (Dodendorf, 1983). Dodendorf mentioned that the worst form of punishment was for the teacher to call the parents. In most larger schools, the "final word" for disciplinary action is administered by the principal or superintendent of the school.

Many clerical duties are completed by teachers in any size of school system. All teachers, regardless of the size of the school, are responsible for keeping the students' grades and making out report cards for each student. Report cards do require that the teacher also report the attendance of the student in the classroom for the grading period (Balassi, 1968; Green, 1971). But, the teachers in the larger schools are not responsible for reporting the semi-annual or annual report of school attendance and figuring the average daily membership (adm) or average daily attendance (ada).

The third category of noninstructional duties can best be described as other duties as it entails various areas. Often the elementary teacher in the smaller districts must coach or help

coach competitive athletics because of the small high school staff. Although the study by Heck et al. (1965) revealed that fewer elementary teachers were involved in coaching activities, their study did not account for school size. Even in the very small schools the teachers often must be involved in coaching activities. In many cases, a county-wide play day, track meet, or other such event is scheduled during the year. It, thus, becomes a part of the teachers' duties to prepare their students for these athletic events.

Planning and directing seasonal presentations such as Christmas plays, play days and so forth is more often going to be a responsibility of the teacher in the smaller school (Horn, 1983. In the smaller schools activities such as ball games, plays, and school carnivals are more important to the community as these events are often the only entertainment available in the small community (Nachtigal, 1982; Peshkin, 1978;).

With athletic events, plays, and school carnivals, teachers must also perform other duties in connection with these activities. The teachers in the smaller school districts often must work at the school events as time keepers, ticket sellers, and crowd supervisors (Horn, 1983). Although many of these activities are portioned out to secondary teachers, in the small schools the elementary teachers also become involved, particularly in interscholastic events (Amodeo et al., 1982).

In order to offer a diversity of extracurricular activities,

the elementary teachers must sponsor clubs, academic organizations, school publications and school social or service clubs. Heck et al. (1965) in their report have shown that in grades 1-6 a very small percentage of elementary teachers were assigned as sponsors of these groups. In junior high school (grades 7-9), a larger portion of the teachers are assigned as sponsors. Their data also indicated that at the junior high or high school levels teachers are more likely to receive extra pay for these duties. It must be remembered that their data did not differentiate school size.

Several of the duties in the third category are probably more often performed by teachers in large schools than in the smaller schools. In the larger schools there is usually an active parent-teacher (PTA) or similar organization (Horn, 1983). A portion of the teachers' nonteaching duties require their attendance at the meetings (Balassi, 1968). The smaller schools often do not have an organization such as PTA because of the close contact between the school and the community and because of the number of people involved.

The teacher in the larger school districts appears to spend more of his or her time serving on committees such as curriculum or grade-level committees (Balassi, 1968; Horn, 1983). In the very small school, the teacher or teachers are the curriculum committee in most cases (Gardener, 1983-84). In the small schools, since there is but one teacher per grade level, there are no grade-level committee meetings.

The teacher in t' small school does not have to serve as a subject area, grade level or department head as there will only be one class per grade level. Therefore, as Horn's survey indicated (1983), a smaller percentage of the teachers in the small schools must perform the duty of grade level or department head.

From the report by Heck et al. (1965), it appears that an elementary teacher may spend more time with parent-teacher conferences than do junior high or high school teachers. Horn's survey (1983) indicated that teachers in the small, medium, and large schools performed the duty of parent-teacher conferences on an equal basis, and the conferences were the most frequently cited duty of all three sizes of schools.

Along with parent-teacher conferences, Horn (1983) found that a larger percentage of teachers in the small schools made visitations to the students' homes than did teachers in the medium and large size schools. At all school sizes, the percentage of teachers who performed such duties was rather small. Teachers in one-room schools may more often became acquainted with and visit the parents of their students than personnel in larger schools.

Although very little has been written concerning the amount of time spent in faculty meetings, Heck et al. (1965) found that teachers in elementary and junior high schools spent more time in faculty meetings than do teachers at the high school level. It might be assumed that teachers in larger schools would spend more time in faculty meetings than those in the smaller sc ols because

of the bureaucracy in the larger systems (Horn, 1983).

A fourth area concerning the noninstructional duties of teachers is incidental to the successful operation of the school day, and could be thought of as relating to instructional as much as to noninstructional duties. Anderson, Christine, Hunsberger (1974), Burke et al. (1977), Heck et al. (1965), and Williams (1979) all reported that teachers, and especially teachers in the elementary grades, believed that more preparation time or planning time, free of students during the school day, would help them be more effective teachers.

Heck et al. (1965) found that 42.1 percent of the elementary teachers in their survey had no time during the week scheduled for preparation. In comparison, only 4.8 percent of junior high teachers did not have a preparation period, and all of the teachers at the high school level had a preparation period. In the very small elementary schools, teachers may not have any preparation time available during the school day.

From the literature it would appear that the teachers in the smaller schools have more noninstructional duties, spend more time with noninstructional duties, and are not paid extra for some of the noninstructional duties as compared to teachers in larger systems. Horn (1983) implied that the involvement in noninstructional duties may cause teachers to be less effective or even to leave the profession.

CHAPTER III

METHODOLOGY

Introduction

This chapter addressed the rationale for choosing the size categories of the districts, selection of subjects, and instrument development. It also addressed the major hypotheses and analyses of the hypotheses.

Selection of Size Categories

There were 385 elementary school districts in the State of Montana according to information received from the Montana State Department of Education (1983). From the information obtained and from the rationale explained below, the districts were categorized by the number of students enrolled in the elementary districts.

The majority of states in the United States designate a district as containing grades K-12 or 1-12 (Education Directory--Fall 1980: Local Education Agencies). Therefore, in order to use the enrollment sizes designated by the National Center for Education Statistics (1983), the number of elementary students both nationally and in Montana was determined. Price (1982) noted that approximately 66 percent of the students enrolled in schools nationally attend elementary schools. The data received from Montana also revealed that approximately two-thirds of the students in that state attend elementary schools.

A conservative estimate of the enrollment sizes of elementary schools can be established by using two-thirds of the interval

values as reported by the National Center for Education Statistics. Since approximately two-thirds of the students are enrolled in elementary schools, it could be estimated that at least two-thirds of the enrollment in the school systems would be in elementary schools. The values in Table 10 indicate the differences in school enrollment size between the National Center for Education Statistics intervals and the estimated elementary systems intervals. The elementary schools in Montana were categorized using the estimated intervals, which yielded the results shown in Table 11. The majority of Montana's elementary systems were in the interval of less than 200 students.

Nachtigal (1982) noted that the National Center for Education Statistics (Golladay, 1977) had used categories of less than 300, 300 to 999, 1000 to 2,499, 2,500, to 4,999, and over 5000 to classify school systems. Using two-thirds of the interval values to denote elementary systems resulted in the combining of enrollment sizes for Montanta's elementary systems as reported in Table 12.

To further reduce the enrollment categories, information from the literature concerning school size was reviewed. Much of the literature indicated that systems of over 1000 students should be classified as large. Therefore, any elementary system in Montana with an enrollment of over 666 students (two-thirds of 1000) was classified as a large system, which combined the last three enrollment categories of Table 12.

The first category was further reduced to school districts

Table 10

School System Enrollment Size by the National Center for Education Statistics and Estimated School Enrollment Size of Elementary Systems

School System Enrollment Size by the National Center for Education Statistics	Estimated School Enrollment Size of Elementary Systems
1 - 299	1 - 199
300 - 599	200 - 399
600 - 999	400 - 666
1,000 - 2,499	667 - 1,666
2,500 - 4,999	1,667 - 3,333
5,000 - 9,999	3,334 - 6,666
10,000 - 24,999	6,667 - 16,666
25,000 or more	16,667 or more

Table 11

Distribution of Montana Elementary School Systems in Estimated Elementary School Enrollment Sizes

Estimated School Enrollment Size of Elementary Systems	Number of Montana Elementary Systems
1 - 199	287
200 - 399	43
400 - 666	22
667 - 1,666	26
1,667 - 3,333	2
3,334 - 6,666	4
6,667 - 16,666	1
16,667 or more	0

N = 385

Table 12

Distribution of Montana Elementary School Systems in the Estimated Elementary School Enrollment Sizes Extrapolated From Golladay's Intervals

Estimated Elementary School Enrollment Size Extrapolated from Golladay's Intervals	Number of Montana Elementary Systems
1 - 199	287
200 - 666	65
667 - 1,666	26
1,667 - 3,333	2
3,334 or more	5

N = 385

with less than 50 students enrolled. Through analysis of the data received from the Montana State Department of Education (1983), it was determined that the majority of teachers in multi-grade-level teaching situations would be in school districts of less than 50 students. This very small size category agrees with Sher's (1981) definition of a very small school. Further analysis of the data revealed that the average number of teachers in school districts with less than 50 students enrolled was two, while the average number of teachers in schools with enrollments between 50 and 199 was eight teachers per district. The category from 50 to 199 would agree with Nachtigal's comments concerning small schools that the student has no choice of teacher as there is only one teacher per grade level. The final size categories and the distributions of the elementary districts of Montana into each size interval are shown in Table 13.

Instrument Development

A review of the pertinent literature failed to disclose an instrument appropriate for use in the study. The instrument developed was of a self-made genesis using the works of McGuffey (1928), Heck et al. (1965), Horn (1983), and the literature review as guides in the development.

The development of the questionnaire incorporated the following steps:

1. Review of the literature;
2. Development of prototype of the survey questionnaire;

Table 13

The Distribution of Elementary School Systems in Montana by Enrollment and District Size

District Size	Enrollment Size	School Systems
Very small	1 to 49	164
Small	50 to 199	123
Medium	200 to 666	65
Large	over 666	33

N = 385

3. Initial review of the first prototype by committee members and the experimental statistics department;
4. Revision of first prototype;
5. Final review of the instrument by a panel of experts in the field;
6. Revision of instrument;
7. Dissemination of the final survey questionnaire.

The questionnaire was not field-tested because the end of the school year for the teachers was quickly approaching, and because of the distance at which the survey was conducted. Therefore, individual experts in the field of rural or small school education were selected to review the instrument. The individual experts to whom the questionnaire was sent were as follows: Dr. Paul Nachtigal, Mid-Continent Regional Education Laboratory, Wheat Ridge, Colorado; Dr. Weldon Beckner, National Center for Smaller Schools, Lubbock, Texas; Dr. Ivan Muse, Brigham Young University, Provo, Utah; Ralph Kroon, Field Service Coordinator, Montana Rural Education Center, Dillon. Montana; Dr. John Uxer, Director, Region Nineteen Service Center, El Paso, Texas; Dr. Theodore Brown, Eastern Oregon State College, La Grande, Oregon; Darleen Videen, Small School Specialist, Pima County School Superintendent's Office, Tucson, Arizona; Dr. Jim Miller, Superintendent of Schools, Carrizozo, New Mexico; and Betty Rose Rios, Assistant Director, ERIC Clearing House on Rural Education and Small Schools, Las Cruces, New Mexico.

Short questions concerning the instructional and noninstructional duties of elementary teachers were formulated as well as questions concerning the number of hours teachers in the three size categories spent at various activities. The guidelines suggested by Babbie (1983) were followed in the development of the instrument.

Selection of Subjects

The selection of the subjects to be surveyed involved two stages. First permission was sought to survey the teachers in the three size categories. A random sample of the districts was then chosen from the districts that were willing to participate.

A letter was drafted and sent to each district and/or county superintendent in Montana whose school districts were in the three size categories to obtain permission to conduct the study in their district(s). A self-addressed, stamped postcard was returned indicating the district's willingness to participate in the survey, and indicating the number of questionnaires needed in their district (to survey all of the teachers).

Of the 352 elementary school districts in Montana, which excluded the 33 large districts, 222 or approximately 63 percent of the districts agreed to participate in the survey. The responses of the county or district superintendents to the request to participate in the survey by school district size category are presented in Table 14. The results were obtained after two mailings.

Lists of the elementary school districts willing to participate in the three size categories were developed, and a propor-

Table 14

Superintendents' Responses to Request to Survey Teachers in Their Elementary Schools by District Size

District Size	Response			Total
	Willing to Participate	Not Willing to Participate	No Reply	
Very Small	104 (63.42)	28 (17.07)	32 (19.51)	164 (100.00)
Small	79 (64.23)	17 (13.82)	27 (21.95)	123 (100.00)
Medium	39 (60.00)	14 (21.54)	12 (18.46)	65 (100.00)
Totals	222 (63.07)	59 (16.76)	71 (20.17)	352 (100.00)

Note: figures in parentheses represent percentages.

tionate stratified random sample was selected. Twenty-five percent of the total number of districts in each size category was selected for analysis. A total of 606 questionnaires were sent to the district superintendents. The data in Table 15 indicate the number of districts and the number of teachers in each size category to whom the questionnaires were distributed. The questionnaires were sent to each of the county or district superintendents who then distributed the instrument to all of the teachers in the district. Using this technique maintained the confidentiality of the individual teachers.

Major Hypotheses to Be Tested

1. There are no associations between school district size and the instructional duties performed by the teachers.
2. There is no association between school district size and the number of clock hours per year of inservice received by the teachers.
3. There is no association between school district size and the number of clock hours teachers will have per week for planning and preparation or in the number of clock hours spent in actual classroom teaching per week.
4. There are no associations between the noninstructional duties of teachers and school district size in the areas of supervision of students, administration, or other noninstructional duties.

Table 15

The Number of Districts and Teachers to Whom Questionnaires Were Sent by District Size

District Size	Number of Districts	Number of Teachers
Very small	41	68
Small	31	219
Medium	16	319
Totals	88	606

5. There is no association between the number of clock hours per week spent by the teachers supervising students and school district size.
6. There are no associations between school distrit size and the noninstructional duties for which the teachers receive extra pay

Each of the sub-hypotheses mentioned in Chapter I under major hypotheses one, four, and six were analyzed separately. The sub-hypotheses all stated the null hypothesis that no association exists between the variables.

Analysis

The data obtained in the survey were at an ordinal level of measurement. The analysis was, therefore, limited to ordinal measures such as medians and measurements of association.

All of the hypotheses were analyzed using proportional reduction in error measures of association since the data was denoted as frequencies of responses. A multinomial count data classification on two scales or dimensions was used to set up the contingency tables (McClave & Dietrich, 1979).

Measures of association are descriptive statistics that connect variables with one another. They provide a method of reducing large data matrices to manageable summaries. Hence, they permit easier interpretation and understanding (Babbie, 1983).

Gamma is an appropriate measure of association for use with data measured at the ordinal level. Gamma is a symmetrical measure

of association (i.e., no distinction is made between the dependent or independent variable) which has a proportional reduction in error interpretation (Goodman & Kruskal, 1954).

Proportional reduction in error (PRE) measures have the following common denominators:

(1) predicting some outcomes of a dependent variable based on the knowledge of that variable's marginal totals only;
(2) predicting some outcome of a dependent variable by knowing the empirical relationship between it and the independent variable (or other variable);
(3) defining and measuring error; and
(4) a measure of association that takes the following form:

$$\text{PRE association measure} = \frac{\text{error by (1)} - \text{error by (2)}}{\text{error by (1)}}$$

(Leonard, 1976, p. 280)

Therefore, a gamma of 0.50 shows that we have reduced our original error by 50 percent.

Gamma indicates the relative preponderance of like or unlike ranked pairs among pairs ranked differently on both variables (Loether & McTavish, 1980, p. 271). The definition of a perfect association for gamma is less restrictive than for other measures of association, because all ties between the rank-ordered pairs are not included in its computation. Hence, when the data indicates a preponderance of tied ranked pairs, gamma can exhibit that a stronger relationship exists than is apparent by observation of the data (i.e. if the majority of the cases are in one row or column, the value of gamma is affected).

The gamma measure of association is similar to the Pearson's product-moment correlation except that gamma is used with ordinal measures. The values for gamma range from -1 to +1 representing the magnitude and direction of the association. Gamma is equal to 1 if the population is concentrated in an upper-left to lower-right diagonal of the cross-classification table and -1 if the population is concentrated in an upper-right to lower-left diagonal. Other properties of gamma include that gamma is indeterminate if the population is entirely in one row or column of the cross-classification table, and that gamma is zero in the case of independence. Gamma can also be used with small cell frequencies (frequencies less than 5) (Goodman & Kruskal, 1954).

As compared to a chi-square measure, gamma meets most of the criteria of a good measure while chi-square meets very few of the criteria, as noted by Hilderbrand, Laing, and Rosenthal (1977). Therefore, the gamma measure of association is the most appropriate measure for the data gathered.

The data were analyzed using an SPSS statistical package on the computer. Chapter IV will address the analysis of the data and the hypotheses.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

The purpose of this chapter is to present an analysis of the data that were gathered in the study, and to report the results of hypothesis testing that were associated with the study. First, a description of the number of responcents from the various size strata will be presented. Then, the data associated with each hypothesis are presented along with the results of the statistical testing of the hypothesis.

Response Rate of Questionnaire

Of the 606 questionnaires sent and given to the teachers, 374 or approximately 62 percent were returned after two mailings. The administrtors of school districts in which a zero response rate was apparent after the second mailing were called. Two of the districts administrators called had not received the first mailing, and a second set of questionnaires were sent. Tracers were sent through the postal service to find the original mailings, but they have not been located.

Teachers in the smaller school districts had a greater response rate than those in larger districts. Fifty-six or 82.4 percent of the very small school district teachers responded to the questionnaire. In the small school districts, 149 or approximately 68 percent of the teachers responded. Of the 319 questionnaires sent to teachers in the medium size districts, 169 or 53 percent

were returned.

Teachers from four of the very small districts did not respond to the questionnaire. Those districts accounted for five teachers. A 100 percent return rate was received from the teachers in 32 very small school districts.

In the small districts, none of them had a zero response rate. The lowest response rate from the teachers in the small districts was 29 percent. Only four districts had a response rate of less than 50 percent, and eight small districts had a 100 percent response rate, from the teachers.

Of the sixteen medium districts, the teachers in onedistrict did not return any of the questionnaires for a zero response rate. Five of the medium districts had a response rate of less than fifty percent. The greatest response rate from a medium sized district was seventy-seven percent.

No definitive explanation as to response rate can be concluded. One may speculate that the teachers in the smaller districts may have responded more often because they would like assistance in providing their services to the school or community they serve. In opposition, it may be speculated that teachers in the larger districts may not have had the time to complete the instrument due to a greater number of responsibilities placed upon them by the school or community. These questions and others shall be left for further research.

Biographic Data

The biographic data for this research were to ascertain if there was an association between school size and the number of years the teachers had been in their present districts, and between district size and the total number of years the teachers had taught. Other ancillary questions were also asked.

Years of Teaching at Present District

In Montana, a teacher receives tenure upon the acceptance of a contract for the fourth consecutive year at that school. Therefore, the tables have been constructed to show whether a teacher had received tenure or not. Each remaining interval concerning the number of years was set at three except the final category, which indicated over six years.

In Table 16 the number of years the teachers have been in their present school by district size is represented by the data. In the very small schools, fifty-seven percent of the teachers reported they had taught for only one to three years at their present school. Forty percent of the small school district teachers indicated they had been at their present school less than four years. Approximately thirty-three percent of the teachers in the medium districts signified they had taught at their present school less than four years.

The data in Table 16 indicate that as school size increases, a greater number of teachers have tenure (i.e., the teacher had been in his/her present school four or more years). From the measure of

Table 16

Number of Years the Teachers Have Been in Their Present School by District Size

	District Size		
No. of Years	Very Small	Small	Medium
1-3	57.1%	40.3%	32.7%
4-6	28.6	25.5	26.2
over 6	14.3	34.2	41.1
total (N)	(56)	(149)	(168)
Gamma = .28			

association (gamma = 0.28), it would appear that as the school size increases, the teachers remain in their present school for a longer period of time.

The medians for each of the size categories also suggest that teachers in the smaller districts remain at a school for shorter periods of time. Teachers in the very small districts had been in their present school a median of three years. Four years was the median number of years for teachers in the small districts, while the teachers in the medium districts had been in their school a median of five years.

Years of Experience in Each District Size

The second portion of the biographical data asked the teachers to report the number of years they had taught in each of four size categories of school districts--very small, small, medium, or large. Although the data are not amenable to measures of association, descriptions using percentages offer some interesting speculations concerning the prior experiences of teachers in the various district sizes.

Fifty-five percent of the teachers in the very small districts indicated that they had taught in schools of a larger size. Only twenty-nine percent of the teachers in the very small districts who had taught in districts of other sizes had received tenure in at least one of the larger districts. The majority of the teachers in the very small districts who changed district size had taught in medium districts.

In the small districts, approximately forty-two percent of the teachers reported that they had taught in school districts of other sizes. Of the teachers in small schools who changed district sizes, approximately forty-four percent had received tenure in at least one of the districts of a different size. The majority of the movers (i.e., teachers who had changed district size) had taught in the very small schools prior to teaching in the small schools.

Of the teachers in the medium districts, approximately thirty-four percent of the teachers signified that they had taught in districts of other sizes. About fifty-five percent of the teachers who had taught in districts of smaller or larger sizes had received tenure in at least one of the districts of a different size. The majority of the movers had taught in districts of a smaller size.

An analysis of the percentages and the number of years the teachers have been at different district sizes indicates that teachers in the smaller schools moved more often and also did not receive tenure as often as teachers in the larger districts. The results lead one to the notion that there is a great deal of turnover among the teachers in the rural areas of Montana.

Total Years of Experience

The last portion of the biographic data will give the total number of years of teaching experience the teachers have by district size. The data in Table 17 report, as percentages, the number of total years the teachers signified that they had been

Table 17

Number of Years of the Teaching Experience by District Size

	District Size		
Years of Experience	Very Small	Small	Medium
1-3	25.0%	18.1%	19.0%
4-6	28.6	26.2	21.4
over 6	46.4	55.7	59.5
total (N)	(56)	(149)	(168)

Gamma = 0.11

teaching by district size. Although the measure of association is slight (gamma = 0.11), the teachers in the smaller districts have usually taught fewer years than teachers in larger districts.

The median number of years taught by the teachers in each district size also indicated that the difference in the total number of years taught was very slight. The median for the very small districts was six years, while the medians for the small and medium districts was seven years.

Instructional Duties

One of the major hypotheses addressed indicated that there would be no association between the instructional duties of the teachers in the three size categories of elementary school districts. Within the major hypothesis, eight subhypotheses were developed. Each of these hypotheses will be analyzed in this section.

Number of Courses Taught

The first subhypothesis stated that there would be no association between district size and the number of subjects taught by each teacher in the district. The teachers were given a list of subjects or courses that are normally taught in elementary school and asked to check the subjects for which they had responsibility of teaching. A list of fourteen courses was developed with a blank to list any additional course they may teach.

To develop the intervals for a cross-tabs table, the number of courses was divided into three equal categories with five as an

interval length. An interval of five allows for a teacher who may teach language arts only to chose the five areas which could be considered under that category (reading, spelling, writing, grammar and usage, and speaking and listening skills).

The data in Table 18 indicate the number of courses taught by each teacher in the three size categories reported as percentages. A fairly high negative association existed (gamma = -0.48) indicating that teachers in the smaller school districts are required to teach a greater range of subjects than those in larger districts. Sixty percent of the teachers in the very small schools reported that they were required to teach between eleven and fifteen subjects, while only seventeen percent of the teachers in the small districts and ten percent of the teachers in the medium districts designated that they were required to teach such a large range of courses. The majority of the teachers in the small and medium districts reported teaching between six and ten courses. From the information in Table 18, it can be noted that as school size increases the percentage of teachers who teach from one to five courses increases. Therefore, the data indicate that as the school size increases, the teachers are responsible for fewer courses.

Course Responsibility

To determine what subject or course areas were taught more often by a separate teacher, Table 19 was developed. The data are recorded as the percentage of teachers who are responsible for

Table 18

Number of Courses Taught by Each Teacher Compared to District Size

	District Size		
No. of Courses	Very Small	Small	Medium
1-5	7.3%	16.8%	26.6%
6-10	32.7	65.8	63.3
11-15	60.0	17.4	10.1
total (N)	(55)	(149)	(169)

Gamma = -0.48

Table 19

Teacher's Responsibility for Various Courses by District Size

Subject or Course	Percentage of Teachers Responsible for Teaching Course by District Size		
	Very Small	Small	Medium
Reading	94.6%	87.9%	64.4%
Spelling	89.3	33.9	58.4
Writing	91.1	82.6	61.2
Industrial arts	5.4	2.7	1.4
Grammar and usage	91.1	81.2	56.6
Social studies	96.4	82.6	53.4
Mathematics	94.6	86.6	68.8
Science	92.9	83.2	53.4
Art	91.1	75.2	50.7
Music	76.8	20.8	21.0
Physical education	85.7	45.6	17.4
Career awareness	28.6	15.4	14.2
Foreign language	3.6	0.7	0.1
Speaking & listening	75.0	59.7	38.4

teaching the various courses by school district size.

The two courses that are most likely to be taught by a teacher with a major endorsement in a subject area in the small or medium-sized districts were music and physical education. Approximately twenty-one percent of the teachers in the medium and small school districts signified that they were required to be responsible for music education, while approximately seventy-seven percent of the teachers in the very small schools reported that they were required to be responsible for teaching music. Nearly eighty-six percent of the teachers in the very small districts designated that they were held accountable for physical education as compared to forty-six percent of the teachers in small districts and only seventeen percent of the teachers in the medium districts.

By inspection of the data in Table 19, it would appear that as the school district size increases, there may be more departmentalization of courses than in the smaller districts. The trend appears to be true in all subject areas, but it must be approached with caution because of the smaller number of teachers surveyed in the very small schools. This cautionary note is particularly visible in the teaching of industrial arts and foreign languages where a very small percentage of the teachers in any of the strata indicated one of the areas as a required course taught by the teacher.

As indicated earlier, the teachers could also specify other courses that they had a responsibility for teaching. In the very

small schools, the teachers most often added phonics and health courses to the list. In the small and medium districts, phonics, health, computer literacy, study skills, and library skills were most often added to the list of courses. Some of the teachers in each strata named other courses which were more specific to their grade level or location. Such subjects included coordination skills in kindergarten, outdoor education, and the Cree Indian language.

The data from the survey indicate that the teachers in the smaller schools are responsible for teaching a greater variety of courses than teachers in larger schools. Usually teachers in the larger schools will not be responsible as often for physical education or music, which may be more frequently taught by a teacher with that specific certification.

The results agree with prior research that indicate some departmentalized teaching is done in the larger schools. It may indicate that generalists rather than specialists are needed in order to handle the wide variety of subject areas in smaller school districts.

Grade-Level Responsibilities

In many of the very small and small schools, teachers must be able to teach more than one grade level. Therefore the second subhypothesis under the instructional duties indicated that there was no association between the number of grade levels taught by a teacher and school district size.

The teachers were asked to indicate the grade level or levels that they were responsible for teaching. The list included kindergarten through the eighth grade. The number of grade levels was split into three equal intervals with three grade levels in each category for analysis. A tabulation of the data associated with grade level responsibilities appears in Table 20.

The majority of the teachers in the very small school districts indicated that they were responsible for teaching four to six grade levels. Those teachers in the small and medium districts designated that they were normally responsible for less than four grade levels. An analysis of the data indicates a negative association between district size and the number of grade levels taught by each teacher (gamma = -0.36).

To further differentiate the data, an analysis of the percent of teachers in each district size that reported teaching only one grade level was completed. In the medium schools, approximately sixty-six percent of the teachers signified that they taught only one grade level. Forty-four percent of the teachers in the small districts designated teaching only one grade level. In the very small school districts, only two percent of the teachers indicated that they taught one grade level. Therefore, as the school size increased, the percentage of teachers who taught only one grade level increased.

The median score for the three size categories was also computed. The median number of grade levels taught by teachers in

Table 20

Number of Grade Levels Taught by Each Teacher Compared to District Size

Number of Grade Levels	District Size		
	Very Small	Small	Medium
1-3	40.7%	87.8%	83.3%
4-6	48.1	5.1	8.9
7-9	11.1	6.1	7.7
total (N)	(54)	(148)	(168)

Gamma = -0.36

the medium districts was one grade level. In the small districts, the median was two grade levels per teacher, and the median number of grade levels for teachers in the very small districts was four grade levels.

The data indicate that the teachers in the very small school instruct more grade levels per teacher than either the small or the medium-sized districts. Indications are that, in the small districts, the majority of the teachers may teach two grade levels while in the medium districts, teachers are responsible for one grade level.

Pupil/Teacher Ratio

To determine if there was an association between district size and the pupil/teacher ratio, the teachers were asked to report the number of students they taught. The data were separated into three intervals--one to fifteen students, sixteen to thirty students, and over thirty students. The last category normally counted only those teachers who taught a specific area (e.g., physical education, music).

The percentages, as summarized in Table 21, indicate that the vast majority of the teachers in the very small districts reported teaching fewer than sixteen students. In the small and medium districts the majority of the classes contained from sixteen to thirty students. The measure of association shows a fairly high correlation between school size and the number of students taught per day (gamma = 0.56). Therefore, as the district size increases,

Table 21

Number of Students Taught by Each Teacher Compared to District Size

	District Size		
No. of Students	Very Small	Small	Medium
1-15	85.2%	35.4%	18.2%
16-30	13.0	51.0	52.7
over 30	1.8	13.6	29.1
total (N)	(54)	(147)	(165)
Gamma = 0.56			

the number of students per teacher increases.

To further determine an analysis of the number of students taught during the day, the median number of students taught by the teacher in each size category was computed. In the very small districts, the teachers taught a median of eleven students per teacher per day. The small school district teachers taught a median of eighteen students per day, and in the medium school districts, a median of twenty-three students was taught by each teacher per day.

These data indicate that the teachers in the very small district have fewer students per teacher per day than in the small or medium districts. Although they have fewer students, those students normally will cross four different grade levels as compared to two or one grade level(s) for the small or medium districts.

Managing Several Groups

Because the teacher in the very small schools must simultaneously keep several grade levels constructively working on instructional materials, the third subhypothesis asked the teachers if they had to keep several groups profitably working while another group is being taught. Their responses were categorized as always, sometimes, or never.

The percentage of teachers who reported that they were responsible for keeping several groups working while another group is being taught or reciting are reported in Table 22 by district size.

Table 22

Teacher's Responsibility for Keeping Several Groups Constructively Working While Another Group is Being Taught or Reciting by District Size

	District Size		
Responsibility	Very Small	Small	Medium
Never	3.6%	9.1%	6.6%
Sometimes	17.9	44.9	40.4
Always	78.6	46.9	40.4
total (N)	(56)	(143)	(166)

Gamma = -0.30

The results indicate that the majority of the teachers in the very small districts (78.6 percent) perceived that they always had to keep several groups involved at the same time. In the small districts approximately forty-seven percent of the teachers designated that they always had to keep several groups working while about forty percent of the teachers in the medium districts indicated that they had to keep several groups actively engaged in work at the same time.

The measure of association, while not extremely large, indicates that the task of keeping several groups constructively working at the same time is more often the task of a teacher in the very small school (gamma = -0.30).

Role in Curriculum Development

The report, "A Nation at Risk" (National Commissionon Excellence in Education, 1983), concluded that teachers were not as involved in the determination of the curriculum as they would like to be. The report did not show any differences with respect to school size. Therefore, the fourth subhypothesis included in the instructional duties of the teachers asked the teachers to designate what their role was in determining the curriculum of the school. They were asked if they had a major, minor, or no role in the development of the curriculum. There was insufficient evidence to infer that the teachers perceived the curriculum development process correctly. Many of the teacher sinall the district sizes may have felt that having input into the selection of textbooks was

sufficient to indicate having a major role in curriculum development. Table 23 summarizes the results.

The teachers in the smaller schools noted that they perceived that they had a major role in determining the curriculum for the school more often than those in the larger schools (gamma = -0.41). Approximately seventy-seven percent of the teachers in the very small schools responded that they had a major role in developing the curriculum. About forty-four percent of the teachers in the small schools and only twenty-eight percent of the teachers in the medium schools sensed that they had a major role in determining the curriculum of the school. In the medium schools, the greatest percentage of teachers, approximately sixty-three percent, perceived that they had only a minor role in the determination of the curriculum.

Role in Curriculum Implementation

Although the teachers in the very small districts replied that they were more instrumental in determining the curriculum, most of the teachers in each stratum reported having a major role in implementing the curriculum in their classroom. One hundred percent of the teachers in the very small districts reported having a major role in the implementation of the curriculum, while approximately ninety-three and ninety-one percent of the small and medium-sized district teachers perceived having a major role in curriculum implementation.

The results relating the teacher's role in implementing the

Table 23

Teachers' Role in Determining the Curriculum by District Size

Role	District Size		
	Very Small	Sma	Medium
No Role	3.6%	12.1%	8.9%
Minor	19.6	43.6	63.1
Major	76.8	44.3	28.0
total (N)	(56)	(149)	(168)

Gamma = -0.41

curriculum to district size are shown in Table 24. Although the measure of association is fairly high (gamma = -0.41), the majority of the rankings are tied on the dependent variable (role). Therefore, the magnitude of the measure of association must be observed with caution.

Role in Selecting Textbooks

The sixth subhypothesis concerning the instructional duties queried if the teachers had a major, minor, or no role in the selection of textbooks to be used in their classroom. "A Nation at Risk" (1983) also indicated that teachers had little role in the selection of textbooks, but nothing indicated if school size could effect the role of the teacher in the selection of textbooks.

The data indicate (see Table 25) that there is a negative association between school size and the teachers involvement or role in determining the selection of textbooks for the classroom (gamma = -0.43). Nearly eighty-six percent of the teachers in the very small schools perceived that they had a major role in the selection of textbooks. Comparatively, seventy-four percent of the teachers in the small districts and fifty-seven percent of the teachers in the medium districts indicated a major role in textbook selection for the classroom.

Very few of the teachers in any of the three size categories reported that they had no role in the selection of textbooks, although the medium districts did have a larger percentage than the very small or small districts who indicated no role (5.4

Table 24

Teachers' Role in Implementing the Curriculum in Their Classroom by District Size

	District Size		
Role	Very Small	Small	Medium
No Role	0.0%	0.7%	0.0%
Minor	0.0	6.0	9.5
Major	100.0	93.3	90.5
total (N)	(56)	(149)	(169)

Gamma = -0.41

Table 25

Teachers' Role in Determining the Textbooks to be Used in Their Classroom by District Size

	District Size		
Role	Very Small	Small	Medium
No Role	0.0%	1.3%	5.4%
Minor	14.5	24.8	38.0
Major	85.5	73.8	56.6
total (N)	(55)	(149)	(166)

Gamma = -0.43

percent). The percent of teachers that selected no role did increase as school size increased. The data support the premise that as school size increases the teachers have a reduced role in determining the textbooks to be used in their classrooms.

Availability of Specialists

Guidance, library, curriculum, and special education personnel are sometimes used to assist in developing the instruction within the classroom. Without these specialists, many of the responsibilities of the specialists may be considered part of the teachers' assignments.

Only one of the very small districts was indicated as having a curriculum specialist available at the school by the teachers. In that particular district, the curriculum consultant was reported as part of the staff of a cooperative or learning center. Several learning centers were established by the state to provide specialists, curriculum materials, and other services to all of the districts within the center's boundaries. In this situation, the specialist is not in the school except when called upon by the teacher at the school district.

The teachers in the small and medium districts reported that very few of the districts had a curriculum specialist. Three or 9.67 percent of the small districts were designated as having a curriculum specialist available. Two or 13.33 percent of the medium districts, as reported by their teachers, had a curriculum specialist available.

The teachers in eighty percent of the medium districts reported that a guidance counselor was available in the district. Approximately seventy-one percent of the small districts, as indicated by the teachers, had a guidance counselor. The nine small districts that reportedly did not have a guidance counselor were small elementary districts that did not have a high school in the same town or location. Within the very small districts, only teachers from two districts claimed that there was a guidance counselor available in the district.

With respect to librarians, the reponses from the teachers indicated that all of the medium districts had a librarian available. From the teachers' responses, eight-four percent of the small districts had librarians, and only five percent of the very small districts had a librarian at the school. Many of the very small districts have limited library facilities. Some library materials are available to the teachers in very small districts through the learning centers developed around the state.

The teachers were also queried as to whether there was a special education person available at the school. The majority of the teachers in the districts responded positively, although many of the special education personnel were not housed within the school or the school district.

Although the question was not interpreted as desired, the results still indicate that often the teachers in the very small school districts do not have special education personnel readily

available for assistance. The teachers in eighty-one percent of the very small districts reported that there were special education personnel available to the district. Of that eighty-one percent or thirty districts, the teachers in twelve districts replied that the special education personnel were available through the learning center or cooperative. The teachers in the remaining eighteen districts did not report if the special education personnel were available at the school or through a cooperative. Only one of the teachers from a very small district reported that the teacher was certified as a special education teacher.

In contrast, approximately ninety-four percent of the small school districts were reported by their teachers as having special educatic personnel available at the district. The teachers in ten percent of the small districts related that the special educati n personnel were available via a cooperative or learning center. The teachers in eighty-four percent of the small districts signified that the special education personnel were available at the district, although it is possible that the specialists in some of these cases were in reference to a cooperative.

The teachers in ninety-four percent of the medium districts reported they had special education personnel available at the district. None of the teachers in the medium districts indicated that the special educators were part of a cooperative or resource center except for speech pathologists or school psychologists.

Other specialists that were mentioned by teachers in the

districts included speech pathologists, psychologists, nurses, physical education teachers, music teachers, art teachers, and chapter I specialists. The percentage of districts which had specialists available, as reported by the teachers, are tabulated in Table 26.

In general, these data would support the contention that the smaller schools have fewer specialists available to the teacher. Particularly music, Chapter I, and physical education personnel are more often available in larger schools.

Administrative Supervision

It was hypothesized that no association existed between the number of times the supervisor visited a teacher's classroom per school year and district size. To check the hypothesis, the teachers were asked approximately how many times during the current school year their supervisor had visited their classroom. The supervisor was defined as the superintendent, principal, grade-level head, etc.

The number of visits per year by a supervisor were divided into the categories of none (0) through two times, three through five times, and over six times. The medians for each size stratum were computed and were used to determine the intervals for the number of visits per year by a supervisor.

In the very small districts, the median number of visits by a supervisor as reported by the teachers was two per year. The supervisors in the small schools reportedly visited the classrooms

Table 26

Percentage of Districts by Size Having Specialists Available

Specialist	Percentage of Districts by Size		
	Very Small	Small	Medium
Special education	81.1%	93.5%	93.3%
Librarian	5.4	83.9	100.0
Guidance	5.4	71.0	80.0
Curriculum	2.7	9.7	13.3
Music	5.4	29.0	73.3
Physical education	2.7	9.7	66.7
Chapter I	0.0	29.0	80.0
Speech	29.7	54.8	80.0
Psychologist	10.8	16.1	60.0
Art	0.0	6.4	13.3
Nurse	2.7	2.7	26.7

a median of three times, and the medium district teachers indicated they were visited by a supervisor a median of four times per year.

The association between district size and the number of visits by the supervisor per year is positive (gamma = 0.26) as reported in Table 27. The data support the supposition that the very small school district teachers are not supervised with the frequency received by teachers in larger districts.

A majority of the teachers in the very small schools signified that they received a visit from their supervisor less than three times per year (55.6 percent). In the small schools, the majority of the teachers replied having been visited by a supervisor in their classrooms more than two times per year, although forty-six percent reported less than three times a year. The medium district teachers had been visited by their supervisor six or more times as reported by nearly forty percent of the teachers. About one-third of the teachers in the medium districts revealed that they had been visited by their supervisors less than three times per year. The results may indicate that teachers in the smaller schools receive less help in developing better instructional direction, particularly if the supervisor looks upon his position as improving instruction.

Teachers Seeking Supervisory Aid

The literature reviewed implied that teachers in the smaller schools may not have as many opportunities to ask their supervisors for aid in classroom instruction. Therefore the teachers were

Table 27

Number of Times Per School Year the Supervisor Has Visited the Teacher's Classroom by District Size

No. of Times Per Year	District Size		
	Very Small	Small	Medium
0-2	55.6%	46.2%	29.7%
3-5	29.6	30.8	30.4
over 5	14.8	23.0	39.9
total (N)	(54)	(143)	(158)

Gamma = 0.26

asked to indicate the number of times they had gone to their supervisor for instructional assistance.

Table 28 was constructed with the same intervals as were developed for the number of times the supervisor visited the classroom. The number of times per school year that the teachers had sought help from their supervisor is represented as percentages by district size in Table 28. There was no association found between the school district size and the teacher seeking help from their supervisor (gamma = 0.00).

In nearly all cases, the teachers indicated that they had gone to their supervisor less than three times per year for assistance. The median number of visits the teachers in the very small and medium districts reported was two. In the small districts, the median number of visits signified by the teachers seeking assistance from the supervisor was three. Therefore, it appears that there is no correlation between school district size and the number of times per year the teacher asks for instructional assistance from a supervisor.

For either the supervisor going to the teacher or for the teacher seeking assistance from a supervisor, there appears to be little association with respect to school size. The greater association was apparent concerning the number of times the teacher was visited by a supervisor.

Clock Hours of Inservice Training

Also ancillary to the instructional capabilities of the

Table 28

Number of Times Per School Year That the Teacher Sought the Aide of a Supervisor by District Size

No. of Times Per Year	District Size		
	Very Small	Small	Medium
0-2	58.0%	48.6%	54.5%
3-5	26.0	26.8	24.0
over 5	16.0	24.6	21.5
total (N)	(50)	(138)	(154)

Gamma = 0.005

teachers in a district is the clock hours of inservice education which the teachers may receive during the school year. Therefore, the second major hypothesis proposed that there was no association between the number of clock hours of inservice education the teachers received per school year and the elementary district size categories. The teachers were asked to report the number of clock hours of inservice training they received during the current school year.

The percentages listed in Table 29 indicate that there is very little association between school district size and the number of clock hours of inservice training the teachers in each category received per year (gamma = -0.03). In the small school districts, it appears that the teachers received a greater number of clock hours of inservice training than either the teachers in the very small or medium schools. Within the columns of percentages of Table 29, the hours of inservice training reportedly received by the teachers in very small and medium school districts show decreasing percentages, while the hours of inservice training expressed by teachers in small school districts show increasing percentages.

The medians for the three size categories also reveal the apparent trend that the teachers in small school districts received more hours of inservice training per year. The median number of clock hours of inservice training received by the teachers in very small and medium schools was twelve hours. In the small school

Table 29

Clock Hours of Inservice Training Received Per Year by Teachers Compared to District Size

Clock Hours per year	District Size		
	Very Small	Small	Medium
Less than 10	41.5%	29.9%	39.9%
10 to 20	43.4	32.6	33.7
over 20	15.1	37.5	26.4
total (N)	(53)	(144)	(163)

Gamma = -0.03

districts, the teachers received a median of sixteen clock hours per year of inservice training.

Clock Hours of Classroom Teaching

The third general hypothesis which was considered to be related to the instructional duties of teachers stated that there was no association between the number of clock hours the teachers expended in actual classroom teaching and district size. The teachers were requested to report the clock hours per week they spent in the classroom actually teaching. Although only part-time teachers and some specialized areas such as librarians should have been among the few persons indicating less than fifteen hours, many of the full-time teachers also indicated teaching less than fifteen hours per week. It is plausible that many of the full-time teachers reported the number of hours per day rather than per week.

Normally, the teachers should have indicated that they spent between fifteen to thirty hours per week with the students in the classroom. The interval from fifteen to thirty hours per week would have been consistent with the regulations in Montana, which state that a student in grades one through three must spend at least four hours in school each day or twenty hours per week. Students in grades four through eight must spend at least six hours per day or thirty hours per week in school. Giving each teacher a maximum of an hour per day for preparation time would yield a range with a minimum of fifteen hours and a maximum of thirty hours in the classroom if they had no preparation periods. Furthermore,

the school laws of Montana indicate that, except for one- and two-teacher rural schools, no teacher shall have more than twenty-eight clock hours of assigned student responsibility per week (Board of Public Education, 1976). The Board of Public Education recommended that each teacher should have at most twenty-six and a quarter hours per week of actual classroom contact with students and a minimum of sixteen and three-quarter clock hours per week except for kindergarten teachers, librarians, and some specialists.

Therefore, the intervals determined for analysis were divided into less than fifteen clock hours per week, fifteen to twenty hours per week, 20.1 to 25 hours per week, 25.1 to 30 hours per week, and over 30 hours per week. The clock hours per week the teachers spend in the classroom actually teaching by district size are represented by the values in Table 30.

The data indicate that approximately fifty-six percent of the teachers in the very small schools reported spending from 25.1 to 30.0 clock hours per week in actual classroom instruction (Table 30). In the small and medium districts, approximately thirty-two percent of the teachers in each of the two strata indicated they spent from 25.1 to 30.0 clock hours per week in classroom teaching or instruction. In the intervals from less than fifteen to twenty-five hours the percentage of teachers, in general, increases with school district size while at the upper two intervals the percentage of teachers with more than 25.1 clock hours per week generally decreases as the school district size increases. The measure of

Table 30

Clock Hours per Week of Classroom Teaching by District Size

Clock Hours per week	District Size		
	Very Small	Small	Medium
Less than 15	18.5%	19.0%	23.8%
15.0 - 20.0	1.9	10.2	9.1
20.1 - 25.0	5.5	25.9	25.0
25.1 - 30.0	55.6	32.0	31.1
over 30	18.5	12.9	11.0
total (N)	(54)	(147)	(164)

Gamma = -0.18

association also indicates the trend that as school district size increases, the teacher has fewer classroom hours per week of instruction with the students (gamma = -0.18).

The medians for the three strata also suggest that teachers in the very small school districts spend more time in classroom instruction. The median number of clock hours per week for the teacher in very small districts was thirty hours per week, while for the teachers in small and medium districts, the median number of clock hours per week of actual classroom instruction was twenty-five clock hours.

From the evidence it appears that as school size increases, the number of clock hours per week of classroom instruction per teacher decreases. The major difference is between the clock hours per week of classroom instruction the teachers in very small and small districts spend, while little difference exists between the clock hours per week for teachers in small and medium districts.

Noninstructional Duties

The second major hypothesis stated that there would be no association between school district size and the noninstructional duties performed by the teachers. This major hypothesis was further divided into supervisory duties, administrative duties, and other duties (i.e., coaching, attending school events, serving on curriculum committees, and other ancillary duties which might be performed by teachers). Within each of the three divisions, the duties performed by the teachers were divided into several subhypo-

theses concerning the particular duty performed by school district size. All subhypotheses specified that there would be no association between the performance of the duty by the teacher and district size.

Each of the three major divisions were analyzed using percentages and the gamma measure of association. One table for each of the three divisions (supervisory, administrative, other noninstructional duties) was developed to indicate the duties performed in comparison to district size.

Supervisory Duties

The duties rendered in this portion of the survey address the teachers' responsibility to supervise the lunchroom, school grounds, athletic events, drama, concerts, assemblies, hallways, and student social events. The teachers were asked to respond yes or no to those duties which they were required to supervise.

Lunchroom

The first subhypothesis suggested that there would be no association between school district size and the teacher being required to supervise the lunchroom. Approximately eighty-five percent of the teachers in the very small school districts reported that they were required to supervise the lunchroom. About sixty-five percent of the teachers in the small school districts and approximately fifty-four percent of the teachers in the medium districts designated that they were required to supervise the lunchroom.

The measure of association (gamma = -0.37) indicates that teachers in the smaller school districts have a greater probability of supervising lunchrooms than do teachers in larger school districts (Table 31). The teachers in the very small districts signified that they were required to supervise the lunchroom more often than either the teachers in the small or medium districts.

School Grounds

The second subhypothesis stated that there was no association between school district size and the teacher's responsibility to supervise students on the school grounds. The subhypothesis was further delineated to note the supervision of students before school started, at lunch time and after school was dismissed.

A moderate association (gamma = -0.32) was noted between school district size and the number of teachers who were required to supervise students before school. Approximately sixty-five percent of the teachers in the very small schools indicated that they were required to supervise students prior to the start of the normal school day. In contrast, only about thirty percent of the teachers in the small or medium districts reported being required to supervise students before school started in the morning (Table 31).

A stronger association exists between the teachers who were required to supervise the school grounds during lunch time and school district size than was noted for before-school supervision (gamma = -0.45). Eighty-five percent of the teachers in the very

Table 31

Percentage and Measures of Association Between Supervisory Duties Performed and District Size

Supervisory Duty	Percent of Teachers Performing Duty By District Size						Gamma
	Very Small		Small		Medium		
Lunchroom	85.2%	(54)	65.1%	(149)	53.8%	(169)	-0.37
School Grounds							
Before School	64.3	(54)	29.5	(149)	28.4	(169)	-0.32
Lunch Time	85.2	(54)	63.8	(149)	47.3	(169)	-0.45
After School	40.7	(54)	17.4	(149)	18.9	(169)	-0.23
Athletic Events (not coaching)	38.9	(54)	17.8	(149)	14.2	(169)	-0.35
Plays, Concerts, Assemblies	61.1	(54)	39.6	(149)	46.4	(168)	-0.06
Hallways	22.2	(54)	36.2	(149)	43.5	(168)	+0.25
Student Social Events	22.2	(54)	21.5	(149)	22.6	(168)	+0.02

small schools designated that they were required to supervise the school grounds during lunch time. Nearly sixty-four percent of the teachers in the small districts reported this as a required supervisory task, and approximately fifty-nine percent of the teachers in the medium schools signified they were required to supervise students on the school grounds during lunch time (Table 31).

From the percentages in Table 31, it can be noted that the same percentage of teachers in the very small school district who reported being required to supervise the lunchroom also responded that they were required to supervise the students during lunch time on the school grounds. In the small school, the percentage of teachers who designated that they supervised the grounds during lunch time is slightly less; and in the medium districts, the reported difference in the percentage of teachers is even greater. The difference would appear to give a case to the contention that, in the larger schools, school ground supervision during lunch time may be performed by aides or other personnel rather than the teachers.

A smaller percentage of teachers in all three size categories indicated being required to supervise the school grounds after school. Approximately forty-one percent of the teachers in the very small school districts reported they were required to supervise the school grounds after school. In the small and medium school districts, about eighteen percent of the teachers designated

that the duty was required. The value for gamma in Table 31 reveals that there is a negative association between school district size and supervision of students after school is dismissed (gamma = -0.23).

Generally, teachers in the smaller school districts are more apt to be required to supervise the school grounds than are teachers in larger school districts. The association is most prominent for supervision of students during lunch time.

Athletic Events

Although many of the teachers in the elementary grades may not be required to supervise students during athletic events, in some of the smaller schools this duty becomes a necessity because of the small number of teachers in the school district. Thus, the teachers were asked to indicate if they were required to supervise students during athletic events. The question also stated that the supervision should not include coaching.

There is a negative association between school district size and the supervision of students at athletic events by the teachers (gamma = -0.35) as shown by the data in Table 31. Nearly thirty-nine percent of the teachers in the very small school districts reported that they had to supervise students during athletic events. In the small school district, approximately eighteen percent of the teachers designated they were required the same duty, and about fourteen percent of the teachers in the medium districts indicated that they were required to supervise students during

athletic events.

Plays, Concerts, Assemblies

The fourth subhypothesis queried if the teachers were required to supervise students during plays, concerts, or assemblies held at the school. The calculated measure of association in Table 31 reveals that there is little or no association between school size and the requirement of the teacher to supervise students during plays, concerts or assemblies (gamma = -0.06). Although there was little association, it is noteworthy that the very small schools show the greatest percentage of teachers who reported that they were required this supervisory duty and that the association is negative.

Hallways

The fifth subhypothesis stated that there would be no association between school district size and the requirement of the teachers to supervise hallways during the school day. The value for gamma as shown in Table 31 designates that there is a positive association between school district size and supervision of hallways (gamma = 0.25). Therefore, the larger school district teachers may be required to supervise hallways more often than teachers in the smaller school districts. Approximately forty-four percent of the teachers in the medium districts reported performing this supervisory duty while thirty-six percent of the teachers in the small school districts and twenty-two percent of the teachers in the very small school districts indicated that they were re-

quired to supervise hallways.

The results are consistent with the conceptions of very small, small, and medium schools. The very small school will usually consist of a building with one or two rooms and very seldom will it contain a hallway. The teachers would not, therefore, have to supervise hallways. In the small school district, the majority of the classrooms are self-contained. The students will usually be in the hallways only in the morning, at lunch time, and after school. The medium school districts often may have students in the hallways to attend physical education classes or other courses. Also in the medium districts, the students may be required to move from one classroom to another for various subjects.

Student Social Events

The last subhypothesis under supervisory duties concerned the supervision of students during social events. A minimal positive association between school district size and the teacher's responsibility to supervise social events was found (gamma = 0.02). Nearly the same percentage of teachers in all three strata replied that supervision of student social events was a required duty.

The data presented in Table 31 suggest that the teachers in smaller schools are required to perform more supervisory duties than teachers in larger schools. In only one of the eight supervisory subhypotheses were the teachers in the larger schools required to perform the duty more often than teachers in the small schools. The teachers in the very small school districts reported performing

the majority of the supervisory duties more often than the teachers in the small or medium school districts.

Administrative Duties

The administrative duties included seven major areas with some of the areas further defined for analysis. The major areas were meeting with the school board, ordering supplies, purchasing supplies, keeping various records, deciding discipline cases, deciding classification and promotion cases, and attending to absences of the students. The data associated with this variable are reported in Table 32.

Meet With School Board

The first subhypothesis asserted that there would be no association between school district size and the teachers being required to meet with the school board. Seventy-two percent of the teachers in the very small schools designated that they were required to meet with the school board. In the small schools, approximately thrity-three percent of the teachers reported that they had to meet with the school board. Often teachers in the small school districts volunteered further information showing that they met with the school board for contract negotiation, special education cases, or to give committee reports. Nearly twenty percent of the teachers in the medium schools indicated that they had to meet with the school board. Although few of the teachers in the medium districts volunteered or otherwise designated their reasons for meeting with the board, it is probably safe to assume

Table 32

Percentages and Measures of Association Between Administrative Duty Performed and District Size

Administrative Duty	Percent of Teachers Performing Duty by District Size: Very Small		Small		Medium		Gamma
Meet with School Board	72.2%	(54)	32.9%	(140)	19.7%	(157)	-0 56
Advise Board of School Needs	85.2	(54)	23.6	(140)	12.1	(157)	-0.73
Develop School Calendar	61.1	(54)	14.3	(140)	6.4	(157)	-0.73
Determine School Budget	5.7	(53)	7.1	(140)	1.9	(157)	-0.39
Order Supplies	94.4	(54)	89.4	(141)	86.0	(157)	-0.24
Purchase Supplies	79.6	(54)	36.9	(141)	16.6	(157)	-0.67
Keep the Following Records:							
Attendance for Entire School	75.9	(54)	8.6	(140)	1.9	(157)	-0.92
Medical Records	70.4	(54)	24.8	(141)	21.0	(157)	-0.48
Permanent Cummulative Records	88.9	(54)	73.8	(141)	67.9	(156)	-0.29

that they met for nearly the same reasons as those in the small districts.

A substantially large measure of association exists between school district size and the teachers' responsibility to meet with the school board (gamma = -0.56). Although nearly seventy-two percent of the teachers in the very small schools indicated they met with the school board, it is likely that the meeting was not at a regular school board meeting but rather at an informal meeting with the chairman or some other member. Gardener (1983-84) found that about fifty percent of the very small school district teachers were attending school board meetings. One teacher from a very small school commented that the teachers were encouraged not to attend the school board meeting.

Subhypothesis two indicated that there would be no association between school district size and the teacher being required to advise the school board as to the school's needs. A very high measure of association (gamma = -0.73) indicates that the teachers in the smaller school districts are more often required to advise the school board of the school's needs.

Nearly eighty-five percent of the teachers in the very small school districts designated that they were required to report the schools' needs to the school board as revealed in Table 32. This percentage is greater than the percentage of teachers who indicated they met with the school board. The difference can be accounted for by teachers who still advise the school board, but on an

informal basis (i.e., personal call to the chairman versus actual attendance at a school board meeting). Since there are but one or two teachers in the very small school, the teachers, or at least one of the teachers, must act as the principal or supervising teacher and should meet with the school board to advise them concerning the school's needs. As shown, the teachers are advising the school board; but some of them are doing the advisement on an informal rather than a formal level.

Approximately twenty-four percent of the teachers in the small districts signified that they advised the school board of the school's needs. Many of the teachers in the small districts are also principals of the schools. Other teachers in the small districts who reported advising the school board were special educators. In the medium school districts only twelve percent of the teachers specified that they advised the school board concerning school needs. The majority of the teachers in the medium schools who advised the school board reported that they were members of curriculum committees or special educators.

The third subhypothesis stated that there would be no association between school district size and the teacher's responsibility for developing the school calendar. The measure of association was very high (gamma = -0.73) signifying that teachers in the smaller districts are more often required to develop a school calendar than are teachers in larger schools.

Sixty-one percent of the teachers in the very small school

reported that they were required to develop a school calendar. In the small districts, only fourteen percent indicated that they were required to perform this administrative duty, while in the medium districts an even smaller percentage (6.4) signified that they were required to develop the school calendar (Table 32).

The fourth subhypothesis indicated that there would be no association between school size and the teachers' responsibility to determine the school budget. Of the duties which may be performed with the school board, determining the school budget had the lowest measure of association (gamma = -0.39). Although the measure of association was smaller, it still indicates that teachers in the smaller school districts are more often involved in the determination of school budgets.

Teachers in the small districts reported a greater percentage (7.1 percent) were involved in determining the school budget than in very small or medium districts. The very small districts reported about six percent of the teachers were involved in determining the school budget and approximately two percent of the medium districts reported this as a required administrative duty.

Ordering and Purchasing Supplies

Ordering and particularly purchasing supplies have been listed as administrative duties. It was hypothesized that there would be no association between school size and the teachers' responsibility to order or purchase supplies. A small negative association (gamma = -0.24) was noted between the teachers'

responsibility to order supplies and school district size. A much larger negative association existed between school district size and the teachers' responsibility to purchase supplies (gamma = -0.67).

The percentages in Table 32 denote that ninety-four percent of the teachers in the very small districts designated that they were required to order supplies and nearly eighty percent were also required to purchase the supplies. In the small school districts, eighty-nine percent of the teachers indicated that they were required to order supplies while only forty percent had to purchase the supplies. Eighty-six percent of the teachers in the medium districts signified that they were required to order supplies, but only seventeen percent were also required to purchase the supplies. In both cases, the teachers in the smaller schools reported that they had more responsibility for ordering and purchasing supplies than did teachers in the larger schools.

Record Maintenance

The last major area addressed by the tabulations in Table 32 concerned the records kept by the teachers. The hypothesis stated that there would be no association between school size and the teacher's responsibility for keeping the attendance records for the whole school, medical records, and the students' permanent cumulative records. The greatest association appeared between the teachers' responsibility to keep the attendance records for the entire school and school district size (gamma = -0.92). In re-

sponse to the requirement to keep medical records the association was not nearly as large (gamma = -0.48). An even smaller association is apparent between school district size and the teachers' responsibility to keep the students' permanent cumulative records (gamma = -0.29).

As indicated in Table 32, approximately seventy-six percent of the teachers in the very small school replied that they were required to keep the attendance records for the entire school. Only nine percent of the teachers in the small schools and two percent of the teachers in the medium schools reported that they were required to perform this administrative duty. With respect to medical records, approximately seventy percent of the teachers in the very small schools perceived this duty as required while twenty-five percent of the small school district teachers and twenty-one percent of the medium district teachers reported they were required to keep the students' medical records. Eighty-nine percent of the teachers in the very small schools responded that they were required to kept their students' permanent cumulative records. In the small and medium districts, seventy-four and sixty-eight percent respectively expressed that they kept the students' cumulative records.

Other Administrative Duties

Four other duties that are often considered to be administrative duties were asked of the teachers. The four duties were making final decisions in cases of discipline, making final

decisions in cases of classification and promotion, enforcing school attendance laws, and investigating absences. It was hypothesized that there would be no association between school district size and the teachers' responsibility to handle those duties.

The teachers were asked to indicate whether they always performed these duties, sometimes were required to perform them, or never had to make the decisions or enforce the attendance laws. A separate table for each of the four areas was developed.

When asked if they, the teachers, had the responsibility of making the final decision in cases of discipline, the majority of the teachers in the very small school districts (61.8 percent) indicated that they were always responsible. The majority of the teachers in small (62.8 percent) and medium school districts (62.9 percent) responded that they sometimes had the responsibility for making the final decision in discipline cases. Although the measure of association was not large (gamma = -0.27), it does signify that the teacher in the smaller district is more likely to be responsible for making final decisions in cases of discipline (Table 33).

The next subnypothesis stated that tnere would be no association betweer school size and the teachers' responsibility to make the final decision in cases of classification and promotion. The majority of teachers in the very small school districts reported that they are always given this duty (67.9 percent). Only forty-six percent of the teachers in small districts perceived

Table 33

Teacher's Responsibility for Making Final Decisions in Cases of Discipline by District Size

	District Size		
Responsibility	Very Small	Small	Medium
Never	3.6%	5.1%	6.6%
Sometimes	34.5	62.8	62.9
Always	61.8	32.1	30.5
total (N)	(55)	(137)	(151)

Gamma = -0.27

that they sometimes had to make the final decisions in cases of classification and promotion (Table 34). The measure of association is more negative for classification and promotion than it was for making final decisions in cases concerning discipline (gamma = -0.40). The larger association is due to the fact that more of the teachers in the small (18.7 percent) and medium districts (28.7 percent) perceived that they never had the responsibility for making the final decisions in cases of classification and promotion.

A negative measure of association existed between school district size and the teachers' responsibility to enforce the school attendance laws (gamma = -0.55). A majority of the teachers in the very small schools reported that they always had the responsibility to enforce the attendance laws. In contrast, the majority of the teachers in the small school districts (52.3 percent) and in the medium school districts (74.5 percent) indicated that they never had to enforce the school attendance laws (Table 35).

The last administrative area to be checked was the teachers' responsibility to investigate absences (Table 36). A fairly high negative measure of association (gamma = -0.44) denotes that this task is more often accomplished by the teacher in the smaller school than it is by the teacher in the larger school. In the very small schools there was nearly an even split among those who replied always, sometimes, or never being required to perform this duty. A majority of the teachers in small districts reported never

Table 34

Teacher's Responsibility for Making Final Decisions in Cases of Classification and Promotion by District Size

	District Size		
Responsibility	Very Small	Small	Medium
Never	3.6%	18.7%	28.7%
Sometimes	28.6	46.3	44.0
Always	67.9	35.1	27.3
total (N)	(56)	(134)	(150)
Gamma = -0.40			

Table 35

Teacher's Responsibility for Enforcing School Attendance Laws by District Size

	District Size		
Responsibility	Very Small	Small	Medium
Never	25.5%	52.3%	74.5%
Sometimes	21.3	25.0	16.3
Always	53.2	22.7	9.2
total (N)	(47)	(88)	(98)

Gamma = -0.55

Table 36

Teacher's Responsibility for Investigating Absences by District Size

	District Size		
Responsibility	Very Small	Small	Medium
Never	30.0%	54.0%	69.2%
Sometimes	36.0	31.7	26.3
Always	34.0	14.3	4.5
total (N)	(50)	(126)	(133)

Gamma = -0.44

having to investigate absences (54 percent). An even larger percentage (69.2 percent) of the medium school district teachers perceived that they never had to investigate absences.

In general, it appears that teachers in the smaller schools have more administrative responsibilities than teachers in the larger schools. Of the three size categories examined, the teachers in the very small schools have more administrative responsibilities than either the teachers in the small or medium districts.

Other Noninstructional Duties

The other noninstructional duties included a multitude of areas in which teachers often are required to perform the tasks but which could not be classified into the supervisory or administrative duties. Seventeen other duties were developed through the review of literature and suggestions from experts in rural education who reviewed the questionnaire.

In general, the hypothesis for each of the duties stated that there would be no association between school district size and the noninstructional duty performed by the teachers. The teachers were asked to respond either yes or no to those duties they were required to perform. From the data received, one table was developed showing the percentage of teachers in each strata who were required to perform the duty and the measure of association for each noninstructional duty (Table 37).

The first noninstructional duty asked the teachers to report

Table 37

Percentages and Measures of Association Between Other Noninstructional Duties Performed and District Size

Other Noninstructional Duty	Percent of Teachers Performing Duty by District Size						Gamma
	Very Small		Small		Medium		
Coach Competitive Sports	16.1%	(56)	20.1%	(149)	11.2%	(169)	-0.21
Direct Musical Group	21.4	(56)	6.0	(149)	4.1	(169)	-0.50
Plan/Attend Fund Raising Event	32.1	(56)	40.9	(149)	42.0	(169)	0.09
Attend School Events	67.9	(56)	58.4	(149)	52.1	(169)	-0.18
Plan/Direct Seasonal Presentations	94.6	(56)	73.8	(149)	49.1	(169)	-0.62
Attend PTA/PTO Meetings	16.1	(56)	38.9	(149)	37.9	(169)	0.19
Serve on Curriculum Committee	35.7	(56)	57.0	(149)	66.9	(169)	0.33
Subject Area, Grade Level, or Dept. Head	46.4	(56)	22.1	(149)	26.0	(169)	-0.17
Work at School Events	26.8	(56)	53.0	(149)	53.3	(169)	0.22
Visit Students' Homes	35.7	(56)	12.1	(149)	13.0	(169)	-0.31

Table 37 (continued)

Other Noninstructional Duty	Percent of Teachers Performing Duty by District Size						
	Very Small		Small		Medium		Gamma
Parent-Teacher Conferences	96.4	(56)	100.0	(149)	95.3	(169)	-0.44
Hearing-Vision Tests	3.6	(56)	4.1	(148)	8.3	(169)	0.34
Sponsor Organizations:							
Class Organizations	7.1	(56)	18.2	(148)	10.2	(169)	-0.09
School Publications	5.4	(56)	3.4	(148)	0.6	(169)	-0.59
School Academic	1.8	(56)	3.4	(148)	1.2	(169)	-0.26
Social or Service	0.0	(56)	6.8	(148)	8.3	(169)	0.36
"Other" Duties	48.2	(56)	13.6	(147)	8.9	(168)	-0.57

whether they had to coach competitive sports. The teachers in the small school districts responded with the highest percentage of teachers coaching competitive sports (?1.1 percent). In the very small schools, sixteen percent specified that they were required to perform this duty, and eleven percent of the teachers in medium districts reportedly coached competitive sports. Since there are fewer competitive sports activities in the very small schools, the results are consistent with the review of literature. In the very small schools, the only activity which may be considered competitive sports is an all-county play day or some other organized activity. Within the small elementary schools, it is often necessary to hire an elementary teacher to coach competitive athletics for two reasons: (1) usually there are few teachers available to assist or coach in the high schools and (2) to attract teachers to the smaller elementary schools, many offer coaching assignments to the teachers with extra pay. Therefore, the smaller school districts would be expected to show a greater number of elementary teachers involved in coaching. There is a modest negative association indicated between school district size and the percentage of teachers coaching competitive sports (gamma = -0.21).

A substantially larger association existed between school district size and the teachers' responsibility to direct a musical group (gamma = -0.50). Twenty-one percent of the teachers in the very small school districts indicated that they were required to direct musical groups and only four percent of the teachers in the

medium schools reported performing this duty (Table 37).

Attending school events was expressed as being required by the majority of the teachers in all three size strata. Approximately sixty-eight percent of the teachers in the very small schools designated being required to attend school events while about fifty-eight percent of the teachers in the small schools specified the same requirement. In the medium schools, fifty-two percent reported attending school events was a required duty. The association showed a modest negative direction (gamma = -0.18), which indicates that teachers in the smaller school district sometimes are required to attend school events (Table 37).

The teacher in the smaller school was more often responsible for planning or directing seasonal presentations than are teachers in larger systems, as indicated by the measure of association (gamma = -0.62). Ninety-five percent of the teachers in the very small school districts reported that they were required to plan or direct such presentations. The small school teachers also indicated a very large percentage of the teachers were required to perform the same task (72.8 percent). A majority of the teachers in the medium districts replied that they were not required to plan or direct seasonal presentations (Table 37).

Teachers in the small and medium districts were more likely to be required to attend parent-teacher associations or organizations (PTA/PTO) than are the teachers in the very small districts. A small percentage (16.1 percent) of the teachers in the very small

districts specified that they were required to attend such organizations. This small percentage can be accounted for by the fact that few of the very small school districts have such an organization, mainly because of the small number of parents with children in the school and the close relationship between the school and the parents. Approximately thirty-eight percent of the teachers in the small and medium districts designated that they were required to attend PTA/PTO meetings. There was a modest positive association (gamma = 0.19) suggesting that the teachers in the larger districts are more likely to be required to attend PTA/PTO meetings.

The literature review suggested that teachers in the larger districts were more likely to be required to serve on curriculum committees than teachers in smaller schools. A moderately positive association (gamma = 0.19) was found between school size and the teacher being required to serve on curriculum committees. Approximately sixty-seven percent of the teachers in the medium districts signified that serving on curriculum committees was required while only thirty-six percent of the teachers in the very small districts designated the duty as being required (Table 37).

There was a slight negative association (gamma = -0.17) between school size and teachers serving as subject area, grade level, or department heads. Forty-six percent of the teachers in the very small schools designated that they were subject area, grade level, or department heads. Often the teachers in the very small districts are assigned as supervising teachers rather than

the names given above. As a supervising teacher, they have all three responsibilities (subject area, grade level, or department head). Although there was no differentiation made between the three responsibilities, only twenty-two percent of the teachers in the small districts and twenty-six percent of the teachers in the medium districts reported that they served as subject area, grade level, or department heads (Table 37).

A majority of the teachers in the small and medium districts perceived that they were required to work at school events (53 percent). These duties included selling tickets, being a score-keeper at athletic events, or other associated duties. Only twenty-seven percent of the teachers in the very small districts indicated they were required to perform the same task. The moderately positive measure of association (gamma = 0.22) indicates that working at athletic events is more often a task performed by teachers in larger schools (Table 37).

The values in Table 37 indicate that a greater percentage of the teachers in the very small districts reported that they were required to make visitations to the students' homes (35.7 percent). A much smaller percentage of the teachers in the small and medium districts replied that they were required to visit students' homes (12.1 percent and 13 percent, respectively). The majority of the teachers in the small and medium schools who made visitations specified that they were involved in special education. A negative measure of association (gamma = -0.31) was found indicating that

teachers in the smaller schools have a greater possibility of being required to visit students' homes than teachers in larger schools.

From the measure of association (gamma = -0.44), it appears that teachers in the smaller schools are more likely to be required to have parent-teacher conferences. The value for gamma has been distorted because of the predominance of the teachers in all size categories who signified that it was a required duty. Although the majority of teachers in all size categories reported being required to attend parent-teacher conferences, a slightly smaller percentage of the teachers in the medium schools designated that they were involved (95.3 percent). This may be due to the fact that librarians or persons involved in physical education only are not as likely to be required at parent-teacher conferences and, as noted earlier, the medium district is more likely to have a full-time librarian and/or a physical education person. All of the teachers in the small districts answered affirmatively that they were required to attend parent-teacher conferences. A smaller percentage (96.4 percent) of the teachers in the very small districts reported they were required to attend parent-teacher conferences than did teachers in the small districts.

Some researchers have suggested that teachers in the smaller schools may more often be required to perform hearing and vision tests than are teachers in the larger schools. The data in Table 37 would suggest that the teachers in the larger school districts are more often required to perform this duty (gamma = 0.34), but a

very small percentage of the teachers in any of the size categories reported that they were required to perform hearing and vision tests. In the very small school districts and the small school districts, approximately four percent of the teachers signified that they were required to perform hearing and/or vision tests, while nearly twice as many (8.3 percent) of the teachers in the medium districts reported the same duty being required. Although the value of gamma appears sufficiently large, the percentage values reveal that there is little or no association between district size and the requirement of teachers to perform hearing and vision tests.

Teachers are frequently required to sponsor various organizations within the schools such as class organizations, school publications, academic organizations, and/or social or service organizations. It was hypothesized that there would be no association between school size and the teachers' responsibility to sponsor such organizations.

The majority of the teachers in the three district sizes replied that they did not supervise any of the organizations listed. An analysis of the percentages of teachers who responded that they were required to sponsor an organization, as listed in Table 37, reveals that little or no association exists between school district size and the teachers' responsiblity to sponsor one of the organizations. It is worthy to note that in most cases the teachers in the smaller districts (less than 200 students) have a

slightly greater probability of being required to sponsor an organization.

The last hypothesis concerning the noninstructional duties of teachers in the three size categories indicated that there would be no association between school district size and "other" noninstructional duties performed. The teachers were asked to specify what the "other" noninstructional duty consisted of. The duties ranged from janitorial duties to sponsoring organizations which had been responded to earlier in the questionnaire. There were three areas that were not previously questioned reported as "other" noninstructional duties. These duties were janitorial work, bus driving, and attending child study team meetings.

Of the three duties listed as "other" noninstructional duties, doing janitorial work was the most frequent category mentioned by the teachers in all three sizes of school districts. Driving the school bus daily or for activities was noted as the second most frequent "other" duty with child study teams being third.

A substantially high negative association was found between school district size and "other" noninstructional duties performed by the teacher (gamma = -0.57). Forty-eight percent of the teachers in the very small schools reported having "other" noninstructional duties to perform. Twenty-four of the twenty-seven teachers in the very small schools reported janitorial duties as the "other" noninstructional duty. Two mentioned that they drove the school bus in addition to performing the janitorial duties in the school.

Only one of the teachers in the very small school districts reported sponsoring the cheerleaders, which was probably reported under social or service organizations sponsored. A total of forty-eight percer of the teachers in the very small school districts reported that they were required to perform the "other" duties (Table 37).

In the small school districts, the most common "other" noninstructional duty reported was driving the school bus. Eleven of the twenty respondents reporting "other" noninstructional duties in the small school districts specified bus driving as an extra duty. Some of the teachers responded that their bus driving duties were only to drive students to various school activities. Five of the teachers in the small districts reported doing some or all of the janitorial duties in the school. Three of the responses may have been included in other portions of the questionnaire. One responded that the extra duty was attending child study team meetings. In total, approximately fourteen percent of the teachers in the small school districts reported having "other" noninstructional duties to perform.

In the medium school districts, only fifteen or about nine percent of the teachers designated "other" noninstructional duties. The most frequent extra duty in the medium districts was janitorial work and usually consisted of cleaning their own rooms. Six of the teachers noted duties which were listed elsewhere in the questionnaire as sponsoring organizations (3), fund raising (1), chaperon-

ing (1), and sponsoring a photography club (1). Three of the teachers responded that they drove a school bus, but usually for school activities.

The teachers in the smaller schools districts, generally, were required to perform more of the seventeen other noninstructional duties listed in Table 37 than did teachers in the larger school districts. Eleven of the seventeen areas exhibited negative associations between school district size and the duty performed. Only six of the duties were positively associated indicating duties performed more often by the teachers in the larger schools districts.

Extra Pay for Supervisory Duties

An ancillary hypothesis stated that there would be no association between the number of teachers who received extra pay for supervising students and district size. Each of the eight areas of supervision are shown in Table 38 and the percentages represent the percent of teachers by district size who reported that they received extra pay for the performance of the duty.

Very few of the teachers in the three size strata designated that tney received an extra renumeration for performing supervisory duties. Of the eight areas, gamma was indeterminate in three cases (before school, hallways, and student social events) and indicated nearly no association existed between district size and extra pay for supervising students in three of the supervisory duty areas (after school, athletic events, and plays/concerts or assemblies).

Table 38

Percentages and Measures of Association Relating Extra Pay For Supervisory Duties and District Size

Supervisory Duty	Percent of Teachers Receiving Extra Pay by District Size						Gamma
	Very Small		Small		Medium		
Lunchroom	0.0%	(46)	4.9%	(97)	5.3%	(91)	0.36
School Grounds Before School	0.0	(35)	0.0	(44)	2.1	(48)	indeterminate
Lunchtime	0.0	(46)	1.1	(95)	5.0	(80)	0.77
After School	0.0	(20)	3.7	(26)	0.0	(32)	-0.19
Athletic Events (not coaching)	0.0	(21)	26.9	(26)	4.2	(24)	0.07
Play/Concerts and Assemblies	0.0	(33)	3.3	(59)	1.3	(78)	0.01
Hallways	0.0	(12)	0.0	(55)	1.4	(73)	indeterminate
Student Social Events	0.0	(12)	0.0	(22)	0.0	(38)	indeterminate

Of the two remaining supervisory duties (lunchroom and school grounds at lunchtime), the values for gamma have been affected by the predominance of the teachers responding that they did not receive extra pay for performing the supervisory duty.

The data as shown in Table 38 indicate that there is no association between the teachers who receive extra pay for supervising students and district size.

Extra Pay For Other Noninstructional Duties

An additional ancillary hypothesis stated that there would be no association between the teachers being paid for other noninstructional duties and school district size. The results of the analysis are tabulated in Table 39.

Of the seventeen areas, the associations in five of the areas were indeterminate. Five of the areas showed a positive association, but none of the positive associations were very high. Of the seven remaining associations which were negative, only one indicated a strong association. Receiving extra pay for coaching had a nearly perfect association (gamma = 0.99), which indicates that teachers in the larger schools are more often paid extra for coaching than are teachers in the smaller elementary schools.

It does appear that the larger schools more often pay teachers for other noninstructional duties, but there is no predictability. The majority of the associations are positive, therefore, favoring extra pay for the teachers in larger school districts.

Table 39

Percentages and Measures of Association Relating Extra Pay For Other Noninstructional Duties and District Size

Other Noninstructional Duty	Percent of Teachers Receiving Extra Pay by District Size						
	Very Small		Small		Medium		Gamma
Coach	11.1	(9)	93.3%	(30)	100.0%	(19)	0.99
Music	0.0	(12)	11.1	(9)	0.0	(7)	0.26
Fundraising	0.0	(13)	0.0	(61)	1.4	(71)	indeterminate
Attend School Events	0.0	(38)	4.6	(87)	1.1	(88)	-0.12
Seasonal Presentations	0.0	(53)	1.8	(110)	2.4	(83)	0.45
PTA/PTO	0.0	(9)	0.0	(58)	0.0	(64)	indeterminate
Curriculum Committee	0.0	(20)	0.0	(35)	0.0	(13)	indeterminate
Department Head	3.8	(26)	9.1	(33)	4.5	(44)	-0.03
Work School Events	6.7	(15)	38.0	(79)	31.5	(89)	0.06
Home Visits	0.0	(20)	11.1	(18)	4.5	(22)	0.29
Parent/Teacher Conferences	3.7	(54)	3.4	(149)	3.1	(161)	-0.05
Hearing/Vision Tests	0.0	(2)	0.0	(6)	0.0	(14)	indeterminate
Classroom Organization	0.0	(4)	0.0	(27)	0.0	(17)	indeterminate
School Publication	33.3	(3)	16.7	(5)	0.0	(1)	-0.56

Table 39 Continued

Other Noninstructional Duty	Percent of Teachers Receiving Extra Pay by District Size						Gamma
	Very Small		Small		Medium		
Academic Organization	0.0	(1)	16.7	(5)	0.0	(2)	-0.33
Social Organization	0.0	(0)	18.2	(10)	21.4	(14)	0.10
"Other"	25.9	(27)	42.9	(20)	43.8	(15)	0.28

Normal Clock Hours in Work Week with Students

An attempt was made to determine the average clock hours per week that teachers spent with students in the classroom and supervising various events. The results were not amicable to determining the means because of the diversity of answers given. Since an ordinal measure could be used, the median hours spent in the classroom and supervising students is reported.

The median clock hours the teachers spent in the classroom with the students as reported by the teachers was thirty hours for the very small districts, twenty-five hours for the small districts, and twenty-five hours for the medium districts. As was shown in Table 30 (page 112), there was a slight negative association between clock hours in the classroom and school district size.

The medium number of clock hours per week that the teachers in the three sizes of districts reported that they spent in each of the supervisory tasks is listed in Table 40. Supervision of the lunchroom, the school grounds before school, the school grounds during lunchtime, and the school grounds after school require more of the teacher's time in the very small district than in the small or medium districts. The very small district teachers also indicated spending two clock hours per week supervising hallways, but, as indicated earlier, very few were required to perform this task. Therefore, it is doubtful that the median clock hours per week spent supervising hallways should be as high as indicated.

The median of the total number of clock hours spent by the

Table 40

The Median Clock Hours Per Week Teachers Spend Performing the Supervisory Duties by District Size

Supervisory Duty	Median Clock Hours per Week by District Size					
	Very Small		Small		Medium	
Lunchroom	2.50	(44)	2.00	(95)	1.50	(89)
Before School	2.38	(32)	0.63	(40)	1.00	(41)
Lunchtime	2.25	(44)	1.00	(89)	1.00	(68)
After School	2.00	(20)	1.00	(22)	1.00	(26)
Athletics	0.10	(17)	0.50	(25)	0.02	(21)
Plays/Concerts	0.01	(26)	0.03	(48)	0.01	(55)
Hallways	2.00	(11)	0.83	(47)	1.00	(50)
Social Events	0.50	(10)	0.33	(24)	0.25	(19)
Median of Total Hours	6.13	(52)	2.80	(138)	2.34	(143)

teachers supervising students per week was determined. From the teachers' responses, the teachers in the very small school had a median of 6.13 clock hours per week supervising students. Teachers in the small and medium districts had a median of 2.80 and 2.34 clock hours per week, respectively, supervising students.

Adding the median clock hours spent in the classroom and the median clock hours spent supervising students, the teachers in the very small schools spend a median of 36.13 clock hours with the students per week. The teachers in the small districts spent a median of 27.80 clock hours per week with the students, and the teachers in the medium districts spent a median of 27.34 clock hours per week with the students. There is very little difference in the median clock hours spent per week between the small and medium districts, while the very small district teachers were required more clock hours per week with the students either in the classroom or supervising the students. Even with a reduction in the number of hours the teachers in the very small districts spend supervising hallways, they would still be expected to be with the students a greater number of clock hours per week.

Since many of the teachers who performed the duty did not indicate the number of clock hours they spent at each supervisory task, the results are speculative. In general, it would appear that the teachers in the very small schools spend more clock hours per week with the students either in the classroom or supervising students than teachers in small or medium districts. Teachers in

the medium and small districts spent nearly tne same number of clock hours with the students.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to determine if there were differences in the instructional and noninstructional duties of public elementary school teachers in the very small, small, and medium districts in Montana. The differences were analyzed using the gamma measure of association. Rather than showing a specific difference, the gamma measure indicated those duties, instructional and noninstructional, which were associated as being required of the teachers more often in smaller or larger school districts.

Chapter five will summarize the information analyzed in chapter four. To make the data more meaningful, each of the areas will be further reduced to indicate the associations between the performance of the duty and two size categories of school districts.

The first section will summarize the associations between the very small school districts and the small school districts with respect to the instructional duties performed by the teachers. Also addressed will be the association between the district size and the time teachers spent performing those instructional duties.

The first section will also summarize the associations between the very small school districts and the small districts with respect to the noninstructional duties performed by the teachers. The noninstructional area will be further divided into supervisory duties, administrative duties, and other noninstructional duties

which the teachers perform with respect to district size. Other hypotheses related to the noninstructional duties of the teachers will be addressed.

The second section will summarize the associations between the instructional and noninstructional duties the teachers perform in small as compared to medium school districts.

The final section of the chapter addresses recommendations related to the results of the study.

Associations Between the Teachers' Duties in Very Small and Small Districts

Instructional Duties

To further differentiate between the associations concerning school district size and the various duties of the teachers, the cross-tabulation tables were analyzed to compare the duties teachers performed in very small school districts with the duties the teachers in small school districts performed. From the results of the associations of instructional or instructionally related tasks, the following duties were found to be more often associated with teachers in very small school districts. Teachers in very small school districts, compared to teachers in small school districts, reported that they may

1.) usually teach a greater number of courses (gamma = -0.65),

2.) normally teach more grade levels (gamma = -0.74),

3.) more often have a major role in determining the curri-

culum of the school (gamma = -0.58); whether the teachers really perceived that they were developing the curriculum orif they felt that textbook selection indicated a major rolecannot be inferred,

4.) more often have to keep several groups constructively working at the same time (gamma = -.58)

5.) have fewer students per teacher (gamma = 0.80),

There is a moderate association indicating that te rs in the very small school districts may:

1.) usually receive less inservice training than teachers in small districts (gamma = 0.35),

2.) normally have a few more hours of actual classroom teaching per week (gamma = -0.30).

There is little or no association between the two school district sizes and the teachers' role in determining the textbooks to be used in the classroom or their role in implementing the curriculum in their classroom. The number of times per year the teachers had gone to the supervisor or the supervisor had visited the classroom was found to have little or no association between the two school district sizes.

Teachers in the very small districts are less likely to have the following specialists available as compared to teachers in small districts: librarian, guidance counselor, and a music teacher. Many of the specialists available to teachers in the very small and small districts were reported as available through the

area learning centers established by the state. The specialists at the learning centers included psychologists, speech pathologists, and special education personnel.

Noninstructional Duties

Supervisory

The following supervisory tasks were associated more with the duties reportedly performed by teachers in the very small school districts as compared with teachers who replied that the duty was required in small school districts. Teachers in the very small school districts will usually supervise

1.) students more often before school starts (gamma = -0.63),

2.) students more often during lunchtime on the school grounds (gamma = -0.53),

3.) students in the lunchroom more frequently (gamma = -0.51),

4.) students after school more often (gamma = -0.53).

There was a slight association indicating that the teachers in the very small school districts may supervise students more frequently at athletic events (gamma = -0.49) and at plays, concerts and assemblies (gamma = -0.41) than teachers in the small school districts.

Little or no association was represented by gamma concerning the supervision of students in hallways or at student social events by the teachers in either the very small or small school districts or concerning extra pay for performing any of the supervisory

tasks.

Administrative

The teachers in the very small school districts reported performing more administrative duties than any other area addressed in the survey. Compared to teachers in small school districts, the teachers in the very small districts signified that they more often

1.) keep the attendance for the entire school (gamma = -0 94),
2.) advise the school board of the school's needs (gamma = -0.90),
3.) are responsible for developing the school calendar (gamma = -0.81),
4.) are asked to purchase supplies for the school (gamma = -0.74),
5.) keep their students medical records (gamma = -0.76),
6.) are required to meet with the school board (gamma = -0.68),
7.) are required to make the final decision in cases of classification and promotion (gamma = -0.59),

The teachers in the very small school districts may have to perform the following administrative duties more often than teachers in small school districts:

1.) enforce school attendance laws (gamma = -0.51),
2.) make final decisions in discipline cases (gamma = -0.50),

3.) keep the students permanent records (gamma = -0.55).

There was little or no association between the two school district sizes and the teachers who reported being required to investigate absences, order supplies, or determine the school budget.

Other Noninstructional Duties

Teachers in the very small school districts reported that they are more apt to perform the following noninstructional duties as compared to teachers in small school districts;

1.) Plan/direct seasonal presentations (gamma = -0.73).

2.) Perform "other" duties (most often reported was janitorial duties) (gamma = -0.71),

3.) Direct musical groups (gamma = -0.62),

4.) Make visitations to students' homes (gamma = -0.60),

5.) Serve as subject area, grade level, or department head (gamma = -0.51).

Teachers in the very small school districts specified that they did not have to attend PTA or similar organizations (gamma = 0.54) or work at school events (gamma = 0.51) as often as teachers in the small school districts had designated.

The majority of the remaining other noninstructional duties either showed no association or were associated slightly more to the duties performed by teachers in small school districts. A small percentage of teachers in the very small districts specified that they received extra pay for the performance of any of the

other noninstructional duties.

In general, it appears that teachers in the very small elementary school districts of Montana reportedly perform a greater number of instructional and noninstructional duties than do teachers in small elementary school districts.

Associations Between the Teachers' Duties In Small and Medium Districts

This section will address those tasks that are associated more often with the duties performed by the teachers in the small school districts as compared with the duties teachers in the medium school districts performed. The cross-tabulation tables were further reduced in this section to compare the duties reported as being required by teachers in the small and medium elementary school districts.

Instructional Duties

Teachers in small elementary districts reported that they performed the following instructional duties slightly more often than teachers in medium elementary districts:

1. Each teacher has fewer students (gamma = 0.40).
2. The teachers have a slightly greater involvement in determining the textbook to be used in their classrooms (gamma = -0.37).
3. The teachers in the small school districts receive a little less supervision than teachers in the medium school districts (gamma = 0.32).

In the majority of the remaining instructional duties, the measures of association were fairly small, indicating that the teachers in the small and medium school districts perceived that those duties were required of the teachers nearly equally.

The teachers in the small districts, as compared to teachers in the medium districts, usually will not have specialists available at the school for music or physical education. Some of the teachers in the small districts replied that the specialists in other areas were available through learning centers.

Noninstructional Duties

Supervisory

There was little or no association between the supervisory duties that teachers in small schools expressed as being required and those duties reported by teachers in medium districts. The only association which may indicate that teachers in small school districts perform the duty more often is supervising the students on the school grounds during lunch time (gamma = -0.32).

None of the associations indicated that district size would influence whether teachers in the small or medium districts received extra pay for performing supervisory duties.

Administrative

The following administrative tasks are more often associated with teachers in small school districts as compared to teachers in medium school districts:

1.) Keep the attendance for the entire school (gamma = -

0.66),

2.) Purchase the supplies (gamma = -0.49),

3.) Enforcement the school attendance laws (gamma = -0.43),

4.) Investigate absences (gamma = -0.39).

The remaining administrative duties were negative, indicating the duties were perceived as being accomplished by teachers in small districts more frequently, but the measures of association were minimal.

Other Noninstructional Duties

The teachers in the small school districts performed only one of the other noninstructional duties more often than the teachers in the medium districts reported. Teachers in the small districts signified that they plan and/or direct seasonal presentations more frequently than reported by teachers in medium districts (gamma = -0.49).

The majority of the remaining other noninstructional duties showed minor associations between the duties performed by teachers in small districts and the duties performed by teachers in medium elementary districts. With the exception of coaching, very few of the teachers received extra compensation for the performance of the noninstructional duties in small or medium districts.

Teachers in the small school districts, in general, do perform more instructional and noninstructional duties than were reported by the teachers in the medium elementary school districts. The majority of the tasks performed by the teachers in the small

districts that differentiated them from teachers in the medium districts were in the areas of administrative duties and instructional duties.

The results of this study show that there are differences in the instructional and noninstructional duties performed by teachers in the very small, small, and medium elementary school districts in Montana. The majority of the differences are accountable between the duties reported to be performed by teachers in the very small elementary school districts and the duties reported by teachers in the small elementary school districts in Montana.

Recommendations

In that the majority of the school districts in Montana may be classified as very small or small, many of the first-year teachers will launch their careers in the rural areas. Teachers beginning their careers in the smaller school districts may need to receive preservice training which would prepare them to face that environment.

1. A preparation stress should be utilized that maximizes the prospective teachers' time and talents to better address teaching multiple grade levels within a single classroom. Courses or the inclusion of topics in established courses should address such areas as individualization of instruction, self-pacing techniques, peer tutoring, and child independence training. The courses or topics should also address media use and the evaluation and selection of prepackaged materials which could be used to assure multi-

grade level teaching efficiency.

2. The preparation program should include materials relating to planning and organizing of instruction and organizing and managing the classroom for a multigrade-level situation. Time management for the teacher is essential in multigrade-level instruction. Planning for several courses and course levels demands a person who is able to use his/her time and the students' time in a productive manner.

3. Minimally, the students within the teacher preparation program should have the opportunity to observe in schools where multigrade-level instruction is being conducted. At best, the students should have the opportunity to student teach in the smaller school district where multigrade-level instruction is being used.

4. A prospective teacher should additionally be prepared to handle a greater number of administrative duties common in the smaller schools. Inclusion of topics concerning standard state forms, basic state laws, how to requisition materials, and maintaining records should be a part of the preparation program. Fiscal management could also be considered an appropriate topic for development within a course.

5. Teacher trainees should be made aware of the advantages and disadvantages of working in smaller school districts. That awareness of rural areas may be enhanced by using rural sociologists in the development of or in addition to the topical areas

addressed.

The addition of the topics mentioned above would better prepare the student to become the generalist needed in rural education. The majority of the topics should be included within the course work without establishing a separate rural education department.

More extensive research is still needed to further ascertain the areas of differences between the school district sizes as defined. For example, more exact measures of time spent with students in the classroom, preparation time allowed during the normal school day, the time spent supervising students, and pay for extra duties should be further addressed.

Similar studies should be completed in other states for comparison and to make recommendations for rural teacher preparation programs. Those studies would necessarily need to reassess the school size definitions to better meet the instructional needs of the particular state.

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APPENDIX A

CENTER FOR RURAL EDUCATION
COLLEGE OF EDUCATION
NEW MEXICO STATE UNIVERSITY

Box 3AP/Las Cruces, New Mexico 88003
Telephone (505) 646-2623

February 16, 1984

Superintendent:

As a native Montanan who is presently enrolled at New Mexico State University in their doctoral program, I am seeking your assistance in completing a study concerning education in Montana's elementary school districts. The study is designed to compare the instructional and noninstructional duties of elementary teachers in very small (1-49), small (50-199), and medium (200-666) elementary districts in Montana. A random sample of approximately twenty percent of the districts from each size stratum will be used in the study.

The information gleaned from the study will aid county and/or district superintendents in the development of inservice programs for teachers in their schools. It will also aid in the development of preservice programs for various settings in Montana which may help reduce the teacher turnover rate in some systems.

Because you are the district superintendent, I am requesting your permission to distribute the questionnaire to all the teachers in your elementary school district. The survey instrument should take approximately ten (10) to fifteen (15) minutes at the maximum to complete. The questionnaire would be distributed through your office to the participants to maintain confidentiality and returned to the researcher by the teachers in self-addressed, stamped envelops which will be provided.

Please indicate on the enclosed self-addressed post card if your elementary district will participate and indicate the number of questionnaires needed for all the teachers in your elementary district. Thank you.

Sincerely,

Clark E. Gardener
Acting Director

APPENDIX B

CENTER FOR RURAL EDUCATION
COLLEGE OF EDUCATION
NEW MEXICO STATE UNIVERSITY

Box 3AP/Las Cruces New Mexico 88003
Telephone (505) 646-2623
February 16, 1984

County Superintendent:

As a native Montanan who is presently enrolled at New Mexico State University in their doctoral program, I am seeking your assistance in completing a study concerning education in Montana's elementary school districts. The study is designed to compare the instructional and noninstructional duties of elementary teachers in very small (1-49), small (50-199), and medium (200-666) elementary districts in Montana. A random sample of approximately twenty percent of the districts from each size stratum will be used in the study.

The information gleaned from the study will aid county and/or district superintendents in the development of inservice programs for teachers in their schools. It will also aid in the development of preservice programs for various settings in Montana which may help reduce the teacher turnover rate in some systems.

Only those schools which do not have a district superintendent in your jurisdiction need to be addressed by your office. A separate letter has been sent to all district superintendents in Montana requesting similar information. The survey instrument should take approximately ten (10) to fifteen (15) minutes at the maximum to complete. The questionnaire would be distributed through your office to the participants to maintain confidentiality and returned to the researcher by the teachers in self-addressed, stamped envelops which will be provided. All of the teachers in the chosen districts would be asked to participate.

Please indicate on the enclosed self-addressed post card if the elementary district(s) within your jurisdiction will participate. Please indicate the number of questionnaires needed for your county and the district number of the schools participating. Thank you.

Sincerely,

Clark E. Gardener
Acting Director

APPENDIX C

New Mexico Center for Rural Education
Box 3CRE, New Mexico State University
Las Cruces, New Mexico 88003
(505) 646-4288

Name: _____
Address: _____
_____

My district(s) (will, will not) participate in the study.

↓

Please send _____copies of the questionnaire to the address given above.

Name: _____
Address: _____
_____

My district(s) (will, will not) participate in the study.

↓

Please send _____copies of the questionnaire to the address given above.

District numbers of participating schools:

_____

APPENDIX D

CENTER FOR RURAL EDUCATION
COLLEGE OF EDUCATION
NEW MEXICO STATE UNIVERSITY

Box 3CRE/Las Cruces, New Mexico 88003-0042
Telephone (505) 646-2623

15 March 1984

Administrator:

Approximately the middle of February, you should have received a letter from this office seeking your permission to conduct a study comparing the instructional and noninstructional duties of elementary teachers in the very small (1-49), small (50-199), and medium (200-666) school districts in Montana. Your school district has an approximate twenty percent chance of being selected as a sample in which all your elementary teachers will be given the questionnaire through your office. To this date, I have not received a reply to my request.

The Office of Public Instruction has noted that the "study may be of special value to Montana." Also, Dr. Alan Zetler and Ralph Kroon from Western Montana College are very interested in the results of the study.

I realize that you and your teachers are very busy at any time of the year and that many such requests are received through your office. It would be appreciated if you could take just a few minutes to fill out the self-addressed postcard and return it to this office.

The results will definitely be shared throughout Montana at various meetings and conferences. The researcher is planning to return to the "Big Sky Country" this coming summer or fall.

If your mailing address is incorrect, please bring it to my attention. Thank you for your time.

Sincerely,

Clark E. Gardener
Acting Director

APPENDIX E

CENTER FOR RURAL EDUCATION
COLLEGE OF EDUCATION
NEW MEXICO STATE UNIVERSITY

Box 3CRE/Las Cruces, New Mexico 88003-0042
Telephone (505) 646-2623
April 13, 1984

District Superintendent
Elementary District No. 3
Box 425
Manhattan, MT 59741

Administrator:

Your school district was randomly selected to participate in the survey to determine the instructional and noninstructional duties of public elementary school teachers in the very small, small, and medium districts in Montana. Please distribute the enclosed instruments to all of the elementary teachers in your district.

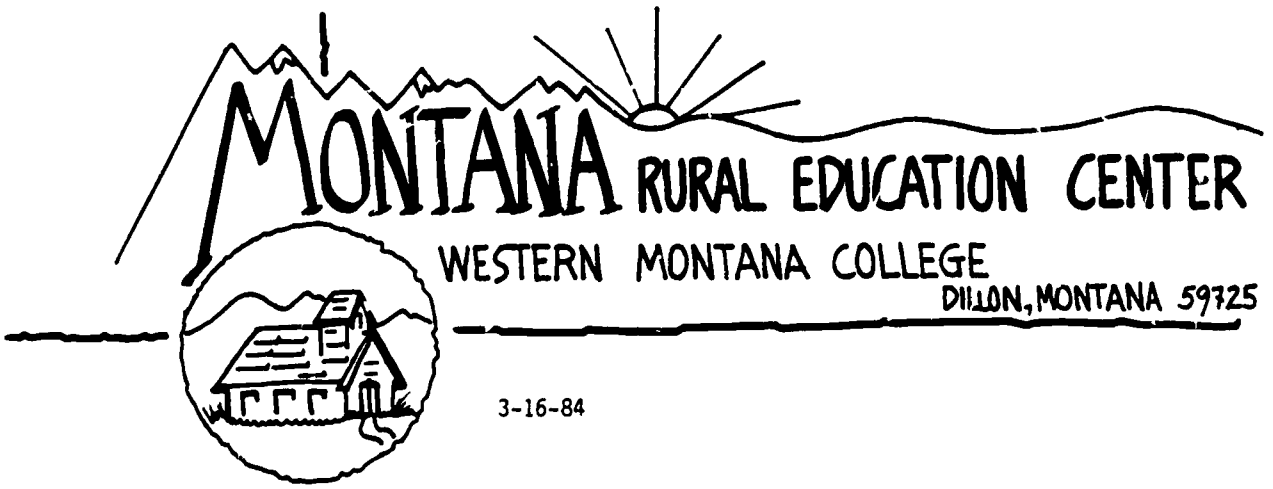
Self-addressed, stamped envelops for each questionnaire have been provided for the return of the instrument. A copy of the questionnaire has also been provided for your information as an administrator.

Thank you very much for your cooperation in the study. I hope that the results will be valuable for you and your teachers.

Sincerely,

Clark E. Gardener
Acting Director

APPENDIX F



3-16-84

RALPH V. KROON
Field Service Coordinator
P.O. Box 839
Belgrade, MT 59714
Bus. Phone: 683-7325
Res. Phone: 388-6556

SERVING
RURAL
MONTANA

ALAN G. ZETLER
Center Director
Western Montana College
Dillon, MT 59725
Bus. Phone: 683-7325

TO: Small School Adminstrators
Rural Elementary Teachers

FROM: Ralph V. Kroon,
Field Service Coordinator

RE: Small & Rural School Survey

Mr. Clark Gardiner, a former Montana Rural Teacher is in the process of a research project pertaining to Montana small and rural schools.

I have a copy of the survey and the questions are important facts and opinions that will be very helpful for future planning in the Montana schools.

I support this project and would appreciate it very much if you would take the time to answer the questions that pertain to your school and return them to Clark.

Thanking you in advance for supporting this worthwhile project and trusting that the rest of the school year goes well for you.

APPENDIX G

CENTER FOR RURAL EDUCATION
COLLEGE OF EDUCATION
NEW MEXICO STATE UNIVERSITY

Box 3CRE/Las Cruces, New Mexico 88003-0042
Telephone (505) 646-2623

April 13, 1984

Teachers:

As a native Montanan who is presently enrolled at New Mexico State University in their doctoral program, I am seeking your assistance in completing a study concerning education in Montana's elementary school districts. The study is designed to compare the instructional and noninstructional duties of elementary teachers in very small (1-49), small (50-199), and medium (200-666) elementary districts in Montana. A random sample of twenty-five percent of the districts from each size stratum has been used in the study.

The information gleaned from the study will help the teachers within the State receive better inservice and preservice training in the various size categories of districts. Also, your administrator will have a better concept of your position and the duties you perform.

Your school district is one of a small number in which the teachers are being asked to respond. It is important that each questionnaire be completed and returned so that the results will represent the duties of teachers in the different strata. A target date for return of the instrument has been set as May 15th or sooner. Your cooperation would be greatly appreciated.

You may be assured of complete confidentiality. The questionnaire has an identification number and symbol for mailing and stratification purposes only. Your name will never be placed on the questionnaire.

The results of this research will be made available to officials in the Office of Public Instruction, various colleges within the state, and at various workshops and conferences throughout the state. A summary of the results may be obtained by writing to the above address.

If there are any questions that you may have concerning the research, please write or call. The telephone number is (505) 646-2623.

Thank you for your assistance.

Sincerely,

Clark E. Gardener
Acting Director

APPENDIX H

May 4, 1984

Gary Webber:

Approximately the middle of April you received copies of a questionnaire to determine the instructional and noninstructional duties of elementary teachers. Would you please remind the teachers of the questionnaire and ask them to please respond?

Thank you very much for your help so far in the survey. Your time and effort is greatly appreciated.

Sincerely,

Clark E. Gardener

May 4, 1984

R. W. Rust:

Approximately the middle of April you received copies of a questionnaire to determine the instructional and noninstructional duties of elementary teachers. A few of your teachers have not yet responded. Would you please remind the teachers of the questionnaire and ask them to please respond?

Thank you very much for your help so far in the survey. Your time and effort is greatly appreciated.

Sincerely,

Clark E. Gardener

APPENDIX I

INSTRUCTIONAL AND NONINSTRUCTIONAL DUTIES OF ELEMENTARY TEACHERS: SURVEY INSTRUMENT

BIOGRAPHIC DATA

1. Please indicate the number of years you have been at the present school and in your present position:
   school _____ years position _____ years

2. Please indicate the number of years you have taught in the following size categories of elementary schools:
   very small (1 - 49 students) _____ years
   small (50 - 199 students) _____ years
   medium (200 - 666 students) _____ years
   large (over 667 students) _____ years

INSTRUCTIONAL DUTIES

Please check the appropriate responses.

1. I have the responsibility for teaching the following courses or subject areas:

( ) - reading	( ) - social studies	( ) - physical education
( ) - spelling	( ) - mathematics	( ) - career awareness
( ) - writing	( ) - science	( ) - foreign language
( ) - industrial arts	( ) - art	( ) - speaking and listening
( ) - grammar and usage	( ) - music	( ) - other (please specify)

_____

2. I teach the following grade level(s) and have the indicated number of students at each level.

( ) - kindergarten	No. of students _____
( ) - first grade	No. of students _____
( ) - second grade	No. of students _____
( ) - third grade	No. of students _____
( ) - fourth grade	No. of students _____
( ) - fifth grade	No. of students _____
( ) - sixth grade	No. of students _____
( ) - seventh grade	No. of students _____
( ) - eighth grade	No. of students _____

3. I keep several groups profitably busy while another group is being taught or reciting:
   ( ) - always ( ) - sometimes ( ) - never

4. In determining the curriculum for the school, I have the following role:
   ( ) - major role ( ) - minor role ( ) - no role

   In implementing the curriculum in my room, I have the following role:
   ( ) - major role ( ) - minor role ( ) - no role

6. In determining the textbooks to be used in my classroom, I have the following role:
   ( ) - major role ( ) - minor role ( ) - no role

7. The following specialists are available at this school for instructional assistance:
   ( ) - curriculum specialist ( ) - librarian
   ( ) - guidance counselor ( ) - special education person

   ( ) - other (please specify) _____

8 Approximately how many times during this school year has your supervisor (principal, superintendent grade-level head, etc.) visited your classroom?

_____

9. Approximately how many time during this school year have you gone to your supervisor seeking advice concerning the instructional process?

_____

10. Approximately how many clock hours of inservice training did you receive during this school year?

_____

11 Approximately how many clock hours per week do you spend in actual classroom teaching?

_____

NONINSTRUCTIONAL DUTIES

1 Please mark either yes or no those duties which you are required to supervise. **If your answer is yes,** please indicate the approximate number of clock hours per week spent at each duty and whether you receive extra pay for that duty.

Supervisory

	Duty	Yes	No	Average clock hours per week	Extra pay Yes	Extra pay No
a.	lunchroom	( )	( )	_____	( )	( )
b.	school grounds					
	before school	( )	( )	_____	( )	( )
	lunch time	( )	( )	_____	( )	( )
	after school	( )	( )	_____	( )	( )
c	athletic events (not coaching)	( )	( )	_____	( )	( )
d.	plays, concerts, assemblies	( )	( )	_____	( )	( )
e	hallways	( )	( )	_____	( )	( )
f.	student social events	( )	( )	_____	( )	( )

Administrative

	Duty	Yes	No
a.	meet with school board	( )	( )
	advise board of school needs	( )	( )
	develop school calendar	( )	( )
	determine school budget	( )	( )
	other (please specify) _____	( )	( )
b.	order supplies	( )	( )
c.	purchase supplies	( )	( )
d.	keep the following records:		
	attendance for the entire school	( )	( )
	medical records	( )	( )
	permanent cummulative records	( )	( )

2. Please mark the appropriate column:

	always	sometimes	never
a. make final decisions in cases of discipline	( )	( )	( )
b. make final decisions in cases of classification and promotion	( )	( )	( )
c. enforce school attendance laws	( )	( )	( )
investigate absences	( )	( )	( )

3. Please indicate the approximate number of clock hours per week you have free of students during the school day for preparation and planning:

_____

4. Please mark either yes or no those duties which you are required to perform. If your answer is yes, please indicate whether you receive extra pay for that duty.

Other noninstructional duties

Duty	Yes	No	Extra pay Yes	Extra pay No
a. coach competitive sports	( )	( )	( )	( )
b. direct musical group	( )	( )	( )	( )
c. plan/attend school carnivals/ fairs or similar fund raising event	( )	( )	( )	( )
d. attend school events (athletic events, plays, concerts, etc.)	( )	( )	( )	( )
e. plan/direct seasonal presentations (Christmas play, all school track meet, play day, etc.)	( )	( )	( )	( )
f. attend PTA or similar organization meetings	( )	( )	( )	( )
g. serve on curriculum committees	( )	( )	( )	( )
h serve as subject area or grade level or department head	( )	( )	( )	( )
i. work (sell tickets, keep time, etc.) at school events (athletic events, plays concerts, etc.)	( )	( )	( )	( )
j. make visitations to students' homes	( )	( )	( )	( )
k. participate in teacher-parent conferences	( )	( )	( )	( )
l. perform hearing and vision tests	( )	( )	( )	( )
m. sponsor any of the following:				
class organization	( )	( )	( )	( )
school publication	( )	( )	( )	( )
school academic organization	( )	( )	( )	( )
school social or service club	( )	( )	( )	( )
n. other (please specify, bus driver, janitor, etc.)				
_____	( )	( )	( )	( )

5. If you would like to make further comments concerning instructional and noninstructional duties, please write your comments on the back of this page Thank you.

Clark E. Gardener
March 1984