



At-risk students in rural Montana : a description and comparison of characteristics of programs/services and identification processes utilized in rural elementary schools
by Joseph Paul Ingalls

A dissertation submitted in partial fulfillment . of the requirements for the degree of Doctor of Education in Education
Montana State University
© Copyright by Joseph Paul Ingalls (2003)

Abstract:

The majority of students in the state of Montana attend schools that are by definition rural. The implementation of effective programs to develop resiliency in children are at the forefront in the state. The need for effective programs to meet the needs of at-risk children is of importance to rural elementary schools. Recognizing the identification factors of at-risk children can assist schools in meeting the needs of this population. This study identified, described and compared what rural elementary schools in the state of Montana do to meet the needs of at-risk students and indicated processes used to identify those students.

The population for the study consisted of 114 rural elementary school principals employed during the 2002-2003 school year. This survey research used a researcher developed instrument to investigate the characteristics of effective programs offered and the services provided in the elementary schools. It also examined the factors used to identify these children.

Based upon the data, the following conclusions were drawn: positive school climate was important to the overall services and programs offered to all students; well defined curriculum and instructional programs were important considerations; the link between learning difficulties and a student's low self-esteem coupled with a lack of hope for the future was made by the principals; principals recognized the impact of the family on a student's level of being at-risk; a student's behavior and frustration with school was identified as a very important factor related to school success; ability grouping was not considered to be as important when identifying those students who could be at-risk; early intervention programs designed to increase student academic and social skills were not evident in the majority of the rural elementary schools surveyed, and rural Montana elementary schools viewed the creation of an atmosphere where promoting personal, social and emotional growth of at-risk students was important and evident.

AT-RISK STUDENTS IN RURAL MONTANA: A DESCRIPTION AND
COMPARISON OF CHARACTERISTICS OF PROGRAMS/SERVICES AND
IDENTIFICATION PROCESSES UTILIZED IN RURAL ELEMENTARY SCHOOLS

by

Joseph Paul Ingalls

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

of

Doctor of Education

in

Education

MONTANA STATE UNIVERSITY
Bozeman, Montana

May 2003

D378
In 42

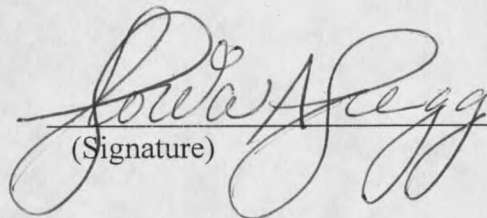
APPROVAL

of a dissertation submitted by

Joseph Paul Ingalls

This dissertation has been read by each member of the dissertation committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

Dr. Gloria Gregg

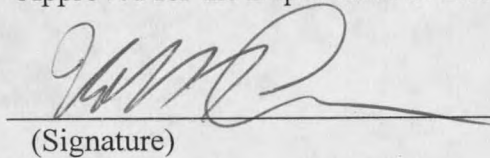

(Signature)

5-12-03

Date

Approved for the Department of Education

Dr. Robert Carson

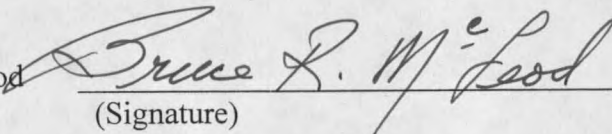

(Signature)

5-19-03

Date

Approved for the College of Graduate Studies

Dr. Bruce McLeod


(Signature)

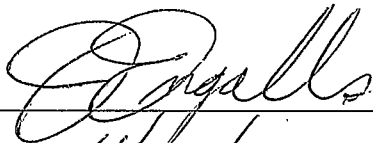
5-19-03

Date

STATEMENT OF PERMISSION TO USE

In presenting this dissertation in partial fulfillment of the requirements for a doctoral degree at Montana State University, I agree that the Library shall make it available to borrowers under rules of the Library. I further agree that copying of this dissertation is allowable only for scholarly purposes, consistent with "fair use" as prescribed in the U.S. Copyright Law. Requests for extensive copying or reproduction of this dissertation should be referred to Bell & Howell Information and Learning, 300 North Zeeb Road, Ann Arbor, Michigan 48106, to whom I have granted "the exclusive right to reproduce and distribute my dissertation in and from microfilm along with the non-exclusive right to reproduce and distribute my abstract in any format in whole or in part."

Signature



Date

4/30/03

ACKNOWLEDGMENTS

My sincere thanks and appreciation go to many individuals for their time and support during the years necessary for the completion of this research project. My committee members at Montana State University-Bozeman were vital in helping me. Thank you to my Committee Chair, Dr. Gloria Gregg, for your constant encouragement and the sharing of your expertise and time. Thank you, Dr. Larry Baker and Dr. Ann deOnis, for your expertise, patience and encouragement throughout the process. Thank you, Dr. Joyce Herbeck and Dr. Joanne Erickson, for your service and time. Thank you, Dr. Gary Harkin, for your dedication to educational excellence.

My appreciation also goes to the respondents who participated in my data collection, for without your cooperation this research project could not have happened. Thanks also go to my fellow students in the doctoral program, and to the other faculty members in the Department of Education at Montana State University-Bozeman for sharing your time, expertise and encouragement throughout my doctoral experience.

Thank you to my parents, Donald and Shirley Ingalls, for your constant encouragement, belief in me and emphasis placed on the importance of educational pursuit throughout my life. Finally, my love and appreciation goes out to my wife, Billie Ingalls, and my seven children, Jesse, Heather, Jamie, Laura, Sarah, Jacob and Josh for your love, support, patience and belief in me.

TABLE OF CONTENTS

1. INTRODUCTION	1
Background of the Study	1
Statement of the Problem	2
Purpose of the Study	9
Questions	9
Importance of Study	10
Definition of Terms	11
Assumptions/Limitations/Delimitations	14
2. REVIEW OF THE LITERATURE	15
Introduction	15
Literature Selection Criteria	16
Current Understanding of the Problem	17
Circumstances of At-Risk Children	17
Behaviors Exhibited by At-Risk Children	20
Conditions for Successful Intervention	22
Effective Programs in Meeting Needs of At-Risk	23
Review of Previous Research and Findings	27
Research on Identification of At-Risk Student Characteristics	28
Research on Effective Program Components	29
Other Pertinent Research	34
Summary	37
3. METHODOLOGY	39
Introduction	39
Research Design	39
Population	40
Instrument	42
Validity	42
Reliability	43
Invalidity and Minimization	44
Procedure Details	45
Statistical Hypotheses Tested	46
Statistical Analysis	49

Timeframe	50
Summary	51
4. RESULTS	52
Introduction	52
Instrumentation	53
Instrument Validity and Reliability	54
Data Collection Procedures	56
Respondents	57
Return Rates	57
Analysis	58
Characteristics of Programs and Services	58
Processes Utilized to Identify At-Risk Students	63
Programs Utilized for At-Risk Students	69
Differences Based on Size, Organizational Structure and Principal's Years of Experience	72
Statistical Hypotheses	73
Null Hypothesis One	73
Null Hypothesis Two	74
Null Hypothesis Three	75
Null Hypothesis Four	76
Null Hypothesis Five	77
Null Hypothesis Six	78
Null Hypothesis Seven	79
Null Hypothesis Eight	80
Null Hypothesis Nine	81
Null Hypothesis Ten	82
Null Hypothesis Eleven	83
Null Hypothesis Twelve	84
Null Hypothesis Thirteen	85
Null Hypothesis Fourteen	86
Null Hypothesis Fifteen	87
Null Hypothesis Sixteen	88
Null Hypothesis Seventeen	89
Null Hypothesis Eighteen	90
Null Hypothesis Nineteen	91
Null Hypothesis Twenty	92
Null Hypothesis Twenty-One	93
Summary of Results	94

5. DISCUSSION OF FINDINGS	98
Summary	98
Discussion of Findings	100
Identification Factors	102
Utilization of Effective Research-Based School Programs	103
Relationship to Demographics	105
Conclusions	105
Recommendations for Further Research	108
Practice Recommendations	109
REFERENCES CITED	111
APPENDICES	117
Appendix A: Cover Letter and Questionnaire	118
Appendix B: Second Survey Letter	123
Appendix C: Validity Letter	125
Appendix D: Reliability Letters	127

LIST OF TABLES

1. Characteristics of Positive School Climate	59
2. Characteristics of Customized Curriculum and Instructional Programs	61
3. Characteristics of Programs and Services to Promote Personal, Social and Emotional Growth	62
4. Characteristics of Programs and Services for Parent Empowerment	63
5. Personal Factors Utilized to Identify At-Risk Students	65
6. Social Factors Used to Identify At-Risk Students	67
7. School Factors Used to Identify At-Risk Students	69
8. Specific School-based Programs Being Utilized	70
9. Descriptives for the Effects of School Size on Positive School Climate	74
10. ANOVA Results for Effect of School Size on Positive School Climate	74
11. Descriptives for the Effect of School Size on Customized Curriculum and Instructional Programs	75
12. ANOVA Results for Effect of School Size on Customized Curriculum and Instructional Programs	75
13. Descriptives for the Effect of School Size on Promoting Personal, Social and Emotional Growth of Students	76
14. ANOVA Results for the Effect of School Size on Promoting Personal, Social and Emotional Growth of Students	76
15. Descriptives for the Effects of School Size on Parent Empowerment	77
16. ANOVA Results for the Effect of School Size on Parent Empowerment	77

17. Descriptives for Effect of School Size on Personal Factors Used to Identify At-Risk Students	78
18. ANOVA Results for the Effect of School Size has on Personal Factors Used to Identify At-Risk Students	78
19. Descriptives for the Effects if School Size on Social Factors Used to Identify At-Risk Students	79
20. ANOVA Results for the Effect School Size has on Social Factors Used to Identify At-Risk Students	79
21. Descriptives for the Effects of School Size on the School Factors Used to Identify At-Risk Students	80
22. ANOVA Results for the Effect of School Size on the School Factors Used to Identify At-Risk Students	80
23. Descriptives of the Effect Grade Configuration has on Positive School Climate	81
24. ANOVA Results for the Effect Grade Configuration has on Positive School Climate	81
25. Descriptives for the Effect that Grade Configuration has on the Customized Curriculum and Instructional Programs	82
26. ANOVA Results for the Effects that Grade Configuration has on the Customized Curriculum and Instructional Programs	82
27. Descriptives for the Effects that Grade Configuration has on the Promotion of Personal, Social and Emotional Growth of Students	83
28. ANOVA Results for the Effects that Grade Configuration has on the Promotion of Personal, Social and Emotional Growth of Students	83
29. Descriptives for the Effects of Grade Configuration on Parent Empowerment	84
30. ANOVA Results for the Effects of Grade Configuration on Parent Empowerment	84
31. Descriptives for the Effects that Grade Configuration has on Personal Factors Used to Identify At-Risk Students	85

32. ANOVA Results for the Effects that Grade Configuration has on Personal Factors Used to Identify At-Risk Students	85
33. Descriptives for the Effects of Grade Configuration on Social Factors Used to Identify At-Risk Students	86
34. ANOVA Results for the Effects of Grade Configuration on Social Factors Used to Identify At-Risk Students	86
35. Descriptives for the Effect Grade Configuration has on the School Factors Used to Identify At-Risk Students	87
36. ANOVA Results for Effect of Grade Configuration on the School Factors Used to Identify At-Risk Students	87
37. Descriptives for the Effect of a Principal's Years of Experience on Positive School Climate	88
38. ANOVA Results for the Effects of a Principal's Years of Experience on Positive School Climate	88
39. Descriptives for the Effect a Principal's Years of Experience has on Customized Curriculum and Instructional Programs	89
40. ANOVA Results of the Effects a Principal's Years of Experience has on Customized Curriculum and Instructional Programs	89
41. Descriptives of the Effects a Principal's Years of Experience has on Promoting Personal, Social and Emotional Growth of Students	90
42. ANOVA Results of the Effects a Principal's Years of Experience has on Promoting Personal, Social and Emotional Growth of Students	90
43. Descriptives of the Effects a Principal's Years of Experience has on Empowerment of Parents	91
44. ANOVA Results for the Effect a Principal's Years of Experience has on Empowerment of Parents	91
45. Descriptives for the Effect a Principal's Years of Experience has on the Personal Factors Used to Identify At-Risk Students	92

46. ANOVA Results for the Effect a Principal's Years of Experience has on the Personal Factors Used to Identify At-Risk Students	92
47. Descriptives for the Effect a Principal's Years of Experience has on Social Factors Used to Identify At-Risk Students	93
48. ANOVA Results for the Effect a Principal's Years of Experience has on Social Factors Used to Identify At-Risk Students	93
49. Descriptives for the Effect a Principal's Years of Experience has on School Factors Use to Identify At-Risk Students	94
50. ANOVA Results for the Effect a Principal's Years of Experience has on School Factors Used to Identify At-Risk Students	94

ABSTRACT

The majority of students in the state of Montana attend schools that are by definition rural. The implementation of effective programs to develop resiliency in children are at the forefront in the state. The need for effective programs to meet the needs of at-risk children is of importance to rural elementary schools. Recognizing the identification factors of at-risk children can assist schools in meeting the needs of this population. This study identified, described and compared what rural elementary schools in the state of Montana do to meet the needs of at-risk students and indicated processes used to identify those students.

The population for the study consisted of 114 rural elementary school principals employed during the 2002-2003 school year. This survey research used a researcher-developed instrument to investigate the characteristics of effective programs offered and the services provided in the elementary schools. It also examined the factors used to identify these children.

Based upon the data, the following conclusions were drawn: positive school climate was important to the overall services and programs offered to all students; well defined curriculum and instructional programs were important considerations; the link between learning difficulties and a student's low self-esteem coupled with a lack of hope for the future was made by the principals; principals recognized the impact of the family on a student's level of being at-risk; a student's behavior and frustration with school was identified as a very important factor related to school success; ability grouping was not considered to be as important when identifying those students who could be at-risk; early intervention programs designed to increase student academic and social skills were not evident in the majority of the rural elementary schools surveyed, and rural Montana elementary schools viewed the creation of an atmosphere where promoting personal, social and emotional growth of at-risk students was important and evident.

CHAPTER 1

INTRODUCTION

Background of the Study

The well-being of America's children is a crucial factor in maintaining the stability of the social structure. The importance is evidenced in the numerous government and private industry partnerships created as an attempt to address complications and issues inherent to the problems that place children in a classification commonly referred to in the literature as at-risk. Numerous studies have been conducted that focus on developing profiles of children in the United States who are at-risk for adverse outcomes. These profiles identify specific indicators that tend to place children at higher risk of behaviors that adversely affect the success of the individual child and the impact upon the larger society. Identification alone does not begin to solve the problems facing these children. Effective programs to assist these children need to be implemented in order to institute systemic change that will allow them the opportunity to become contributing members of the larger society. Further study is needed to identify common factors that increase the likelihood of children being placed at-risk, to identify research-based programs that are effective in supporting such children and to describe the programs used to assist at-risk children within Montana's rural elementary schools.

Statement of the Problem

The increased expectations for schools to continually set higher expectations for student achievement coupled with increased pressure to handle a wide array of societal issues has created an atmosphere that places the public schools at the forefront of solving society's ills. The issues are manifest in the characteristics adherent to children labeled at-risk. Willis (1989) pointed out, "there are risks for these students in the society at large and the risks to their educational attainment and entry into productive lives of employment are increasing." Levin (1988) indicated that at least 30% of elementary and secondary school students in the United States today are educationally at-risk and the proportion will rise rapidly in the future. Today, the reality of the situation is growing to include all children. There has been a growing realization that it is not just the poor or minority student who is of concern. At various times in the lives of all youth, there are episodes of disappointment and sometimes depression; there are encounters and pressures relating to alcohol, drugs, and the possibility of teenage parenthood. With the occurrence of widespread sexually transmitted disease and a startling increase in teenage suicide, the risks now facing our youths have become a matter of life and death (Barr & Parrett, 2001).

Yet to recognize that all youth can, at one time or another, become at-risk cannot cause educators to overlook the fact that they can identify with high predictability a large group of students who arrive at school each year with little or no hope of success in school or productivity in later life (Barr & Parrett, 2001). It is this growing group that educators can no longer afford to ignore.

The Committee for Children (1991) located in Seattle, Washington clearly identified the problem facing our public schools and teachers with the statement, "As more and more young children are experiencing broken homes, drug abuse within the family, disharmony at home, less access to their parents, and television as the primary source of entertainment and values, teachers must deal with the effects these experiences have on children." Teachers in the public schools are faced with determining solutions for children with at-risk behaviors who come from families that may not be supportive of the efforts to change the situation.

An indicator of at-risk behavior identified in the research is that of low performance in school. Poor academic performance is typically accompanied by other risk factors and is the most frequently reported reason for dropping out of school (Willis, 1989). McDill, Natiello and Pollas (1986) reported that the consistent failure and frustration of low academic achievement inevitably leads to increases in absenteeism, truancy and school-related behavior problems. The low achieving phenomenon often starts in the earliest grades of schooling and increases in severity as students proceed through elementary and junior high school (Willis, 1989). Prevention is critical because while success in the early grades does not guarantee success throughout the school years and beyond, failure in the early grades does virtually guarantee failure in later schooling (Slavin, Karweit & Wasik, 1992). Using only a few factors, schools can predict with better than 90% accuracy students in the third grade who will later drop out of school (McPartland & Slavin, 1990). Researchers maintain that if a poor child attends a school composed of largely poor children, is reading a year behind by the third grade, and has

been retained a grade, the chances of this child ever graduating from high school are near zero (McPartland & Slavin, 1990). The literature indicated the importance of identification of and intervention for low achieving children in the primary grades.

In addition to the low academic performance factor, children are entering school with fewer academic, social and emotional skills intact. The impact these children have on the classroom has long lasting effects on all children including those who come from more supportive backgrounds. These at-risk children are characterized by excessively aggressive and impulsive behavior which is a burden to all members of their classrooms. This behavioral pattern emerges as early as three years of age (Karoly et al., 1998). The core elements in this early high-risk pattern include: a tendency to become involved in poking, pushing and other annoying social behavior; a tendency to rush into things; negative and defiant behavior; and self-centered verbal responsiveness to others, exemplified by interrupting others, blurting out their thoughts, and talk which is irrelevant to the ongoing conversation (Spivack & Cianci, 1987). The changing make-up of the school population has an impact on the focus and climate of the classroom and the larger school setting.

The impact of these at-risk children is not solely seen within the school setting. The impact is far reaching and will be felt by the larger society. Research shows that many are headed for a lifetime of failure, exacting a great toll from society. Asher and Cole (1990) pointed out that this group is particularly at risk for rejection by their peers, underachieving in school or dropping out, performing below their potential throughout their careers, landing in prison for adult crimes (a one in four chance by age 30) and

becoming physically and/or sexually abusive. Barr and Parrett (2001) pointed out, "If children do not learn to read well, usually by the end of third grade, what they learn is that they are dumb. They will usually suffer from low self-confidence and self-concept and often exhibit disruptive behavior. Ultimately, the vast majority will drop out of school and experience no more success outside of school than they did in school."

Karoly's (1998) studies of students who dropped out of school found that they live out their lives unemployed, underemployed, or worse, unemployable. They also tend to abuse drugs and alcohol, and many experience parenthood while still teenagers. Many end up in prison or jail. As the cycle continues, raising another generation of at-risk children may be a reality.

Another aspect of the problems facing schools in their attempt to assist at-risk children is the implementation of effective programs. Educators need to begin by identifying themselves as part of the solution by searching for an effective path for helping the child to help him/herself (Committee for Children, 1991). Numerous programs have proven to be effective, especially those that place an emphasis upon early intervention. Programs focusing on preschool and primary grade interventions have the most impact upon the child who is at-risk of social, behavior or academic problems. The period from conception and infancy through third grade encompasses the most critical stage in the development of children (Barr & Parrett, 2001). In terms of the potential for personal development and learning, these are indeed the wonder years. For at-risk children, this period of time is even more critical. Without early success in school, hope of successfully completing school diminishes with each passing year (Barr & Parrett,

2001).

Preschool programs have been documented extensively. No federally funded program has ever been studied so carefully over time, and with such positive results, as Head Start (Schorr & Schorr, 1989). The research on the importance of early intervention programs such as Head Start demonstrates that the most effective intervention is one that occurs as early in the child's life as possible.

Intervention programs need to be identified, implemented and integrated into schools to enhance the protective mechanisms that foster resiliency and empower children. Westfall and Pisapia (1994) categorized protective mechanisms into four categories. They include reducing the negative outcomes of problems by altering the child's exposure to the risk; reducing the negative reactions that follow exposure to a risk; establishing and maintaining self-efficacy and self-esteem; and providing opportunities for at-risk children to receive skills necessary for school and career success. A 1998 RAND Corporation study found that intervention programs can benefit disadvantaged children and, in the long run, significantly save on the cost of welfare, criminal justice and special education (Karoly et al., 1998).

One research-based program that fosters the development of the protective mechanisms was developed by the Committee for Children and is referred to as the Second Step Violence Prevention Curriculum (Spivack & Cianci, 1987). The Second Step curriculum incorporates the teaching of necessary skills for positive social behavior. Those skills identified in the literature as imperative to positive social development include empathy, impulse control, problem-solving skills, anger management and

assertiveness (Spivack & Cianci, 1987). The development of these important skills within the at-risk child's repertoire will provide the needed tools to create resiliency. Other programs exist to assist schools in meeting the needs of their changing clientele and assist children in becoming resilient.

The need for effective programs to meet the needs of the at-risk student population is of importance to rural communities. The existence of students who are considered at-risk due to the combination of a number of characteristics is more prevalent in rural schools. A nation-wide study conducted by the National Rural and Small Schools Consortium (1998) found that while both rural and non-rural school personnel estimated relatively large percentages of their students to be at-risk, rural children fared worse than non-rural children in 34 out of 39 statistical comparisons. These included:

1. Eighteen percent of rural high school students were estimated to be substance abusers, compared with 10% in non-rural districts.
2. Twelve percent of rural elementary school children were found to be suffering depression/suicide attempts/low self-esteem, compared with 10% of urban and 9% of suburban youngsters.
3. Twenty-six percent of rural high school pupils were considered sexually active, compared to 22% of urban and 21% of suburban students.
4. Seven percent of rural middle schoolers were said to be involved in crime, compared with an estimated 6% in urban and suburban schools.
5. Thirteen percent of rural preschoolers were considered victims of child abuse, compared with 12% in urban and 10% in suburban districts.

An analysis of the above data suggests that the social and economic strains facing rural students are every bit as bad, perhaps worse, than those facing urban youth. The images of rural children leading wholesome, trouble-free lives compared with youth in more crowded settings may be in need of revision.

The majority of students residing in the state of Montana attend schools that are by definition rural. The implementation of effective programs to develop resiliency in children are at the forefront in Montana as well. Montana schools are not insulated from the issues faced by at-risk children. Sibling or parent school dropout, low socioeconomic status, dysfunctional family, poor communication between home and school, learned helplessness, suicide, substance abuse, teenage pregnancy, learning disabilities, trouble with the law, and a significant lack of coping skills are all at-risk characteristics that impact children and, consequently, the schools.

The situation that exists for families and children in Montana is the same as or worse than families and children in the United States as a whole. In 1999, Montana's unemployment rate was 5.2% compared to 4.2% nationally. The percentage of children in Montana under the age of 19 who had no health insurance coverage in 1999 was 16.6% compared to 15.4% nationally. The Child Poverty Rate in the state in 1999 was at 22.1% compared to 19.1% nationally. The percentage of poor families with children with a worker in 1999 was 84.9% compared to 70.2% nationally (Center on Budget and Policy Priorities, 2000). Montana has families and children who are living in conditions that place these children at-risk according to socioeconomic status.

Currently, there is more focused attention within Montana schools to increase the resiliency of children. The Montana Behavioral Initiative is one example of a systematic approach designed to assess the needs of individual schools in their attempt to meet the needs of children. Numerous programs are being implemented through the MBI process, but are these programs effective? The problems facing Montana's elementary schools are early recognition, intervention, an understanding of students that demonstrates characteristics of the at-risk population, and how schools can assess individual needs and implement research-based effective programs to address those needs.

Purpose of the Study

Using the literature and research as a basis, the purpose of this study was to identify, describe and compare what rural elementary schools in Montana are doing to meet the needs of at-risk students. This was accomplished by determining what characteristics of schools were evident and which programs, services and processes that identify at-risk students are most often utilized in these schools.

Questions

The following questions guided the research:

1. What were the characteristics of programs and services for at-risk students?
2. What were the common characteristics of the programs and services?
3. What processes were utilized to identify at-risk students?
4. What were the processes common to all students?

5. Which specific programs for at-risk students were being utilized?
6. How did rural districts differ based on size measured by the number of students and organizational structure by grade levels, and the principal's years of experience?

Importance of Study

A description of those schools' effective programs provides important information to assist other schools with program ideas that have been field tested and shown to be effective. A description of the current situation in our elementary schools may assist policy makers within the state to better understand the nature of the programs by which at-risk students are being served. Further, a description of the current situation of Montana rural schools in relation to at-risk student identification and services would be of benefit to other states with rural populations and would contribute to the literature and research base that already exists.

No Child Left Behind legislation from the national level has placed an increased emphasis on student achievement as measured by standardized achievement tests. Today, understanding and serving the at-risk student population is even more important to schools and district level policy makers. National and state pressure from No Child Left Behind filters down to the local level. It is important that a clearer understanding of effective programs and services be developed and that program implementation becomes a priority at the building level.

Through careful analysis, at-risk program trends can be described on a statewide basis. Careful evaluation of the situation within the state can delineate areas of need and provide necessary information to justify resources for the implementation of research-based programs that positively impact the at-risk child(ren).

Definition of Terms

At-Risk Students: Students who are labeled at-risk are those who, because of a combination and interaction of multiple variables, possess characteristics that are likely to result in the student's failure to graduate from high school, to attain work skills, and to become a productive member of society. Emerging from the research are three central groups of factors that are characteristic of students at risk: social family background, personal problems, and school factors.

Social Family Background: Sibling or parent dropout, low socioeconomic status, English is a second language, dysfunctional family, poor communication between home and school.

Personal Problems: External locus of control, learned helplessness or accepting failure, suicide attempt(s), substance abuse, low self-esteem, teenage pregnancy, trouble with the law, learning disabilities, lack of life goals, lack of hope for the future, significant lack of coping skills, works many hours per week.

School Factors: Behavior problems, absenteeism, lack of respect of authority, grade retention, suspension expulsion, course failure, tracking ability grouping, dissatisfaction with school, lack of available and adequate counseling

possibilities, inadequate school services, school climate hostile to students who do not “fit the norm” (Westfall & Pisapia, 1994).

Effective Programs: Research from the past 25 years has documented a number of components that are essential to school programs where all children, particularly those at risk, are learning effectively. The essential components of effective programs include:

Positive School Climate: Choice, commitment, and voluntary participation; small, safe, supportive learning environment; shared vision, cooperative governance, and local autonomy; flexible organization; community partnerships and coordination of services.

Customized Curriculum and Instructional Program: Caring, demanding, and well-prepared teachers; comprehensive and continuing programs; challenging and relevant curricula; high academic standards and continuing assessment of student progress; individualized instruction: personal, diverse, accelerated, and flexible; successful transitions.

Personal, Social, and Emotional Growth: Promoting personal growth and responsibility; developing personal resiliency; developing emotional maturity through service, promoting emotional growth; promoting social growth (Barr & Parrett, 2001).

First Step to Success: Is a collaborative school and home early intervention program designed to address the problem of emerging antisocial behavior patterns among at-risk kindergartners. It is delivered by someone who can set up the program,

demonstrate its effective operation, support the kindergarten teacher's role in implementation, train parents and caregivers in teaching school-success skills, and provide overall coordination of the implementation (Walker, Kavanaugh, Stiller, Golly, Severson & Geil, 1998).

Montana Behavior Initiative: Is a comprehensive staff development venture created to improve the capacities of schools and communities to meet the diverse and increasingly complex social, emotional and behavioral needs of students (Montana Office of Public Instruction, 1995).

Protective Mechanisms: Reduce the negative outcomes of problems by altering the child's exposure to the risk, reduce the negative reactions that follow exposure to a risk, establish and maintain self-efficacy and self-esteem, and provide opportunities for at-risk children to receive the skills necessary for school and career services.

Resiliency: Implies that a web of abilities and support enable at-risk students to succeed. The resilient characteristics appear to fall into three fundamental categories: personal, family and school.

Personal Factors: The students seem to have a personal strength and temperament that allow them to search out help and become self-reliant.

Family Factors: Parental involvement and support tends to be available to these students. Parents have high expectations for their children's education and encourage high achievement.

School Factors: A strong school experience and a positive attitude toward school help mitigate home and societal problems (Westfall & Pisapia, 1994).

Second Step: Is a curriculum designed to reduce impulsive and aggressive behavior in young children and increase their level of social competence. It does this by teaching skills in empathy, impulse control and anger management (Committee for Children, 1991).

Success for All: Is a project coordinated by Robert Slavin and other leading scholars at Johns Hopkins University. The program prescribes a schoolwide effort that has successfully experimented with Chapter I funds to enrich the entire school student body, rather than to support a separate pullout program. It is grounded in a strong foundational knowledge base and has demonstrated exceptional success in helping at-risk youth achievement (Madden et al., 1991).

Assumptions/Limitations/Delimitations

This study made these assumptions: that for survey purposes, the principal of each elementary school knows which programs are being utilized on behalf of at-risk students within his/her school, and that the principal understands the characteristics indicative of at-risk students.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

In Chapter 1 the problem of identifying at-risk students and developing effective programs to meet their needs in rural Montana schools was delineated. The purpose of this study was to identify and describe what rural schools in Montana are doing to meet the needs of at-risk students and what conditions exist in those schools. This was accomplished by determining which characteristics of effective programs, services and processes that identify at-risk students are most often utilized in these schools. Guiding this study were the following questions: What are the common characteristics of programs and services for at-risk students? What common processes are utilized to identify at-risk students? What are the processes common to all schools? What specific programs for at-risk students are being utilized?

The problem of at-risk students and the use of effective programs to meet their needs at the present time was outlined with a review of previous research and findings that have been derived are presented. The methodologies used to elicit the current findings in regard to at-risk students and programs used are reviewed. The importance of this study for the schools and students in Montana was indicated through careful review of the research and findings.

Literature Selection Criteria

This study of at-risk students and effective programs to meet their needs focused on the research that was applicable to the rural population found in Montana. The focus of the review was on the themes that are most pertinent to factors indicative of elementary school age children deemed to be at-risk and the characteristics of the programs regarded to be most effective when working with this population.

One focus for this literature review was the identification of circumstances that have been traditionally regarded as placing children at risk of educational failure with the concentration being on relevance of the information to the situation that was indicative of and applicable to situations found in Montana elementary schools.

Another focus was the identification of behaviors that are exhibited by elementary age children that the research suggests as being indicative of children who are considered at-risk of educational and ultimately societal failure. The identification of these characteristics was important to understand when attempting to identify specific at-risk children.

A third theme for the literature review was to identify broad overarching conditions that need to exist within schools in order to meet the needs of at-risk children. Those conditions considered imperative for a school to begin to create the climate needed to address the needs of at-risk children was discussed within the confines of this research synthesis.

A fourth focal area was the identification of research-based effective programs that exist and are regarded as being successful in meeting the needs of at-risk children. The key components of these programs were delineated and provide a foundation to compare with those programs being used in rural elementary schools. The identification of such program components and their relevance to conditions set forth in Montana rural elementary schools was important in this study. A comparison can be made between the rural Montana elementary schools and the relevant information derived from the literature review.

Finally, this study utilized information that has been comprised within the last 15 years. It was important to draw upon a historical perspective when reviewing programs and conditions that have been successful with at-risk student populations. Primary resources were used when possible as a focus for the literature review. In order to fully understand the past and present research, it was imperative to understand the current problem of at-risk students and the educational atmospheres and programs they are encountering.

Current Understanding of the Problem

Circumstances of At-Risk Children

At-risk appears to be the latest label that American educators attach to several groups of students who have experienced difficulty or failure in their careers as learners. Historically, other category names have been associated with these same populations: culturally deprived, low income, dropout, alienated, marginal, disenfranchised,

impoverished, underprivileged, disadvantaged, learning disabled, low performing, low achieving, remedial, language-impaired, etc. (Presseisen, 1991).

Children labeled at-risk often face similar circumstances. These children often come from poverty-stricken backgrounds. They are more prone to social and familial stress, characterized by a lack of control over their lives, by a dim perspective in terms of their future hopes, as well as a limited view of their own personal growth and self-esteem (Presseisen, 1991). The interplay of these circumstantial factors have long-lasting impacts upon the children and their future.

Currently, the at-risk problem is seen as a complex interplay of a multitude of variables—home, school and societal—that combine to give a student at-risk status. Some common characteristics emerge as a definition of students at-risk.

McMillan divides the definition into three categorical areas: social/ family background, personal problems, and school factors. The social/family background includes: sibling or parent dropout, low socioeconomic status, membership in an ethnic or racial minority group, dysfunctional family—lack of structure and stability, substance abuse, physical/sexual abuse, single-parent families, lack of family commitment to school, lack of parent education, and poor communication between home and school (1992, p.4). Personal problems include: external locus of control, learned helplessness, suicide attempt(s), substance abuse, low self-esteem, teenage pregnancy, trouble with the law, learning disabilities, lack of life goals, lack of hope for future, significant lack of coping skills (McMillan, 1992, p.5). Finally, the school factors include: behavior problems, absenteeism, lack of respect for authority, suspension/expulsion, course/grade failure, tracking/ability grouping, dissatisfaction and frustration with school, lack of available and adequate counseling possibilities, inadequate school services, and school climates hostile to students who do not “fit the norm” (McMillan, 1992, p. 5).

These circumstances are not an exclusive or inclusive list; however, the factors or a combination of a number of these factors can contribute to a child experiencing educational and/or future failure.

The circumstances facing at-risk children are a reality in rural areas. Two-thirds of all schools in the United States are in rural areas. The majority of under-served and unserved children are located in rural America (Sellers, 1996). Distances, scattered populations, and inadequate or unavailable services are obstacles to program development, particularly when specialized facilities and personnel are required (National Research Council, 1993). The isolation of many rural areas, especially those in remote locations with sparse populations, exacerbate many conditions that place youth at-risk (National Research Council, 1993). Many rural areas attempt to deal with the needs of an at-risk population without readily available resources. The circumstances at-risk students are facing, such as poverty, inadequate services, unique cultural attitudes, and familial factors are prevalent in rural areas.

Rural students are placed at risk by certain unique characteristics of the rural environment that may not be captured by broad-based school or demographic data. Two relevant themes emerged from Bull's (1992) review of the literature: first, virtually all students in an isolated community may be at higher risk of not achieving their potential, and second, low self-esteem and lowered aspirations may be more prevalent among rural students. Many of the services, opportunities, and conveniences afforded to those who live in larger cities and towns are not as readily available to people in isolated areas. Health and social services, educational opportunities, cultural resources, etc., are limited or totally lacking in these remote regions. Schools in rural areas as well deal with the needs of at-risk students differently than their urban counterparts.

A critical finding drawn from one study concerns the incongruence in how rural school principals define and identify at-risk versus programs in place in schools to address the needs of at-risk students (Sellers, 1996). Another important finding was the perception held by rural school principals that schools needed to incorporate change. Generally speaking, these changes include such intangible criteria as attributes of teachers needing change, the examination of the traditional structure of schools and improvement of school culture. While recognition that a change of existing attributes of teachers, traditional structure and culture of schools is needed, there was a significant lack of any suggested direction how this change could be effected (Sellers, 1996). Given the social dynamics unique to many rural communities, the delay or lack of intercession with at-risk interventions individualized to students' needs may be explained by the reluctance of school principals to "get in the business" of families who are their neighbors, friends and colleagues (Sellers, 1996). The rural school and community present unique situations and challenges that need to be understood in order to meet the needs of the at-risk student.

Behaviors Exhibited by At-Risk Children

Research indicates that children considered at-risk exhibit certain behaviors at a young age. These children are characterized by excessively aggressive and impulsive behavior which can emerge as early as three years of age.

The core elements in this early risk pattern include: a tendency to become involved in poking; pushing and other annoying social behavior; a tendency to rush into things; negative and defiant behavior; and self-centered verbal responsiveness to others; exemplified by interrupting others, blurting out their thoughts, and talk which is irrelevant to the ongoing conversation (Spivack & Cianci, 1987).

These behaviors can lead to rejection by their peers, underachieving in school, performing below their potential, landing in prison as adults and becoming physically abusive as adults (Asher & Cole, 1990).

Children considered at-risk tend to have a consistent pattern of personal problems that are often manifested in school and other social settings. The personal problems can be characterized by external locus of control, learned helplessness, suicide attempt(s), substance abuse, low self-esteem, learning disabilities, lack of life goals, lack of hope for the future and significant lack of coping skills (Westfall & Pisapia, 1994). These behavior patterns can lead to the child experiencing significant problems in the classroom and ultimately the risk of dropping out of school.

Westfall and Pisapia further elaborate on the common behaviors found in students who are considered at-risk. They identified the following indicative behaviors or contributing factors: disruptive to the learning environment, high absenteeism, grade retention—especially in early grades, actions leading to suspension/expulsion, poor academic record, tracking/ability grouping and dissatisfaction and frustration with school (1994). Further, the school's reaction to these students can exacerbate the aforementioned problems through a lack of adequate school services, such as mental health, social services and health services. Schools can also create a climate that is hostile toward those students who do not "fit the norm." The lack of services and a hostile climate toward students who do not "fit the norm" are especially apparent in the rural school environment (Sellers, 1996). At-risk students in rural school environments face a variety of challenges that are not as apparent in their urban school counterparts.

Conditions for Successful Intervention

Irmsher (1997) indicated that the components of successful programs that meet the needs of at-risk children tend to fall within two broad, overarching conditions which are present in the schools. These schools function as caring, cohesive communities and they operate under standards similar to high-reliability organizations (Irmsher, 1997). The high-reliability organizations typically have three features. First, they have a clearly stated mission with central goals that are clear and widely shared. Second, the management structure is a flexible hierarchy with clearly defined roles and responsibilities. Third, they rely on the professional judgment of all staff members (Irmsher, 1997). Effective programs are built around a team approach to meet the needs of children considered at-risk.

The more successful efforts in meeting the needs of at-risk children are those programs that take a more comprehensive approach and focus on a multitude of various needs and problems. These comprehensive programs view the at-risk students as youth with problems stemming from many sources, and thus their intervention must attempt to attack the problems from several perspectives. Some of the characteristics of effective programs include early intervention, a positive school climate, school faculty that is cooperative and mutually supportive, small class sizes, parent involvement, self-esteem building and support, guidance and mental health counseling, emphasis on teaching and social/life skills, peer involvement/extracurricular and easing grade level transitions (McMillan, 1992). A clear focus on the organization of the school and development of a supportive environment appear to be critical components of a successful program.

The most effective strategies used by teachers of at-risk students provide more specific methods of assisting these students within the confines of the classroom. The top three strategies in terms of effectiveness at the elementary school level were individualizing instruction, the utilization of special teachers, and more specific time on basic skills (George & Antes, 1992). The utilization of teacher-suggested strategies is important when considering which strategies are viewed by the practitioners as being most effective.

Effective Programs in Meeting Needs of At-Risk

Programs that have been shown to be effective with at-risk students are numerous and contain many of the components identified as being necessary. The following programs have been established, implemented and reviewed to determine their effectiveness.

Educational leaders in the Northwest have shown interest in the concept of a school-based early childhood center. The major premise of these programs is early identification and intervention.

The defining features of such centers include: 1) Adherence to quality parameters based on child development principles and developmentally appropriate practice as these apply to children through the age of eight; 2) Active involvement and support of parents as partners in their child(ren)'s development; 3) Active involvement with and responsiveness to the resources and needs of the community; and 4) A school-based commitment to educate preschoolers in the community either on-site or in collaborative relationships with preschool providers (Jewett, 1991).

The emphasis of this program is the importance of early intervention and the development of collaborative efforts between the school, parents and preschool providers.

Early intervention and the development of collaborative efforts between parents and the school are the major program components of one of the most successful federal programs for providing assistance to preschool youth. The program is known as Head Start. Head Start has been federally funded since 1965. Over 600,000 disadvantaged preschool youth are served annually. The effectiveness of Head Start has been studied extensively over the last 35 years. A wide variety of research has documented that Head Start has had strong positive effects on language development and IQ scores (Lang, 1992). There is evidence from longitudinal studies that Head Start children do have long-term positive gains in high school graduation and lack of delinquency (McPartland & Slavin, 1990). A 1999 study conducted by the National Institute for Child Health and Development reported that the Head Start Program was effectively preparing young children for kindergarten. This study, conducted in 1997, followed 3,200 children in 40 Head Start programs. The study not only found Head Start children ready to learn, but found that graduates had made significant progress at the end of kindergarten. The study also found that Head Start teachers needed to emphasize early reading skills to a greater degree in order to improve reading readiness (Study: High-quality child care pays off, 1999). Many states have developed programs to supplement the success of Head Start with names like Great Start, Even Start, and Strong Start. The state of Montana has developed Even Start as a supplement to the Head Start program. Such federally funded programs have created opportunities for many disadvantaged youth in urban as well as rural areas.

The literature indicated that the best time to address the needs of at-risk youth is as early as possible. For schools, that means that the maximum opportunity to have a positive impact on children is in kindergarten and grades 1 through 3 (Barr & Parrett, 2001). Early intervention programs have enormous potential for at-risk students especially in the area of reading development. It is critical that all children, with the exception of the severely handicapped, learn to read by the end of third grade. It is reported in the literature that reading deficiency is the most frequently identified problem of at-risk children (Barr & Parrett, 2001).

Throughout the research, the Success for All Program is consistently mentioned and regarded as having a significant impact on improving students' achievement particularly in the core subject areas. The Success for All Program is coordinated by Robert Slavin and others at The Johns Hopkins University. It is grounded in a strong foundational knowledge base and has demonstrated exceptional success in helping at-risk children achieve (Herman, 1999). Success for All has four major goals: 1) to ensure that every student will perform at grade level in reading, writing and mathematics by the end of the third grade; 2) to reduce the number of students referred to special education classes; 3) to reduce the number of children who are held back a grade; and 4) to increase attendance (Madden et al., 1991). Success for All incorporates a variety of effective characteristics to achieve its goals including one-on-one reading tutors, cross-age leveled reading group, family support teams, and building-level advisory committees composed of teachers, parents, the principal and trained facilitators (Ascher, 1993). The Success for All Program provides proof of how research-based approaches can be integrated into a

schoolwide approach to effectively teach at-risk youth.

Another program, *Second Step: A Violence-Prevention Curriculum*, is highly regarded in the literature and focuses on reducing impulsive and aggressive behavior in children. The program has a well-defined curriculum and emphasizes the importance of early intervention. The focus of this curriculum is to increase children's levels of social competence by teaching skills in empathy, impulse control and anger management.

Second Step teaches how not to become a victimizer. Empathy training, impulse control and anger management are fostered through teaching strategies that reduce social bias and promote recognition of the different feelings and needs of others. The primary target group is preschool and kindergarten (Committee for Children, 1991).

Second Step for Preschoolers and Kindergartners was piloted in two school districts in the Seattle area. The pilot program was taught by eleven teachers and two counselors in four public schools, and one private school and a Headstart program (Committee for Children, 1991). The program demonstrated promising results through a thorough evaluation of its effectiveness. The results showed significant enhancement of the children's empathy, impulse control and anger management skills. Teachers gave highly favorable ratings and planned to use the program again the next year. Anecdotal information supplied by the teachers attested that some transfer of training had occurred during the three months of the pilot (Committee for Children, 1991).

Early identification and intervention was a consistent characteristic reported in the literature to be effective in meeting the needs of at-risk children. The *First Step to Success Program* stresses the importance of early intervention. The program targets at-

risk kindergartners who show early signs of an antisocial pattern of behavior (i.e., aggression, oppositional-defiant behavior, severe tantruming, victimization of others) (Walker et al., 1998). First Step to Success consists of three interconnected modules: (a) proactive, universal screening of all kindergartners; (b) school intervention involving the teacher, peers and the target child; and (c) parent/caregiver training and involvement to support the child's school adjustment. The major goal of the program is to divert at-risk kindergartners from an antisocial path in their subsequent school career (Walker, et al., 1998).

The Institute on Violence and Destructive Behavior (1998) reported that the program was tested on two cohorts of at-risk kindergartners screened and selected in succeeding school years (1993-1994 and 1994-1995). The program produced powerful intervention effects for kindergartners in each cohort from pre- to post-intervention (approximately three months) time points, as measured by teacher ratings and structured behavioral observations recorded by professionally trained and supervised observers. Results indicated a measurable intervention effect for both cohorts and persistence of gains into the primary grades.

Review of Previous Research and Findings

The body of research in regard to at-risk students focuses on factors that relate to environmental contexts, identification of characteristics of behavior and effective components and programs that meet the needs of the at-risk student. The literature contains many commonalities and appears to provide a body of knowledge upon which

this study of the situation in Montana can build.

Research on Identification of At-Risk Student Characteristics

Numerous studies have been conducted that identify characteristics of at-risk students. This body of research can be utilized by schools to understand students considered at-risk. Westfall and Pisapia (1994), in a well-documented research brief, indicate that three central groups of factors are characteristic of students at-risk: social family backgrounds, personal problems, and school factors.

Social/Family background factors include: sibling or parent dropout; low socioeconomic—inadequate nutrition, damage to dignity, inadequate home facilities; English as a second language; dysfunctional family—lack of structure and stability, substance abuse, physical/sexual abuse, lack of family commitment to school; and poor communication between home and school. The factors identified as personal problems include: external locus of control; learned helplessness, accepting failure; suicide attempt (s); substance abuse; low self-esteem; teenage pregnancy or raising children; trouble with the law; learning disabilities; lack of goals, inability to see options, lack of hope for the future; and a significant lack of coping skills. Finally, the school factors identified include: behavior problems—disruptive to learning environment; absenteeism; lack of respect for authority, feelings of alienation from school authorities; grade retention—especially in the early grades; suspension/expulsion; poor academic record; tracking/ability grouping; dissatisfaction and frustration with school; lack of availability and adequate counseling possibilities; inadequate school services; and a school climate hostile to students who do not fit the norm (1994).

In an article written by Miller (1993), five factors were identified that contribute to a student's academic risk level. These include poverty, racial or ethnic minority status, a single parent family, a poorly educated mother, and limited proficiency with English (p.442). Each of these characteristics was encompassed in the research brief outlined by Westfall and Pisapia.

Seldner (1992) added yet another set of factors that seemed to identify those students who are at-risk of school failure. He considered those who have reading and math levels of a year or more behind grade level, those who have been retained in a grade or experienced other academic failures, and students with problems of adjustment such as self control or social control to be potentially at-risk (p. 109). Family circumstances, substance abuse, absenteeism, tardiness, and truancy are also conditions that must be considered (Seldner, 1992, p. 110).

Research on Effective Program Components

The research identified program components that are considered most effective when determining the needs of at-risk students in schools. McMillan (1992) identified the need of early intervention as a critical component. He stated, "Early educational experiences may intervene to break the strong bond between particular family characteristics and school failure" (p.6). Slavin, Karweit and Wasik (1992) confirmed the need for early intervention when they stated, "Prevention is critical because success in the early grades does not guarantee success throughout the school years and beyond, but failure in the early grades virtually guarantees failure in later schooling" (p.11).

Another component of an effective program is the development of a positive school climate. Attributes of an inviting and positive climate include ensuring high time-on-task, facilitating a high degree of student interaction, providing positive reinforcement for desired classroom behavior, maintaining high expectations, inviting success and establishing a cooperative learning environment (McMillan, 1992, p.7). It is important

for the student to have a sense of belonging and an elevated level of importance.

Irmsher (1997) identified two broad overarching conditions typically present in schools that successfully serve at-risk students. First, these schools function as caring, cohesive communities. Second, they operate under standards similar to high-reliability organizations. Noneducational examples of high-reliability organizations are air-traffic controllers and regional power grids (1997). Schools operating as high reliability organizations tightly guide the educational flight path of each child. The researchers believe individual schools acting in isolation cannot ensure that at-risk students will receive a quality education (Irmsher, 1997). However, changing the overall atmosphere of the school can have a significant impact on the type of programs utilized to meet the educational needs of all children.

The importance of parent involvement and collaboration cannot be overlooked. The more involved the parent, the more engaged the child will become. It appears that parent involvement can even help improve the home learning environment. Giving parents roles in the schools as well as home visiting results in higher-level participation (Dryfoos, 1997). Through increased parental participation, the child's perception of the importance of education will be positively influenced. Researchers and educators have long agreed that when parents get involved in education, children try harder and achieve more at school. Parents who help and encourage their child to learn at home, and who help develop positive attitudes toward school, contribute to the personal growth and academic success of their children (Epstein, 1995).

Research indicated that the more parents are interested and involved in children's schoolwork, the better children tend to do in school. Schools need to establish a parent-friendly environment that encourages collaboration between families and the school. Parents should be encouraged to visit their child's school on a regular basis, become acquainted with the teacher, learn how they can help their children at home, and discuss how they can encourage the child to be more effective in school (Barr & Parrett, 2001). Increased collaboration between home and school will benefit all children in their educational achievement.

Various approaches have been developed to help schools gain greater parent involvement. These approaches have several features in common: programs that focus on parenting skills and the development of home conditions that support learning; school-to-home and home-to-school communication about school programs and children's progress; the use of volunteers in school or in other locations to support the school and students; and participation by families in decision-making, governance and advocacy (Bauch, 1994).

Taking into account both the opportunities and challenges posed by conditions of rural life, educators can work to involve parents by setting up programs that include features with well-documented, positive results. The features most often recommended include: parent enrollment in adult education and parenting education programs; cooperative strategies for extending the school curriculum beyond the school walls; efforts to help parents provide learning experiences at home; home visits by personnel trained to facilitate home-school communication; in-classroom involvement of parents,

business leaders, and citizens; summer enrichment programs for both parents and children; community-based learning; use of school facilities for community activities; and university participation in an advisory and supportive role (Bauch, 1994). Creating such programs will assist schools in assisting parents to become active players in their children's success and lessen the likelihood of children being placed at-risk of educational failure.

One area of vital importance is children learning how to read early in their schooling experience. Parents play an important role in the development of children academically. Research indicates that there are few specific practices which have such positive long-lasting influence as that of reading aloud to infants and young children. Reading aloud provides both the closeness and human warmth that are essential to early bonding; it also provides an essential foundation for school success (Barr & Parrett, 2001).

Strategies and experiences that develop phonemic awareness are also an essential factor in literacy development. Phonemic awareness, the ability to distinguish and manipulate speech sounds, is a requisite skill for beginning instruction in reading. Varied language experiences with songs, fingerplays, games, poems, and stories which use rhyme and alliteration patterns are critically important (National Association for the Education of Young Children, 1998). Children who experience early success in the area of reading have a significantly greater chance of experiencing academic success. Therefore, it is crucial that schools and parents work together to ensure that all children experience academic success in the primary grades, particularly in the areas of reading

and language development.

Another key area in successful school programs that meets the needs of at-risk students is the development of protective factors that develop resiliency in these children. Dryfoos (1997) emphasized the importance of programs that integrate protective factors at-risk children need in order to develop resiliency. Four factors have been frequently mentioned that foster resiliency or invulnerability to the consequences of high-risk behaviors. The implementation and development of protective factors have implications for programs. First, the child needs to gain an attachment to a caring adult. The best documented fact in the extensive literature is the importance of social bonding between a young person and an adult. Second is the enhancement of independence and competency. Many children who make it despite all odds appear to have a strong streak of independence that leads to the development of competency. The third factor involves the creation of high aspirations within the child. The hope of a better future and the fulfillment of dreams creates a positive outlook in the mind of the child. Usually, a significant adult is involved in helping turn the aspirations into reality. Finally, effective schools play an important role in fostering resiliency. A supportive and challenging school can act as a significant influence in the life of a disadvantaged youngster. Caring teachers with high expectations for students can act as buffers against the outside world and assist young people in achieving their goals (p.41). The development of the aforementioned protective factors can have significant implications for effective programs designed to meet the needs of at-risk children.

Other Pertinent Research

Resiliency is a term used throughout the literature involving at-risk students. The term is used to describe children who have overcome the presence of several at-risk factors and developed characteristics and coping skills that enable them to succeed. They become individuals with stable, healthy personas, sound values, high self-esteem, good interpersonal relationships, success in school and positive goals and plans for the future (Westfall & Pisapia, 1994, p.1). It is estimated that approximately 19% of at-risk students are resilient (Westfall & Pisapia, 1994, p. 1).

The resilient characteristics appeared to fall into three fundamental categories: personal, family, and school factors. Personal factors were manifest in the students' personal strength and temperament that allowed them to search out help and become self-reliant. Family factors included the presence of parental involvement and support that was available to the resilient student. The parents exerted pressure on their children to work toward high achievement. School factors encompassed the strong school experience and a positive attitude toward school that helped to mitigate home and societal problems (Westfall & Pisapia, 1994, p. 2).

McMillan provided additional characteristics found in the persona, family and school factors described by Westfall and Pisapia. The three factors presented by McMillan in his review of the relevant research included:

1. Personal Factors - temperamental characteristics that elicit positive responses from individuals around them; high intrinsic motivation and internal locus of control seem to enable an at-risk student to succeed; active involvement in extracurricular events, at school or in other arenas, seems to provide a refuge for resilient students; involvement in "required helpfulness" can be a powerful

piece of resilient students' experiences.

2. Family Factors - most resilient at-risk students have had the opportunity to establish a close bond with at least one care giver who gave them much attention in the crucial first year of life; family support seems to be an attribute of successful at-risk students; parents of resilient students have higher expectations for their children's educations; and parental education is related to student resiliency.
3. School Factors - resilient students seem to find support outside the home environment; they seem to like school and involve themselves in classroom discussions and activities; teachers play an immensely important role in resilient students' success (1992).

Benard (1991) has identified protective factors in families, schools and communities which foster resiliency in children. The family factors included caring and support, having high expectations and encouraging children's participation. Each factor was further described by Benard as follows:

Caring and Support involves a close bond with at least one person who provided the child with stable care and from whom he/she received adequate attention during the first year of life. A caring and supportive relationship remains the most critical variable throughout childhood and adolescence.

High expectations are set by the family for their children's behavior from an early age. Concomitant with high expectations are other family characteristics such as structure, discipline, and clear rules and regulations. Encourage children's participation and acknowledge them as valued participants in the life and work of the family. A critical factor is that the child is provided with lots of opportunities to participate meaningfully in the life and work of the family (p.14-15).

Benard identified three overarching protective factors which were found within schools that significantly impacted the lives of children and possibly led to resiliency in children. The school factors included caring and support, high expectations and youth participation and involvement. Each factor is further defined:

Caring and support within the school is a powerful predictor of positive outcome for youth. For the resilient child, a caring teacher is not just an instructor for academic skills, but also a confidant and positive role model for personal identification. High expectations are established for all children. Research

indicates that schools that establish high expectations for all children and give them support necessary to achieve them have incredibly high rates of academic success. Youth participation and involvement provides children with the opportunity to participate and be meaningfully involved and have roles of responsibility within the school environment (1991, p.16-17).

Benard's protective factors found within the community included caring and support, high expectations and opportunities for participation. Each of the community protective factors are described and include:

Caring and support is most obviously manifested at the community level through the availability of resources necessary for healthy human development: health care child care, housing, education, job training, employment, and recreation. The greatest protection that can be given is ensuring that children and their families have access to these basic necessities. High expectations in relation to communities are usually referenced in terms of "cultural norms." First, cultures that have as a norm the valuing of youth as a resource, tend to have youth that are less involved in all behavior problems. A second relevant cultural norm is that of our expectancies surrounding alcohol use (1991, p.17-18).

Utilization of the research on resilient children can influence the components of effective programs designed to assist the at-risk child(ren) in the family, school and community settings. Families, schools and communities need to understand, identify and foster protective mechanisms which develop resilient children (Winfield, 1991).

Bernard indicated that research in regard to building resiliency provided a mandate for social change. Changing the status quo in our society means changing paradigms, both personally and professionally, from risk to resilience, from control to participation, from problem-solving to positive development, from Eurocentrism to multi-culturalism, from seeing youth as problems to seeing them as resources and from institution-building to community building (1996).

Summary

The parameters for this literature review have been established with the focus being on the information that is pertinent to the situation in Montana elementary schools. The research has identified characteristics of at-risk students such as low self-esteem, learning difficulties or disabilities, a student's lack of hope for the future, a lack of structure and stability in the family, lack of family commitment to school, poor communication between home and school, student absenteeism, a lack of respect for authority, retained in a grade and reading or math levels one or more years behind grade level.

Components of effective programs to meet the needs of the at-risk student population have been discussed. These components include small class sizes, a safe and supportive learning environment, community partnerships, caring, demanding and well prepared teachers, challenging and relevant curriculum, high academic standards, individualized instruction, one-on-one tutors and cooperative learning.

The identification of specific programs that the literature indicates have been effective in schools as they attempt to assist the at-risk student were reported. The programs include: Second Step: A Violence Prevention Curriculum, First Step to Success, early literacy education for parents, after-school and summer enrichment programs, Head Start/pre-school collaboration and transition and primary grade alternative classrooms.

The context of the problem and the current understanding of the problem of at-risk students relevant to schools was reviewed and organized. The problems most applicable to this study have been discussed with the focus being on the identification of at-risk students, the determination of program components that were shown to be effective and the identification of specific programs that were researched in the literature.

The research was reviewed in the areas pertinent to the common behavior characteristics of at-risk students with an emphasis being placed on the program components that were utilized in schools and had the most impact on meeting the needs of at-risk students.

CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study was to identify and describe what rural schools in Montana are doing to meet the needs of at-risk students. This was accomplished by asking administrators to describe what characteristics of schools were evident and which programs, services and processes that identify at-risk students are most often utilized in these schools. This chapter covered the description of the methodology used to detail the study of effective programs utilized in Montana elementary schools to meet the needs of at-risk students. The participants of this study were identified with emphasis on the methods of selection and needed demographic information delineated. The instrument for data collection was described including its function, the instrument's validity and reliability, and development. The research design selected was discussed with emphasis placed on rationale, procedures and the analysis strategy identified. Finally, the timeframe for this study was outlined to guide the process.

Research Design

The research design that this study of at-risk student identification and characteristics of effective programs and services used was a descriptive approach.

Survey research has considerable credibility and widespread acceptance and use in academic institutions (Gay, 1992). Survey research is used to gather primary data in the form of self-reported information from people about themselves. The term "survey" represents a broad category of techniques that use questioning as a strategy to gather information. Written forms of surveys are referred to as questionnaires (Gay, 1992).

This descriptive research sought to answer the questions: 1) What are the characteristics of programs and services for at-risk students?; 2) What are the common characteristics of the programs and services?; 3) What processes are utilized to identify at-risk students?; 4) What are the processes common to all schools?; 5) Which specific programs for at-risk students are being utilized?; and 6) How do rural districts differ based on size measured by the number of students and organizational structure by grade level and the principal's years of experience?

Gay (1992) suggested that descriptive research involves collecting data in order to answer questions concerning the current status of the subject of the study. This descriptive study asked principals of rural elementary schools to describe the current situation existing in their respective schools. The data was collected through the utilization of a questionnaire administered to the principals of rural elementary schools in Montana.

Population

Principals from school districts serving communities considered rural according to the definition used by the National Center for Education Statistics, a division of the U.S.

Department of Education, were asked to participate in the study. The definition of rural that guided the sampling process was a place with a population under 2,500 and not within a Standard Metropolitan Statistical Area (U.S. Department of Education, 1992). The principals of these elementary schools were able to give the researcher an understanding of the programs that his/her school utilized to meet the needs of the students considered to be at-risk of educational failure.

The study used the Montana Office of Public Instruction's classifications of elementary schools in conjunction with the U.S. Department of Education's definition of rural to determine the schools to be included. Elementary schools with enrollment below 40 students were not included in this study.

For data purposes, the Montana Office of Public Instruction classifies the elementary school population into the following groupings: 1E - school districts with 2,500 or greater students; 2E - school districts with 851 to 2500 students; 3E - school districts with 401 to 850 students; 4E - school districts with 151 to 400 students; 5E - school districts with 41 to 150 students; and 6E - school districts with 40 or less students. The school district classifications that fit into the definition of rural utilized for this study are 3E, 4E, and 5E. The total number of elementary schools that were considered rural, have a student population above 40 and fall into the three OPI classifications—3E-26, 4E-75 and 5E-58. The total population of rural school districts included in this study was 159.

Instrument

This study utilized a survey to collect the needed data from the elementary school principals selected to participate. The questionnaire was a nonprotective test whose function was to determine the identification of at-risk students, characteristics of effective programs and services most often utilized in Montana to meet the needs of at-risk elementary age children.

Through a careful analysis of the literature, characteristics of effective programs and services that were shown in the research to assist at-risk students were identified. These identified characteristics were used as the basis by which the questionnaire was developed. The literature drove the development of the survey and created the foundation upon which the validity of the instrument was based.

The instrument consisted of questions used to determine the extent to which schools were utilizing effective programs and services. A section was used to gain needed information about the school and the principal that was important to the analysis. A combination of a Likert scale indicating degree of agreement or disagreement with a number of statements and a semantic differential scale using bipolar adjectives to determine a positive or negative attitude toward statements was used.

Validity

Validity is defined as the degree to which a test measures what it is intended to measure; a test is valid for a particular purpose for a particular group (Gay, 1992, p. 627). The validity of the questionnaire being used for this study was resolved initially through a

careful analysis of the literature to determine the characteristics of an effective program for at-risk students and the specific programs that were proven to be effective through the research. These characteristics and programs were then included in the construct of the individual questions and the questionnaire entirely. Also, to determine if the questionnaire is asking what is intended, a review of the questionnaire was conducted by a group of experts in the field to determine if the statements were clearly measuring what was intended. Four experts were asked to review the instrument. They were two OPI staff members who have expertise in the area of at-risk students, a principal of an elementary school not considered rural by this study's definition, and a rural youth court judge familiar with the research on at-risk children. Their feedback was used to modify the questionnaire. This feedback assisted in making a judgment as to the content validity of the instrument.

Reliability

Gay defined reliability as the degree to which a test consistently measures whatever it measures over time (1992, p.145). Reliability of the questionnaire used in this study was measured through a test-retest reliability process. The questionnaire was administered to a group of ten practicing elementary principals. After approximately two weeks, the same group was asked to fill out the questionnaire again. The correlate of the answers given on individual questionnaire items was evaluated to obtain the coefficient of stability. A high coefficient is a quality indicator that the instrument has good test-retest reliability, which demonstrates that the questionnaire is consistent. A coefficient greater

than .70 was considered an acceptable reliability indicator.

Through the procedures used to measure validity and reliability, the questionnaire was adjusted as needed. The questions that appeared to be confusing through the construct review process were aligned to ensure clarification of meaning. The continual feedback and modification loop created a questionnaire that had high reliability and validity.

Invalidity and Minimization

The use of elementary principals as the primary respondents can be viewed as a limiting factor within the study. The assumption was that these individuals would have a clear picture of what was being done for the at-risk student populations within their respective schools. A clearer picture may come from a survey of additional persons such as teachers, paraprofessionals and school board members. The additional information derived from these individuals may have been beneficial but was outside the scope of this study.

A final consideration that may minimize the results of this study was the lack of respondent participation. The lack of response is often a concern for a researcher, primarily because the researcher has little control over the respondent. Appropriate steps were taken to help ensure a high survey return rate that included a reminder letter and a follow-up post card.

Procedure Details

The steps involved in a quality study are numerous. Initially, the questionnaire was tested for validity and reliability. Test-retest reliability were initiated to determine the consistency of responses over time. This process was conducted with the assistance of ten elementary principals. The necessary adjustments to the instrument were made before sending the questionnaires to the respondents.

The next phase of the study was the selection of respondents. The school principals participating in the study were selected from the Montana elementary schools that were considered rural, had a student population above 40 and fell into the three OPI classifications 3E-26, 4E-75 and 5E-58. The total population of rural school districts included in this study was 159. Dillman's Total Design Method was used to increase the quality and quantity of responses. Dillman outlined the following steps as a means of increasing response rates: use of a cover letter, detailed instructions, utilization of tracking numbers for each questionnaire, a second reminder letter sent after two weeks, and the use of a reminder postcard after three weeks (1978).

Each respondent was mailed a copy of the questionnaire with a cover letter and detailed instructions for completing the survey instrument (see Appendix A). Each of the questionnaires was assigned a number to track those who responded. After two weeks, a second reminder letter (see Appendix B) was sent to those who had not responded to the survey. This letter thanked them for their participation and urged them to complete the survey at their earliest convenience. Two weeks after the second letter was mailed, a post

card was sent to all 159 participants as a reminder and a way of saying thank you.

As the surveys were returned, the data were entered, organized and stored for analysis using the SPSS statistical software program. The data were summarized and analyzed using descriptive statistics.

Statistical Hypotheses Tested

During the course of this study, the investigator tested the following null hypotheses:

1. Ho: No significant difference exists among the means for positive school climate and the number of students within a school.
2. Ho: No significant difference exists among the means for customized curriculum and instructional programs and the number of students within the school.
3. Ho: No significant difference exists among the means for promoting personal, social and emotional growth of students and the number of students within the school.
4. Ho: No significant difference exists among the means for parent empowerment and the number of students within the school.
5. Ho: No significant difference exists among the means for personal factors utilized to identify at-risk students and the number of students within the school.

6. Ho: No significant difference exists among the means for social factors utilized to identify at-risk students and the number of students within the school.
7. Ho: No significant difference exists among the means for school factors utilized to identify at-risk students in rural elementary schools and the number of students within the rural elementary school.
8. Ho: No significant difference exists among the means for positive school climate and a rural elementary school's grade configuration.
9. Ho: No significant difference exists among the means for customized curriculum and instructional programs and a rural elementary school's grade configuration.
10. Ho: No significant difference exists among the means for promoting personal, social and emotional growth of students and a rural elementary school's grade configuration.
11. Ho: No significant difference exists among the means for parent empowerment and a rural elementary school's grade configuration.
12. Ho: No significant difference exists among the means for the personal factors utilized to identify at-risk students and the grade configuration of rural elementary schools.
13. Ho: No significant difference exists among the means for the social factors utilized to identify at-risk students and the grade configuration of rural elementary schools.

14. Ho: No significant difference exists among the means for the school factors utilized to identify at-risk students and the grade configuration of rural elementary schools.
15. Ho: No significant difference exists among the means for positive school climate and the rural elementary principal's number of years of experience.
16. Ho: No significant difference exists among the means for customized curriculum and instructional programs and the rural elementary principal's years of experience.
17. Ho: No significant difference exists among the means for promoting personal, social and emotional growth of students and the rural elementary principal's years of experience.
18. Ho: No significant difference exists among the means for parent empowerment and the rural elementary principal's years of experience.
19. Ho: No significant difference exists among the means for personal factors used to identify at-risk students and the rural elementary principal's years of experience.
20. Ho: No significant difference exists among the means for social factors utilized to identify at-risk students and the rural elementary principal's years of experience.

21. Ho: No significant difference exists among the means for school factors utilized to identify at-risk students and the rural elementary principal's years of experience.

Statistical Analysis

There were 56 variables in this study for participant description. Frequency distributions and mean scores were used to describe the characteristics of programs and services, processes used to identify at-risk students and school-based programs being utilized by the participant schools.

The common characteristics of programs and services were broken down into four subcategories: positive school climate, customized curriculum and instructional programs, promoting personal, social and emotional growth and parental empowerment. The processes utilized to identify at-risk students were divided into three subcategories: personal factors, social factors and school factors. The specific school-based programs being utilized were listed and required the respondents to indicate whether or not the programs were evident in their respective schools. The three demographic variables identify school size based upon student population, grade configuration and the years of experience of the principal responding.

The statistical technique known as the analysis of variance (ANOVA) was used to determine how rural districts differed based on size measured by the number of students and organizational structure by grade level, and the principal's years of experience. The purpose of ANOVA is to evaluate if the differences in the means are larger than would be

expected from sampling error (chance). ANOVA permits the control of a predetermined p-value when simultaneously testing the equality of any number of means. In ANOVA, all differences for all pairs of means are examined simultaneously to see if one or more of the means deviates significantly from one or more of the other means (Glass & Hopkins, 1996). A one-way ANOVA at the .05 level of significance was used to determine whether the means among the groups were significantly different. If $p < .05$, then a post hoc test would be utilized to determine exactly which group means were different from one another. In addition, the specific programs for at-risk students being utilized in Montana rural schools were presented with a narrative format.

Timeframe

The study was conducted during the 2002-2003 school year. The respondents were selected for the study in May 2002 and the questionnaires were sent out in October, 2002. The surveys were returned and entry of the data completed by the end of November. The process of organizing and analyzing the data was conducted throughout the fall of 2002 and the spring of 2003. The results were compiled, concluded and reported throughout the fall of 2002 and the spring of 2003. The presentation of this study on effective programs being utilized for at-risk students in the state of Montana will occur on April 30, 2003.

Summary

This research study examined the utilization of effective programs and the identification of students considered at-risk of academic and/or social deficiency or failure. It carefully examined what research-based programs and services were being used in rural elementary schools in Montana. Data were collected from respondent principals of 114 elementary schools by use of a researcher-developed questionnaire. The research data were analyzed using frequency of responses and percentages, and one-way ANOVA. The findings of the research study are presented in Chapter 4.

CHAPTER 4

RESULTS

Introduction

The purpose of this study was to identify, describe and compare what rural elementary schools in Montana are doing to meet the needs of at-risk students. This was accomplished by determining what characteristics of schools were evident and which programs, services and processes that identify at-risk students are most often utilized in these schools. The following questions guided the research for rural Montana: 1) What are the characteristics of programs and services for at-risk students? 2) What are the common characteristics of programs and services? 3) What processes are utilized to identify at-risk students? 4) What are the processes common to all students? 5) Which specific programs for at-risk students are being utilized? 6) How do rural districts differ based on size measured by the number of students and organizational structure by grade levels, and the principal's years of experience?

This chapter details the processes and procedures that were used to gather the necessary data, descriptive statistics used to organize and analyze the data, and an overview of the pertinent findings related to this study. A description of the instrument's construction is outlined and the determination and delineation of the instrument's validity and reliability are reported. The data collection procedures utilized are detailed. The

participants are identified and methods of selection are given. The results from the descriptive statistics used and the statistical hypotheses are presented. Finally, an interpretation of the findings is presented.

Instrumentation

The questionnaire used in this study was constructed from careful analysis of the research found in the literature. The research indicated a number of common characteristics essential to school programs where all children, particularly those at-risk, are learning effectively. These characteristics included factors that fall under positive school climate, customized curriculum and instructional programs, promoting personal, social and emotional growth, and parent empowerment. The factors were developed into a list of items and the questionnaire asked respondents to indicate the degree each of the characteristics were found in their schools. A Likert Scale was used to determine the level that each factor was evident in the respondent schools. Twenty factors were included in this section of the questionnaire.

Section two of the questionnaire detailed the processes used to identify at-risk students. The factors identified in the research were stated under the headings of personal, social and school factors. Respondents were asked to indicate the level of importance that each factor held in the process used to identify at-risk students. A Likert Scale was used to determine the degree to which each factor was important in the identification process. Twenty-two factors were included in this section of the questionnaire.

Section three outlined the school-based programs that the research indicated were effective in meeting the needs of at-risk children. The respondents were asked to indicate whether or not each program was being used in their respective schools. A yes or no response was sought. Ten programs were included in this section.

The final section was designed to determine specific school information. The specific information asked the respondents to indicate the number of students in their school, the grade configuration of the school and the experience level of the principal measured in years.

Instrument Validity and Reliability

The validity of the questionnaire was determined through literature analysis and through careful review of the instrument by experts in the field. Four professionals were asked to study the content of the instrument and provide feedback and suggestions. A cover letter was sent to each person asking them to focus on the content of the questionnaire and not necessarily how they would respond to each question (Appendix C). They were also asked to provide any suggestions that could be incorporated to enhance the content and to write their suggestions directly on the questionnaire. The importance of their response was emphasized and a pre-addressed stamped envelope was provided for the purposes of returning the completed questionnaire.

The professionals included two members of the Office of Public Instruction staff that deal directly with at-risk student issues, one principal of an elementary school not considered rural by this study's definition, and one youth court judge familiar with the

research on at-risk children. Three of the reviewed questionnaires were returned. The feedback provided by the three professionals indicated that the questionnaire was clear, asked what was intended, and was research-based to the best of their knowledge.

Reliability is the degree to which a test consistently measures whatever it measures over time (Gay, 1992, p.145). It is useful to measure the reliability of a new instrument so that interpretations based on current and future use of the instrument can be made with confidence. Reliability of the questionnaire used in this study was measured through a test-retest process. The questionnaire was sent to ten practicing elementary principals of schools not considered rural by the definition used in this study. Appendix D includes copies of the letters sent to the respondents. The questionnaires were first sent to respondents on April 15, 2002. Eight of the ten questionnaires were returned. The same questionnaire was sent to those eight respondents on April 30, 2002. All eight of the respondents returned the questionnaires the second time.

Cronbach's alpha was used to measure the consistency of the questionnaire. Cronbach's alpha is expressed as a correlation coefficient, ranging in value from 0 to +1. An estimate of .70 or higher is desired for judging a scale reliable (Glass & Hopkins, 1996). Cronbach's alpha was generated using the SPSS statistical software program. Data from the first or pre-set of questionnaires indicated a reliability analysis that generated an alpha of .8382 with $N = 8$ and N of items = 56. The post analysis obtained from the second set of questionnaires generated an alpha of .8557 with $N = 8$ and N of items = 56.

Data Collection Procedures

The procedures used to mail the questionnaire were delineated from Dillman's Total Design Method which was used to increase the quality and quantity of responses (1978). The questionnaires were mailed on October 24, 2002. A cover letter, detailed instructions and a return envelope with a tracking number were included with each questionnaire. The return envelope was pre-addressed and postage paid. A second reminder letter was sent on November 8, 2002 to those participants who had not returned a completed questionnaire. A post card was sent on November 20, 2002 to the 159 participants as a reminder and as a way of saying thank you for participating. The cut-off date for inclusion in this study was set for December 10, 2002.

The questionnaires were sent to the principals or superintendents of the 159 elementary schools comprising the population defined as rural by this study. The definition of rural utilized included: Montana elementary schools considered rural as defined by the U.S. Department of Education; schools that have a student population above 40; and schools that fall into the three OPI classifications 3E, 4E and 5E. Schools classified by OPI as 3E are those that have a student population from 401 to 850. Schools classified as 4E are those that have a student population from 151 to 400. Schools that are classified as 5E are those that have student populations from 41 to 150. The 159 participant schools were broken down according to the following configurations: 3E - 26 elementary schools; 4E - 75 elementary schools; and 5E - 58 elementary schools.

RespondentsReturn Rates

A total of 114 completed questionnaires were returned. This number represents a return rate of 72%. Of the 114 questionnaires returned, 37 or 32% were from schools classified by OPI as 5E. Fifty-nine or 52% were received from schools classified as 4E and 18 or 16% were from the 3E classification. A further breakdown indicates that 63% of the 5E schools, 79% of the 4E schools and 69% of the 3E schools completed and returned the questionnaires.

Frequency of responses and percents were used to describe the respondents. Demographic data were obtained from respondents' answers to the questions in the last section of the questionnaire. Of the 114 respondents that provided school size information, 18 represented schools with 40 to 75 students (15.8%), 15 represented schools with 76 to 100 students (13.2%), 27 represented schools with 101 to 150 students (23.7%), eight represented schools with 101 to 150 students (7%), 15 represented schools with 151 to 200 students (13.2%) and 31 represented schools with over 251 students (27.1%).

Respondents were asked to indicate the grade configuration of the elementary portion of their school. The grade configurations for the respondent schools were 50 represented kindergarten through 6th grade (43.9%), 45 represented kindergarten through 8th grade (39.5%), and 19 represented kindergarten through 5th grade (16.7%).

Respondents were asked to indicate a range of years that they had been a principal. Of the principals, 58 had six years or less experience (50.8%). Thirteen of the principals indicated that they had over 20 years of experience. Those with over 20 years of experience represented 11.4% of the overall respondents.

Analysis

Characteristics of Programs and Services

The research indicated a number of characteristics essential to school programs where all children, particularly those at-risk, are learning effectively. The questionnaire divided those characteristics into four general classifications that included positive school climate; customized curriculum and instructional program; promoting personal, social and emotional growth; and parent empowerment. Each of the four classifications was further broken down into a number of indicators. Respondents were asked to indicate the degree to which the characteristics were found in their schools. The following scale was used to show the level each characteristic was found in the respective schools: 1=not at all, 2=somewhat evident, 3=evident, 4=very evident, and 5=extremely evident. The means, standard deviation and percent were calculated and used to determine the level each characteristic was evident in the population.

The characteristics in the area of positive school climate included: student choice, commitment and voluntary participation; small class sizes; students feel safe, and supported; clearly established student oriented mission; and community partnerships through coordinated services. Of the five characteristics, small class size and students

feeling safe, and supported were very evident in the respondent schools. Small class size generated a mean score of 4.39, a standard deviation of .956, and 87% of the principals indicated it was very evident or extremely evident in their schools. Students feeling safe and supported generated a mean score of 4.18, a standard deviation of .837 and 85% of principals indicated it was evident or extremely evident in their schools. Table 1 provides this information for all of the respondents. Overall, the principals surveyed indicated that all of the positive school climate characteristics were at least evident in their schools. A total mean score of 3.77 was calculated for the positive school climate characteristics with a standard deviation of .568.

Table 1. Characteristics of Positive School Climate

	Mean	Standard Deviation
Student Choice, commitment and voluntary participation	3.42	.958
Small Class Size	4.39	.956
Students feel safe, Supported	4.18	.837
Clearly Established Student Oriented Mission	3.67	.965
Community Partnerships through Coordinated Services	3.22	1.054
Total	3.77	.568

The characteristics in the area of customized curriculum and instructional programs included: caring, demanding and well prepared teachers; comprehensive and

continuing student oriented programs, a curriculum that was challenging for and relevant to student needs; high academic standards for all students; continual assessment of student progress; individualized instruction; and achievement leveled reading groups. Of the eight characteristics, caring, demanding and well prepared teachers, curriculum was challenging for and relevant to student needs, high academic standards for all students, and continual assessment of student progress were very evident in the respondent schools. Caring, demanding and well prepared teachers generated a mean score of 4.34, a standard deviation of .785 and 86% of the principals indicated that it was very evident or extremely evident in their schools. Curriculum that was challenging for and relevant to student needs generated a mean score of 4.15, a standard deviation of .655 and 85% of the principals indicated that it was very evident or extremely evident in their schools. High academic standards for all students generated a mean score of 4.17, a standard deviation of .819 and 85% of the principals indicated that it was very evident or extremely evident in their schools. Continual assessment of student progress generated a mean score of 4.02, a standard deviation of .809 and 78.1% of principals indicated that it was very evident or extremely evident in their schools. Table 2 provides the mean and standard deviation for the customized curriculum and instructional programs. Overall, the principals surveyed indicated that all eight of the characteristics were at least evident in their schools. A total mean score of 3.95 was calculated for the customized curriculum and instructional program characteristics with a standard deviation of .593.

Table 2. Characteristics of Customized Curriculum and Instructional Programs

	Mean	Standard Deviation
Caring, Demanding and Well Prepared Teachers	4.34	.785
Comprehensive and Continuing Student Oriented Programs	3.91	.837
Curriculum is Challenging for and Relevant to Student Needs	4.15	.655
High Academic Standards for All Students	4.17	.819
Continuing Assessment of Student Progress	4.02	.809
Individualized Instruction	3.90	.892
One-on-one Tutoring	3.53	1.184
Achievement Leveled Reading Groups	3.57	1.081
Total	3.95	.593

The characteristics in the area of promoting personal, social and emotional growth included: programs exist that promote student responsibility; students provided opportunity to mature through service oriented activities; student services provided to meet emotional growth needs; and cooperative learning emphasized to promote social development. Each of the four characteristics was indicated as being at least evident in the respondent schools. Table 3 illustrates the mean and standard deviation calculated for this common characteristic. A total mean score of 3.49 was calculated for promoting personal, social and emotional growth with a standard deviation of .593.

Table 3. Characteristics of Programs and Services to Promote Personal, Social and Emotional Growth

	Mean	Standard Deviation
Programs Exist that Promote Student Responsibility	3.81	.840
Students Provided Opportunity to Mature Through Service Oriented Activities	3.22	1.020
Student Services Provided to Meet Emotional Growth Needs	3.44	.932
Cooperative Learning Emphasized to Promote Social Development	3.52	.875
Total	3.49	.593

The characteristics in the area of parent empowerment included: focus on teaching of parenting skills and development of home conditions; extensive use of parent volunteers; participation by families in school decision making and advocacy; and continuous school-to-home and home-to-school communication. Of the four characteristics, focus on teaching parenting skills and development of home conditions and participation by families in school decision-making and advocacy were somewhat evident to evident in the respondent schools. The focus on teaching of parenting skills and development of home conditions generated a mean score of 2.39, a standard deviation of .992 and 88.6% of principals surveyed indicated this characteristic was evident, somewhat evident or not found at all in their schools. The participation by families in school decision-making and advocacy generated a mean score of 2.84, a standard deviation of .837 and 79% of principals surveyed indicated that participation by families

was evident, somewhat evident or not evident at all in their schools. Table 4 provides information pertinent to promoting personal, social and emotional growth program characteristics found in respondent schools. A total mean score of 2.98 was calculated for the characteristics that comprised parent empowerment with a standard deviation of .696.

Table 4. Characteristics of Programs and Services for Parent Empowerment

	Mean	Standard Deviation
Focus on Teaching of Parenting Skills and Development of Home Conditions	2.39	.992
Extensive Use of Parent Volunteers	3.04	1.116
Participation by Families in School Decision Making and Advocacy	2.84	.837
Continuous School-to-home and Home-to-school Communication	3.66	.840
Total	2.98	.696

Processes Utilized to Identify At-Risk Students

The research consistently indicated a number of factors that were important considerations when identifying students that are at-risk of academic or social failure. The questionnaire divided those factors into three general classifications that included: personal factors; social factors; and school factors. Each of the three classifications was further divided into a numbers of at-risk identification factors. Rural school principals were asked to indicate the level of importance each factor had in the identification of students that were at-risk of academic or social failure. The following scale was used to

demonstrate the principal's level of importance placed upon each factor in identifying at-risk students: 1=not important, 2=somewhat important, 3=important, 4=very important, and 5=extremely important. The means, standard deviations and percentages were calculated and used to indicate the principal's level of importance placed upon each factor in determining whether a child is at-risk.

Personal factors included the following: student exhibits an external locus of control; student has low self-esteem; student has learning disabilities; student lacks future goals; student does not have the ability to see options; student lacks hope for the future; and student significantly lacks coping skills. The principals surveyed indicated that all of the factors categorized as personal were at least important to consider when determining whether children were at-risk. A total mean score of 3.88 was generated for personal factors with a standard deviation of .591.

The factors considered to be very important to the principals included: low self-esteem, learning disabilities, lack of hope for the future and significant lack of coping skills. A student's low self-esteem generated a mean score of 4.06, a standard deviation of .801 and 76.4% of the principals indicated that it was a very important or extremely important factor. Whether a student had a learning disability was considered to be a very important factor in determining a student's at-risk identification. A mean score of 4.01 was calculated with a standard deviation of .907. Of the principals surveyed, 71.9% considered a student's learning disability to be very important or extremely important. The principals indicated that a student's lack of hope for the future was a very important factor to consider. A mean score of 4.01 was obtained with a standard deviation of .877

and 78.1% of principals indicated that hope for the future was a very important or extremely important identification factor. Finally, a student's significant lack of coping skills was deemed to be a very important identifying factor. A mean score of 4.29, standard deviation of .737 and 86.9% of principals surveyed indicated that a significant lack of coping skills was an important factor when identifying at-risk students. Table 5 illustrates the mean score and standard deviation for each of the personal identification factors.

Table 5. Personal Factors Utilized to Identify At-Risk Students

	Mean	Standard Deviation
Student Exhibits an External Locus of Control	3.60	.996
Student has Low Self-Esteem	4.06	.801
Student has Learning Difficulties	4.01	.907
Student Lacks Future Goals	3.52	.980
Student does not have Ability to See Options	3.69	.853
Student Lacks hope for the Future	4.01	.877
Student Significantly Lacks Coping Skills	4.29	.737
Total	3.88	.591

The social factors utilized in the identification of at-risk children included: sibling or parent drop out; low socioeconomic status; English as a second language; lack of structure and stability in the family; evidence of physical/sexual abuse; lack of family commitment to school; and poor communication between home and school. The principals surveyed indicated that all of the social factors were at least important to

consider when identifying at-risk children with the exception of English as a second language. A total mean score of 3.77 was calculated for the social factors with a standard deviation of .595.

The social factors considered to be very important to the principals surveyed included: a lack of structure and stability in the family; evidence of physical/sexual abuse; and a lack of commitment to school. The lack of structure and stability in the family generated a mean score of 4.28 with a standard deviation of .7931. Of the principals surveyed, 86.8% considered it to be a very important or extremely important at-risk identification factor. Evidence of physical/sexual abuse had a mean score of 4.39 with a standard deviation of 1.009. Almost 86% (85.1%) of the principals indicated that evidence of abuse was a very important or extremely important student at-risk identification factor. Finally, a lack of family commitment to school was considered to be a very important identification factor. A mean score of 4.16 with a standard deviation of .8682 was generated. Almost 80% (79.2%) of rural elementary principals considered a family's commitment level to school to be a very important or extremely important factor to consider when determining at-risk identification. Table 6 provides data relevant to the social factors used to identify at-risk students in respondent schools.

Of the seven social factors gleaned from the research, English as a second language was considered to be somewhat important to important. A mean score of 2.59 with a standard deviation of 1.272 was calculated. Close to three-quarters (71.9%) of the rural school principals considered English as a second language to be not important, somewhat important or important factor when identifying at-risk students.

Table 6. Social Factors Used to Identify At-Risk Students

	Mean	Standard Deviation
Sibling of Parent Dropout	3.53	1.015
Low Socioeconomic Status	3.63	.943
English as a Second Language	2.59	1.272
Lack of Structure and Stability in the Family	4.28	.793
Evidence of Physical/Sexual Abuse	4.39	1.009
Lack of Family Commitment to School	4.16	.868
Poor Communication Between Home and School	3.80	1.032
Total	3.77	.595

The school factors indicated by the research as being important considerations when identifying at-risk students included: student exhibits behavior problems—disruptive to learning environment; student absenteeism; student has a lack of respect for authority; student has been retained a grade—especially in the early grades; student has poor academic record; student’s reading and math levels are a year or more behind grade level; student is dissatisfied and frustrated with school; and student has been tracked or placed in a group(s) according to ability. The principals surveyed indicated that all of the school factors were at least important to consider when attempting to identify at-risk students with the exception of students being tracked or placed in a group (s) according to ability. A total mean score of 3.89 with a standard deviation of .595 was calculated for the school factors.

The school factors considered to be at least very important identifiers of at-risk students included: student exhibits behavior problems—disruptive to learning

environment, student absenteeism, student has a lack of respect for authority, and the student is dissatisfied and frustrated with school. Student exhibits behavior problems—disruptive to the learning environment generated a means score of 4.25 with a standard deviation of .7853. 85.1% of the principals indicated that the exhibition of behavior problems was a very important or extremely important identification factor. Student absenteeism had a calculated mean score of 4.46 with a standard deviation of .7302. Of the principals surveyed, 89.5% viewed student absences as being very important or extremely important when identifying at-risk children. A student's lack of respect for authority had a calculated mean score of 4.28 with a standard deviation of .8573. A lack of respect for authority was considered a very important or extremely important identifier of at-risk behavior by 81.6% of the rural school principals surveyed. Finally, a student's dissatisfaction and frustration with school generated a mean score of 4.18 with a standard deviation of .7321. 84.2% of the principals of rural elementary schools indicated that a student's dissatisfaction and frustration with school was a very important or extremely important at-risk identification factor. Table 7 provides an illustration of the mean scores and standard deviations generated for the school factors used to identify at-risk students.

The rural elementary school principals surveyed indicated that students that had been tracked or placed in a group (s) according to ability was considered by 72.6% of the respondents to be not important, somewhat important or important when used as an identifier of at-risk behavior. A mean score of 2.92 with a standard deviation of 1.114 was generated for this identification factor.

Table 7. School Factors Used to Identify At-Risk Students

	Mean	Standard Deviation
Student Exhibits Behavior Problems—Disruptive to Learning Environment	4.25	.785
Student Absenteeism	4.46	.730
Student has a Lack of Respect for Authority	4.28	.857
Student has been Retained a Grade—Especially in Early Grades	3.24	1.058
Student has a Poor Academic Record	3.89	.780
Student's Reading and Math Levels are a Year or More Behind Grade Level	3.97	.887
Student is Dissatisfied and Frustrated with School	4.18	.732
Student has Been Tracked or Placed in a Group (s) According to Ability	2.92	1.656
Total	3.89	.595

Programs Utilized for At-Risk Students

The questionnaire (Appendix A) asked Montana rural elementary school principals to indicate the research-based programs they were using to meet the needs of students considered at-risk of academic or social failure. Respondents were asked to indicate yes they were using the program or no they were not using the program in their respective schools. The data shown in Table 8 indicate a breakdown of the percentages of the 114 schools using or not using the programs specified in the research as being effective for the at-risk student population.

Table 8. Specific School-Based Programs Being Utilized

School-Based Programs	% Percent Using Program	% Percent Not Using Program
Second Step: A Violence Prevention Curriculum	31.6	68.4
Success For All	9.6	90.4
First Step to Success	11.4	88.6
Montana Behavioral Initiative Training	51.8	48.2
Early Literacy Education for Parents	18.4	81.6
After-school Enrichment Programs	52.6	47.4
Summer Enrichment Programs	49.1	50.9
Head Start/Pre-school Collaboration and Transition	47.4	52.6
Primary Grade Alternative Classroom	17.5	82.5
Title I	89.5	10.5

The 114 principals surveyed indicated that the utilization of effective programs was evident in rural schools throughout the state of Montana. Extending the school day through enrichment activities was an intervention utilized by 52.6% of the rural schools. Extending the school year through enrichment activities was offered to children in 49.1% of the respondent schools. The extension of the school day and year were cited in the research as being effective in meeting the needs of all students and an especially effective strategy for meeting the needs of students considered at-risk.

Research indicated that early intervention and a school based commitment to educate preschoolers in the community or create a collaborative relationship with preschool providers was considered an effective component (Jewett, 1991). Head Start/Preschool collaboration and transition programs were evident in 47.4% of the respondent schools.

The best time to address the needs of at-risk youth is as early as possible. The maximum opportunity to have a positive impact on children is in kindergarten and grades one through three (Barr & Parrett, 2001). The programs included in the questionnaire that specifically emphasized early intervention were Second Step: A Violence Prevention Curriculum, Success For All, First Step to Success, primary grade alternative classrooms and early literacy education for parents. The principals indicated that the early intervention programs identified in the questionnaire were evident in Montana's rural schools according to the following percentages: Second Step—31.6%, Success for All—9.6%, First Step to Success—11.4%, primary grade alternative classrooms—17.5%, and early literacy education for parents—18.4%.

The Title I program is designed to meet the needs of students that attend schools from low socioeconomic areas. Title I schools are those that have at least 50% of their students who are eligible to receive free or reduced lunches. Of the 114 schools that responded to the questionnaire, 89.5% were Title I schools.

Differences Based on Size, Organizational Structure and Principal's Years of Experience

The 21 statistical hypotheses in this study were tested using the analysis of variance (ANOVA). The key statistic in ANOVA is the F-test of difference of group means, testing if the means of the groups formed by values of the independent variable are different enough not to have occurred by chance. If the group means do not differ significantly then it is inferred that the independent variable did not have an effect on the dependent variable. The at-risk programs/services and identification (dependent) variables in this study were: positive school climate; customized curriculum and instructional program; promoting personal, social and emotional growth; parent empowerment; personal factors; social factors; and school factors. The specific school information variables including number of students, grade configuration, and years of experience of the principal were utilized to determine if they had a significant effect on at-risk programs/services and the processes utilized to identify students at-risk of academic or social failure.

The 21 null hypotheses were tested at the .05 level of significance. Tables 9-22 show the descriptive statistics and the results of a one-way analysis of variance calculated to determine the effect that the school's student numbers had on the programs/services and identification of at-risk students in rural Montana schools. Tables 23-36 show the descriptive statistics and results of ANOVA to determine the effect that grade configuration of the respondent schools had on the programs/services and identification of at-risk students. Tables 37-50 show the descriptive statistics and results of the effect that the principal's years of experience had on the programs/services and identification of

at-risk students within the respondent schools.

In the tables used to represent the ANOVA results, the between group or explained variance sum of squares and mean square is represented. The within group or error variance sum of squares and mean score is indicated. The degrees of freedom for the between and within group is denoted with the F ratio's calculation delineated. The level of significance is presented. An explanation of the determination of significant difference in the variance of the means will follow each table.

Statistical Hypotheses

Hypotheses one through seven test the effect that the school's student numbers had on the programs/services and identification of at-risk students in rural elementary schools in the state of Montana. The next seven hypotheses, 8 through 14, test the effect that grade configuration of the schools included in the study had on the programs/services and identification of at-risk students. Hypotheses 16 through 21 test the effect that the principal's years of experience had on the programs/services and identification of at-risk students within the respondent schools.

Table 9 provides descriptive statistics for the effects of school size on the positive school climate factors. Table 10 shows the results of the ANOVA test.

Null Hypothesis One

No significant difference exists among the means for positive school climate and the number of students within a school.

Table 9. Descriptives for the Effects of Schools Size on Positive School Climate

Number of Students	N	Mean	Standard Deviation	Percent
40 – 75	18	3.922	.5906	15.7
76 – 100	15	3.866	.3829	13.2
101 – 150	27	3.763	.5492	23.6
151 – 200	8	3.475	.7166	7.3
201 – 250	15	3.786	.4373	13.2
Over 250	31	3.735	.6601	27.2
Total	113	3.777	.5681	100.0

Table 10. ANOVA Results for Effect of School Size on Positive School Climate

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.290	5	.258	.792	.558
Within Groups	35.171	108	.326		
Total	36.461	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 10. The number of students in a school did not have a significant effect on the positive school climates of the respondent rural elementary schools.

Table 11 shows the descriptive statistics generated for the effect of school size on customized curriculum and instructional programs. Table 12 shows the results of the ANOVA test.

Null Hypothesis Two

No significant difference exists among the means for customized curriculum and instructional programs and the number of students within the school.

Table 11. Descriptives for the Effect of School Size on Customized Curriculum and Instructional Programs

Number of Students	N	Mean	Standard Deviation	Percent
40 – 75	18	4.097	.5648	15.7
76 – 100	15	4.100	.5048	13.2
101 – 150	27	3.925	.6875	23.6
151 – 200	8	3.921	.8912	7.3
201 – 250	15	3.791	.5643	13.2
Over 251	31	3.891	.4913	27.2
Total	114	3.948	.5932	100.0

Table 12. ANOVA Results for Effect of School Size on Customized Curriculum and Instructional Programs

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.233	5	.247	.691	.631
Within Groups	38.543	108	.357		
Total	39.775	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 12. The number of students in a school did not have a significant effect on the customized curriculum and instructional programs of the respondent rural elementary schools.

Table 13 provides the descriptive statistics for the effect of school size on programs established to promote personal, social and emotional growth of students.

Table 14 illustrates the results generated from the ANOVA test.

Null Hypothesis Three

No significant difference exists among the means for promoting personal, social and emotional growth of students and the number of students within the school.

Table 13. Descriptives for the Effect of School Size on Promoting Personal, Social and Emotional Growth of Students

Number of Students	N	Mean	Standard Deviation	Percent
40 – 75	18	3.597	.6594	15.7
76 – 100	15	3.450	.6826	13.2
101 – 150	27	3.398	.8123	23.6
151 – 200	8	3.562	.7647	7.3
201 – 250	15	3.333	.6455	13.2
Over 250	31	3.604	.5978	27.2
Total	114	3.495	.6848	100.0

Table 14. ANOVA Results for the Effect of School Size on Promoting Personal, Social and Emotional Growth of Students

	Sum of Squares	DF	Mean Square	F	Sig.
Between Groups	1.274	5	.255	.532	.752
Within Groups	51.724	108	.479		
Total	52.998	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 14. The number of students in a school did not have a significant effect on promoting personal, social and emotional growth of students in the respondent rural elementary schools.

Table 15 provides the descriptive statistics for the effect of school size on the level of parent empowerment found in respondent schools. Table 16 shows the results of the ANOVA test.

Null Hypothesis Four

No significant difference exists among the means for parent empowerment and the number of students within the school.

Table 15. Descriptives for the Effects of School Size on Parent Empowerment

Number of Students	N	Mean	Standard Deviation	Percent
40 – 75	18	3.222	.6636	15.7
76 – 100	15	3.016	.6645	13.2
101 – 150	27	2.842	.6656	23.6
151 – 200	8	2.781	.9584	7.3
201 – 250	15	2.900	.5961	13.2
Over 250	31	3.048	.7314	27.2
Total	114	2.984	.6963	100.0

Table 16. ANOVA Results for the Effect of School Size on Parent Empowerment

	Sum of Squares	DF	Mean Square	F	Sig.
Between Groups	1.290	5	.258	.792	.558
Within Groups	35.171	108	.326		
Total	36.461	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 16. The number of students in a school did not have a significant effect on the empowerment of parents in the respondent rural elementary schools.

Table 17 shows the descriptive statistics generated to determine the effect that school size has on the personal factors used by respondents to identify at-risk students.

Table 18 reports the results calculated for the ANOVA test.

Null Hypothesis Five

No significant difference exists among the means for personal factors utilized to identify at-risk students and the number of students within the school.

Table 17. Descriptives for Effect of School Size on Personal Factors Used to Identify At-Risk Students

Number of Students	N	Mean	Standard Deviation	Percent
40 – 75	17	3.890	.5163	15.7
76 – 100	15	4.057	.5421	13.2
101 – 150	27	3.724	.6734	23.6
151 - 200	8	4.000	.5235	7.3
201 – 250	15	3.914	.4731	13.2
Over 250	31	3.875	.6481	27.2
Total	114	3.879	.5907	100.0

Table 18. ANOVA Results for the Effect School Size Has on Personal Factors Used to Identify At-Risk Students

	Sum of Squares	DF	Mean Square	F	Sig.
Between Groups	1.256	5	.251	.710	.617
Within Groups	37.828	108	.354		
Total	39.084	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 18. The number of students in a school did not have a significant effect on the personal factors utilized to identify at-risk students in the respondent rural elementary schools.

Table 19 presents descriptive statistics for the effects of school size on the social factors used to identify at-risk student in the respondent schools. Table 20 presents the results of the ANOVA test.

Null Hypothesis Six

No significant difference exists among the means for social factors utilized to identify at-risk students and the number of students within the school.

Table 19. Descriptives for the Effects of School Size on Social Factors Used to Identify At-Risk Students

Number of Students	N	Mean	Standard Deviation	Percent
40 – 75	18	3.619	.5390	15.7
76 – 100	15	3.714	.8045	13.2
101 – 150	27	3.767	.5688	23.6
151 – 200	8	3.678	.3721	7.3
201 – 250	15	3.695	.4915	13.2
Over 250	31	3.947	.6260	27.2
Total	114	3.768	.5952	100.0

Table 20. ANOVA Results for the Effect School Size Has on Social Factors Used to Identify At-Risk Students

	Sum of Squares	df	Mean Square	F	.Sig.
Between Groups	1.554	5	.311	.872	.503
Within Groups	38.133	108	.356		
Total	39.686	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based on the data in Table 20. The number of students in a school did not have a significant effect on the social factors used to identify at-risk students in the respondent rural elementary schools.

Table 21 shows the descriptive statistics generated for the effects of school size on school factors utilized to identify at-risk students in the respondent schools. Table 22 shows the results of the ANOVA test.

Null Hypothesis Seven

No significant difference exists among the means for school factors utilized to identify at-risk students in rural elementary schools and the number of students within the rural elementary school.

Table 21. Descriptives for the Effects of School Size on the School Factors Used to Identify At-Risk Students

Number of Students	N	Mean	Standard Deviation	Percent
40 – 75	18	3.798	.6110	15.7
76 – 100	15	3.825	.7254	13.2
101 – 150	27	3.810	.6008	23.6
151 – 200	8	3.828	.5300	7.3
201 – 250	15	3.966	.4711	13.2
Over 250	31	4.056	.4719	27.2
Total	114	3.899	.5661	100.0

Table 22. ANOVA Results for the Effects of School Size on the School Factors Used to Identify At-Risk Students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10354	5	.271	.839	.525
Within Groups	24.861	108	.323		
Total	36.215	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 22. The number of students in a school did not have a significant effect on the school factors utilized to identify at-risk students in the respondent rural elementary schools.

Table 23 provides the descriptive statistics generated for the effect that grade configuration has on the characteristics of positive school climate. Table 24 shows the results of the ANOVA test.

Null Hypothesis Eight

No significant difference exists among the means for positive school climate and a rural elementary school's grade configuration.

Table 23. Descriptives of the Effect Grade Configuration Has on Positive School Climate

Grade Configuration	N	Mean	Standard Deviation	Percent
K – 6	50	3.876	.5157	43.8
K – 8	45	3.675	.4996	39.4
K – 5	19	3.757	.7988	16.8
Total	114	3.777	.5680	100.0

Table 24. ANOVA Results for the Effect Grade Configuration Has on Positive School Climate

	Sum of Squares	df	Mean Square	F	Sig.
Between Group	.960	2	.480	1.501	.227
Within Group	35.501	111	.320		
Total	36.461	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 24. The grade configuration of a school did not have a significant effect on positive school climate of the respondent rural elementary schools.

Table 25 provides the descriptive statistics for the effects that a school's grade configuration has on the customized curriculum and instructional programs offered at the respondent schools. Table 26 indicates the results of the ANOVA test.

Null Hypothesis Nine

No significant difference exists among the means for customized curriculum and instructional programs and a rural elementary school's grade configuration.

Table 25. Descriptives for the Effects that Grade Configuration Has on the Customized Curriculum and Instructional Programs

Grade Configuration	N	Mean	Standard Deviation	Percent
K - 6	50	3.972	.6630	43.8
K - 8	45	3.952	.4587	39.4
K - 5	19	3.875	.7009	16.8
Total	114	3.948	.5932	100.0

Table 26. ANOVA Results for the Effects that Grade Configuration Has on the Customized Curriculum and Instructional Programs

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.812	5	.162	.450	.812
Within Groups	38.963	108	.361		
Total	39.775	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 26. The grade configuration of a school did not have a significant effect on the customized curriculum and instructional programs of the respondent rural elementary schools

Table 27 provides the descriptive statistics for the effects of a school's grade configuration on the promotion of personal, social and emotional growth of students in the respondent schools. Table 28 gives the results of the ANOVA test.

Null Hypothesis Ten

No significant difference exists among the means for promoting personal, social and emotional growth of students and a rural elementary school's grade configuration.

Table 27. Descriptives for the Effects that Grade Configuration Has on the Promotion of Personal, Social and Emotional Growth of Students

Grade Configuration	N	Mean	Standard Deviation	Percent
K – 6	50	3.525	.7253	43.8
K – 8	45	3.466	.5949	39.4
K – 5	19	3.486	.8013	16.8
Total	114	3.495	.6848	100.0

Table 28. ANOVA Results for the Effects that Grade Configuration Has on the Promotion of Personal, Social and Emotional Growth of Students

	Sum of Square	df	Mean Square	F	Sig.
Between Groups	.082	2	.041	.086	.917
Within Groups	52.915	111	.477		
Total	52.998	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 28. The grade configuration of a school did not have a significant effect on the promotion of personal, social and emotional growth of students in the respondent rural elementary schools.

Table 29 provides the descriptive statistics for the effect that grade configuration has on the respondent school's emphasis on parent empowerment. Table 30 shows the results of the ANOVA test.

Null Hypothesis Eleven

No significant difference exists among the means for parent empowerment and a rural elementary school's grade configuration.

Table 29. Descriptives for the Effects of Grade Configuration on Parent Empowerment

Grade Configuration	N	Mean	Standard Deviation	Percent
K - 6	50	2.995	.7204	43.8
K - 8	45	2.961	.5861	39.4
K - 5	19	3.013	.8877	16.8
Total	114	2.984	.6963	100.0

Table 30. ANOVA Results for the Effects of Grade Configuration on Parent Empowerment

	Sum of Square	df	Mean Square	F	Sig.
Between Groups	.046	2	.023	.046	.955
Within Groups	54.740	111	.493		
Total	54.786	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 30. The grade configuration of a school did not have a significant effect on parent empowerment in respondent rural elementary schools.

Table 31 shows the descriptive statistics generated for the effects that grade configuration has on the personal factors used by the respondent schools to identify at-risk students. Table 32 shows the results of the ANOVA test.

Null Hypothesis Twelve

No significant difference exists among the means for the personal factors utilized to identify at-risk students and the grade configuration of rural elementary schools.

Table 31. Descriptives for the Effects that Grade Configuration Has on Personal Factors Used to Identify At-Risk Students

Grade Configuration	N	Mean	Standard Deviation	Percent
K - 6	49	3.874	.6265	42.9
K - 8	45	3.866	.5252	39.8
K - 5	19	3.924	.6689	16.8
Total	113	3.879	.5907	100.0

Table 32. ANOVA Results for the Effects that Grade Configuration Has on Personal Factors Used to Identify At-Risk Students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.048	2	.024	.067	.935
Within Groups	39.037	110	.355		
Total	39.084	112			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 32. The grade configuration of a school did not have a significant effect on the personal factors utilized to identify at-risk students of the respondent rural elementary schools.

Table 33 gives the descriptive statistics for the effect that a school's grade configuration has on the social factors used by the respondent schools to identify at-risk students. Table 34 displays the results of the ANOVA test.

Null Hypothesis Thirteen

No significant difference exists among the means for the social factors utilized to identify at-risk students and the grade configuration of rural elementary schools.

Table 33. Descriptives for the Effects of Grade Configuration on Social Factors Used to Identify At-Risk Students

Grade Configuration	N	Mean	Standard Deviation	Percent
K - 6	49	3.790	.5448	43.3
K - 8	45	3.733	.5941	39.8
K - 5	19	3.797	.7382	16.8
Total	113	3.768	.5952	100.0

Table 34. ANOVA Results for the Effects of Grade Configuration on Social Factors Used to Identify At-Risk Students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.094	2	.047	.130	.878
Within Groups	39.593	110	.360		
Total	39.686	112			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 34. The grade configuration of a school did not have a significant effect on the social factors utilized to identify at-risk students in the respondent rural elementary schools.

Table 35 signifies the descriptive statistics for the effects that grade configuration has on the school factors used by the respondent schools to identify at-risk students.

Table 36 shows the results of the ANOVA test.

Null Hypothesis Fourteen

No significant difference exists among the means for the school factors utilized to identify at-risk students and the grade configurations of rural elementary schools.

Table 35. Descriptives for the Effect Grade Configuration on the School Factors Used to Identify At-Risk Students

Grade Configuration	N	Mean	Standard Deviation	Percent
K – 6	50	3.870	.6066	43.8
K – 8	45	3.927	.4996	39.4
K – 5	19	3.907	.6289	16.8
Total	114	3.899	.5661	100.0

Table 36. ANOVA Results for Effect of Grade Configuration on the School Factors Used to Identify At-Risk Students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.081	2	.040	.124	.883
Within Groups	36.134	111	.326		
Total	36.215	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 36. The grade configuration of a school did not have a significant effect on the school factors utilized to identify at-risk students in the respondent rural elementary schools.

Table 37 provides descriptive statistics for the effect that a principal's years of experience has on the positive school climate of the respondent schools. Table 38 provides the results of the ANOVA test.

Null Hypothesis Fifteen

No significant difference exists among the means for positive school climate and the rural elementary principal's number of years of experience.

Table 37. Descriptives for the Effect of a Principal's Years of Experience on Positive School Climate

Principal's Years of Experience	N	Mean	Standard Deviation	Percent
1 to 3	30	3.640	.6754	26.3
4 to 7	28	3.785	.4386	24.5
7 to 10	17	3.564	.4808	14.9
10 to 15	19	4.010	.5636	16.7
15 to 20	7	3.771	.7432	6.1
Over 20	13	4.015	.4278	11.4
Total	114	3.777	.5680	100.0

Table 38. ANOVA Results for the Effect of a Principal's Years of Experience on Positive School Climate

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.106	5	.621	2.012	.083
Within Groups	33.354	108	.309		
Total	36.461	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 38. The principal's years of experience did not have a significant effect on the positive school climate of the respondent rural elementary schools.

Table 39 displays the descriptive statistics for the effect that a principal's years of experience has on the customized curriculum and instructional programs of the respondent schools. Table 40 shows the results of the ANOVA test.

Null Hypothesis Sixteen

No significant difference exists among the means for customized curriculum and instructional programs and the rural elementary principal's years of experience.

Table 39. Descriptives of the Effect a Principal's Years of Experience Has on Customized Curriculum and Instructional Programs

Principal's Years of Experience	N	Mean	Standard Deviation	Percent
1 to 3	30	3.904	.5767	26.3
4 to 7	28	3.906	.4257	24.5
7 to 10	17	3.860	.5075	14.9
10 to 15	19	4.052	.7124	16.7
15 to 20	7	3.928	.8893	6.1
Over 20	13	4.115	.7243	11.4
Total	114	3.948	.5932	100.0

Table 40. ANOVA Results of the Effect a Principal's Years of Experience Has on Customized Curriculum and Instructional Programs

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.812	5	.162	.450	.812
Within Groups	38.963	108	.361		
Total	39.775	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based on the data in Table 40. The principal's years of experience did not have a significant effect on the customized curriculum and instructional programs in respondent rural elementary schools.

Table 41 indicates the descriptive statistics of the effect that a principal's years of experience has on promoting personal, social and emotional growth of students in the respondent schools. Table 42 shows results of the ANOVA test.

Null Hypothesis Seventeen

No significant difference exists among the means for promoting personal, social and emotional growth of students and the rural elementary principal's years of experience.

Table 41. Descriptives of the Effect a Principal's Years of Experience Has on Promoting Personal, Social and Emotional Growth of Students

Principal's Years of Experience	N	Mean	Standard Deviation	Percent
1 to 3	30	3.450	.6636	26.3
4 to 7	28	3.455	.6645	24.5
7 to 10	17	3.352	.6656	14.9
10 to 15	19	3.552	.9584	16.7
15 to 20	7	3.642	.5961	6.1
Over 20	13	3.711	.7314	11.4
Total	114	3.495	.6963	100.0

Table 42. ANOVA Results of the Effect a Principal's Years of Experience Has on Promoting Personal, Social and Emotional Growth of Students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.273	5	.255	.532	.752
Within Groups	51.724	108	.479		
Total	52.998	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 42. The principal's years of experience did not have a significant effect on the promotion of personal, social and emotional growth of students in the respondent rural elementary schools.

Table 43 shows the descriptive statistics generated for the effect that the principal's years of experience has on parent empowerment within the respondent schools. Table 44 shows the results of the ANOVA test.

Null Hypothesis Eighteen

No significant difference exists among the means for parent empowerment and the rural elementary principal's years of experience.

Table 43. Descriptives of the Effect a Principal's Years of Experience on Empowerment of Parents

Principal's Years of Experience	N	Mean	Standard Deviation	Percent
1 to 3	30	2.908	.7206	26.3
4 to 7	28	2.991	.6888	24.5
7 to 10	17	2.911	.7285	14.9
10 to 15	19	3.078	.6721	16.7
15 to 20	7	2.785	.9511	6.1
Over 20	13	3.211	.5385	11.4
Total	114	2.984	.6963	100.0

Table 44. ANOVA Results for the Effect a Principal's Years of Experience on Empowerment of Parents

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.381	5	.276	.559	.731
Within Groups	53.404	108	.494		
Total	54.786	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 44. The principal's years of experience did not have a significant effect on parent empowerment in respondent rural elementary schools.

Table 45 represents the descriptive statistics of the effect that a principal's years of experience have on the personal factors used by respondent schools to identify at-risk students. Table 46 shows the results of the ANOVA test.

Null Hypothesis Nineteen

No significant difference exists among the means for personal factors used to identify at-risk students and the rural elementary principal's years of experience.

Table 45. Descriptives of the Effect a Principal's Years of Experience Has on the Personal Factors Used to Identify At-Risk Students

Principal's Years of Experience	N	Mean	Standard Deviation	Percent
1 to 3	29	3.724	.54255	25.6
4 to 7	28	3.928	.4688	24.5
7 to 10	17	3.831	.6818	14.9
10 to 15	19	3.954	.6389	16.7
15 to 20	7	4.122	.4319	6.1
Over 20	13	3.923	.7967	11.4
Total	113	3.879	.5907	100.0

Table 46. ANOVA Results for the Effect a Principal's Years of Experience Has on the Personal Factors Used to Identify At-Risk Students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.383	5	.277	.785	.563
Within Groups	370702	107	.352		
Total	39.084	112			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 46. The principal's years of experience did not have a significant effect on the personal factors utilized to identify at-risk students in respondent rural elementary schools.

Table 47 provides descriptive statistics for the effect that a principal's years of experience has on the social factors used to identify at-risk students in the respondent schools. Table 48 demonstrates the results of the ANOVA test.

Null Hypothesis Twenty

No significant difference exists among the means for social factors utilized to identify at-risk students and the rural elementary principal's years of experience.

Table 47. Descriptives of the Effect a Principal's Years of Experience Has on Social Factors Used to Identify At-Risk Students

Principal's Years of Experience	N	Mean	Standard Deviation	Percent
1 to 3	29	3.781	.6559	25.6
4 to 7	28	3.729	.4877	24.5
7 to 10	17	3.731	.7264	14.9
10 to 15	19	3.684	.6844	16.7
15 to 20	7	3.857	.4040	6.1
Over 20	13	3.964	.4481	11.4
Total	113	3.768	.5952	100.0

Table 48. ANOVA Results for the Effect a Principal's Years of Experience Has on Social Factors Used to Identify At-Risk Students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.721	5	.144	.396	.851
Within Groups	38.966	107	.364		
Total	39.686	112			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 48. The principal's years of experience did not have a significant effect on the social factors utilized to identify at-risk students in the respondent rural elementary schools.

Table 49 show the descriptive statistics generated for the effect that a principal's years of experience has on the school factors used to identify at-risk students in the respondent schools. Table 50 shows the results of the ANOVA test.

Null Hypothesis Twenty-One

No significant difference exists among the means for school factors utilized to identify at-risk students and the rural elementary principal's years of experience.

Table 49. Descriptives for the Effect a Principal's Years of Experience Has on School Factors Used to Identify At-Risk Students

Principal's Years of Experience	N	Mean	Standard Deviation	Percent
1 to 3	30	3.891	.6883	26.3
4 to 7	28	3.843	.4284	24.5
7 to 10	17	3.764	.5827	14.9
10 to 15	19	3.835	.5481	16.7
15 to 20	7	4.392	.4810	6.1
Over 20	13	4.038	.4878	11.4
Total	114	3.899	.5661	100.0

Table 50. ANOVA Results for the Effect a Principal's Years of Experience Has on School Factors Used to Identify At-Risk Students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.430	5	.486	1.554	.179
Within Groups	33.785	108	.313		
Total	36.215	113			

.05 Level of Significance

The null hypothesis at the .05 level of significance was retained based upon the data in Table 50. The principal's years of experience did not have a significant effect on the school factors utilized to identify at-risk students in respondent rural elementary schools.

Summary of Results

The study was guided by the following questions for rural Montana: What are the characteristics of programs and services for at-risk students? What are the common characteristics of programs and services? What processes are utilized to identify at-risk students? What specific programs for at-risk students are being utilized? How do rural

districts differ based on size measured by the number of students and organizational structure by grade levels, and the principal's years of experience?

The research indicated that the characteristics of effective programs and services for at-risk students were positive school climate, customized curriculum and instructional programs, promoting personal, social and emotional growth and parent empowerment. The principals surveyed for this study indicated that these general areas were evident in their elementary schools. In the area of positive school climate, the principals viewed the need for small class sizes and students feeling safe and supported as being important considerations when meeting the needs of at-risk students. The need for challenging and relevant curriculum, caring, demanding and well prepared teachers, high academic standards and continual assessment to be curricular and instructional components that were extremely important to the success of all students within the school setting. Promoting student responsibility through service oriented learning opportunities and the emphasis on cooperative learning were determined to be evident in the rural schools surveyed. Finally, the areas included in parent empowerment were not as evident in the rural elementary schools. Family assistance in school based decision-making and the teaching of parenting skills/home development were only somewhat evident in the respondent schools.

The literature indicated a number of factors that were important considerations when identifying students that are at-risk of academic or social failure. The general areas to consider included personal, social and school related factors. The principals viewed the specific factors in each of these areas to be important considerations for

children's levels of being at-risk. The personal factors considered very important to the principals surveyed included low self-esteem, learning disabilities, a lack of hope for the future and a lack of coping skills. Social factors that the principals saw as being very important identification considerations were a lack of structure and stability in the family, evidence of physical/sexual abuse and a lack of commitment to school. Each of these factors appeared to be intertwined within the family structure. The school factors considered very important to the principals were exhibiting behavior problems, absenteeism, a lack of respect for authority and a student's frustration with school. The principals surveyed considered these school factors as being the most serious and deserving of attention.

The principals were asked to indicate the research-based programs being utilized in their respective schools. All of the programs gleaned from the research and included in the questionnaire were evident to some degree in the Montana rural elementary school population. The programs that emphasized the extension of the school day and year were utilized in nearly half of the schools surveyed. After-school and summer enrichment activities were evident in 52% and 49% of the schools respectively. Head Start and pre-school collaboration programs were also utilized by nearly half of the rural schools. Close collaboration with these entities to ensure a smooth transition into school was utilized by 47% of the respondent schools. Finally, over half of the principals indicated that their respective schools were involved in the Montana Behavioral Initiative training that is conducted each summer. The training emphasizes structuring the school environment in a manner that promotes school wide expectations

and procedures with follow through and consistency. It also provides educators with the latest research needed to meet the demands of today's students.

The one way ANOVA statistical procedure was utilized to determine if a significant difference was evident in the rural school population based upon a schools student population, grade configuration and principals years of experience. At the .05 level of significance, a significant difference did not exist among areas of positive school climate, customized curriculum and instructional programs, promoting personal, social and emotional growth, parent empowerment and personal, social and school at-risk identification factors. Of the 21 null hypotheses tested, none of them indicated a significant difference existed among means of the three independent variables and the seven dependent variables.

CHAPTER 5

DISCUSSION OF FINDINGS

Summary

The purpose of this study was to identify, describe and compare what rural elementary schools in Montana are doing to meet the needs of at-risk students. This was accomplished by determining what characteristics of schools were evident and which programs, services and processes that identify at-risk students are most often utilized in these schools. Descriptive statistics were generated and ANOVA tests were used with data gathered by a questionnaire completed by 114 rural elementary principals in Montana.

The survey instrument used in this study was developed through careful analysis of the research. The instrument was field tested through a process that indicated reliability and validity. Four experts were asked to determine if the statements were clearly measuring what was intended and to determine if there were ambiguous questions or formatting problems that would distract from filling out the instrument. The reliability of the questionnaire was measured through a test-retest process. Ten elementary principals were asked to fill out the questionnaire, then two weeks later they filled it out again. The instrument was found to measure what it was intended to measure.

The population used in the study consisted of 159 Montana rural public elementary school principals employed during the 2002-2003 school year. On the instrument respondents were asked to indicate processes utilized to identify at-risk students in their respective schools. They were also asked to indicate the degree to which effective characteristics of programs and services offered to students were evident. Finally, the principals identified which of the specific research-based school programs were being utilized to meet the needs of students. Demographic information was gathered in the areas of a school's number of students, the grade configuration and the years of experience of the school's principal.

This chapter integrates these research findings regarding characteristics of school-based programs/services designed to meet the needs of at-risk students and those identification factors used by Montana's rural elementary schools with previous relevant findings from the literature. While much of the existing literature and research does not discuss at-risk in a rural versus urban setting, Bull's (1992) review of the literature pointed out that virtually all students in an isolated community may be at higher risk of not achieving their potential and that low self-esteem and lowered aspirations may be more prevalent among rural students. He goes on to say that schools in rural areas may deal with the needs of at-risk students differently than those in urban areas.

Conclusions are drawn and implications are suggested for the study findings. This chapter concludes with recommendations for practice and further research.

Discussion of Findings

The following characteristics of effective programs and services for at-risk students were somewhat evident to evident in the responding schools: positive school climate, customized curriculum and instructional programs, promotion of personal, social and emotional growth and parent empowerment.

Each of the characteristics classified as positive school climate was considered to be evident in the schools of the respondent principals. The specific characteristics included: student choice, commitment and voluntary participation, small class sizes, students feel safe and supported, clearly established student-oriented mission and community partnerships through coordinated services. Small class size and students feeling safe and secure were indicated to be very evident in the respondent schools. The development of a positive school climate was indicated in the research as an important characteristic of schools that successfully meet the needs of all students and especially those students that are considered at-risk (Barr & Parrett, 2001).

Principals viewed carefully constructed curriculum and instructional programs to be important in meeting the students' academic and social needs. The importance of caring, demanding and well-prepared teachers was seen by these principals as being very evident in their schools. High academic standards, challenging, relevant curriculum and continual assessment of student progress were also considered to be very evident in the respondents' schools. Dryfoos (1997) indicated that children need to have the opportunity to create high aspirations in a supportive and challenging school that is

focused on student achievement. These characteristics had significant implications for effective programs to meet the needs of at-risk students.

The promotion of personal, social and emotional growth in students was evident in the schools surveyed. Specifically, the promotion of student responsibility through service-oriented activities and the development of emotional growth needs was considered to be evident. The research indicated that promoting personal growth and responsibility through service enhances a child's social and emotional growth (Barr & Parrett, 2001). The principals also indicated that cooperative learning opportunities were evident in the respondent schools. Effectively implemented cooperative learning activities enhance the child's ability to practice and develop social skills in a nurturing environment. McMillan (1992) indicated that a major component of schools that effectively meet the needs of the at-risk student population is the development of an environment that invites success and establishes a culture of cooperative learning.

Parent empowerment was viewed as a key to student success throughout the literature. Through increased parental participation, the child's perception of the importance of education will be positively influenced (Dryfoos, 1997). Epstein (1995) indicated that parents who help and encourage their child to learn at home, and who develop positive attitudes toward school, contribute to the personal growth and academic success of their children. In this study, the focus on teaching parenting skills and the development of home conditions and participation by families in school decision-making and advocacy were somewhat evident to evident as indicated by the principals. The

programs designed to involve parents were viewed as the least evident of all the services and programs offered by the Montana rural elementary principals.

Identification Factors

The principals indicated that the personal factors of exhibiting an external locus of control, a lack of future goals and a lack of ability to see options were important identification considerations. Those factors considered very important in the identification of at-risk students included: low self-esteem, learning disabilities, a lack of hope for the future and a significant lack of coping skills. The personal factors identified appeared to have a common thread tied to a student's lack of success in learning situations. Students that have difficulty learning tend to have few coping skills to draw upon in the classroom and see little hope for the future. These can become contributing factors to a child's lack of self-esteem. Dryfoos (1997) indicated the importance of having protective factors in place that develop resiliency in at-risk children. The creation of high aspirations within the child can act as a catalyst. The hope of a better future and the fulfillment of dreams can create a positive outlook in the mind of the child. The principals indicated that the recognition of these factors was of importance when identifying and developing programs to meet the needs of at-risk students.

The social factors considered important in identifying at-risk students included: sibling or parent dropout and low socioeconomic status. Those social factors considered very important included: a lack of structure and stability in the family, evidence of physical/sexual abuse, a lack of commitment to school and poor communication between

home and school. The significance of family situation and structure was important to the principals surveyed in regard to children being at-risk. The development of communication between the home and school was seen as an important factor that would lead to a child's increased opportunity to succeed. This level of importance being placed on parent communication and involvement in the school is evident in the research.

Epstein (1995) pointed out that researchers and educators have long agreed that when parents get involved in education, children try harder and achieve more at school.

English as a second language was only considered to be a somewhat important to important factor as indicated by the principals. The lack of importance placed upon this factor by the rural principals was not surprising due to few students in Montana that would be considered non-English speaking.

The school factors indicated as important when identifying at-risk students were: retention in a grade—especially the early grades, a poor academic record and reading and math levels a year or more behind grade level. Very important to the respondent principals were: behavior problems, absenteeism, a lack of respect for authority and dissatisfaction and frustration with school. Tracking or placing students according to ability was seen as being not as important when considering the identification status of students being at-risk for academic or social difficulties.

Utilization of Effective Research-Based School Programs

The elementary schools that responded to the questionnaire are using a variety of research-based programs. The programs that were represented most included: after-

school enrichment, summer enrichment, Head Start/pre-school collaboration and transition and training through the Montana Behavioral Initiative. After school and extended year activities were mentioned in the literature as being effective strategies to meet the needs of at-risk children. McMillan (1992) concluded that peer involvement and extracurricular programs were effective components of school-based activities.

The early literacy and academic intervention programs represented on the questionnaire were being used in a small number of the respondent schools. Early literacy education programs for parents, primary grade alternative classrooms and The Success for All reading program were also being used by only a few rural schools even though the literature pointed out that the maximum opportunity to have a positive impact on children is in kindergarten through grade three. Early intervention programs have enormous potential for at-risk students especially in the area of reading development. It is critical that all children, with the exception of the severely handicapped, learn to read by the end of third grade (Barr & Parrett, 2001).

The early social and behavior intervention programs included in the questionnaire were Second Step: A Violence Prevention Curriculum, First Step to Success and Head Start/pre-school collaboration and transition. The principals indicated that the Second Step: A Violence Prevention Program and First Step to Success were not being used by most rural schools. The Head Start/pre-school collaboration programs were being used by less than half of this population. The literature indicated that there is a best time to address the needs of at-risk youth and that is as early as possible (Barr & Parrett, 2001).

The development of collaboration with Head Start and pre-school providers can be an effective strategy for meeting the needs of the at-risk student population.

Relationship to Demographics

The one way ANOVA statistical procedure was used to test the level of significance of the 21 hypotheses to determine what effect that the number of students, grade configuration and principal's years of experience had on positive school climate, customized curriculum and instructional programs, promoting personal, social and emotional growth, parent empowerment and personal, social and school identification factors for at-risk students. At the .05 level of significance, it was determined that a significant difference did not exist in any of these situations.

During the process of analyzing the data, it was noted that one of the null hypotheses would have been rejected at the .10 level of significance. This would signify that a significant difference exists among the means. Table 38 indicates the results from the ANOVA test for the effect a principal's years of experience had on positive school climate. A significant difference did exist, at the .10 level of significance, for positive school climate and the rural elementary principal's number of years of experience.

Conclusions

Using the results as reported by the elementary principals, the researcher has reached the following conclusions:

1. The respondents reported that a positive school climate is important to the overall services and programs offered to all students. The establishment of a clear student oriented mission and the creation of community partnerships are of importance to creating a community-based school. This research indicated that school principals viewed their schools as positive places that meet the needs of all students.
2. The elementary school principals recognized the importance that curriculum and instructional programs have on student learning. A caring, demanding and well prepared teacher that holds students to high academic standards and provides students with continual feedback through appropriate assessment is important and evident in the rural elementary schools of Montana.
3. Parent and family decision-making and advocacy was reported by the respondents as being only somewhat evident in the elementary schools. The importance of parent involvement in the education process was not viewed as being as important as other programs and services in meeting the needs of all students and more specifically at-risk students.
4. The elementary school principals considered personal factors to be very important when determining which students may be at-risk of academic or social deficiency. The link between learning difficulties and a student's low self-esteem coupled with a lack of hope for the future was made by the principals who participated in this study.
5. The elementary principals recognized the impact of families on a student's level of being at-risk. A lack of commitment to school and the family structure and

stability were very important considerations to the elementary principals. The impact of the family on a child's success was shown to be important.

6. The respondents reported that English as a second language was not a significant factor. The make-up of the population of the Montana rural schools may have accounted for this factor being considered less important.
7. Principals viewed a student's behavior and frustration with school as being a very important factor related to school success. These factors can be contributors that impact student absenteeism and lack of respect for authority.
8. Principals indicated that ability grouping was not considered to be as important when identifying those students that could be at-risk. The use of ability grouping has become more focused and a commonplace practice in attempting to meet student individualized needs.
9. Less than half of the elementary principals indicated that collaboration between Head Start/Pre-school providers were in place in their schools. The lower utilization may be due more to the lack of Head Start/Pre-school program availability than to principals viewing collaboration and transition as being unnecessary.
10. The respondents reported that early intervention programs that are designed to increase student academic and social skills were not evident in the majority of the rural elementary schools in Montana. The literature pointed out that the most opportune time to address the needs of at-risk students was as early as possible (Barr & Parrett, 2001).

11. Nearly 90% of the respondent schools qualified for Title I federal funding.

This figure indicates that the rural schools serve a large percentage of students that come from lower socioeconomic situations.

12. A contradiction appeared in the research in regard to parent empowerment and involvement in the rural elementary schools. On the one hand, respondent principals considered parents' lack of communication with and commitment to schools as being very important factors when identifying students that may be at-risk. On the other hand, principals indicated that including families in school decision-making and advocacy was not a common practice in their schools.
13. This research indicated that the perception of the principals responding was that programs/services and identification procedures used to benefit at-risk students were found within their schools.
14. The research indicated that the lack of services and a hostile climate toward students who did not "fit the norm" was especially apparent in the rural school environment (Sellers, 1996). The respondents pointed out that the rural Montana elementary schools create an atmosphere where promoting personal, social and emotional growth of at-risk students was evident and important.

Recommendations for Further Research

This researcher recommends the following additional research:

1. Studies focusing on the effects of early intervention programs on meeting the needs of the at-risk student population in rural schools should be conducted.

2. A study should be conducted to determine the effectiveness of the Montana Behavioral Initiative Training that 50% of the rural Montana elementary schools have received.
3. Consideration should be given to studies of the parent involvement component within elementary schools in rural areas.
4. A study should be undertaken to determine the specific programs and services being implemented in rural Title I elementary schools.
5. A need exists to develop consistency between the perception of the school-based administrator and actual data measuring student achievement, i.e. ITBS scores.
6. A follow-up study should be conducted to determine if there is a difference between the principal's perception of the school's success in meeting the needs of at-risk students and the perception of teachers in that same school environment.

Practice Recommendations

Based on the findings of this study and in light of the current trend towards school-wide accountability, the researcher recommends that the following actions be taken:

1. Each rural school in Montana should undertake a comprehensive evaluation to determine the effectiveness of the programs being offered to all students and especially to the students who are most at-risk of academic and social failure.
2. Montana's rural schools should develop clearly established mission statements, beliefs and desired learner results that are tied directly to student achievement.

Various assessment tools need to be developed that adequately measure student progress toward meeting the desired learner results.

3. The rural schools in Montana should assess student progress in a more focused and deliberate manner to determine the students whose needs are not being met and implement proven research-based programs to meet the needs of each identified group.
4. Montana rural elementary schools should place a higher emphasis on involving and communicating with parents. A parent training component should have an increased emphasis, especially in the area of early literacy.
5. An increased emphasis should be placed on early identification of students who are at-risk and an effective intervention strategy implemented that meets the needs of all children, especially those who are at-risk.

REFERENCES CITED

REFERENCES CITED

- Ascher, C. (1993). Changing schools for urban students: The school development program, accelerated schools, and success for all (Trends and Issues No. 18). New York: ERIC Clearinghouse on Urban Education, Columbia University.
- Ascher, C. (1992). Successful detracking in middle and senior high schools (Trends and Issues No. 14). New York: ERIC Clearinghouse on Urban Education, Columbia University.
- Asher, S. R., & Cole, J. D. (Eds.) (1990). Peer rejection in childhood. New York, NY: Cambridge University Press.
- Barr, R. D., & Parrett, W. H. (2001). Hope fulfilled for at-risk and violent youth: K-12 programs that work. Needham Heights, MA: Allyn & Bacon.
- Bauch, J. P. (1994). Categories of parent involvement. The School Community Journal, 4, 53-61.
- Benard, B. (1996, Winter). From research to practice: The foundations of the resiliency paradigm. Resiliency in Action, 1-7.
- Benard, B. (1991). Fostering resiliency in kids: Protective factors in the family, school, and community (Report No. EA-023-260). Western Center for Drug-Free Schools and Communities (ERIC Document Reproduction Service No. ED 335 781).
- Bull, K. S. (1992). The dropout problem: Rural educators' perceptions of intervention priorities. Rural Special Education Quarterly, 20 (1), 32-40.
- Center on Budget and Policy Priorities (2000, August). Montana poverty and program trends, selected background information. Washington, DC: Author.
- Committee for Children (1991). Second step: A violence-prevention curriculum. Preschool-kindergarten. Teacher's guide (Report No. UD-029-287-289). Seattle, WA: Committee for Children (ERIC Document Reproduction Service No. ED 365 739).
- Dillman, D. A. (1978). Mail and telephone surveys the total design method. New York, NY: John Wiley and Sons.

- Dryfoos, J. G. (1997). The prevalence of problem behaviors: Implications for programs (Report No. PS-026-193) (ERIC Document Reproduction Service No. ED 416 960).
- Epstein, J. L. (1995). School/family/community partnerships: Caring for the children we share. Phi Delta Kappan, 76, 701-712.
- Gay, L. R. (1992). Educational research: Competencies for analysis and application (5th ed.). Upper Saddle River, NJ: Prentice-Hall, Inc.
- George, R. G., & Antes, R. L. (1992). Thirty teaching strategies used by teachers of at-risk students (Report No. IR-015-726). Association for Educational Communications and Technology (ERIC Document Reproduction Service No. ED 347 989).
- Glass, G. V., & Hopkins, K. D. (1996). Statistical methods in education and psychology (3rd ed.). Needham Heights, MA: Allyn and Bacon.
- Helge, D. (1989). Rural at-risk students: Directions for policy and intervention. Rural Special Education Quarterly, 10(1), 3-16.
- Herman, R. (1999). An educator's guide to schoolwide reform. Washington, DC: American Institutes for Research.
- Institute on Violence and Destructive Behavior (1998). First step to success fact sheet. Eugene, OR: University of Oregon, College of Education.
- Irmsher, K. (1997). Education reform and students at-risk (Report No. EA-028-252). Eugene, OR: Clearinghouse on Educational Management (ERIC Document Reproduction Service No. 405 642).
- Jewett, J. (1991). School-based early childhood centers. The Northwest Regional Educational Laboratory program report (Report No. PS-020-010). Portland, OR: Northwest Regional Educational Lab (ERIC Document Reproduction Service No. ED 341 457).
- Karoly, L. A., Greenwood, P. W., Everingham, S. S., Hoube, J., Kilburn, M. R., Rydell, C. P., Sanders, M., & Chiesa, J. (1998). Investing in our children: What we know and don't know about the costs and benefits of early childhood interventions. Santa Monica, CA: RAND.
- Lang, C. (1992). Head Start: New challenges, new chances. Newton, MA: Education Development Center.

- Levin, H. M. (1988). Accelerated schools for at-risk students (CPRE Report Series RR-010). New Brunswick, NJ: Center for Policy Research in Education.
- Madden, N. A., Slavin, R. E., Karweit, N. L., Dolan, L., & Wasik, B. A. (1991). Success for all. Phi Delta Kappan, 72(8), 593-599.
- McDill, E. L., Natriello, G., & Pollas, A. M. (1986). A population at-risk: Potential consequences of tougher school standards for student dropouts. American Journal of Education, 94(2).
- McMillan, J. H. (1992). A qualitative study of resilient at-risk students. Review of literature (Report No. UD-306-98). Richmond, VA: Metropolitan Educational Research Consortium (ERIC Document Reproduction Service No. ED 389 779).
- McPartland, J., & Slavin, R. E. (1990). Policy perspectives: Increasing achievement of at-risk students at each grade level. Washington, DC: U.S. Department of Education.
- Metropolitan Educational Research Consortium (1994). A focus on resilient at-risk students (Vol. 1, No. 3). Richmond, VA: John Pisapia.
- Miller, D. E. (1993). The literature project: Using literature to improve the self-concept of at-risk adolescent females. Journal of Reading, 36, 442-448.
- Montana Office of Public Instruction (1995). Montana behavioral initiative. Helena, MT: Author.
- National Association for the Education of Young Children (1998, May). Learning to read and write: Developmentally appropriate practices for young children (Report No. 53). Washington, DC: Author.
- National Research Council (1993). Losing generations: Adolescents in high risk settings: Panel on high risk youth. Washington, DC: Author.
- National Rural and Small Schools Consortium (1998). Stress management briefs from the University of Minnesota: Rural at-risk students. University of Minnesota Extension Service.
- Pisapia, J., & Westfall, A. (1994). Developing resilient schools and resilient students. Research brief #19 (Report No. UD-031-874). Richmond, VA: Metropolitan Educational Research Consortium (ERIC Document Reproduction Service No. ED 411 343).

- Presseisen, B. Z. (1991). Teaching thinking and at-risk students: Defining a population. At-risk students and thinking: Perspectives from research. Philadelphia, PA: Research for Better Schools, Inc.
- Rossi, R. J., & Stringfield, S. C. (1995). What we must do for students placed at-risk. Phi Delta Kappan, 77, 73-76.
- Schorr, L. B., & Schorr, D. (1989). Within our reach: Breaking the cycle of disadvantage. New York: Anchor Books/Doubleday.
- Seldner, J. K. (1992). A school mentorship project for youths at-risk. National Association of Secondary School Principals, 76, 109-115.
- Sellers, D. J. (1996). Where defining rural at-risk and intervention/prevention (Report No. 40). American Counseling Association (ERIC Document Reproduction Service No. ED 401-068).
- Slavin, R. E., Madden, N. A., Dolan, L. J., & Wasik, B. A. (1994). Roots and wings: Inspiring academic excellence. Educational Leadership 56(4), 10-13.
- Slavin, R. E., Karweit, N. L., & Wasik, B. A. (1992). Preventing early school failure: What works? Educational Leadership 50(4), 10-17.
- Slavin, R. E., Karweit, N. L., & Madden, N. A. (1989). Effective programs for students at-risk. Boston, MA: Allyn and Bacon.
- Slavin, R. E., & Madden, N. A. (1989). What works for students at-risk: A research synthesis. Educational Leadership, 46(5), 4-13.
- Spivack, G., & Cianci, N. (1987). High-risk early behavior pattern and later delinquency. In J. D. Burchard, & S. N. Burchard (Eds.), Prevention of delinquent behavior. Newbury Park, CA: Sage Publications.
- Study: High quality child care pays off (1999, April 28). Education Week, 18(33), 9.
- U.S. Department of Education (1992). Defining geographic terms. Washington, DC: U.S. Department of Education's Office of Educational Research and Improvement.
- Walker, H. M., Kavanagh, K., Stiller, B., Golly, A., Severson, H. H., & Geil, E. G. (1998). First step to success: An early intervention approach for preventing school antisocial behavior. Journal of Emotional and Behavioral Disorders, 6(2), 66-80.

- Westfall, A., & Pisapia, J. (1994). At-risk students: Who are they and what helps them succeed? Research brief # 17 (Report No. UD-031-872). Richmond, VA: Metropolitan Educational Research Consortium (ERIC Document Reproduction Service No. ED 411 341).
- Willis, H. D. (1989). Students at-risk: A review of conditions, circumstances, indicators, and educational implications (Report No. UD-027-115). Elmhurst, IL: North Central Regional Educational Lab (ERIC Document Reproduction Service No. ED 314 514).
- Winfield, L. F. (1991). Resilience, schooling, and development in African-American youth: A conceptual framework. Education and Urban Society, 24, 5-14.

APPENDICES

APPENDIX A

COVER LETTER AND QUESTIONNAIRE

October 24, 2002

Dear

As a doctoral student at Montana State University-Bozeman, I am interested in examining the situation facing at-risk students in rural areas of Montana. I am currently undertaking a dissertation study to determine the effectiveness of programs being offered to and the identification of students considered at-risk in Montana's rural elementary schools.

Please complete and return the survey instrument by November 8, 2002. Completing this survey should take no more than 10 minutes of your time. Your participation and input are vitally important to the success of this study. Thank you in advance for your time and assistance.

You may be assured that your responses will remain completely confidential. The return envelope has an identification number that will enable me to check your name off the mailing list when the questionnaire is returned. The envelope will then be discarded. Your name will never be associated with the results.

Please contact me if you have questions regarding the study. Your cooperation and timely response are greatly appreciated.

Again, thank you and best wishes.

Sincerely,

Joseph Ingalls

Common Characteristics of Programs and Services

Research indicates a number of characteristics that are essential to school programs where all children, particularly those at-risk, are learning effectively. Please indicate the degree each of the following characteristics is found in your school. Please use the following scale to show the level each characteristic is found in your school. (Circle number)

1= Not at all 2= Somewhat evident 3= Evident 4= Very evident 5= Extremely evident

1. Positive School Climate

- | | | | | | |
|---|---|---|---|---|---|
| 1. Student choice, commitment and voluntary participation | 1 | 2 | 3 | 4 | 5 |
| 2. Small class sizes | 1 | 2 | 3 | 4 | 5 |
| 3. Students feel safe, supported | 1 | 2 | 3 | 4 | 5 |
| 4. Clearly established student oriented mission | 1 | 2 | 3 | 4 | 5 |
| 5. Community partnerships through coordinated services | 1 | 2 | 3 | 4 | 5 |

2. Customized Curriculum and Instructional Program

- | | | | | | |
|--|---|---|---|---|---|
| 1. Caring, demanding and well prepared teachers | 1 | 2 | 3 | 4 | 5 |
| 2. Comprehensive and continuing student oriented programs | 1 | 2 | 3 | 4 | 5 |
| 3. Curriculum is challenging for and relevant to student needs | 1 | 2 | 3 | 4 | 5 |
| 4. High academic standards for all students | 1 | 2 | 3 | 4 | 5 |
| 5. Continuing assessment of student progress | 1 | 2 | 3 | 4 | 5 |
| 6. Individualized instruction | 1 | 2 | 3 | 4 | 5 |
| 7. One-on-one reading tutors | 1 | 2 | 3 | 4 | 5 |
| 8. Achievement leveled reading groups | 1 | 2 | 3 | 4 | 5 |

3. Promoting Personal, Social and Emotional Growth

- | | | | | | |
|--|---|---|---|---|---|
| 1. Programs exist that promote student responsibility | 1 | 2 | 3 | 4 | 5 |
| 2. Students provided opportunity to mature through service oriented activities | 1 | 2 | 3 | 4 | 5 |
| 3. Student services provided to meet emotional growth needs | 1 | 2 | 3 | 4 | 5 |
| 4. Cooperative learning emphasized to promote social development | 1 | 2 | 3 | 4 | 5 |

4. Parent Empowerment

- | | | | | | |
|---|---|---|---|---|---|
| 1. Focus on teaching of parenting skills and development of home conditions | 1 | 2 | 3 | 4 | 5 |
| 2. Extensive use of parent volunteers | 1 | 2 | 3 | 4 | 5 |
| 3. Participation by families in school decision-making and advocacy | 1 | 2 | 3 | 4 | 5 |
| 4. Continuous school-to-home and home-to-school communication | 1 | 2 | 3 | 4 | 5 |

Processes Utilized to Identify At-risk Students

The identification of students considered at-risk of academic or social failure is of considerable importance when a school is developing ways to assist those students.

How important is each of the following factors in identifying students that are at-risk of academic or social failure. (Circle number)

1= Not important 2= Somewhat important 3= Important 4= Very Important 5= Extremely Important

1. Personal Factors

- | | | | | | |
|---|---|---|---|---|---|
| 1. Student exhibits an external locus of control | 1 | 2 | 3 | 4 | 5 |
| 2. Student has low self-esteem | 1 | 2 | 3 | 4 | 5 |
| 3. Student has learning disabilities | 1 | 2 | 3 | 4 | 5 |
| 4. Student lacks future goals | 1 | 2 | 3 | 4 | 5 |
| 5. Student does not have the ability to see options | 1 | 2 | 3 | 4 | 5 |
| 6. Student lacks hope for the future | 1 | 2 | 3 | 4 | 5 |
| 7. Student significantly lacks coping skills | 1 | 2 | 3 | 4 | 5 |

2. Social Factors

- | | | | | | |
|--|---|---|---|---|---|
| 1. Sibling or parent dropout | 1 | 2 | 3 | 4 | 5 |
| 2. Low socioeconomic status | 1 | 2 | 3 | 4 | 5 |
| 3. English as a second language | 1 | 2 | 3 | 4 | 5 |
| 4. Lack of structure and stability in the family | 1 | 2 | 3 | 4 | 5 |
| 5. Evidence of physical/sexual abuse | 1 | 2 | 3 | 4 | 5 |
| 6. Lack of family commitment to school | 1 | 2 | 3 | 4 | 5 |
| 7. Poor communication between home and school | 1 | 2 | 3 | 4 | 5 |

3. Schools Factors

- | | | | | | |
|--|---|---|---|---|---|
| 1. Student exhibits behavior problems—disruptive to learning environment | 1 | 2 | 3 | 4 | 5 |
| 2. Student absenteeism | 1 | 2 | 3 | 4 | 5 |
| 3. Student has a lack of respect for authority | 1 | 2 | 3 | 4 | 5 |
| 4. Student has been retained a grade—especially in the early grades | 1 | 2 | 3 | 4 | 5 |
| 5. Student has a poor academic record | 1 | 2 | 3 | 4 | 5 |
| 6. Student's reading and math levels are a year or more behind grade level | 1 | 2 | 3 | 4 | 5 |
| 7. Student is dissatisfied and frustrated with school | 1 | 2 | 3 | 4 | 5 |
| 8. Student has been tracked or placed in a group (s) according to ability | 1 | 2 | 3 | 4 | 5 |

Specific School-based Programs Being Utilized

Which of the following programs are being used in your school to meet the needs of children.
(Circle number)

- | | | |
|---|------|-------|
| 1. Second Step: A violence-Prevention Curriculum | 1 No | 2 Yes |
| 2. Success For All | 1 No | 2 Yes |
| 3. First Step to Success | 1 No | 2 Yes |
| 4. Montana Behavioral Initiative Training | 1 No | 2 Yes |
| 5. Early Literacy Education for Parents | 1 No | 2 Yes |
| 6. After-school enrichment program | 1 No | 2 Yes |
| 7. Summer enrichment programs | 1 No | 2 Yes |
| 8. Head Start/Pre-school collaboration and transition | 1 No | 2 Yes |
| 9. Primary grade alternative classrooms | 1 No | 2 Yes |
| 10. Title I | 1 No | 2 Yes |
| 11. Other _____ | | |

Specific School Information

1. The number of students you have in your school. (Circle number)
 1. 40 TO 75
 2. 76 TO 100
 3. 101 TO 150
 4. 151 TO 200
 5. 201 TO 250
 6. OVER 251

2. What is the grade configuration of your school? (Circle number)
 1. KINDERGARTEN THROUGH SIXTH
 2. KINDERGARTEN THROUGH EIGHTH
 3. KINDERGARTEN THROUGH FIFTH

3. How many years of experience do you have as a principal? (Circle number)
 1. 1 TO 3
 2. 4 TO 6
 3. 7 TO 10
 4. 10 TO 15
 5. 15 TO 20
 6. OVER 20

APPENDIX B
SECOND SURVEY LETTER

November 8, 2002

Dear

About two weeks ago I wrote you seeking your input on the effectiveness of programs being offered to and the identification of students considered at-risk in Montana's rural elementary schools.

I am writing to you again because of the significance each questionnaire has to the usefulness of this study. You were selected to represent one of the rural schools in the state of Montana. In order for this study to be truly representative of the those schools it is essential that each person complete and return his/her questionnaire.

In the event that your questionnaire has been misplaced, a replacement is enclosed.

You may be assured that your responses will remain completely confidential. The return envelope has an identification number that will enable me to check your name off the mailing list when the questionnaire is returned. The envelope will then be discarded. Your name will never be associated with the results.

Please contact me if you have questions regarding the study. Your cooperation and timely response are greatly appreciated.

Again, thank you and best wishes.

Sincerely,

Joseph Ingalls

APPENDIX C
VALIDITY LETTER

February 11, 2002

Dear,

As a doctoral student at Montana State University-Bozeman, I am interested in examining the situation facing at-risk students in rural areas of Montana. The purpose of the study is determining the effectiveness of programs being offered to and the identification of students considered at-risk in Montana.

I am field testing my questionnaire to determine validity and reliability of the instrument. In order to determine the validity of the content, it is important to get feedback from people in the field that have expertise and experience in dealing with the needs of at-risk children.

Please read through the questionnaire focusing more on the content and not how you would necessarily respond to the questions. Provide any suggestions that can be incorporated to enhance the questionnaire. Please write your comments directly on the questionnaire. A return envelope has been enclosed. Your input is critical to the success of the research. Please return the questionnaire by February 11, 2002.

Please contact me if you have questions regarding the questionnaire or the study itself. Your cooperation and timely response are greatly appreciated.

Sincerely,

Joseph Ingalls

APPENDIX D
RELIABILITY LETTERS

May 10, 2002

Dear,

As a doctoral student at Montana State University-Bozeman, I am interested in examining the situation facing at-risk students in rural areas of Montana. The purpose of the study is determining the effectiveness of programs being offered to and the identification of students considered at-risk in Montana.

Please complete and return the survey instrument by May 15, 2002. Completing this task should take no more than 10 minutes of your time, but it will be critical to the success of the research.

You may be assured that your responses will remain completely confidential. The return envelope has an identification number that will enable me to check your name off the mailing list when the questionnaire is returned. The envelope will then be discarded. Your name will never be associated with the results.

Please contact me if you have questions regarding the study. Your cooperation and timely response are greatly appreciated.

Sincerely,

Joseph Ingalls

May 23, 2002

Dear,

Thank you very much for your response to the at-risk student survey instrument that was sent to you several weeks ago. I need to have you respond to the same questionnaire again as in the first letter dealing with at-risk students. This is a requirement for my study and without this second response I will not be able to use the information that you have already provided.

I know that your time is valuable so I hope that you will not mind taking a few minutes to complete the questionnaire again. Please put it in the mail by May 29, 2002. I appreciate your assistance very much. Thank you again.

Sincerely,

Joseph Ingalls

MONTANA STATE UNIVERSITY - BOZEMAN



3 1762 10391956 7