A STUDY OF DEMOGRAPHICS AND JOB-RELATED CATEGORIES THAT INFLUENCE THE QUALITY OF TEACHER WORK LIFE IN MONTANA SCHOOLS WITH INDIGENOUS POPULATIONS

by

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Michael Neil Terhune

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ABSTRACT

This study examined the demographics and job related factors that influenced the quality of teacher work life of 404 teachers in Montana schools that have a predominant enrollment of indigenous students. The Quality of Teacher Work Life Survey (QTWLS) was used to determine the teacher demographics, the factor structure of the QTWLS, and the perceived levels of Job-Related Stress, and Satisfaction. Thirteen demographics contributed to the profile. Comparisons to the state wide profile were explored.

Teacher perceptions of their job related satisfaction and stress factors were computed for Likert scales ranging from 2 (low) to 10 (high). The overall QTWL score was 6.51. The scale score for satisfaction was 6.18 and for stress 6.84. It was discovered that these teachers had their lowest scores in the areas of, “Student Value of Learning”, External Support, and “Professional Worth to Communities”. They reported their highest scores as “Distractions to Learning”.

The QTWLS proved to be a valid instrument for the separate scales of job-related satisfaction and stress but the factor structure of the QTWLS, though similar in many instances, did not duplicate the original studies by Harrington et al (1989). A modified version of the QTWLS is recommended.

The results of this study identified factors that impact a teacher’s potential to perform optimally. Ultimately such understandings may lead to interventions that contribute to increased student learning in Montana’s high needs schools.

CHAPTER 1

INTRODUCTION

With the increasing demand for school accountability in our nation's schools, it becomes imperative that school leaders address the issues associated with school improvement. Indeed, the No Child Left Behind Act of 2001 (NCLB, 2001) has mandated school-based plans to improve student scholastic achievement. The NCLB Act includes accountability components that are the strongest language of any federally enacted law enacted to date (NCLB, 2001). It includes directives to states to mandate 1) school-generated annual local report cards that outline how students do on state assessments, 2) a state definition of Adequate Yearly Progress (AYP) with emphasis on academic achievement, 3) strong parent and community collaboration, and 4) the establishment of state corrective actions and/or academic achievement incentives for local districts as appropriate (NCLB, 2001). The emphasis on accountability for academic proficiency requires an increased work effort as well as greater social and teaching expertise for all schools, and is especially critical for communities of high needs students (NCLB, 2001). High needs schools are often plagued with poverty and a host of associated, debilitating circumstances that can place imposing obstacles to student success. Typically these school communities have students who score lower academically (Schargel & Smink, 2001).

Background of the Problem

Marzano (2003) established that a student's success is influenced by several factors, chief of which is the influence of high performing teachers. In his book, What Works for Schools, he cites 30 years of research that point to school-level, teacher-level and student-level factors as the three primary categories that affect student achievement. Teachers play essential roles in all three categories. High performing teachers represent important role models and are qualified to offer solutions for student success in these areas. A highly effective teacher is a critical component that leads to student achievement.

The effectiveness of teachers is often impaired by stress and a perceived lack of job satisfaction, both of which affect the quality of their working conditions (Harrington et al., 1989). Cunningham (1983), in a review of the subject of teacher stress and satisfaction, described the importance of creating programs for improving the quality of teacher work life as a means for reducing or eliminating teacher stress and burnout. Harrington, Pelsma and Burry (1989) reported that improvements in the quality of teacher work life lead to greater stability, higher performance and ultimately greater job satisfaction.

Darling-Hammond's (2003) research also supports the premise that teachers are motivated to perform at higher levels and are more willing to stay with an organization if they are experiencing a high quality of work life. Darling-Hammond identified four major factors that strongly influence teacher performance and early departure from the profession of teaching. These factors are salaries, working conditions, preparation, and

mentoring support in the early years. For a long time teachers have reported that working conditions play a major role in their decisions to switch schools or leave the profession (Ingersoll, 2003). How long teachers persist in their profession directly affects how well teachers will ultimately perform in the classroom. High needs schools are especially impacted. In a survey of California teachers Harris (2002) found that teachers in high minority, low income schools reported significantly worse working conditions than traditional schools. In addition, there were fewer administrative supports and larger class sizes. With this in mind, our current educational environment would be well served to address the issues associated with teachers' quality of work life.

The leadership approach that is adopted becomes critical in creating a climate conducive to a positive work life. Chapman and Lowther (1982) concluded that leadership combined with appropriate supervision appears to be a significant positive influence on teacher job satisfaction and stress. Administrators usually have strong influence in the areas of teacher personal support. When the area of teacher personal support is enhanced by wisely structured in-service education, school leaders can decrease teacher stress and provide a more supportive environment for effective teaching (Darr & Kise, 1983). Sergiovanni (2001) identified transformational leadership as one strategy in the school improvement process necessary to motivate and develop good teachers. Sergiovanni (2001) defines transformational leadership as cultural leadership, moral leadership, covenant building and followership. Such a leadership approach would affect many of the issues surrounding the quality of teachers' work life and their ultimate motivation to perform in their profession.

With this research perspective in mind, this study addressed the factors surrounding the quality of teachers' work life. It was assumed that teacher stress and job satisfaction are primary contributors to the teachers' quality of work life and can be reliably measured by the Quality of Teacher Work Life Survey (QTWLS) created by Harrington et al. (1989) found in Appendix A. The school districts selected for this study were those in Montana identified as being populated predominantly by indigenous students. The school districts selected were categorized by the Montana Office of Public Instruction (OPI) as being school districts in need of improvement. These school districts are characterized by poverty, their rural location, an exceptional high turnover of their professional staff, and low student achievement. Typically these districts experience 60-80% free and reduced lunch rates, are located in school districts of 500-5000 in population, and have over 50% of their tested students not proficient in the core subjects assessed by the Iowa Test of Basic Skills (ITBS) and the Montana Comprehensive Assessment System (MontCAS) Phase II Criterion Referenced Test (CRT) (Montana OPI, 2004).

Statement of the Problem

The problem studied in this research is that educational leaders are not fully aware of the teacher demographics and teachers' perceptions that may affect their work life in Montana public schools with a predominantly indigenous student population. To address this problem a reliable and valid survey instrument was needed. The quality of teachers' work life has been studied extensively in the related areas of teacher job

satisfaction, teacher stress, teacher motivation, teacher burnout, school climate and school culture (Coates & Thoreson, 1976; Kyriacou & Sutcliffe, 1978; Cunningham, 1983; Harrington et al., 1989; Ford, 1992; Kumarakulasingam, 2002); but there are no formal published studies examining the relationship of the quality of teachers' work life and its impact on these school districts.

This study addressed the deficit of research and information available to school communities and their leaders relating to factors that affect teacher job satisfaction and stress in Montana schools with high indigenous enrollments. Specifically there is a lack of data about the teacher demographic profile, the degree of perceived job satisfaction and stress by these teachers, and the factors that affect the overall quality of work life among this unique population. This is a critical issue for educational leaders because the quality of teachers' work life affects a number of factors that have been found to be related to student academic success. Some of the factors that negatively affect student success include recruiting, retention, student achievement and teacher development (Darling-Hammond, 2003). It is also critical because all of these schools have been identified to some extent as high needs with above average populations of at-risk students.

Maintaining highly qualified teachers among Montana's predominantly indigenous student population is a significant problem. According to the data maintained by the Montana Office of Public Instruction (OPI), turnover in the last four years for these schools has been 21.1% as compared to the state average of 14.5% (Montana OPI, 2005). Higher turnovers occur despite the fact that these schools have much higher

salary schedules, better facilities and lower student-to-teacher ratios (MEA/MFT, 2005). Over the years numerous local, regional, and statewide initiatives have been attempted and discussed in an effort to recruit, retain and develop high-performing teachers in these schools. The low achievement scores and low socioeconomic status are strong indications that these students are some of the most at risk for public school failure and drop out in the state of Montana (Montana OPI, 2005). Present evidence supports the conclusion that Montana's indigenous students need a high-performing and stable teacher population. Previously cited research indicates that the quality of teachers' work life is a contributing factor in teacher stability and performance, thus it is important to identify the variables that impact it.

With the advent of the accountability movement, high needs schools have been told to make sound educational improvements that address the achievement gap existing between them and districts that are not considered high needs (NCLB Act, 2001). The recent ruling of Montana's Supreme Court (Columbia Falls District No. 6 et al. v. State of Montana, 2005) acknowledged that funding and resources are inadequate to meet Montana's Constitutional standard for adequacy in all of its schools, and even more especially for those that are considered high needs. For decades educators in these schools have been asked to teach under the most trying conditions. Because of student needs, educators at these schools must provide a work effort far beyond normal expectations (Montana Advisory Committee, 2001). Many of the children of high needs schools lack the simple social and family foundations that children of other schools experience (Montana Advisory Committee, 2001). Teachers, principals, coaches, and

paraprofessionals have and are still trying to fulfill the dual role of surrogate parents and teachers for thousands of children. Incredible stress and burnout levels have been the norm. Unless the issues of stress, job satisfaction, and burnout are adequately addressed, high needs schools such as the ones addressed in this study will continue to struggle.

Purpose of the Study

The purpose of this study was to use the QTWLS to examine the teacher demographics, teacher perceptions of their work life, and the original factor structure of the QTWLS as it related to teachers of indigenous student populations of Montana schools. The results provide information to researchers and school communities that could lead to practical interventions that positively affect teachers' work life in Montana schools with high indigenous enrollments. It is hoped that school leaders will find the results of this research particularly useful as they seek ways to close the achievement gap between Montana's indigenous students and all others.

A review of the research in this area reveals 14 demographics that could potentially affect teachers' work life. They are: 1) age, 2) race, 3) gender, 4) teaching experience, 5) teaching experience in current school, 6) education, 7) grade being taught, 8) subject being taught, 9) current family status, 10) proximity to urban area, 11) transition of building leadership, 12) experience in high poverty areas, 13) experience in indigenous schools, and 14) teachers' background. The QTWLS consists of 36 items that address the two scales of job-related satisfaction and stress.

The factor structure has consistently held up for studies of midwestern populations of regular and special education endorsed teachers from 1989 to 2002 (Harrington et al., 1989; Mace, 1992; Ford, 1992; and Kumarakulasingham, 2002). An analysis of the factor structure was conducted with Montana teachers in schools with predominantly indigenous enrollments to see if the factor structure would remain intact.

Theoretical Framework

The rationale for this study centers on motivation theory and its relationship to public school teachers' work life. Formal studies of motivation have yielded an evolutionary trail that leads to the study of the variables that are measured by the QTWLS. Over the last 50 years considerable research has been accomplished in the related areas of behavioral, cognitive, psychoanalytic, humanistic, transpersonal, and achievement motivation (Huitt, 2001). Most of it supports the research put forth by Maslow (1954) and Herzberg (1959).

Maslow is considered an early pioneer in the study of human needs as they pertain to motivation. He established the concept that human beings are motivated by a hierarchy of needs. Maslow (1954) described motivation in terms of five basic needs: 1) physiological, 2) safety, 3) love, 4) esteem, and 5) self-actualization. These are arranged in a hierarchical order beginning with physiological and ending in self-actualization.

Another pioneer in motivation theory is Frederick Herzberg who advanced the commonly accepted understanding that motivation consisted of a hygiene theory and a motivation theory. Hygiene theory involves the job environment and includes the

company, its policies and administration, supervision, working conditions, interpersonal relations, salary, status and security. Motivation theory involves what people do on the job and includes achievement, recognition, advancement, and interest in the job (Herzberg et al., 1959).

Coates and Thoreson (1976) followed up with research in the area of teacher anxiety, a few years later Kyriacou and Sutcliffe (1978) in the area of teacher burnout helped, and Cunningham (1983) set the stage for the teacher work life studies by Harrington in 1988. A close look at the QTWLS factors shows that the variables generally described by these researchers are addressed by the authors of the QTWLS.

The QWTLS consists of 36 items that are used to measure satisfaction and stress. The items were selected on the basis of these previous studies and more particularly those of Coates and Thoreson (1976), Kyriacou and Sutcliffe (1978), and Cunningham (1983), as well as the judgment of the authors regarding hypothesized aspects of the quality of teacher work life. Motivation theory has contributed in a major way to the theoretical concept that teacher satisfaction and stress affect the quality of teachers' work life and can be measured by the 36 items on the QTWLS.

Research Questions

There are three specific research questions being addressed:

1) What are the demographic characteristics of teachers in Montana schools with a predominant indigenous student enrollment?

2) Is the factor structure of the QTWLS replicated when used to assess teachers from Montana schools with predominant indigenous student enrollments?

3) How do teachers in these schools perceive their levels of job-related satisfaction and job-related stress?

An examination of descriptive statistics was conducted for research questions one and three. An examination of the construct validity of the instrument (QTWLS) was conducted for research question two.

Significance of the Study

This study was conducted to determine critical factors or a combination of factors that relate to or influence the quality of teachers' work life in Montana schools that have predominantly indigenous enrollments. At present there are no studies of teacher quality of work life of this scope in Montana public schools that have a predominant enrollment of indigenous students. It is possible to use the conclusions in this study to research specific treatment strategies that will effectively enhance the educational leader's ability to improve the quality of teacher work life in their respective schools. This could potentially contribute to increased student achievement in these schools.

Definition of Terms

The following terms were defined to clarify the meaning and scope of key words that were used in this study:

- Job Satisfaction: The degree in which teachers are satisfied with environmental and personal interrelationship factors of their job (Harrington et al., 1989).
- Stress: “A process of behavioral, emotional, mental and physical reactions caused by prolonged, increasing, or new pressures which are significantly greater than coping resources” (Cunningham, 1983).
- Quality of Teacher Work Life Survey: A 36-item survey used to measure satisfaction and stress and is measured by using two-dimensional Likert scales (Harrington et al., 1989).
- Indigenous: American citizens originating in the Americas and formally enrolled in federally recognized tribes (Webster, 1986).
- Schools Whose Enrollment Is Predominantly Indigenous: A school district that is categorized by a 100% LOT status by the Department of Education (Impact Aid Blue Book, 2001).
- Learning Opportunity Threshold (LOT): U.S. Congressional term used to assist in quantifying the amount of Impact Aid funds that students on federal lands would receive to make up for the lack of local taxes on property (Impact Aid Blue Book, 2001).
- School Districts: The territory……..organized under the provisions of Montana Code Annotated (MCA) 20-6-101 to provide public educational services under the jurisdiction of the trustees prescribed by the same title, in this case grades K-12 (School Laws of Montana, 2003).

- Educational Leaders: Superintendents, associate superintendents, principals, assistant or vice principals, teacher leaders, community leaders, and higher education leaders who formally train public school teachers (DuFour & Eaker, 1999).
- Job-Related Categories: Categories restricted to the 36 items measured on the QTWLS. They represent areas critical to the well being of teachers (Harrington et al., 1989).
- Schools Identified as Needing Improvement: Montana public schools identified as not meeting academic standards of proficiency required to initiate and maintain research-based school improvement plans (Montana OPI, 2005).
- High Needs: Schools that are typically urban, rural or low income in which students experience some degree of poverty (NCLB Act, 2001).
- Total Quality Score (TQS): A TQS can be generated for individuals, groups or overall population. It is a numerical summary of the job-related categories on the QTWLS.
- High Poverty: Defined by size of family and number of children under 18 years old (U. S. Census, 2005)
- Teacher Work Life: A sum of the teacher's job-related satisfaction and stress perceptions (Harrington et al, 1989).

Limitations of the Study

The scope of the study was limited to:

1. Teachers working in Montana whose school enrollments are predominantly indigenous students. All of these schools are characterized as high needs.
2. Public school teachers serving grades K-12.
3. The QTWL was administered in September and the results could vary at different times of the school year.

Delimitations of the Study

1. This study can only be generalized to Montana schools with predominantly indigenous student populations.
2. Each school district is unique in size and geographic locations; therefore the results of this study are only applicable to the population as a whole.

Research Structure

The design of this study was both descriptive and correlational, using a self-report questionnaire as well as an evaluation of the psychometric qualities (factorial structure) of the same questionnaire (QTWLS). The target population consisted of teachers in Montana schools that have a predominantly indigenous student population.

These schools were selected based on a final Impact Aid Learning Opportunity Threshold (LOT) percentage of 100% and based on a minimum enrollment of 100 students in a K-12 district. The LOT percentage is a federal legislative measure of the American Indian enrollment on federal lands within a district. The National Association of Federally Impacted Schools (NAFIS) defines 100% LOT as a school district with 70%

or more students on federal lands (Impact Aid Blue Book, 2001). There are 12 such school districts in Montana that meet these criteria. Population data, locations and enrollment numbers can be found in Appendix B. The school districts are Rocky Boy Public Schools, Browning Public Schools, Box Elder Public Schools, Lodge Grass Public Schools, Poplar Public Schools, Heart Butte Public Schools, Lame Deer Public Schools, Brockton Public Schools, Hays/Lodge Pole K-12 Schools, Pryor Public Schools, Frazer Public Schools and Harlem School District #12. Harlem Public Schools was deselected because of potential bias due to its participation in similar preliminary research from 2002 to 2004.

All of these schools are considered high needs. Each school district is identified for corrective action and has failed to meet the Montana OPI standards of proficiency for two consecutive years as measured by the Iowa Test of Basic Skills (ITBS) score of 45.2 Normal Curve Equivalent (NCE). All of these schools are also located in high poverty and rural areas.

The accessible population was these 11 school districts and consisted of 574 full-time equivalent (FTE) teachers. The researcher attempted to survey 100% of the desired population.

The questionnaire entitled the Quality of Teacher Work Life Survey (QTWLS, Appendix A) was used to collect data from volunteer teachers of the selected school districts in order to determine the current status of that sample with respect to several job-related and demographic variables. The QTWLS was designed as a means of assessing the degree of positive affect, quality or excellence experienced with the job of teaching.

The survey was developed by Dennis M. Pelsma, G.V. Richard, R.G. Harrington, and J.M. Burry in 1988 and has established reliability and validity. Results of previous validity, reliability and factor analytic studies are included in Appendix C and discussed in greater detail in Chapters 2 and 3.

The QTWLS provided for two independent scales, satisfied and stressed, and an overall total quality scale which is the combined sum of the individual scores on the stressed and satisfied scales. The dimensions which compose the two scales assess areas associated with the administrative organization of the school, time pressures, support from parents and students, salary and benefits, interruptions, schedules and classroom discipline. Teachers completing the QTWLS were asked to rate their present degree of satisfaction ["How satisfied": 1 (very dissatisfied) – 5 (very satisfied)] and degree of stress experienced ["How stressed": 1 (extreme stress) – 5 (no stress)] with each of the 36 items. The rationale for the development of this rating format is based on an assumption by the authors of the instrument that the level of job satisfaction experienced by teachers is not simply a synonym for stress (Harrington, Burry, & Pelsma, 1989).

Factor analytic studies have provided the following: administration (competence of and relationship with administrators), time (availability of time for planning, recuperation, etc.), students (discipline, motivation interest, etc.), interruptions (in class and extracurricular), work environment (general, equipment and resources), external support (community, parents and peers), internal support (competence and relationship of and with staff), job market (availability of jobs in teaching and opportunity for promotion), extrinsic rewards (salary and fringe benefits), and evaluation (teachers'

ability to evaluate students and formal evaluation of teaching performance). Each of these categories represents subcomponents or subscales which allow for diagnostic profiles made available to the individual.

A site coordinator administered the QTWLS. The logical sites for research purposes were Montana K-12 districts whose populations are predominantly indigenous students. Administrators within each school were familiarized with the instrument and its implementation after which the QTWLS was administered by the site coordinator. The data were returned to the researcher and entered into an SPSSII program.

Factors associated with this population were identified using appropriate factor extraction and rotation procedures. This allowed the researcher to address the previously stated research questions.

Summary

A review of current research demonstrates the importance of addressing issues surrounding the quality of teachers' work life. An important consideration is the potential predictive relationship between a positive work environment for the teacher and student academic proficiency. If educational leaders are able to address the variables, they may lead to greater teacher stability, teacher effectiveness and higher student achievement scores.

Administrators in their daily work with teachers generally recognize that working conditions are a strong subcomponent of teachers' work life and play a major role in teachers' decisions to remain in their profession (Darling-Hammond, 2003). The quality

of teachers' work life is reflected by the degree of job satisfaction and stress they incur (Harrington, Pelsma & Burry, 1989). It is logical to conclude that if school leaders could determine and measure the factors that affect the quality of teachers' work life, there exists potential for these factors to be addressed in schools and further researched.

The importance of this research is observable in terms of the practical aspects for student achievement, recruiting techniques, leadership climate, staff development planning, and general research purposes. Specific quality of teacher work life factors can be the focus of staff development and/or "quality" scores across time and could be used to assess positive and negative effects of certain influential factors (i.e., change in personnel, impact of new programs, etc). Indirectly, higher retention and successful recruitment of highly qualified teachers can positively impact student achievement (Darling-Hammond, 2003).

CHAPTER 2

LITERATURE REVIEW

Selecting the Literature

This study examined the impact that the quality of teachers' work life had in Montana schools with a predominant enrollment of indigenous students. This chapter gives an overview of the literature on which the study was based. It covers the selection of the literature, the context of the problem, a review of previous research and findings on the quality of teacher work life in public schools, leadership influence on the quality of teachers' work life, the influence of public school teachers' work life on student achievement, recruiting and retention, its relationship to certain demographics, and a summary.

A careful and deliberate review of the research surrounding the quality of teachers' work life was conducted by querying powerful search engines available at Montana State University–Bozeman through Interlibrary Loans (ILL) and Dissertations Abstract International (DAI). The major key descriptors included Quality of Teachers' Work Life, Work Life, Job Satisfaction, Job Stress, Organizational Climate, Teacher Retention and Recruitment, American Indian Schools, School Culture in American Indian Schools, and Burnout. Primary source references were identified in Dissertation Abstracts International (DAI), Psychological Literature (PsycLit) journals, Education

Resources and Information Center (ERIC) documents and those obtained directly when appropriate. Some sources were identified and accessed by Teoma.com, a search engine that has a strong educational data base.

The criteria for selecting the literature for this review were determined by its source and by the proposed outline. Primary sources were given priority to other sources, but both were used. This study required a review of contextual issues surrounding high needs schools, American Indian Schools and the Accountability Movement that is currently impacting public education. It was also important to review previous research on the quality of work life and related variables. Related variables included job satisfaction, stress, motivation, leadership, recruiting, retention, school climate and demographics.

Context of the Problem

There are a number of interrelated issues surrounding the effect of teachers' work life and student achievement. There have been numerous studies to determine what factors comprise the quality of teachers' work life (Coates & Thoreson, 1976; Kyriacou & Sutcliffe, 1978; Cunningham, 1983; and Harrington et al., 1989). The literature on the subject suggested that addressing the quality of teachers' work life in appropriate ways will more likely result in a stable teacher population that is more productive (Darling-Hammond, 2003). Because the ultimate goal in education is to foster student success, it is important to examine the serious issues that are currently impacting our nation's schools. Specifically, issues surrounding high needs schools, issues surrounding the accountability

movement, and for the purpose of this study, issues surrounding indigenous schools across the United States and then more particularly those in Montana.

Issues Surrounding High Needs Schools

Over the last two decades there have been a number of attempts to define a high needs school district. It is generally understood among educators that a school with a significant number of students who face challenges in the areas of poverty, literacy, learning, social development, ethnicity, rural/urban locations, language and any other demographic are at risk for being considered a high needs school. Since many of the students in these schools do not start on a level playing field, they require additional resources to ensure the same or comparable education that students from traditional schools receive.

The No Child Left Behind (NCLB) Act of 2001 is the country's most recent authorization of the Elementary and Secondary Education Act (ESEA) of 1965. It defines a high needs school district as 1) a district that serves no fewer than 10,000 children from families with incomes below the poverty line or a district for which 20% of the children are from families with incomes below the poverty line, and 2) districts that have a high percentage of teachers not teaching in the academic subjects or grade levels that teachers were trained to teach, or that have a high percentage of teachers with emergency, provisional temporary certification, or licensing.

These schools face great challenges in educating students to the prescribed educational standards. Schools with high rates of poverty are often characterized by single parent families, substance abuse, physical/emotional abuse, fetal alcohol

syndrome, crime, violence, health, and a host of other factors that negatively impact learning. If these schools are staffed with poorly trained or unqualified teachers who are always in transition, then school improvement issues are not addressed adequately (Hoy & Hannum, 1997). Simply stated, the children fail in school and ultimately in society.

Issues Surrounding the Accountability Movement

The pendulum of reform has been swinging steadily from the liberal, decentralized approach of the 1960's to that of the conservative approach of strict accountability. The National Commission on Education asserted in A Nation at Risk (1983) that the very security of the U.S. stood imperiled by the "mediocre educational performance" of its schools. Educational reform has evolved in the form of the Excellence Movement (1980's) to the restructuring movement of the 1990's. The restructuring movement is generally characterized by a structured, collaborative, research-based approach to school improvement (DuFour & Eaker, 1999).

On January 8, 2002, President Bush signed into law the NCLB Act of 2001. The underlying premise was that all children can and will learn. The central goal of NCLB is to have all students reach proficiency or advanced levels of state academic achievement standards in reading and mathematics by 2014. In addition, the act requires states to develop a plan that ensures all teachers are highly qualified by the 2005-06 school year. The Department of Education sees the act as having four guiding principles: accountability, flexibility in uses of funding, research-based reforms, and parental options (NCLB, 2001).

Under NCLB, accountability becomes paramount. States are required to establish academic standards and collect data from assessments that have been aligned with their standards. Districts are then monitored to ensure that progress is being made toward the NCLB goals of academic proficiency. If they are not making Adequate Yearly Progress (AYP), then specific corrective action is mandated (NCLB, 2001).

With the advent of the accountability movement, high needs schools have been told to make sound educational improvements so that their students can meet the same or higher standards of schools that are not (Montana OPI, 2002; NCLB Act, 2001). It is generally acknowledged that funding and resources are woefully inadequate to meet this admirable goal. For decades educators of these schools have been asked to teach under the most trying conditions. Because of student needs, educators at these schools must provide a work effort far beyond normal expectations (Haar, 1998). The children of these schools lack the simple social and family foundations that many children of other schools experience (Montana Advisory Committee Report, 2001). Much of the research indicates that unless the issues of stress, job satisfaction, and burnout are adequately addressed; high needs schools such as the ones found in the schools in which our indigenous students are attending, may fail even more miserably.

U.S. Schools with Indigenous Student Populations

Indigenous communities contain some of the most high needs schools in our country. Margaret Szasz (1991) reported that, “Native Peoples supply the highest unemployment and poverty rates in the U.S. Low economic status leads to poor self-concept among Native children, and high unemployment forces those who complete

schooling to leave their communities to find work. With limited access to health care, alcoholism and other forms of substance abuse, fetal alcohol syndrome, depression, and suicide are widespread in Native Communities…..Many Native children attend schools that desecrate their cultural heritage and damage their self-esteem and motivation."

Because of the issues facing American Indian Schools, two landmark efforts occurred in the 1990's to describe the conditions of the American Indian and Alaskan Native Nationals. They were the Indian Nations at Risk Task Force (1990) and the White House Conference on Indian Education (1992). Both also recommended continued research in literacy and culture, testing, health and substance abuse issues, the development of a national data base on Native Education and studies of recruiting and retention problems encountered in predominantly American Indian schools (1992-1993).

Montana Schools with Indigenous Population

The state of Montana is the home of seven reservations and 12 federally recognized American Indian Tribes. The indigenous population comprises 11% of the total population in Montana (OPI, 2005). All are rural and experience to varying degrees the same handicapping issues described in the Indian Nation at Risk and the White House Conference on Indian Education (OPI, 2001). All public school districts that have a 70% and above enrollment of indigenous children have been identified as being high needs and in need of improvement (OPI, 2005). None of these districts meet Montana Comprehensive Assessment Standards (MONTCAS) for making Adequate Yearly Progress (AYP) mandated by NCLB. All of these districts express a higher turnover rate of educators than the non-indigenous schools in Montana (OPI, 2005).

In order to address some of the specific needs of Montana reservation schools, the Montana Constitutional Committee of 1972 modified the state constitution to include Article X, Section 1(2) to include language recognizing “the distinct and unique cultural heritage of American Indians” (Montana Constitution, 1972). The Montana Advisory Council (MAC) (2001) stated that other than some infrequent and superficial dialogue, no substantial change to public schools occurred with this important document. The 1999 Montana legislature subsequently passed HB 528 which ultimately became law under MCA 20-1-501 (American Indian Studies). This law gave non-funded mandates to Montana schools to teach American Indian Studies. The rationale behind some of these reform efforts was that increased self-esteem among American Indian students would contribute to school improvement (MAC, 2001).

The Montana Advisory Committee to the U.S. Commission on Civil Rights examined the extent of equal educational opportunity and educational quality offered to indigenous children in Montana public schools. Fact-finding meetings were held in Billings (December 10, 1996) and Missoula (April 24, 1997). The committee concluded that although the state of Montana created laudable goals concerning American Indian education, these have not produced tangible outcomes; therefore, the state has failed to meet its obligation with regard to Indian education. Montana’s indigenous children drop out of school at a disproportionate rate and have low achievement levels, test scores, graduation rates, and college attendance rates. There are too few indigenous teachers and administrators, and teachers do not receive adequate training in the teaching of Indian history and culture or in effective strategies for teaching indigenous children (Montana

Advisory Council, 2001). Recommendations were offered concerning teacher education, indigenous teacher recruitment, school-community links, student tracking, curriculum development, state policy implementation, role of tribal governments, and civil rights enforcement (Montana Advisory Council 2001).

Other than the federal provision for additional funding through the Elementary and Secondary Education Act (ESEA), Title VIII (Impact Aid), Section 8003, Montana indigenous students do not receive funding to address the high needs of the schools in which they are educated. The state of Montana funding formula does not provide additional funding for resources that could alleviate the handicaps experienced by these schools. Recently the Indian Impacted Schools of Montana (IISM) and others challenged the state of Montana's adequacy of funding for public schools and were upheld by the Montana Supreme Court in November of 2004 (Columbia Falls District No. 6 et al v. The State of Montana, 2004). The Montana 2005 legislature is currently working to become compliant with the ruling.

Culture in Montana's Schools with Indigenous Enrollment

By definition school culture is logically related to school climate and other factors that influence teachers' work life. School culture is defined as "the historically transmitted patterns of meaning that include the norms, values, beliefs, ceremonies, rituals, traditions, and myths understood, maybe in varying degrees, by members of the school community" (Stolp & Smith, 1994). This system of meaning often shapes what people think and how they act.

The culture of Montana's schools with predominant indigenous enrollment is shaped by a number of characteristics imbedded in their environment. As previously ascertained, they are typically high needs. This stems to some extent from their high poverty environment. Drop out, violence, drug and alcohol use, Learning Disabilities (LD), Fetal Alcohol Syndrome (FAS), Emotional Disability (ED), suicides, divorce rates, spousal and child abuse, teen pregnancies, and vehicle accidents are much higher on Montana's reservations (Montana State Advisory Committee, 2001). This of course shapes to a large extent the culture of the community and school. Notably strong policies that identify and assist students affected by these issues are continually emphasized and improved upon. In many of these schools there is a strong focus on accountability by the staff and the integration of the indigenous culture by the community (MAC, 2001). Striking a balance between the two is a source of constant debate.

Communities in collaboration with the school leadership and staff are continually struggling to overcome these handicaps in order to provide a positive school culture that contributes to student success. In these schools are a number of remedial programs designed to assist the students who struggle in academics. These programs occur during and after school. There are considerably more after school, Saturday school, summer school, and alternative school programs found among these high needs schools than in Montana's more traditional schools (Montana OPI, 2005). These kinds of issues place greater demand on the staff as well and ultimately influence recruiting, retention and quality work life of the educators who serve there (Darling-Hammond, 2001).

Research Leading to the Quality of Teacher Work Life Survey

A review of the literature related to the quality of teachers' work life begins with pioneer research efforts in quality work life for laborers in industry. It will entail a discussion of motivation, job satisfaction, stress and organizational climate.

Job satisfaction would be incomplete without the discussion of Maslow's (1954) theory of prepotent needs. Maslow's theory has been the basis of explanation for how job satisfaction is psychologically motivated. Maslow created a hierarchy of human needs in which he believed the emergence of higher-order needs were dependent on the relative satisfaction of lower-order, more basic needs. Maslow viewed needs in the following ascending order: (1) physiological needs; (2) safety needs, needs for belongingness and love; (3) needs for importance, self-esteem, respect, independence; (4) need for information; (5) need for understanding; (6) need for beauty; and (7) need for self-actualization. The satisfaction of lower-level needs before higher needs was not insisted upon by Maslow. He did suggest, however, lower-order needs (life sustaining) naturally get more attention and would be more fulfilled than higher-order needs (emotional comforts).

In regard to job satisfaction, the research of Centers and Bugental (1966) reported that workers in higher-level jobs had greater motivation to fulfill higher-order needs. Gruneberg (1979) suggested, in reference to Maslow's theory, that lower-level job holders have these positions because they have lower-level skills.

Herzberg (1959) explored job satisfaction in work settings by studying several steel production companies in Pennsylvania. It was concluded that there were several

factors that clearly illustrated the individual's satisfaction with his or her job. Herzberg described several factors and labeled these factors as hygiene factors. Hygiene factors were described as factors that encircled the job such as the benefits package and relationships with co-workers. Herzberg believed that hygiene factors made individuals more satisfied with their work but were not enough to create complete job satisfaction in an individual. Herzberg (1959) discovered that to have true job satisfaction, an individual must be satisfied with various motivational factors in conjunction with the hygiene factors. Motivational factors involve how connected to the job a person may or may not be along with the feeling of commitment towards the job. It was found that an individual might be dissatisfied with a co-worker (hygiene factor) but extremely satisfied with the rewards of a particular task or job (motivation factor). Therefore, although hygiene factors may play a major role in preventing job dissatisfaction, it has been proven that motivational factors must exist in order to foster a high level of job satisfaction for an individual.

Maslow (1954), Herzberg (1959), and Kyriacou (1978) all pioneered efforts in the area of quality work life in schools. Their combined efforts along with others laid the groundwork for the development of a multidimensional self-report instrument entitled the Quality of Teacher Work Life Survey (QTWLS) by Harrington et al. (1989). Teacher Stress and Teacher Job Satisfaction serve as the primary dimensions of the QTWLS, but the survey also covers the ten subcomponents reported in Chapter 1 which have been identified by researchers as affecting teacher stress, satisfaction and overall school climate.

The Quality of Teacher Work Life Survey (QTWLS)

The QTWLS was developed to further address the current research prior to 1988 surrounding the impact of teacher job satisfaction and stress in our public schools. It was field-tested during its construction and has been used successfully in the field by several researchers since its inception. It is worthwhile to discuss in some depth its construction, validity, and reliability.

The QWTLS consists of 36 items that are used to measure satisfaction and stress. The items were selected on the basis of previous studies (Coates & Thoreson, 1976; Kyriacou & Sutcliffe, 1978) as well as the judgment of the authors regarding hypothesized aspects of the quality of teacher work life. Each statement is rated on two dimensions using Likert scales: satisfaction and stress experienced. The scales are labeled at each point 1 to 5, representing the two extremes as well as the gradations in between. As mentioned earlier, the rationale for measuring both ratings involve the assumption that satisfaction and stress, though similar, are not the same thing.

The QWTLS was correlated against the Maslach Burnout Inventory and Value-Education survey in a study involving 227 usable responses from 478 certified staff members from a school district in the Midwest United States (Harrington et al., 1989). The review of literature pointed out the MBI as a widely accepted means of measuring stress that correlate with behavioral ratings by observers. The VAL-ED is an inventory that measures values of those working in an educational setting. It was used effectively by Weiner (1974) to assess areas of dissatisfaction as well. Test-retest reliabilities one year later (n=93) were r =.56 for the quality total score and ranged from .52 to .74 on the

subscales.

In addition to the Harrington et al. (1989) research in which the instrument was twice tested in Kansas, the QTWLS was also used by Ford (1992) to assess Stress and Satisfaction of regular and special education teachers in categorical and cross-categorical programs. Over 592 teachers in the Midwest were surveyed using the instrument. The findings resulted in a recommendation for further research on the years of teaching influence on stress and job satisfaction.

Ford (1992) compared the levels of job-related satisfaction, job-related stress, perceived job effectiveness and personal coping styles of 254 teachers in regular education programs with those of 592 teachers in special education programs in the state of Kansas. The QTWLS was one of three instruments used. Higher mean levels of stress were found among individuals teaching in special education. A factorial structure analysis was conducted on the QTWLS which resulted in a recommendation for an adaptation of the instrument for special education teachers.

Mace (1992) utilized the QTWLS as a measure of teacher stress with 208 regular and special education teachers in his study of relationships between teacher stress and classroom management styles. In his study he concluded that the stress levels of the teachers sampled as measured by the QTWLS were not significantly related to teacher classroom management style.

In 1993 the instrument was used by Terhune to determine the quality of teacher work life of 263 senior high school teachers in rural southwest Missouri. Descriptive

statistics suggested that administrators of these teachers may have been contributing to the overall positive quality score of 7.277 of a possible 10.

Konert (1997) investigated the relationships between teacher burnout, teacher stress, job satisfaction and coping in a sample of 220 middle school teachers in Michigan. The mean score on the QTWLS Stress Scale was 109.39 with a standard deviation of 29.90 and a range of scores from 36 to 180. No gender or age differences were found in teacher stress. Konert (1997) reported that significant differences among teachers on measures of personal accomplishment and job satisfaction were based on number of years teachers had been in their current teaching positions. Teachers with more than four years of teaching experience evidenced higher levels of Personal Accomplishment and job satisfaction than evidenced by teachers with three or less years of teaching experience (Konert, 1997).

Kumarakulasingam (2002) used the QTWLS in conjunction with the Maslach Burnout Inventory, Teacher Efficacy in Classroom Management and Discipline Scale, and the Hope Scale to study the relationships between teacher self-efficacy in classroom management, teacher stress, teacher burnout, depersonalization, and teachers' level of hope. There were 227 teachers from northeast Kansas who participated in this study. The study reported that teacher stress and teachers' level of hope made a significant contribution to the prediction of emotional exhaustion and depersonalization; and teachers' level of hope acted as a moderator in the relationship between teacher stress and personal accomplishment. The researcher reported the QTWLS as a reliable measure of teacher stress.

Factors Influencing Teacher Stress

Rashke (1985) investigated teacher stress by identifying specific factors that 230 kindergarten through 6th grade teachers (average age 35 years) deemed most responsible for both job satisfaction and dissatisfaction. Primary stressors were reported as being lack of time, disruptive students, students who are not interested in learning, and dealing with students of varying ability levels (Rashke, 1985). These sources of stress were reported as the decline in public respect for teaching, decreasing lack of enthusiasm among students, collective bargaining in teacher-administrator relationships, lack of time, excessive paperwork, lack of parental support, low pay, and disruptive students. Suggestions offered in Rashke's study to improve the climate of elementary schools included larger classrooms, availability of more supplies and modern equipment, and reduction of paperwork. The report also suggested that more emphasis should be placed on creating harmonious relations among all members of the school community with open communication, shared decision making, and a collegial spirit of administrative practices.

Farber (1991) reported that while school restructuring meant to reduce stress, sometimes it led to an increase burnout among teachers. The study suggested that the following initiatives of the school restructuring movement may intensify teachers' frustration: (1) school-based management may raise the community's expectation but increase pressure on teachers and increase teacher frustration if new control does not lead to clear educational benefits; (2) accountability may increase teacher stress and promote covert competition; (3) career ladders may increase competition or result in bitterness as the criteria for promotion are ambiguous or tainted; (4) the intense atmosphere and

professional demands of schools-within-schools can exacerbate tensions, favoritism, and competition for scarce resources as the minischools within the schools compete for recognition and resources and add a layer of bureaucracy and stress; (5) curriculum initiatives can generate stress when their implementation lacks appropriate staff development, mentoring, and peer coaching; and (6) flexible scheduling and team teaching do not work well in a school with a competitive ethos. Farber (1991) concluded that although all initiatives may improve urban education, only curriculum initiatives improve teaching and learning

Larchick (1996) conducted an exploration study to determine if Oklahoma's middle school teachers' personal life-stressors and the resulting coping behaviors impacted teachers' personal job performance. The data was collected using a survey instrument developed by the researcher designed to assess the two areas: (1) personal life-stressor categories and (2) patterns of teacher job-performance. The personal life-stressors identified by the teacher respondents as those that affect them the most in their daily lives are money management followed by family, health and care giving. The stress-coping behaviors identified by the teacher respondents reflect a trend to reduce the amount of time teachers volunteer for committees or serve as the directors and sponsors of extracurricular activities.

Chen and Miller (1997) summarize research on both organizational and individual characteristics positively correlated to teacher stress. Organizational characteristics are time constraints, workload, job demands, role conflict, role ambiguity, income, resources, class size, administrative bureaucracy, autonomy/participation in decision making,

collegiality, student discipline and interaction, reward and recognition, and career advancement. Individual characteristics are age, marital status, and gender. Teachers found stress increased by time factors, workloads, role conflict and ambiguity, inadequate income and resources, low autonomy, and issues related to the classroom environment. Individual characteristics contributing to stress included age, experience, gender, and marital status. Chen and Miller's recommendations for administrators and teachers include wider knowledge of the organizational and individual characteristics to help school systems and systemic interventions developed by administrators to alleviate teacher stress and greater teacher awareness of stress factors, which leads teachers to have greater compassion for themselves, resulting in enhanced coping effectiveness.

Naylor (2001), in his report to the British Columbia Teacher's Federation, cited teacher workload and stress as a major concern to Canadian teachers. This report examines international research and current educational publications about teacher workload and related stress. Workload issues have been a concern for Canadian teachers and teacher unions during recent years, with British Columbia's teachers reporting the highest stress levels nationwide. Teachers must juggle diverse, intense types of interactions and respond to requests by colleagues, administrators, parents, and community members. Teachers report experiencing very high stress related to reporting practices and issues. International studies show that teachers' work intensification mirrors societal trends toward overwork. Site-based management has led to increased teacher workload. Imposed and centralized system accountability, lack of professional autonomy, relentlessly imposed change, constant media criticism, reduced resources, and

moderate pay all relate to teacher stress. The effects of teacher stress include declining job satisfaction, reduced ability to meet students' needs, significant incidences of psychological disorders leading to increased absenteeism, and high levels of claims for stress-related disability.

Factors Influencing Teacher Job Satisfaction

Similar to job stress, the pioneer research in worker job satisfaction in industry ultimately led to research specific to the job satisfaction in schools. Like other professions, factors affecting teacher job satisfaction were found to be intrinsic and extrinsic. Intrinsic factors come from daily interactions with students, feeling of successful learning outcomes, and relationships with co-workers. Teachers enter the teaching profession for intrinsic factors. Very few teachers enter the profession for extrinsic factors such as salary, benefits, or prestige (Choy et al., 1993).

Klecker and Loadman (1999) reported on the following aspects of teaching: opportunities for professional advancement, level of personal/professional challenge, level of professional autonomy/decision making authority, general work conditions, interactions with colleagues, and interactions with students. They were rated on a Likert-type seven-point scale ranging from 1 (very negative) to 7 (very positive). They also reported on categories for "years of teaching experience." They were five years or fewer, six to ten years, 11 to 15 years, 16 to 20 years, 21 to 25 years, and 26 years or more. Cronbach's coefficient alpha reliability for the job satisfaction subscale with the data from this study was .80 with each item contributing to the overall reliability. Klecker and Loadman further elaborated that the overall rating of job satisfaction by the total sample

of elementary teachers was positive (5.09). They reported that, “All seven aspects of teaching received positive ratings, that is, they were all above the neutral 4.00 mid-point on the seven-point rating scale. The differences in job satisfaction were in degree rather than in kind. The elementary teachers rated ‘interaction with students’ as the most positive aspect of their job (6.01). The teachers rated their satisfaction with ‘general work conditions’ the least positively (4.47).”

The United States Department of Education, Office of Educational Research and Improvement (1997) conducted a national study of on teacher job satisfaction. Included in this study were 40,728 elementary and secondary teachers from both the public and private sector. The report focused on workplace conditions, school safety, and parent and administrator support. The findings of the report were that workplace conditions are strongly associated with teacher job satisfaction. Salary and benefits were found to be important to teachers, but were only weakly related to teacher job satisfaction. This finding was even less important at private schools, where the salaries tended to be lower. At all schools and at each level, focusing on workplace conditions such as a safe working environment, supportive administration, and involved parents can increase teacher job satisfaction. The factors which were more strongly associated with teacher job satisfaction were parental support, student behavior, principal interaction, staff recognition, teacher participation in school decision-making, influence over school policy, and control in the classroom.

Lumsden (1998) reported on job satisfaction among teachers. Teachers identified administrative support, leadership, good student behavior, a positive school atmosphere,

and teacher autonomy as factors associated with higher job satisfaction. Salaries and benefits were found to be weakly related to job satisfaction

Schmidt, Weaver and Aldredge (2001) examined how newly hired counselors were functioning in school and their job satisfaction levels. The researchers found the general level of job satisfaction to be a "serious concern" because nearly a third of the participants indicated they were not satisfied with their role as a school counselor, or they were uncertain about their satisfaction. The researchers discovered that more than half of the counselors hired by schools intended to leave before their fifth year, and this response was precipitated by responsibilities assigned to their position that were viewed as unrelated to counseling services. The authors of this study expounded that if this is a trend among school counselors, "then providing consistent programs and services for students, parents, and teachers will become a continuing challenge for public education."

Recently Craig A. Mertler (2001) examined the current state of teacher motivation and job satisfaction through a web-based survey entitled "The Teacher Motivation and Job Satisfaction Survey." The sample (N=969) consisted of elementary, middle, and high school teachers in the Midwest responding to questions on overall job satisfaction. Teachers were asked questions about whether they would choose to become a teacher again if they could start over, and about their motivation and related motivational factors. Mertler's data revealed that 77% of the teachers were satisfied with their jobs. Beginning teachers and teachers near the completion of their careers indicated the highest levels of job satisfaction. The desire to enter the teaching field again was indicated most by teachers in their early 20's and 30's. Males reported knowing

significantly more unmotivated teachers than did females, and 23% of the respondents reported knowing or working with more than ten teachers they would classify as unmotivated. Males were slightly more satisfied as teachers than females. Mertler found evidence to support the fact that teachers are generally satisfied with their jobs.

Perhaps a fact more important to consider is the incredible number of students with whom these dissatisfied teachers come in contact on a daily basis. In Mertler's study, 23% (or 233 teachers) reported that they were dissatisfied with teaching. Two hundred thirty-three teachers are responsible for 3000 to 4000 students each year and considerably more throughout their careers. The literature on the relationship between Job Satisfaction and Teacher Efficacy clearly indicates that students taught by dissatisfied teachers will be negatively impacted to some degree (Ashton & Webb, 1986; Carnegie Task Force on Teaching, 1986). Dissatisfied teachers typically do not perform as well as satisfied teachers because they tend to be less committed (Cooper, 1978; Pigge & Lovett, 1985).

Mertler's 2001 results were similar to the overall results regarding teacher satisfaction reported by Sweeney (1981), Mertler (1992) and a study by Perie and Baker (1997) in which all three reported an overall dissatisfaction rate of about 32% in their studies. In his previous study entitled Teacher Motivation and Job satisfaction of Public School Teachers, Mertler (1992) indicated that approximately one-third of the teachers surveyed reported that they would not become teachers again if given the choice. Perie and Baker (1997), who did the Department of Education National Statistical Analysis

Report for the National Center for Education Statistics entitled “Job Satisfaction Among Teachers” mentioned earlier, cited overall dissatisfaction at 32% also.

School Climate

School climate has been identified as an important component of the schools. Though not easily defined, a favorable school climate is easily recognizable. In quality schools staff and students respect and trust each other. Morale is high and social and academic growth is continuous. School climate may be defined as those qualities that affect the attitudes, behaviors and achievement of the people involved in its operation whether it is staff, parents or community members (Sutherland, 1994).

School climate is similar to the concept of the quality of work life. The major difference is that the student climate is not factored as heavily in teacher work life as overall school climate. The quality of teacher work life is characterized by the sum total of Job Satisfaction and Stress experienced by teachers. Both contribute to teacher quality work life and according to the QTWLS student interaction with teachers is one of the ten variables affecting their work life (Harrington et al., 1989). Student interaction with school environment is considered a major contributor to School Climate. School Climate is inclusive of what students not only contribute but what they experience (NAESP, 1990; Kelly et al., 1986; Sutherland, 1994). The study of teacher work life is, as it suggests, mostly about teachers.

Much of what is related to stress and satisfaction contributes to school climate and ultimately to the self-report items found on the QTWLS. For example the National

Association of Elementary School Principals (1990) listed six areas as the essential ingredients of an effective school climate:

1. A caring atmosphere permeates the school.
2. Feelings, concerns and conflicts receive fair and consistent attention.
3. Respect for individual differences among staff, students, parents, and administrators are demonstrated.
4. The trust level is high. The principal respects the teachers' judgment and includes them in school-based decisions. The teachers are given appropriate classroom autonomy.
5. The morale in the schools is high. The students are enthusiastic about learning, and the teachers are excited about teaching. Achievements and contributions by everyone in the school are acknowledged and celebrated.
6. Social development is emphasized. Good citizenship and a written code of behavior through collaborative efforts of parents, schools, and students.

School climate is crucial in providing students with quality education. Quality education can be present in urban and suburban districts as long as the teachers are motivated and feel valued. Brookover (1980) reported that schools with a positive school climate have high student achievement regardless of the type of community served by the school. Brookover further pointed out that ineffective climates are associated with low levels of student achievement.

One method used to measure school climate was introduced by Kelly, Glover, Halderson, Sorenson and Speth in 1986. It was designed to measure the professional staff

members in schools to form a picture of the climate of the organization. Forty-six questions, with responses ranging from strongly agree to strongly disagree were computed to develop scores in nine areas of school climate: (a) teacher-student relations, (b) security and maintenance, (c) administration, (d) student academic orientation, (e) student behavioral values, (f) student-peer relations, (g) parent and community-school relations, (h) instructional management, and (i) student activities. This survey was created primarily for secondary schools. It is worth noting that many of the components addressed in this survey are parallel to the QTWLS designed a few years later.

Sutherland's (1994) research in school climate reported on several factors that are related to the quality of teachers' work life. In his study he used a questionnaire called the 'Teacher Perception Scale.' This survey was given to 150 teachers in a school district in a suburban area. The data were analyzed by gender and years of teaching experience. In this study Sutherland concluded that a positive learning environment, good teacher morale, and high student achievement are essentials for a positive school climate. He elaborated on what he termed a "Healthy School" by stating that "a 'Healthy School' is one in which harmony pervades the relationships among students, teachers, and administrators as the organization directs itself towards its mission." These schools appear to be high-achieving schools. He also reported that collegial relations, high academic expectations and teachers' beliefs in their ability to help students are what characterize these schools. His data for this population revealed that a majority of the teachers agreed that the characteristics of a favorable school climate were present in their schools as described in the current research of favorable school climate. He also noted

that 82% agreed that they liked the school in which they work. In the area of trustworthiness of colleagues, the staff felt that it was an important ingredient to a positive school climate and 66% agreed that they trust the people with whom they worked. It was also reported that, "Communication is an important aspect in creating an effective school climate……and is used to help people within the organization clarify their understanding of the organization's goals, objectives, procedures, and rules." The results of this survey revealed that 84% of the teachers agreed that they know a lot about the school in which they work. Sutherland also pointed out that 70% of the teachers agreed with the statement, "I feel that I am a part of the school in which I work." Sutherland concluded that the majority of the teachers surveyed felt they worked in a positive school climate.

The importance of Sutherland's work to the study of teachers' work life is two-fold. First, it demonstrates that many of the factors contributing to school climate also contributes to the quality of teachers' work life and in some cases are inseparable (e.g., a positive learning environment, collegial staff relations, trustworthiness, and communications). Second, because they share some of the same characteristics, it is safe to hypothesize that relationships exist between school climate and the quality of teachers' work lives.

Leadership Influence on the QTWLS

Studies have shown the impact on the level of teacher job satisfaction based on the relationship between the administration and the teaching staff. Teachers who

perceived themselves as valued members of the staff felt more satisfied. Teachers also expressed more satisfaction when they were involved in the decision-making process regarding the school. The satisfaction of teachers has been closely linked to the culture of the school. Teachers who were always doing paperwork felt that their time was very limited in terms of focusing on their classrooms and their students' academic progress. This increase in administrative tasks impacted the level of job satisfaction for teachers (Lortie, 1975; Hartzell & Winger, 1989; Maehr, 1990; Derlin & Schneider, 1994; MacMillan, 1999).

MacMillan (1999) conducted a study in order to examine how teacher professional satisfaction is related to background characteristics and workplace conditions measured through teaching competence, administration control, and organizational culture. Teacher data was n = 2,202 from the New Brunswick Elementary Schools Study in New Jersey. MacMillan (1999) stated:

> The context provided by the administration influences interaction among staff, teachers' feelings of being valued for their work, and the sense of substantive involvement in the operation of the school. Evidence also suggests that increased 'administrivia' such as paperwork and other tasks perceived by teachers to be non-substantive contributors to student academic achievement can result in withdrawal from participation, or in extreme cases, exit from the profession. Principals who are termed open and who try to reduce such frustrations as paperwork contribute to the feelings of satisfaction, even though upon analysis, the paths of action have already been scripted. The key factor in maintaining teachers' commitment to the school appears to be their perception of meaningful, organizational involvement.

MacMillan (1999) further explained that the organizational culture that promotes collegiality and collaboration generally is the type that promotes satisfaction and feelings of professional involvement of teachers. He pointed out that other types of cultures that

create, maintain, and reinforce isolation provide little help for teachers to resolve issues or to learn new techniques for teaching. His findings indicate that teacher dissatisfaction and loss of certainty about professional competence has been significantly impacted by cultures that foster isolation. He concluded that administrative control, teaching competence and organizational culture had positive effects on teacher satisfaction. In another study he stated that, "All three effects were positive, indicating that teachers with more positive perceptions of their relationship with school administration reported higher satisfaction with their professional role; teachers with better teaching competence showed higher satisfaction; teachers working within a positive school culture indicated higher satisfaction."

Derlin and Schneider (1994) researched the job satisfaction of teachers working in suburban settings. Their study presented a comparative analysis of the factors affecting 10,500 urban and suburban-based educators on job satisfaction. The researchers found teacher job satisfaction to be strongly tied to teacher involvement and empowerment. Derlin and Schneider summarized their findings by indicating that teachers found themselves being more satisfied when principals fostered an environment where teachers had opportunities to identify, implement, and execute strategies and tactics as a means for achieving school goals.

Maehr (1990) conducted a study of 101 teachers from four schools in Illinois. His study found a causal link between school leadership behavior and school culture to job satisfaction. He also discovered teachers to be more satisfied when they had more input with the development, process and delivery of school curriculum and policy. It was clear

that the principal set the tone throughout the building when deciding the process in which curriculum was developed.

Lortie (1975) in her paper, “Networks and Organizational Rationality in American Public Schools,” shared the perspective that teachers were more satisfied when they viewed themselves as contributors to the whole school. She encouraged lateral relationships between administrators and teachers at a time when a top-down leadership style was strongly in place.

Some teachers expressed a lack of time to participate in the numerous committee work and projects required of them. They indicated that they were uncomfortable with empowerment and increased levels of teacher decision-making since they were unclear what it meant in terms of their negotiated employment contract. Teachers also indicated that their time should not be wasted on trivial, mundane issues. Teachers need to know that their ideas and plans, even when questioned and challenged, are valued (Farber, 1991).

Bredeson (1989), in a study that investigated the perceptions of 20 principals in two school systems on the effect of teacher empowerment, noted that despite the notion of freedom and autonomy, teachers expected the principal to be highly visible around the school. They expected the principal to be informed about concerns, issues, and programs and “to be available to them.” Teachers also expected the principal to provide an environment that is supportive, friendly, open, sharing and safe.

Anderman (1991) conducted a study on relationships of teachers’ perceptions of school leadership relationships among teachers’ perceptions of school leadership, school

culture, and teacher satisfaction and commitment. Survey participants totaled over 600 in multiple states. He reported that a principal's actions create distinct working environments within schools, and that these different kinds of environments are highly predictive of teacher commitment and satisfaction. Barth (1991), a former high school principal, wrote in his journal article, "Restructuring Schools: Some Questions for Teachers and Principals," that "though there are many important relationships within a school, I am convinced that none of these relationships has greater effect on the quality of life under the roof of the school house than the relationship between the principal and teacher. I have found no characteristic of a good school more pervasive than a healthy teacher-principal relationship."

Several studies in the early to mid-1990's addressed administrator impact on teacher issues. Heller et al. (1993) employed Hersey and Blancherd's Situational Leadership concept to investigate the relationship between teacher job satisfaction and leadership behaviors. About 42% of 339 teachers were dissatisfied. They suggested that each "school must give more attention to increasing teacher job satisfaction." Sheppard (1996) conducted a study in Chicago of 35 graduate students at Chicago State University using a "Teacher Morale Survey" to test the effect of principal leadership style on staff motivation. He compared the principals' behaviors, specifically their instructional leadership behaviors, to levels of teacher commitment, teacher professional involvement and levels of teacher innovativeness. He found significant positive relationships between principals' instructional leadership behaviors and all three variables mentioned. Krug's (1992) study on the impact of instructional leadership on learning outcomes revealed

among other things that principals self reported that a principal's belief in the value of five instructional leadership behaviors was positively related to teacher job satisfaction and teacher commitment. Short (1995) in his published review of "Studies in the First 10 Volumes of the Journal of Curriculum and Supervision" called for more research into the effects of leadership behaviors on teacher behavior, specifically on the relationship of instructional leadership to teaching. He recognized the importance of these teacher behaviors on student learning and the influence their principals could have on teacher behaviors and the link to student learning.

In Short's (1995) study, over 800 American teachers responded to an open-ended survey by identifying and describing characteristics of principals that enhanced their classroom instruction. The respondents specified principals' behaviors such as modeling, giving feedback and praise as having a positive influence on teacher reflection of their own teaching practices.

A study by Leithwood (1994) using survey data from 1,818 teachers and 6,490 students at a large Canadian school district replicated a study of transformational leadership effects on selected organizational conditions. He reported within the broad range of leadership styles, types and classifications of behaviors, the one that most naturally lends itself to impacting teacher outcomes is the transformational leadership behaviors of principals. This is due to the fact that the "cornerstone" of the transformational leadership model is "people effects." The conclusion drawn from the Leithwood study was that "Transformational Leadership has an impact on teachers'

perceptions of school conditions, their commitment to change and the organizational learning that takes place."

There have been some other findings as to the impact of principals' transformational leadership behaviors on teacher outcomes. Silins (1994) conducted a study that investigated the relationship between principals' leadership behavior and school outcomes. The study revealed the positive effects of transformational leadership on a range of teacher-perceived outcomes. A follow-up report by Leithwood and Jantzi (2000) suggested that transformational leadership practices do contribute to the development of commitment.

QTWL Influences on Student Success

In a synthesis of 30 years of research including his own for the Mid Continent Research on Education and Learning (McREL), Marzano (2003) clearly established that individual teachers have more impact on student learning than any improvement efforts made at the school level. It logically follows that if the teacher is not handicapped by a poor quality of work life (stressors, negative climate etc.), they may, with appropriate skills, perform optimally in the classroom.

Frieberg (1998) in his journal article for Education Leadership entitled "Measuring School Climate" concluded that a healthy school climate contributes to effective teaching and learning. According to Frieberg, the converse is true also, that an unhealthy environment may be a significant barrier to learning. To illustrate his point, Frieberg explains that much like the air we breathe, school climate may be ignored until

it becomes foul. The importance of including at least some measure of school climate in any educational reform effort is made clear in Frieberg's work.

Several recent studies have shown links between the climate of the school and variables associated with school effectiveness. As early as 1986 it was found that job satisfaction that contributes to school climate is an important policy issue since it is associated with teacher effectiveness that ultimately affects student achievement (Ashton & Webb, 1986; Carnegie Task Force on Teaching, 1986). Later researchers and reformers also expressed in journal articles that school climate makes a difference in the learning environments of the schools and in the performance of the students (Bossert, 1988; Hoy & Sabo, 1998).

Esposito (1999) examined the parents' perceptions of school climate and the children's academic and social development. Using regression analysis, Esposito found that the overall school climate does influence the academic and social development of the child. These findings were significant even after accounting for family influences such as resources and maternal education. While this study focused only on students during the years of kindergarten, first, and second grades, 7% of the variance in Reading and 14% of the variance in Mathematics were accounted for by school climate factors.

Hoy and Hannum (1997) examined the relationships between student achievement and climate in middle schools in New Jersey. The hypothesis of the study was that all aspects of school health are positively related to student achievement. The researchers believed that the stronger the overall organizational health of the middle school, the greater the student achievement in basic skills. While only middle schools in

New Jersey were assessed in the study, attempts were made to include a range of socioeconomic levels and geographic areas. The faculty members in 86 schools in New Jersey completed the Organizational Health Inventory (OHI) and the students took the Early Warning Test (EWT), a standardized test mandated for 8th grade students at the time, was used to determine the level of student achievement.

Through correlation studies, Hoy and Hannum (1997) illustrated that general school health was positively related to student achievement in mathematics, reading, and writing. More sophisticated analyses of the data showed that academic emphasis, which has strong connections to the teacher, and Socio Economic Status (SES) had the two strongest correlations to student achievement.

The effect of individual teachers on student achievement was summarized by a study of achievement scores from five subject areas (math, reading language arts, social studies and science) for 60,000 students in grades 3-5 (Wright et al., 1997). These researchers reported that, “The results of this study will document that the most important factor affecting student learning is the teacher. The immediate and clear implication of this finding is that seemingly more can be done to improve education by improving the effectiveness of teachers than by any other single factor. Effective teachers appear to be effective with students of all achievement levels in their classes. If the teacher is ineffective, students will achieve inadequate progress academically, regardless of how similar or different their academic achievement might be. The research supports the premise that teachers experiencing an environment that enhances their quality of work life are more effective and the students are the beneficiaries.

QTWL Influences on Recruiting and Retention

Teacher satisfaction has been linked to attrition. A study in Florida (Hall, 1987) revealed that 31% of respondents planned to quit teaching. This percentage did not include those who were planning on retiring. The reason cited for lack of satisfaction with the career was the working conditions. These individuals were also found to be more negative about education and more involved in professional organizations (unions) than other teachers in the study. A study by Bobbitt et al. (1994) found that 20% of teachers who left the profession in the 1990-91 school year cited salary, inadequate support from administration, and poor student motivation to learn as primary reasons for leaving. Salary may seem a primary reason for teachers leaving the profession, but researchers have found limited impact of high salaries and merit pay on increasing satisfaction. In fact, low salaries can be associated with increased organizational commitment, because teachers find other reasons to justify remaining in their position (Bobbitt et al., 1994).

Ingersoll and Rossi (1995) used the 1990-1991 National Schools and Staffing Survey (SASS) data to study which types of schools have higher teacher turnover. Ingersoll's study had two objectives–first to establish the role of teacher turnover in the staffing of public schools, and secondly to focus on the role of school organizational characteristics and conditions in teacher turnover. Ingersoll noted that the predicted trends of increasing student enrollments and increasing teacher retirements have contributed to problems of staffing schools with qualified teachers. Ingersoll's study focused on adding to the previous research on teacher turnover by "putting the

organization back" into the analysis. The author explained, "My theoretical perspective, drawn from sociology of work and organizations, is that teacher turnover and, in turn, school staffing problems cannot be fully understood without 'putting the organization back' into the analysis." From this perspective, fully understanding turnover requires examining the social organization of the schools in which turnover and staffing problems are embedded and examining turnover at the level of the organization.

Ingersoll's research is consistent with prior research (e.g., Boe, Barkanic & Leow, 1999; Boe, Bobbit, Cook, Barkanic, & Maisling, 1998) that teacher characteristics such as specialty field and age account for a significant amount of turnover, especially teacher retirements. Ingersoll, however, suggested that the overall amount of turnover accounted for by retirement is minor when compared to that of other causes, particularly teacher job dissatisfaction and teachers seeking to pursue better jobs or other careers.

Additionally, Ingersoll's data revealed that small private schools have the highest rate of turnover. Ingersoll emphasized that organizational characteristics such as inadequate support from the administration, low salaries, student discipline problems, and limited faculty input into school decision-making all added to higher turnover rates. Lack of administrative support has been noted in several studies on teacher turnover (Billingsley, 1993; Brownell & Smith, 1992; Darling-Hammond & Sclan, 1996).

A common assumption is that the U.S. supply of teachers is inadequate and that teacher preparation programs need to produce more teachers. Although that may be true for certain specialties—for instance, math, science, and special education—it may not be generally true. Enrollment in teacher education programs increased 49% in the 15 years

between 1983 and 1998 (Feistritzer, 1999). Over the past decade, 67 new teacher education programs have been developed. Recent federal policy initiatives such as the Northern Plains Transition to Teaching (NPTT) program—designed to foster alternate ways for teachers to become licensed and shorten the preparation time—will further increase the labor pool.

Depending on which estimate you choose, the nation has a surplus supply of several million teachers who are certified but not teaching. Census data from 1993 indicated that six million people held at least a bachelor's degree in education in the U.S. (Feistritzer, 1998), while fewer than four million were teaching that year (NCES, 2001). Thus, while the demand for teachers has increased nationwide, so has the supply—and it continues to increase.

Shortages appear to be localized to a small number of schools. Unfortunately but predictably, high needs schools in rural and urban districts are much more likely than suburban schools to experience shortages (Darling-Hammond, 2000). Students in these schools are also less likely to be taught by teachers with majors or minors in the subjects they are teaching (Education Trust, 2002). Among high-poverty districts, 65% hire non-certified or long-term substitute teachers (Darling-Hammond, 2000). Substitute teachers typically do not meet the standards for being highly qualified as required by each State Educational Agency (SEA). A student in a math classroom of a high needs school has less than a 50-50 chance of being taught by a teacher with a major or minor in mathematics (Oakes, 1990).

The problem is exemplified by data on shortages by specialty. Most of the areas of shortage are well known—math, science, special education, English as a Second Language (ESL) and bilingual education. However, some schools actually experience shortages in specialties for which a surplus of licensed teachers exists. In 1993-94, for instance, 16% of schools reported difficulty staffing math positions and 15% had trouble filling special education positions—but 9% also reported difficulty finding qualified English teachers. This indicates that hard-to-staff schools—which too often are also the schools where students have the greatest educational needs—may have difficulty attracting teachers even in specialties with a surplus of qualified teachers (McDiarmid & Larson, 2002).

It is widely believed that schools are plagued by shortages of teachers, primarily due to recent increases in teacher retirements and student enrollments. Ingersoll (2003) discounts this. His report, “Is There Really a Teacher Shortage,” summarizes a series of analyses that have investigated the possibility that there are other factors—tied to the organizational characteristics and conditions of schools—that are behind school staffing problems. The data utilized in his investigation are from the Schools and Staffing Survey and its supplement, the Teacher Followup Survey conducted by the National Center for Education Statistics. These data indicated that school staffing problems were not primarily due to teacher shortages, in the sense of an insufficient supply of qualified teachers. The data showed that the amount of turnover accounted for by retirement is relatively minor when compared to that associated with other factors, such as teacher job dissatisfaction and teachers pursuing other jobs. His report concludes that teacher

recruitment programs—traditionally dominant in the policy realm—will not solve the staffing problems of such schools if they do not also address the organizational sources of low teacher retention (Ingersoll, 2003).

The national and regional picture suggests that the primary problem is getting teachers to the schools where they are needed. Most schools in the country and in the Western region are not facing shortages. But schools where students have traditionally been underserved—rural and urban schools in communities with high poverty—are suffering severe shortages. These schools have little choice but to turn to unlicensed and under-prepared people who, facing the greatest instructional challenges, are often overwhelmed and consequently abandon the classroom in short order (McDiarmid & Larson, 2002).

A primary reason to be concerned about high rates of turnover among teachers is the relationship that has been established between teacher turnover and student achievement (Ashton & Webb, 1986; Carnegie Task Force, 1986; Hoy & Hannum, 1997; Wright et al., 1997; Frieberg, 1998; Marzano, 2003). David Grissmer and his colleagues at RAND analyzed math and reading scores from over 2,500 4th and 8th graders in 44 states on the 1990-1996 National Assessment of Educational Progress (Grissmer et al., 2000). The researchers were particularly interested in the relationship between certain school and teacher characteristics and student achievement. They used both U.S. census data and parent self-reported data from the National Educational Longitudinal Study to ensure that they were comparing students from similar socio-economic backgrounds.

Among the variables that correlated with higher-than-average student scores over time was low teacher turnover.

The findings of Grissmer and his colleagues are particularly important because they (1) used a national sample of students and their families, (2) examined NAEP results over time, rather than just a "snapshot" of scores, and (3) controlled for the effects socio-economic factors have on student achievement. Still these results only allow us to say that low teacher turnover is associated with higher student achievement, not that low turnover causes higher student achievement. Nonetheless, the results suggested that turnover is not only disruptive and an imposition for administrators, but that it may affect student achievement.

The recent federal No Child Left Behind Act (NCLB, 2001) legislation underlines the importance of addressing the turnover issue. NCLB requires accountability "to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments." Persistent low performance on the state assessment among students at a given school is not merely a problem for the community and district in which the school is located—it is a challenge as a whole. Addressing chronically high turnover rates—arguably a major factor in persistently low performance—could thus be posed as a key to overall state success in meeting the NCLB performance objectives.

Demographic Relationships with QTWL

Demographic variables such as gender may affect attrition. In a study of special education teachers in Michigan and North Carolina, Singer (1993) found that young, female teachers were more likely to leave their positions than their male peers. Similarly, Grissmer and Kirby (1993) reported that men have lower attrition rates than women. They found that after two years of entering the field, 35% of women and 28% of men had left teaching. Pyecha and Levine (1995) explained that since women are leaving in greater numbers than men and since most teachers are women, then the large number of leavers is partly related to the fact that most teachers are women. It is important to study the gender variable considering the changing nature of families and the increase of women in the workforce.

Klecker and Loadman's earlier study (1999) reported that the national statistics of teacher demographics and teaching population is 72% female and 28% male. They further indicated that the gender statistics are more disproportionate at the elementary level. Klecker and Loadman looked at how satisfied teachers were at the elementary school level in order to discover if there was a significant difference based on gender. The study included 2225 recent graduates from 12 teacher education programs who were employed as teachers.

The mean scores of several demographics were reported. According to the research reported in this study, there was a difference regarding the mean by gender in ratings of satisfaction with salary in the 11 to 15 years of experience category (M=5.00; F=6.00). It was also reported to be about the same in the 16- to 20-year range. The 21-25

and 26 years and more ranges have the opposite results reported. It was reported that there were no statistically significant differences between gender and years of teaching experience on any of the items on the instrument. In regards to salary, opportunities for advancement, degree of autonomy, general work conditions, or interaction with students there were not significant differences by gender or years of teaching experience in the elementary teachers' ratings of satisfaction.

A significant difference was noted regarding the challenge of the job by years with gender. "The mean ratings for degree of challenge for the job appear to be higher for female elementary teachers across the years of teaching experience except for the twenty-six years or more category" (Klecker & Loadman, 1999). Female teachers rated mean degree for challenge of job overall higher than males.

This study also reported interactions with colleagues to show statistically significant differences in teachers' ratings of satisfaction both by gender and by years of teaching experience. The report stated that, "Teachers with twenty-six years and more teaching experience rated their satisfaction with interaction with colleagues lower than did teachers in the other five categories. Female teachers rated their satisfaction with "interactions with colleagues" higher (5.30) than male teachers (5.11) (Klecker & Loadman, 1999).

The findings of the study done by MacMillan (1999) have shown significant gender differences in professional satisfaction. In his analysis of middle school students in a New Brunswick School district, he used a multiple-regression approach. Four models were tested. The first model contained only teacher background information. The second

added workplace conditions. The third and fourth models tested interactions between gender and workplace conditions as well as years as a teacher and workplace conditions. In his study he concluded that "Female teachers appear to be more satisfied with their professional roles than are their male colleagues. The gap between male and female teachers' expressions of satisfaction increases as beliefs in teaching competence increase. That suggests that other factors beyond the classroom are at work. In this study, he found that male teachers' professional satisfaction appears to be much more affected by the reorganization culture of a school than does that of female teachers. The finding may imply that a difference in focus exists between men and women throughout their teaching careers, and the difference may lie in the underlying reasons for selecting teaching as a career."

The third and fourth models used in this study illustrated the link between gender and the background of workplace conditions. According to MacMillan (1999), the third model showed that gender interacted significantly with both teaching competence and organizational culture. MacMillan also reported that gender did not show a significant interaction with administrative control.

MacMillan's study also reported the results of teachers selecting teaching as a career again in regards to gender. He stated that, "Women more than men would select teaching again if given the opportunity; on the other hand men often saw teaching as an alternative rather than as the main focus of their career aspirations. If we extrapolate, female teachers may be gaining more satisfaction from teaching than male teachers because they carefully deliberate before choosing this career. "Male teachers who have

been unable to achieve their early career goals may be looking beyond the classroom for satisfaction in such area as school administration" (MacMillan, 1999).

There was a significant difference in professional satisfaction among teachers of different backgrounds regarding workplace conditions. MacMillan (1999) reported in various models that gender differences in teachers' satisfaction were still significant in the presence of workplace conditions. MacMillan further explained that more importantly, the effect of years as a teacher remained the same when the workplace condition was introduced. Those findings indicate that workplace conditions cannot adequately account for the difference in professional satisfaction among teachers. This suggests that teachers of different backgrounds, with control over the workplace conditions, still showed different levels of professional satisfaction.

The link between age and attrition has been clearly established. Grissmer and Kirby (1987) and Gonzalez (1995) reported that attrition was highest during the early years of teaching, low for middle-aged teachers, and high again as the teachers approached retirement. Metzke (1988) found that attrition rates for teachers in Wisconsin under 35 years old were higher than for those over 35 years old. Reasons for young teachers to leave at a high rate as reported by Metzke are that they are less established in their role and can more easily change jobs. On the other hand, older teachers have more invested in their careers, such as experience, tenure, and retirement benefits (Grissmer & Kirby, 1987).

The relationship between race and attrition has received little attention and the findings that exist are inconclusive (Brownell & Smith, 1993). For example, Singer

(1993) did not find any relationship between race and retention among 6,642 special educators from North Carolina and Michigan. Similarly, Pyecha and Levine (1995) discovered high rates of teacher attrition for all ethnic groups other than Caucasian in a study of urban areas of California and Tennessee. Further studies are necessary before any conclusions can be determined.

Family factors can significantly affect employment stability and attrition for both general and special educators. Teaching careers are often interrupted by marriage, birth of children, and relocation (Gonzalez, 1995). Grissmer and Kirby (1987) reported that the primary reason for leaving teaching was pregnancy/child rearing and the second reason was change of residential location. This was especially true in the early stages of teachers' careers. Singer (1993) found that many teachers return to teaching following their child's birth.

Teachers' family background and circumstances have also been linked to teacher retention. Dworkin (1985) reported that teachers who planned to quit were from families with higher social class origins than those who planned to stay. Also, Yee (1990) reported that school schedules are valuable to teachers because they allow teachers to spend time with their families. Consequently, when teachers have children, their school schedule often matches their children's and this helps to retain some teachers (Yee, 1990).

Teachers with more experience have been reported to have more satisfaction with their professional roles than less experienced teachers. Huberman (1993) suggested that as teachers gain more teaching experience, they often follow one of two tracks. They

become proactive and professionally content, or they become plagued by self-doubts and as a result lean towards conservatism. Huberman also pointed out that the teachers' roles change in structure as they progress in their careers.

Bonnie S. Billingsley (1993) at Virginia Polytechnic Institute and State University, who analyzed the research on attrition conducted for the National Clearinghouse for Professions in Special Education, reviewed research findings on retention and attrition as they related to four major factors:

1. Teacher demographics and background variables (gender, age, race).
2. Teacher preparation and qualifications (academic ability, degrees held, entry path and certification status, initial commitment to teaching).
3. Work experiences, rewards and values (teaching assignments, support received from administration, teacher autonomy and decision making, availability of resources, workload, paperwork).
4. External factors (employment climate in time of recession, retirement incentives, alternatives outside of teaching, availability of other teaching positions).

Billingsley found work variables to be most amenable to change and suggested the following areas as interventions and areas of further study:

1. Work conditions (teachers' roles and responsibilities, resources needed to perform their work, caseload/class mix issues; administrative requirements, particularly paperwork).
2. Administrative support.

3. Rewards (intrinsic rewards, feedback and recognition, self-evaluation skills, responsibility and autonomy, extrinsic rewards).
4. Focus on beginning teachers (nature of first assignments, support such as mentor programs).

It is clear then from the review of published literature that certain demographics have the potential of influencing the quality of teachers' work life. Research that examines this influence among teachers who serve Montana's indigenous populations may yield useful information for the field of education.

Evaluation and Summary of the Literature

This review of literature examined the research relevant to factors that may impact the quality of teachers' work life. These factors may contribute or detract from Montana schools that have a predominant enrollment of indigenous students. It began with an overview of the literature on which the study was based. It covered the selection of the literature, the context of the problem, a review of previous research and findings on the quality of teacher work life in public schools, leadership influence on the quality of teachers' work life, the influence of public school teachers' work life on student achievement, recruiting and retention, and its relationship to certain demographics.

Based on the review the reader may conclude that 1) there have been numerous studies to determine what factors comprise the quality of teachers' work life (Coates & Thoreson, 1976; Kyriacou & Sutcliffe, 1978; Cunningham, 1983; and Harrington et al., 1989), 2) addressing the quality of teachers' work life in appropriate ways will more

likely result in a stable teacher population that is more productive (Darling-Hammond, 2003), 3) high needs schools face great challenges in educating students to the prescribed educational standards than those that are not, and 4) Montana's schools with predominant indigenous enrollment are high needs schools. Evidence exists that unless the issues of stress, job satisfaction, and burnout are adequately addressed, high needs schools such as the ones found in which our indigenous students are attending may continue to experience challenges in their efforts to increase student achievement.

Job satisfaction, stress and motivation are contributors to the quality of teachers' work life. Job satisfaction among teachers has ranged as high as 32% since 1992 (Mertler1, 1992) and the intrinsic and extrinsic factors that contribute to it are workplace conditions, school safety, and parent and administrator support. Researchers indicate that job stress is related to but not the same as job satisfaction (Harrington et al., 1989) and that it includes time constraints, workload, job demands, role conflict, role ambiguity, income, resources, class size, administrative bureaucracy, autonomy/participation in decision making, collegiality, student discipline and interaction, reward and recognition, and career advancement (Chen & Miller, 1997). When measuring these job-related categories, the research also supports the QTWLS as valid and reliable (Harrington et al., 1989).

Leadership influences school climate, school culture and ultimately the quality of teachers' work life (MacMillan, 1999; Hartzell & Winger, 1989; Maehr, 1990; Leithwood 1994; Heller et al., 1993; Sutherland, 1994; Stolp & Smith, 1994; Paradise et al., 1992). The quality of teachers' work life impacts student success (Ashton & Webb,

1986; Carnegie Task Force, 1986; Esposito, 1999; Hoy & Hannum, 1997; Wright et al., 1997; Frieberg, 1998; Marzano, 2003). Teacher satisfaction has also been linked to attrition (Hall, 1987), and organizational characteristics such as inadequate support from the administration, low salaries, student discipline problems, and limited faculty input into school decision-making all add to higher turnover rates (Ingersoll, 1995).

Considerable research has been done on job satisfaction, stress, climate, culture and how they are impacted or impact a number of important variables. Much less research has been conducted on the specific topic of the quality of teachers' work life as it is defined by Harrington et al. (1989), and even less on how the quality of teachers' work life is affected by or impacts schools that are predominantly indigenous in enrollment.

CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study was to use the QTWLS to examine the teacher demographics, teacher perceptions of their work life, and the original factor structure of the QTWLS as it related to teachers of indigenous student populations of Montana schools. The Quality of Teacher Work Life Survey (QTWLS) was used to collect the data. Three research questions were addressed: 1) What are the demographic characteristics of teachers in Montana schools with a predominant indigenous student enrollment?, 2) Is the factor structure of the QTWLS replicated when used to assess teachers in Montana schools with predominant indigenous student enrollments?, and 3) How do teachers in these schools perceive their levels of job-related satisfaction and job-related stress? This chapter will address the design, population, instrumentation, the collection procedures, and analysis of the data.

Design

The design of this study can be categorized as both descriptive and correlation research. For the purposes of this study descriptive research was defined as a study that uses only descriptive statistics such as means, percentages and frequency distributions that are not tested for statistical significance with inferential statistics (Gliner & Morgan,

2000). Research questions one and three are described with descriptive statistics. Correlation research uses inferential statistics tests for associations or relationships between variables and use some type of correlation analysis (Gliner & Morgan, 2000). In this study research question two requires a factor analysis and was based on rotated correlation matrices. This study used the QTWLS to collect demographic and perception data and the Statistical Program for Social Sciences (SPSS) was used to determine the descriptive statistics and a factor analysis of the QTWLS.

The QTWLS provided for two independent scales, satisfied and stressed, and an overall total quality scale which is the combined sum of the individual scores on the present degree of satisfaction: ["How satisfied": 1 (very dissatisfied) – 5 (very satisfied)] and degree of stress experienced ["How stressed": 1 (extreme stress) – 5 (no stress)] with each of the 36 items. The authors of the instrument recognized that stress (Dunham, 1984) and job satisfaction (Harrington et al., 1989) are similar but not the same.

Original factor analytic studies of the QTWLS have produced ten categories of concern which appear to contribute to the overall quality of work life for teachers (Harrington et al., 1989). The QTWLS allows teachers to report on each area as being stressed or satisfied. The intent of measuring both stress and job satisfaction was to measure the teachers' overall quality of work life as opposed to just the individual scales of satisfaction and stress. The quality of teachers' work life was considered by Harrington et al. (1989) as being comprised of the two scales and ten job-related categories or factors. These measured categories include: administration (competence of and relationship with administrators), time (availability of time for planning, recuperation, etc.), students (discipline, motivation interest etc.), interruptions (in class

and extracurricular), work environment (general, equipment and resources), external support (community, parents and peers), internal support (competence and relationship of and with staff), job market (availability of jobs in teaching and opportunity for promotion), extrinsic rewards (salary and fringe benefits), and evaluation (teachers' ability to evaluate students and formal evaluation of teaching performance). Each of these factors represent job-related categories that allow for diagnostic profiles that can be useful to individual teachers and to school administrators.

The QTWLS did not account for the changes associated with educational reforms and the advent of the No Child Left Behind Act (2001) in the United States from 1989 to 2005. Item 51, New Federal and State Requirements Generated by Law, was added to the survey to account for the increased accountability and "high stakes" testings that this law brought to the public school environment.

Previous research supports the addition of Item 51. The NCLB Act (2001) incorporated many of the principles adopted during the restructuring movement of the early 1990s and cited by Farber's study (1991). He reported that while school restructuring was meant to reduce stress, sometimes it led to increased burnout among teachers. The study suggested that the following initiatives of the school restructuring movement may intensify teachers' frustration: (1) school-based management may raise the community's expectation but increase pressure on teachers and increase teacher frustration if new control does not lead to clear educational benefits; (2) accountability may increase teacher stress and promote covert competition; and (3) curriculum initiatives can generate stress when their implementation lacks appropriate staff development, mentoring, and peer coaching;

Item 51 was placed last on the survey to eliminate its influence on the design of the original QTWLS. It was reported separately and not included when the factor analysis was conducted.

To determine the construct validity of the QTWLS with this population, a principal components exploratory factor analysis using varimax rotation was also conducted. The procedure replicated factor analysis conducted by the authors of the instruments with teachers of mostly non-indigenous students (Burry & Shaw, 1988; Harrington et al., 1989). As recommended in previous studies, Eigenvalues greater than one was used in identifying factors.

The data was displayed using SPSS output for factor structures and internal reliability data. The output included descriptive statistics, total variance explained, pattern matrix and factor correlation matrix for factor analysis, and correlation matrix (Alpha scale) for internal consistency.

Population

This study focused on Montana K-12 school districts with a predominantly indigenous student enrollment of at least 100 students of which at least 70% are indigenous students. There are 12 such school districts in Montana that met this study's criteria. They are Rocky Boy Public Schools, Browning Public Schools, Box Elder Public Schools, Lodge Grass Public Schools, Poplar Public Schools, Heart Butte Public Schools, Lame Deer Public Schools, Brockton Public Schools, Hays/Lodge Pole K-12 Schools, Pryor Public Schools, Frazer Public Schools and Harlem School District #12. All of these schools are located in rural areas and have high poverty rates.

Only 11 of these schools were selected. The Harlem School District was deselected because of its participation in similar studies with this instrument three consecutive years prior to this study. The decision was based on the researcher's judgment that familiarity with the research and more especially with the instrument itself made the district unique from the other 11. FTE teachers are those who are contracted full time (180 days per year) and provide instruction in required and elective courses from Kindergarten through 12th grade. There were 574 full-time equivalent teachers in these districts. A population of this size and type required a 50% (287) return rate to obtain the results with an acceptable margin of error of +/- 5%.

The selection standards for this population were based on the desire to generalize the results to all Montana school districts with predominantly indigenous enrollments. A K-12 standard was desired because it provided for representation of all teachers in all grades. The minimum number of 100 was established to allow for multiple representation of students in each grade. Predominantly indigenous enrollments established criteria that made the population mostly teachers of American Indians which allowed for generalizability to the overall teacher population that taught indigenous students. The Montana OPI does not report any K-12 school districts in Montana with predominantly indigenous enrollments that have less than 100 students. These standards, coupled with the return rate of over 70%, meet the criteria for generalizing the total population of teachers in Montana's K-12 school districts that have an enrollment of at least 100 students and at least 70% indigenous students (Gliner & Morgan, 2000).

The districts studied were identified as having over 70% indigenous student enrollment based on a final Impact Aid Learning Opportunity Threshold (LOT)

percentage of 100%. The LOT percentage is a federal legislative measure of the American Indian enrollment on federal lands within a district. The National Association of Federally Impacted Schools (NAFIS) defines 100% LOT as a school district with 70% or more students on federal lands (Impact Aid, 2001). The Montana OPI data base provided the enrollment information for these school districts (OPI, 2005) which ranged from 136 to 1896 students.

All of these districts have been identified by the Montana OPI as school districts needing school improvement measures that lead to corrective actions. A school district identified for corrective action is one that has failed to meet the Montana OPI standards of proficiency for two consecutive years as measured by the Iowa Test of Basic Skills (ITBS) score of 45.2 Normal Curve Equivalent (NCE). The districts are all located in high poverty and rural areas (OPI, 2005). In 2005 and 2006 a state-developed Criterion Referenced Test (CRT) entitled MONTCAS Phase II was used. The stanine scores indicating percent proficient and advanced replaced the NCE scores.

In summary, the school districts selected for this study have at least 70% of their tribal students enrolled on their respective reservations and the districts as a whole have been identified as not meeting state academic standards. They are experiencing poverty, are rural, and have an enrollment of at least 100 students.

Instrument

The Quality of Teacher Work Life Survey is a 36-item Likert scale designed to measure levels of teacher stress and job satisfaction. Items were based on studies in the area by Coates and Thoreson (1976), Kyriacou and Sutcliffe (1978) and the author's

judgment regarding hypothesized aspects of the quality of teacher work life. The QTWLS combines the scores of teacher ratings in the areas of 1) perceived satisfaction of specific aspects of the teachers' work environment and 2) the degree of stress associated with each of these stimuli. Each item is rated on two dimensions using a five-point Likert Scale similar to the Hasseles Scale (Lazarus & Cohen, 1977) and the Maslach Burnout Inventory (Maslach & Jackson, 1981; Harrington et al., 1989).

The dimensions that compose the stressed scale and satisfied scale assess areas such as stress and dissatisfaction associated with the administrative organization of the school, time pressures, support from parents and students, salary and benefits, interruptions from the normal flow of the class schedule and classroom discipline. The stressed scale scores range from 1 (extreme stress) to 5 (no stress). The satisfied scale scores range from 1 (very dissatisfied) to 5 (very satisfied). The two ratings were combined in order to define a quality score of ten in each of the ten sub areas or factors. For example, (5 very satisfied plus 5 no stress) would enter as a score of 10 and the highest rating for that item. On the other hand, quality scores of 2 (1 very dissatisfied plus 1 extreme stress) would represent a score of 2 and the lowest rating for that item. A quality score of 6 would indicate neutrality. The rationale for the development of this rating format is based on an assumption by the authors of the instrument that the level of job satisfaction experienced by teachers is not simply a synonym for stress but rather represents an interaction between stress and satisfaction (Harrington, Burry & Pelsma, 1989).

The QTWLS was correlated against the Maslach Burnout Inventory (MBI) and Value-Education (Val-Ed) survey in a study involving 227 usable responses from 478

certified staff members from a school district in the Midwest United States (Harrington et al., 1989). The review of literature pointed out the MBI as a widely accepted means of measuring stress that correlates with behavioral ratings by observers. The MBI has internal consistency ratings from .71 to .90 for six subscales. Test-retest reliability ranges from .53 to .82. The Val-Ed is an inventory that measures values of those working in an educational setting. It was used effectively by Weiner (1974) to assess areas of dissatisfaction as well.

Cronbach's coefficients for the satisfied and stressed scales of the QTWLS were reported as acceptable at r =.87 and r =.92 respectively as were the standard errors of measurement for the satisfied and stressed scales (+/- .586 and +/- .523, respectively) (Harrington et al., 1989). The correlation between the satisfied and stressed scales was reported at 0.70. Internal consistency ranged from .86 to .90 for 12 scales. Internal consistency using Cronbach's coefficient alpha was .91 for the total scale. Test-retest reliabilities on a one-year follow-up were reported as moderately stable for the total scale (r =.56) and ranged from r =.52 to r =.74 on the subscales (Harrington et al., 1989). Four-week test-retest reliabilities using a sample of special education teachers (n=58) reported moderate to high stability for the total score (r =.81) with subscales at r =.77 and r =.82 for the stressed and satisfied scales respectively (Ford, Van Dyke, & Thompson, 1991).

A principal components factor analysis, using a varimax rotation, was conducted on both scales to test the construct validity of the QTWLS. The result was an 11-factor solution for the satisfied scale with the first three factors accounting for 37.35% of the variance and a ten-factor solution for the stressed scale with the first three factors

accounting for 39.0% of the variance. Stress factor titles obtained from this analysis included administrative-work environment, time, local support, work environment, student motivation and interest, teaching interruptions, internal support, job market, job benefits, and one undefined factor. Factor titles for the satisfied scale included administrative-work environment, relationships with students and parents, interruptions, time allowances, work environment, internal support, time devoted to specific teaching activities and job perceptions.

The factor analysis supports the identification of separate satisfied and stressed scales with the analysis clearly pointing to one factor that contributed the most to both job dissatisfaction and stress–administration. Interruptions to the teaching process, the level of internal support from peers in the teaching profession, the quality of the work environment, and alternative job prospects are all represented in the factor analysis of both scales. Differences on the stressed and satisfied scales related to the impact of time on teacher stress and the effect of student/parent relationships with teachers and the level of support given to teachers. Results of previous reliability and factor analytic studies of the QTWL are included in Appendix C.

The QTWLS was field-tested during its construction and has been used successfully in the field by at least four researchers since its inception. This instrument was selected based on its validity and reliability and on the practical need to measure the scales–stress, satisfaction and total QTWLS score–both separately and concurrently for this research. There also exists the potential to examine relationships between the ten sub areas and the three scales. It holds promise not only as a means of measuring the quality of work life, but also in identifying significant relationships among the scales, ten quality

sub areas and the demographics.

Teacher demographics were also considered when assessing teachers' perceptions of their work life when using the QTWLS. A review of the research in this area reveals 14 demographics that could potentially affect teachers' work life. They are: 1) age (Metzke, 1988; Grissmer & Kirby, 1993; Gonzalez, 1995), 2) race (Pyecha & Levine, 1995; Brownell & Smith, 1993; Singer, 1993), 3) gender (Kleckman & Loadman, 1999; Pyecha & Levine, 1995; Grissmer & Kirby, 1993; and Singer, 1993), 4) teaching experience (Boe et al., 1999), 5) teaching experience in current school (Cook & Boe, 1998), 6) education (Billingsley, 1993), 7) grade being taught (Boe et al., 1999), 8) subject being taught (Boe et al., 1999), 9) current family status (Chen & Miller, 1997; Gonzalez, 1995; Singer, 1993; Grissmer & Kirby, 1987; and Dworkin, 1985), 10) proximity to a city with a population of 10,000 or more (Stroh, 1999), 11) transition of building leadership (Billingsley, 1993), 12) experience in indigenous schools (Billingsley, 1993), 13) experience in high poverty schools (Billingsley, 1993), and 14) teachers' background.

Demographic #10, Proximity to a City with a Population of 10,000 or More, was selected based on various studies citing geographic remoteness as an issue affecting teacher recruiting and retention (Stroh,1999; NCREL,2000). Stroh (1999) cited geography as one of four reasons why teachers leave their current Alaska bush teaching position. The remoteness affected the availability of commodities and the ability to maintain family/personal relationships. Though not as remote as the Alaska bush, Montana reservation schools maintain some of the same characteristics

The demographic, “Teachers’ background” #14, was added at the suggestion of several administrators at the recent School Administrator of Montana (SAM) Conference (2005). It is generally accepted that teachers’ previous experiences in a different culture and environment have the potential to influence perceptions about their new environment. Montana is comparatively remote and reservations in Montana are even more so. North Central Regional Educational Laboratories (2005) also reported on the influence of rural locations on teacher retention and recruitment. The demographic of “race” was included at the author’s discretion due to its potential influence even though the literature did not confirm its impact elsewhere. All the demographics selected above were also supported by numerous superintendents at the same conference.

Data Collection Procedures

In September 2005, 11 survey coordinators were trained at their site for the administration of the QWTLS. The training consisted of an orientation to this study and its purpose, a cautionary note about the unintended introduction of researcher bias, a scripted presentation, and a procedure for survey completion, administration and follow-up. The training was conducted in person by the researcher in three schools and by teleconference with the remaining eight. Survey coordinators were compensated for their time.

A letter of solicitation was sent to the superintendents of each eligible school in September 2005. A copy of this letter can be found in Appendix D. The letter asked permission for the teachers of their schools to participate in this study. The superintendents were asked to request a volunteer within the school district to administer

the survey. The superintendents were strongly encouraged to select a person who had a history of demonstrated compatibility and trust with the teachers. Because of the supervisory relationship that administrators have with teachers, it was expected that the survey coordinator would not be a member of the administration.

Each survey coordinator administered the survey under similar circumstances in each district. Most of the teachers were expected to receive instruction and complete the survey in one setting. This happened after a scheduled staff meeting or some other similar venue in which teachers were together but did not feel that completing the survey was compulsory. The scripted presentation by the survey coordinators helped insure that consistency, appropriate research ethics, and standards were adhered to. This procedure was scheduled to begin in the final two weeks of October 2005.

Follow-up was to be accomplished for the remainder of the teachers within the next week. The procedures for the first follow-up were to mirror the initial survey procedure as much as possible. If some of the teachers were unable to attend these meetings, individual follow-ups by the survey coordinator were initiated.

Each survey was coded to identify the district and school. For example, the survey was coded I-A to indicate that Harlem School District (I), Elementary School (A) had or had not completed the survey. This assisted the researcher in tracking the number of surveys by district and building. The survey coordinators were cautioned to insure that no teacher felt any undue pressure to complete the survey and this was especially true for follow-ups. Teachers were made aware of the reason for coding on the survey cover letter. The survey coordinator was instructed to remind teachers that all sections of the survey had to be completed for it to be valid. Survey coordinators checked for this when

they were returned. Self-addressed and postage paid envelopes were provided to the survey coordinators in order to return the surveys.

To assist in emphasizing the importance of the research, a letter of support was solicited from the Indian Education Representative of Montana's OPI and the President of the Indian Impacted Schools of Montana (IISM) and are included in Appendix E. Their letters were introduced when the superintendents were formally asked for their district's participation and when the survey coordinators were soliciting the individual support of each teacher. It was hoped that these letters would increase the return rate of the target population.

The response data on each survey was entered into an SPSS data base between November and December of 2005. Each school district's data was maintained separately. The demographic data was tabulated on items 1-14 and the QWTLS items listed as 15-51. Item 51 deals with the influence of the No Child Left Behind Act of 2001 (NCLB, 2001) on the current educational environment and was added. This law has had significant impact on the current accountability and high stakes testing that has swept the United States in the last four years. Item 51 was examined separately from the original instrument. The demographic information was entered into the SPSS Variable View Window and assigned values (such as 1 for female and 2 for male). The response items were entered by case and each variable categorized as continuous. They were then given a variable name up to eight characters. Each case had 125 variable entries (14 demographics, 37 job-related satisfaction, 37 job-related stress, and 37 Total Quality Score).

Data Analysis

The data analysis for this study included descriptive statistics and factor analysis. Descriptive statistics were used to address research questions one and three. Factor analysis was used to answer research question two.

Research question one asks, “What are the demographic characteristics of teachers of Montana schools with a predominant indigenous student enrollment?” This required a compilation and examination of the means and frequencies of the 14 demographics. The researcher was interested in developing a demographic profile of this population.

Research question two asks, “Is the factor structure of the QTWLS replicated when used to assess teachers from Montana schools with predominant indigenous student enrollments?” Principal components exploratory factor analysis using varimax rotation was conducted. If the factor structure was replicated with this population, multiple regression analysis would be conducted using the job-related satisfaction and job-related stress factors as predictor variables and the QTWLS total score as the dependent variable. If the factor structure was not replicated, then the researcher attempted to identify the factors associated with this population using appropriate factor extraction and rotation procedures.

Research question three asks, “How do teachers in these schools perceive their levels of job-related satisfaction and job-related stress?” Means for each item, scales and factors were examined and compared to the central Likert scale score of six which was

considered a neutral score. This gave some indication of the level of satisfaction, stress and work life being experienced by the teachers in this population.

Summary

The study examined the demographics and job-related categories that influence the quality of teacher work life in selected Montana schools. It was designed to provide information on the teacher demographics of this population, information on the factor structure with this population and teachers' perceptions of their quality of work life.

The Quality of Teacher Work Life Survey (QTWLS) (Harrington et al., 1989) is a 36-item Likert scale designed to measure levels of teacher stress and job satisfaction. It has been used extensively and successfully since its inception in 1989 and is considered valid and reliable. The demographics being studied are based on research conducted on similar topics over the last 20 years.

This study focused on Montana schools of predominant indigenous enrollment. The decision to limit the population to the 11 schools selected was based on the criteria characterizing K-12 school districts in Montana with a minimum enrollment of 100 that have at least a 70% indigenous student population.

The data and the manipulation of the data were conducted using SPSS software. The research questions addressed the current lack of information about teacher work life perceptions in these Montana schools. It is hoped that the results will assist educators in determining what factors might be addressed and what strategies might be implemented to positively affect the quality of teachers' work life.

CHAPTER 4

RESULTS

Introduction and Overview

The purpose of this study was to use the QTWLS to examine the teacher demographics, teacher perceptions of their work life, and the original factor structure of the QTWLS as it related to teachers of indigenous student populations of Montana schools. The Quality of Teacher Work Life Survey (QTWLS) was the instrument used to collect data. Teacher demographics, the factor structure of the QTWLS, and perceived levels of job-related stress are reported. The target population was Montana teachers in school districts that had a predominant indigenous student enrollment. A principal components exploratory factor analysis was conducted to determine if the factor structure of the stressed and satisfied scales of the Quality of Teacher Work Life Survey would be the same for indigenous populations as that conducted by the authors of the instrument (Harrington et al., 1990) for non-indigenous populations. As noted in Chapter 2, there are no reported studies utilizing the instrument with teachers of indigenous populations.

This chapter provides an overview of the data collection, data collection procedures, the background of the participating districts, and the survey results of the three research questions, and a brief summary of the chapter.

Data Collection and Procedures

Schools in Montana with a predominantly indigenous enrollment were selected from a master roster of schools with an Impact Aid Learning Opportunity Threshold (LOT) percentage of 100%, and based on a minimum K-12 population of 100 students. The LOT percentage is a federal legislative measure of the American Indian enrollment on federal lands within a district. The National Association of Federally Impacted Schools (NAFIS) defines 100% LOT as a school district with 70% or more students living on federal lands (Impact Aid, 2001). The rosters are published annually in the Impact Aid Blue Book by the Department of Education (U.S. Department of Education). The Montana Office of Public Instruction (OPI) reports both ethnicity and school classification on their web site (OPI, 2005). Access to these reports yielded 12 school districts. Eleven of the school districts consisting of 574 FTE teachers were studied. One school was deselected because its recent involvement with the QTWLS made it unique from the other school districts.

The QTWLS was sent out October 13, 2005 to each school district after receiving preliminary permission from the superintendents by phone. Memorandums requiring the signature of each superintendent and the name of the survey coordinator(s) were obtained and an example can be found in Appendix D. Survey coordinator instructions were also sent and can be found in Appendix F. District and building administrators were discouraged from administering the surveys. The researcher felt that surveys administered by supervisors provided the potential for less candid responses.

Most of the survey coordinators (15/17) were teachers associated with the district school improvement teams and sent surveys directly to the researcher when finished. One survey coordinator was the district curriculum director with administrator credentials but not in the teachers' supervisory chain of command. Another district disseminated the surveys in the teachers' mailboxes and had the building secretaries collect and return them. This district constituted 51 teachers and had a return of 15 surveys. This was the only district that did not strictly follow the survey administrator's instructions and may have accounted for the low return rate. Survey administrators reported that none of the surveys were viewed by the principals or superintendents of these districts. All districts requested that the results of this study be shared with them in order to further develop their district profile.

The surveys were collected over a ten-week period. The survey coordinators were requested to have the completed surveys returned by October 28, 2005. Four districts returned surveys by the deadline. Additional districts submitted complete surveys by mid-November. Surveys from the final two participants were received by December 13, 2005. When the final surveys were received, they were logged in, reviewed for completeness, and then stored in a fireproof safe. Four hundred and four surveys were deemed useable resulting in 70.3% of the total population which is within the confidence interval for a margin of error of +/- 5%. Krejcie and Morgan's (1970) table of Sample Sizes (S) Required for Given Populations (N) was used to make this determination.

Data entry was completed manually into the Statistical Package for Social Sciences II (SPSSII) software program by a sophomore student enrolled at the Ft. Belknap Community College located in Harlem, Montana. The student was restricted to

25 surveys a day in order to reduce error brought on by fatigue. The student was given training on the data entry process on November 1, 2005 and closely monitored by the researcher the first five days. After entering the demographic data by code, the student was required to enter the score of each item on the survey for the satisfied and stressed scales and then Total Quality Score (TQS) representing the sum of both scales. Each survey had 125 numbered entries. Quality assurance was accomplished by the researcher conducting a random check of 25% of the surveys each week. The researcher found 26 errors out of a possible 50,500 entries. There were four additional errors discovered when the researcher ran the frequencies statistics which were subsequently corrected by returning to the original surveys. Data entry was completed on December 20, 2005. There were 18 of the original received surveys rejected for incompleteness.

Background of Participating Districts

This study was aimed at Montana's public school districts that have predominantly indigenous student enrollments. As previously mentioned, the Harlem Public School District was deselected due to its familiarity with the research and the instrument. There were 11 remaining school districts in Montana that meet these criteria. They are Rocky Boy Public Schools, Browning Public Schools, Box Elder Public Schools, Lodge Grass Public Schools, Poplar Public Schools, Heart Butte Public School, Lame Deer Public Schools, Brockton Public Schools, Hays/Lodge Pole K-12 Schools, Pryor Public Schools, and Frazer Public Schools. All of these schools are located in high poverty and rural areas. All are located in Montana east of the Rocky Mountains.

Montana schools are categorized into four classes primarily dependent on their student enrollment. Of the participating school districts, seven have enrollments between 136 and 535 students and are considered Class C, the smallest category. There are three Class B districts with enrollments ranging from 439 to 901. There is one Class A district with an enrollment of 1896 students.

All of the participating districts are located on six of the seven American Indian reservations in the state of Montana (Appendix A). The Flathead American Indian Reservation is located west of the Rocky Mountain range and does not have school districts that meet the enrollment or ethnicity criteria for this study.

These reservations are reported in Appendix B and are rural, have high rates of poverty and experience recruiting and retention issues, especially for licensed staff. Housing for staff is a major issue that requires many of these schools to defer educational funds into teacher and administrator housing. The rural location of these schools makes urban access to retail commodities very difficult and places a strain on student busing and other transportation assets. The long and often arctic-like winters compound the poverty of the indigenous people and exacerbate the difficulty of hiring and keeping teachers. Background information should yield a clearer perspective of the teacher demographic profile presented by the first research question in the following section.

Research Question One

The first research question asked, “What are the demographic characteristics of teachers in Montana schools with a predominantly indigenous student enrollment?” Each

of the demographics provided by the survey participants are presented individually by explanation and/or tables, followed by a summary profile of the overall population.

Age of Teachers

Survey respondents were asked to select from three categories representing their age: 1) 20-30 years, 2) over 30 but less than 40, and 3) over 40 years of age. Fourteen percent (57) were identified with 20-30 years of experience, 17.6% (72) over 30 but less than 40, and 68.1% (275) over 40 (Table 1).

Table 1

Frequency and Percent Table, Age

Item Criteria	Frequency	Percent
20-30 years	57	14.0
Over 30 less than 40	72	17.6
Over 40 years	275	68.1
Total	404	

Gender of Teacher

Seventy percent of teachers (283) were female and 30% (121) were male. Sixty-six percent (80) of the males were found in grades 5-12, and 56% (158) were found in grades K-8. Both male and female teachers averaged 20% for K-12 endorsements.

American Indian Ethnicity

Respondents were asked to indicate if they were enrolled in a federally recognized American Indian tribe. There were 30% (121) who answered yes to that question. It is important to note that Browning Public Schools on the Blackfoot Indian Reservation had 46.7% (65/139) who answered yes. The remaining districts' combined average was 21.1% (60/265) and constituted a percentage closer to the norm for most of Montana's reservation schools.

Total Teaching Experience

The respondents were selected from four categories representing their total teaching experience. The frequencies and percentages are found in Table 2.

Table 2

Frequency Table, Total Teaching Experience

Item Criteria	Frequency	Percent
0-2 years	46	11.4
3-5 years	66	16.3
6-10 years	87	21.5
Over 10 but less than 20	101	5.0
More	104	25.7
Total	404	

Current Grade Being Taught

The respondents selected from eight categories representing their current grade level assignment. The frequencies and percentages are found in Table 3.

Table 3

Frequency Table, Current Grade

Item Criteria	Frequency	Percent
K-4 Self Contained	99	24.5
Grades 5-8 not Self Contained	67	16.6
Grades 9-12	90	22.3
Alternative School K-8	1	.2
Grades 5-8 Self Contained	38	9.4
Grades 5-12	27	6.7
Alternative School 9-12	1	.2
K-12 Teacher	81	19.5
Total	404	

Total Teaching Experience in the Current School

The respondents selected from four categories representing their total teaching experience in their present assignment. The frequencies and percentages are found in Table 4.

Table 4

Frequency Table, Total Teaching Experience in Current School

Item Criteria	Frequency	Percent
0-2 years	102	25.2
3-5 years	92	22.8
6-10 years	73	18.1

Table 4 (Continued)

Over 10 but less than 20 years	78	19.3
More	59	14.6
Total	404	

Degree Completed

The respondents selected from three categories: 1) Bachelors level degree only, 2) Masters level degree, and 3) some degree higher than a Masters. There were 71.3% (288/404) who reported having a Bachelors degree, 22.8% (92/404) having a Masters degree, and 5.9% (24/404) having some degree higher than a Masters (Table 5).

Table 5

Frequency Table, Degree Completed

Item Criteria	Frequency	Percent
Bachelors degree only	288	71.3
MA/MS degree	92	22.8
Higher than MA/MS	24	5.9
Total	404	

Family Status

The survey respondents selected from four categories: 1) no spouse, 2) spouse only, 3) spouse with children, and 4) no spouse with children. There were 28% (113) with no spouse, 13.6% (55) with just a spouse, 57.9% (234) with spouse and children, and 1% with children and no spouse (Table 6).

Table 6

Frequency Table, Family Status

Item Criteria	Frequency	Percent
No Spouse	113	28.0
Spouse Only	56	13.6
Spouse and Children	234	57.9
Children and no spouse	1	.0
Total	404	

Proximity to a City with a Population of 10,000 or More

The survey respondents selected from three categories: 1) 0-20 miles, 2) over 20 but less than 40 miles, and 3) over 40 miles. There were 11.4% (46) who lived within 20 miles of a city with 10,000 or more, 11.1% (45) who lived between 20 and 40 miles, and 77.5% (313) who lived more than 40 miles (Table 7).

Table 7

Frequency Table, Proximity to City with a Population of 10,000 or More

Item Criteria	Frequency	Percent
0-20 miles	46	11.4
Over 20 less than 40	45	11.1
Over 40 miles	313	77.5

Number of Principals for Whom Teachers Worked

The survey respondents selected from three categories: 1) one to two principals, 2) three to four principals, and 3) more than four principals. There were 69.3% (280) who had worked for one to two principals, 15.6% (63) who had worked for three to four principals, and 15.1% (61) who had worked for more than four principals (Table 8).

Table 8

Frequency Table, Number of Principals Worked For

Item Criteria	Frequency	Percent
1-2 principals	280	69.3
3-4 principals	63	15.6
More than 4 principals	61	15.1
Total	404	

Years Teaching in Schools of Predominant American Indian Enrollment

This question is similar to question #5, Total Teaching Experience in Current School, but was designed to determine if there were substantial numbers of teachers who had taught in other schools with predominantly indigenous enrollments. The survey respondents selected from three categories: 1) zero to four years, 2) over four but less than eight years, and 3) more than eight years. There were 32.2% (130) who had worked in schools of predominant American Indian Enrollment, 17.1% (69) with over four but less than eight years, and 50.7% (205) who had worked longer than eight years (Table 9).

Table 9

Frequency Table, Years Teaching in Schools of Predominant American Indian Enrollment

Item Criteria	Frequency	Percent
0-4 years	130	32.2
Over 4 less than 8	69	17.1
More than 8 years	205	50.7
Total	404	

Years Teaching in High Poverty Communities

This question is similar to question #5, Total Teaching Experience in Current School, and #12, Years Teaching in Schools of Predominant American Indian Enrollment, but was designed to determine if there were substantial numbers of teachers who had taught in other communities having similar issues associated with high poverty levels. The survey respondents selected from three categories: 1) zero to four years, 2) over four but less than eight years, and 3) more than eight years. There were 50.5% (204) who had worked in high poverty communities, 13.4% (54) with over four but less than eight years, and 36.1% (146) who had worked longer than eight years (Table 10).

Table 10

Frequency Table, Years Teaching High Poverty Communities

Item Criteria	Frequency	Percent
0-4 years	204	50.5
Over 4 less than 8 years	54	13.4
More than 8 years	146	36.1
Total	404	

Resident of Montana

This question was to determine the number of teachers and number of years these teachers lived in Montana. Montana is unique in that it is a state with seven American Indian Reservations and a population of 11% indigenous people. This may be a demographic factor that affects teacher work life perceptions. Montana is the third largest state in the Continental United States with the fourth lowest population of 935,670 (CEIC, 2005). This makes Montana one of the most rural and lightly populated in the U.S. The survey respondents selected from three categories: 1) zero to four years, 2) over four but less than eight years, and 3) more than eight years. There were 7.4% (30) who lived in Montana for four years or less, 5.7% (23) who lived in Montana between four and eight years, and 86.6% (350) who lived in Montana more than eight years.

Research Question Two

The second research question asked, "Is the factor structure of the QTWLS replicated when used to assess teachers from Montana schools with predominantly indigenous student enrollments?" To establish the construct validity of the instrument (QTWLS) with teachers of indigenous students, a principal components exploratory factor analysis using varimax rotation was conducted. This procedure was used in the original exploratory analysis which identified ten factors for both the stress and satisfied scales (Appendix C). It is important to note that the initial factor analysis was based on responses to the QTWLS from teachers of non-indigenous students.

Guidelines by Field (2000) and Fabrigar et al. (1999) were followed when conducting the factor analysis for both the satisfaction and stress scales. Data screening

procedures were also undertaken to evaluate the factorability of the correlation matrix. Results from the Kaiser–Meyer–Olkin Measure of Sampling Adequacy (KMO = .89) and Bartlett's Test of Sphericity ($\chi^2_{325} = 6140.859, p = .000$) indicated that the data for the satisfaction scale was appropriate for the factor analysis to proceed. Means, Standard Deviations, Reliability Coefficients and Standard Errors of Measurements for this population are presented in Table 11.

Table 11

Means, Standard Deviations, and Reliability Coefficients
for the Satisfied and Stressed Scales of the Quality of Teacher Work Life Survey
with Teachers in Montana Schools that have Predominant Indigenous Enrollments

Scale	X	SD	Cronbach Alpha Coefficients	SEM
Satisfied	111.26	21.73	.93	6.00
Stressed	122.98	23.68	.94	6.00

Principal component factor analysis procedures are recommended when the primary intent of research is aimed toward scale development (Stevens, 2002). As is the case with exploratory studies, several principal component analyses were conducted to establish a factor solution that yielded the most interpretable results. The clearest factor pattern emerged when using varimax rotation methods that identified nine factors. The nine-factor solution evaluated against Kaiser's criterion (interpreting eigenvalues greater than 1.00) and Cattell's (1964) Scree test was found to best represent the underlying traits for the 36-item QTWLS satisfied scale. The nine factors identified accounted for 63.4% of the total variance for the satisfaction scale. The nine satisfaction scale factors were interpreted as follows: support from administration, professional worth to the

administration, time constraints, student value of learning, threat to work life, external support, distractions to the learning environment, peer relations, and external rewards.

For this population the factor structure for the satisfaction scale was similar but not duplicative of the original factor structure by Harrington et al. (1989). The listing of satisfied factors as compared to the original QTWLS are presented in Table 12, and names along with the means and scores for the items comprising the satisfied scales are presented in Table 16. In the following paragraphs, item and factor Likert scale scores (scale 1-5) for satisfaction were doubled for ease of comparability with the quality scale scores (scale 2-10) which are a sum of the satisfaction and stress scales.

Table 12

Comparison of Satisfaction Factors from the Original QTWLS to the Stress Factors for Teachers of Indigenous Students

Factor	Satisfaction Factors for Teachers of Indigenous Students	Items	Original QTWLS Stress Factors	Items
I	Support from Administration	20,38,44, 33,34,35	Administrators	20,38,44, 37,48,50
II	Professional Worth from External Sources	48,50,47 49,41	Time	18,19,17, 24,32,46
III	Time Constraints	19,18,32, 46,17	Students	25,42,43
IV	Student Value of Learning	43,42,45	Interruptions	26,27,28, 23
V	Threat to Work Life	37,30,31, 29	Work Environment	33,34,35
VI	Parent and Community Support	39,40	External Support	39,40,45, 49
VII	Distractions to Learning	26,27,28 24	Internal Support	21,22,36

Table 12 (Continued)

VIII	Peer Relations	21,22,36	Job Market	29,30,41
IX	External Rewards	15,16,23	Extrinsic Rewards	15,16
X			Evaluation	31.47

Source: "The Quality of Teacher Work Life Survey: A Measure of Teacher Stress and Job Satisfaction. Measurement and Evaluation in Counseling Department, 21, 165-175.

Factor I (Items 20, 33, 34, 35, 38, 44) accounted for the largest percentage of variance when compared to all nine factors. This factor, interpreted as support from administration, accounted for 28.5% of the total satisfied scale variance and can be found in Table 11. The item content defining the scale reflected administrator competence, work environment, school equipment, curriculum, administrative support, and teacher relationship with administrators. The remaining eight factors ranged in variance contributions of 3-6%.

Factor II, Professional Worth from External Sources, was the second factor to emerge. The item content defining this scale dealt with opportunities for promotion, formal evaluations, feedback or reinforcement, public perceptions and opportunities for participation in decision-making. Item 49, Public Perception of Education, was the low score (4.80) and Item 47, Formal Evaluations, was the high score (6.80) for this factor.

The third factor, Time Constraints, was associated with items related to time to recuperate, daily time for preparation, time spent individualizing programs, time required to adapt instruction to students, and class sizes that also affect time. With the exception of Item 24, Time Spent on Clerical Duties, this factor was identical to the original QTWLS

factor entitled time. Daily Time to Recuperate Between Work Responsibilities was the low score (5.22) and Class Sizes was the high score (7.37) in this factor.

The fourth factor to emerge, Student Value of Learning, assesses teacher perceptions of student motivation, interest and relationships with parents. This factor captured two of the three original QTWLS items (Items 42 and 43). Amount of Student Motivation was the low score (4.18) and Teacher Relationship with Parents was the high score (6.12).

The fifth group of items to emerge as a factor was interpreted as Threat to Work Life. The items comprising this scale were related to job security, availability of jobs, teaching assignment and ability to evaluate students. Availability of Jobs was the low score (6.62) and Teaching Assignment was the high score (8.25).

Parent and Community Support emerged as Factor VI. Support from Parents was the low score (4.63) and Support from Community was the high score (4.94).

Factor VII was interpreted as Distractions to Learning. Items associated with this factor were related to the number of breaks due to announcements and support personnel, students missing due to extracurricular activities, and clerical requirements. Time Spent with Clerical Assignments was the low score (5.73) and Number of Breaks in the Teaching Process Due to Support Personnel was the high score (6.66).

Factor VIII was comprised of items associated with Peer Relations. The Peer Relations factor was found to contain items related to competence and relationships with staff. This factor matched the original QTWLS internal support. Competence of Staff was the low score (6.74) and Competence of Teachers was the high score (7.19).

Table 13

Factor Loadings, Percent of Variance and Cumulative Percent for the Satisfaction Scale of the QTWLS

Factor	Eigenvalue	% of Variance	Cumulative
I	9.97	28.50	28.50
II	2.35	6.71	35.21
III	2.03	5.81	41.01
IV	1.65	4.71	45.73
V	1.41	4.04	49.78
VI	1.39	3.96	53.73
VII	1.17	3.35	51.99
VIII	1.14	3.26	60.34
IX	1.05	3.01	63.35

The item structure of Factor IX was interpreted as External Rewards. Items in this area were related to salaries, fringe benefits and time spent in extracurricular activities involving additional monetary compensation. The items in this factor matched the original factor Extrinsic Rewards with the exception of Item 23, Time Spent in Extracurricular Activities. Salaries was the low score (6.10) and Time Spent in Extracurricular Activities was the high score (6.78).

The factor loadings, percent of variance and cumulative percent for the nine factors are presented in Table 13. The factor loadings for individual items by factor of the satisfied scale of the QTWLS are presented in Appendix G. Coefficient Alpha for the

satisfaction scale was found to be .93, indicating a high level of internal consistency among items.

Results for the Exploratory Factor of the Stress Scale

Like the satisfaction scale, the factor structure for the stress scale was similar but not duplicative of the original factor structure by Harrington et al. (1989). The listing of stressed factors as compared to the original QTWLS are presented in Table 14; names along with the means and scores for the items comprising the satisfied scales are presented in Table 17. The eight-component solution derived from the stress scale accounted for 62.9% of the total scale variance and can be found in Table 15. The factor loadings for individual items by factor of the stress scale of the QTWLS are presented in Appendix G. Coefficient Alpha for the stress scale was found to be .94, indicating a high level of internal consistency among items. In the following paragraphs item and factor Likert scale scores (scale 1-5) for satisfaction were doubled for ease of comparability with the quality scale scores (scale 2-10) which are a sum of the satisfaction and stress scales.

Table 14

Comparison of Stress Factors from the Original QTWLS to the Stress Factors for Teachers of Indigenous Students

Factor	Stress Factors for Teachers of Indigenous Students	Items	Original QTWLS Stress Factors	Items
I	Professional Worth from External Sources	48,41,47,50, 49,30,44	Administrators	20,38,44, 37,48,50
II	Administrator Interaction	38,20,44,33	Time	18,19,17, 24,32,46
III	Time Constraints	37,31,32,46, 19	Students	25,42,43

Table 14 (Continued)

IV	Distractions to Learning	27,26,24,28	Interruptions	26,27,28, 23
V	Parent and Community Support	40,39,45,34, 35	Work Environment	33,34,35
VI	Student value of Learning	42,43,25	External Support	39,40,45, 49
VII	Rewards	15,16,18,17	Internal Support	21,22,36
VIII	Peer Relations	21,22,36	Job Market	29,30,41
IX			Extrinsic Rewards	15,16
X			Evaluation	31,47

Source: "The Quality of Teacher Work Life Survey: A Measure of Teacher Stress and Job Satisfaction. Measurement and Evaluation in Counseling Department, 21, 165-175.

The same guidelines and procedures used to evaluate the factorability of the data matrix for the satisfaction scale were used for the stress scale. Results from the Kaiser–Meyer–Olkin Measure of Sampling Adequacy (KMO = .91) and Bartlett's Test of Sphericity ($\chi^2_{325} = 6565.957$, $p = .000$) indicated that the data for the satisfaction scale was appropriate for the factor analysis to proceed. Principal component factor analysis Varimax rotation procedures were conducted on teacher responses from the original QTWLS stress scale to establish a factor solution that yielded the most interpretable results. An eight-factor solution evaluated against Kaiser's criterion (interpreting eigenvalues greater than 1.00) and Cattell's (1964) Scree test was found to best represent the underlying traits for the 36-item QTWLS stress scale.

Factor I (Items 29, 30, 41, 47, 48, 49, 50) accounted for the largest percentage of variance when compared to all eight factors. This factor, Professional Worth from External Sources, accounted for 33.7% of the total stress scale variance. The item content defining the scale reflected job security, opportunity for promotion, formal evaluations, feedback other than pay, public perceptions, and participation in decision-making policies. The remaining seven factors ranged in variance contributions of 3-7%.

Factor II was interpreted as Administrator Interaction and was the second factor to emerge. The item content defining this scale dealt with competence of administrator, work environment, support from administration, and teacher relationship with administrators. Item 20, Competence of Administration, was the low score (6.52) and Item 47, Teacher Relationship with Administrator, was the high score (7.16) for this factor.

The third factor, interpreted as Time Constraints, was associated with items related to daily time for preparation, time spent individualizing programs for special needs, time required to adapt instruction to individual students, ability to evaluate student performances and teaching assignments. With the exception of Item 24, Time Spent on Clerical Duties, this factor was identical to the original QTWLS factor entitled time. Time Required to Adapt Instruction to Individual Student Needs was the low score (6.06) and Teaching Assignments was the high score (7.85) in this factor.

The fourth factor to emerge was Distractions to Learning and assessed time spent in clerical and administrative work, and teacher perceptions of interruptions due to calls and announcements from support staff during class. This factor was identical to the original factor interruptions with the exception of Item 23, Time Spent in Extracurricular Activities. Number of Breaks in the Teaching Process was the low score (7.26) and

Students Missing Due to Extracurricular Activities was the high score (7.59).

The fifth group of items to emerge as a factor was interpreted as Parent and Community Support to the teaching process. The items comprising this scale were related to school equipment, proper curriculum, community and parental support, and positive relationship with parents. Parental Support was the low score (5.84) and School Equipment was the high score (7.59).

Student Value of Learning emerged as Factor VI. These items were related to student discipline, student motivation and student disinterest in the learning process. Student Motivation was the low score (5.25) and Student Discipline (7.26) was the high score.

Factor VII was interpreted as Rewards. Items associated with this factor were related to high salaries, fringe benefits, smaller class sizes, and daily time to recuperate. Daily Time to Recuperate was the low score (5.75) and Class Sizes was the high score (7.19).

Table 15

Factor Loadings, Percent of Variance and Cumulative Percent for the Stress Scale of the QTWLS

Factor	Eigenvalue	% of Variance	Cumulative
I	12.11	33.65	33.65
II	2.16	6.00	39.65
III	1.93	5.37	45.02
IV	1.51	4.20	49.22
V	1.46	4.05	53.27

Table 15 (Continued)

VI	1.31	3.64	56.91
VII	1.14	3.64	60.07
VIII	1.02	2.84	62.91

Factor VIII was comprised of items associated with Peer Relations. The Peer Relations factor was found to contain items related to competence and relationships with staff. This factor matched the original QTWLS internal support. Competence of Staff (7.25) was the low score and Competence of Teachers was the high score (7.48).

The factor loadings, percent of variance and cumulative percent for the eight factors are presented in Table 12. Interpreted factors with means and scores for stress are found in Table 14. Coefficient Alpha for the stress scale was found to be .94, indicating a high level of internal consistency among items.

Research Question Three

The third research question asked, "How do teachers in these schools perceive their levels of Quality of Work Life, of Job-Related Satisfaction and Job-Related Stress?" This section will present the overall contributing scale, factor and item scores.

Overall Quality of Teacher Work Life Score

The QWTLS consists of 36 items that are used to measure satisfaction and stress. The items were selected on the basis of previous studies (Coates & Thoreson, 1976; Kyriacou & Sutcliffe, 1978) as well as the judgment of the authors (Harrington et al.,

1989) regarding hypothesized aspects of the quality of teacher work life. Each statement is rated on two dimensions using Likert scales, Job-Related Satisfaction and Job-Related Stress experienced. The scales are labeled at each point 1 to 5, representing the two extremes as well as the gradations in between. As mentioned earlier, the rationale for measuring both ratings involved the assumption that satisfaction and stress, though similar, are not the same thing.

Since the satisfaction factors (9) and stress factors (8) did not form the same structure of the original QTWLS, a Quality Work Life (QWL) score was computed by summing the total scores for each scale and then combining their totals for an overall QTWLS score. The overall score is simply the mean of all 36 items after they have been summed (satisfaction score + stress score = item quality score). The lowest possible score could be 2 and the highest 10. The score of 6, which is the center of the quality Likert scale, is considered a neutral quality score. In this study the overall QTWL score was computed to be 6.51. This is slightly higher than a neutral score.

Scale Scores. Scale scores were computed for job-related satisfaction and job-related stress on Likert scales from 1-5. For easier comparison with the quality scores (scales of 2-10), the overall mean scores of both scales were doubled. A score of 6 was considered neutral. The total job-related satisfaction score for this population was found to be 6.18. The total job-related stress score was 6.84.

An examination of the mean scores for each of the 36 items revealed that the job-related satisfaction scores for items 24, 32 and 50 were below the neutral score, while the same scores for job-related stress items were above it. This indicated that Item 24, Time Spent in Administrative and Clerical Work, Item 32, Time Spent in Individualizing

Programs for Special Needs Children, and Item 50, Participation in Decision-Making Affecting School Policy, are issues of satisfaction rather than stress and are of particular importance to teachers.

Factor Scores. There are nine factors (job-related categories) of teacher concern for satisfaction: 1) Support from administration, 2) professional from external sources, 3) Time constraints, 4)Student value of learning, 5) Threat to work life, 6) Parent and community support, 7) Distractions to learning environment, 8) Peer relations, and 9) External rewards. These areas were measured by the Quality of Teacher Work Life Survey satisfaction scale and have been used to identify factors that contribute to the satisfaction dimension of the quality of teacher work life in a school (Harrington et al., 1989). The means and standard deviations for the nine factors of the satisfied scale of QTWLS are shown in Table 16.

Table 16

Descriptives, Quality Teacher Work Life Satisfaction Scale Factors

Factor	N	Mean	Std. Deviation
Support from Administration	404	6.61	.95103
Professional Worth From External Sources	404	5.86	.8145
Time Constraints	404	6.18	.77369
Student Value of Learning	404	4.91	.88333
Threat to Work Life	404	7.52	.76745
Parent and Community Support	404	4.94	1.08060

Table 16 (Continued)

Distractions to Learning	404	6.30	.80729
Peer Relations	404	6.90	.88725
External Rewards	404	6.36	.88372
Total Satisfaction Scale Score	404	6.18	.60374

The original QTWLS was field tested by Harrington et al. (1989) and subsequently used in various studies until Kumarakulasingam (2002). The instrument did not account for the advent of the No Child Left Behind Act (2001) and its impact on public education in the United States. Item 51, New Federal and State Requirements Generated by Law, was added to account for this important national phenomena. This item represents the accountability factor of high stakes testing and the administrative mandates that has become prevalent since its inception. The lowest score of 4.22 on the satisfaction scale is associated with item 51.

Factor Scores. There are eight factors (job-related categories) of teacher concern for stress: 1) Professional worth from external sources, 2) Administrator Interaction, 3) Time constraints, 4) Distractions to learning, 5) Parent and community support, 6) student value of learning, 7) rewards, and 8) Peer relations. These areas were measured by the Quality of Teacher Work Life Survey stress scale and have been used to identify factors that contribute to the stress dimension of the quality of teacher work life in a school (Harrington et al., 1989). The means and standard deviations for the eight factors of the stressed scale of the QTWLS are shown in Table 17.

Table 17

Descriptives, Quality Teacher Work Life Stress Scale Factors

Factor	N	Mean	Std. Deviation
Professional Worth from External Sources	404	7.14	.84930
Administrator Interaction	404	6.82	1.04278
Time Constraints	404	6.82	.80429
Distractions to Learning	404	7.48	.90490
Parent and Community Support	404	6.68	.85179
Student Value of Learning	404	5.26	.94080
Rewards	404	6.72	.88384
Peer Relations	404	7.36	.84128
Total Stress Scale Score	404	6.84	.65772

Item Scores. There are 36 items comprising the original QTWLS and one add-on for a total of 37. The original 36 items contributing to the overall quality score and individual factor loadings are found in Appendix G. There were eight items that scored below the neutral score of six and were associated with the factors Student Motivation and Interest, Outside Support and Time. Item 37, Present Teaching Assignment, had a mean score of 8.05 which is substantially higher than the overall mean QTWLS score of 6.51. The next highest score was for Item 29, Job Security, with a mean score of 7.63. Item 51, New Federal and State Requirements Generated by Law, represented the lowest score of 4.84 on the stress scale.

Summary

The QTWLS was used to survey teachers in Montana schools that held predominantly indigenous student enrollments. After receiving responses from 70.3% (404/574) of the target population, demographics and job-related factors influencing the quality of teachers' work life were examined. The factor structure of the instrument (QTWLS) was analyzed using a principal components factor analysis. Mean scores of the scale, factor and items were examined to determine teacher perceptions of their work life and multiple regression was conducted for the satisfaction and stress scales factors that resulted from the factor analyses. The results were posted in appropriate tables and appendices. A discussion of the results can be found in Chapter 5.

CHAPTER 5

CONCLUSION

Introduction

The problem studied in this research was that educational leaders are not aware of the teachers' perceptions of their work life in Montana public schools with a predominantly indigenous student population. This is a critical issue for educational leaders because the quality of teachers' work life affects a number of factors related to student academic success. Schools with high enrollments of indigenous students are considered high needs. The low achievement scores and low socioeconomic status are strong indications that these students are some of the most at risk for public school failure and drop out in the state of Montana. Present evidence supports the conclusion that Montana's indigenous students need a high-performing and stable teacher population. Previously cited research indicates that the quality of teachers' work life is a contributing factor in teacher stability and performance, thus it is important to identify the variables that impact it.

The purpose of this study was to use the QTWLS to examine the teacher demographics, teacher perceptions of their work life, and the original factor structure of the QTWLS as it related to teachers of indigenous student populations of Montana schools. The Quality of Teacher Work Life Survey (QTWLS) was the instrument used to collect data. Teacher demographics, the factor structure of the QTWLS, and the

perceived levels of job-related stress and satisfaction were addressed. The target population was Montana teachers in schools with a predominantly indigenous student enrollment.

Four important facts are set forth in the author's review of previous research. They are: 1) There have been numerous studies to determine what factors comprise the quality of teachers' work life, 2) Addressing the quality of teachers' work life in appropriate ways will more likely result in a stable and more productive teacher population, 3) High needs schools face great challenges in educating students to the prescribed educational standards than those that are not high needs, and 4) Montana's schools with predominantly indigenous enrollments are high needs schools. Research in this field reports that unless the issues of stress, job satisfaction, and burnout are adequately addressed, high needs schools such as the ones where our indigenous students are attending may continue to experience challenges in their efforts to increase student achievement.

Considerable research has been done on job satisfaction, stress, climate, culture and how they are impacted or impact a number of important variables. These variables include the demographics included in this study as well as factors surrounding and comprising the public school environment. Much less research has been conducted on the specific topic of the quality of teachers' work life, and even less on how the quality of teachers' work life is affected by or has impacted schools with a predominantly indigenous enrollment. Job satisfaction, stress and motivation are contributors to the quality of teachers' work life. When measuring these job-related categories, the research also supports the QTWLS as a valid and reliable instrument (Harrington et al., 1989).

This study can be categorized as both descriptive and correlation research. It used the QTWLS to collect both demographic and perception data. The Statistical Program for Social Sciences (SPSS) program was used to determine the descriptive statistics and a factor analysis of the QTWLS.

Original factor analytic studies of the QTWLS have produced ten categories of concern that appear to contribute to the overall quality of work life for teachers. The QTWLS allows teachers to report on each area as being stressed or satisfied. The intent of measuring both stress and job satisfaction was to measure the teachers' overall quality of work life as opposed to just the individual scales of satisfaction and stress. The quality of teachers' work life was considered by Harrington et al. (1989) as being comprised of these two scales and ten job-related categories or factors.

This study focused on Montana schools with a predominantly indigenous student enrollment. There are 12 such school districts in Montana that meet this study's criteria. All of these schools are located in rural areas and have high poverty rates. The decision to limit the population to the studied schools is based on the criteria characterizing K-12 school districts of at least 100 students that have at least a 70% indigenous student population. The total population was accessible

The selection standards for this population were based on the desire to generalize the results to all Montana school districts that have predominant indigenous enrollments. A K-12 standard was desired because it made the study generalizable to all grades. The minimum number of 100 was established to allow for multiple representation of students in each grade. The establishment of predominant indigenous enrollments as a criteria made the population strongly ethnic which allowed for generalizability to the overall

teacher population that taught indigenous students. Montana's OPI does not report any K-12 school districts in Montana with predominant indigenous enrollments that have less than 100 students. These standards coupled with the return rate of over 70% meet the criteria for generalizing to the total population of teachers in Montana's K-12 school districts that have at least 100 enrollment and at least 70% indigenous students (Gliner & Morgan, 2000).

Even though the total population was accessible, only 11 of these schools were studied and consisted of 574 full-time equivalent (FTE) teachers. The Harlem School District was deselected because of its participation in similar studies with this instrument three consecutive years prior to this study. All of these schools are located in rural areas and have high poverty rates. The decision to limit the population to the selected schools is based on the criteria characterizing K-12 school districts of at least 100 students that have at least a 70% indigenous student population.

The collection and entry of the data began in September 2005. Eleven survey coordinators were trained by the researcher on site or were provided the training by phone on the administration of the QWTLS. Each survey coordinator administered the survey under similar circumstances in each district. The surveys came in over a ten-week period. The response data on each survey was entered into an SPSS data base between November and December of 2005.

The data analysis for this study included descriptive statistics and factor analysis. Descriptive statistics were used to address research questions one and three. Factor analysis was used to answer research question two.

Summary of Research Questions

Research Question One

The first research question asked, "What are the demographic characteristics of teachers of Montana schools with a predominant indigenous student enrollment?" This study offered a demographic profile of teachers in Montana with the responsibility of educating indigenous children. Though this research did not attempt to determine relationships between demographics and factors that contribute to teacher work life, a review of the profile offers some initial insights.

A comparison between Montana's teachers as a whole and teachers who teach only in districts with a predominantly indigenous enrollment reveals differences and similarities. The Montana Office of Public Instruction (OPI) regularly tracks and reports eight statewide teacher demographics. They are student/teacher ratio, teacher licensure, educator experience, subject taught, gender, ethnicity, retention, and age. The participants in this study reported on 14 demographics, three of which correspond to those maintained by the state. Those three are age, gender and American Indian ethnicity. Retention statistics were also obtained from the Montana OPI data base on full time equivalent teachers. There were other demographics such as teaching assignments and experience in which data was available for both populations but were not compared because the data were reported differently.

The characteristics that the research population has in common with the rest of Montana are age and gender. There were 68.1% (275/404) teacher respondents in this study that were over 40, 70% (283/404) are women, and 30% (121/404) are male. The

Montana Statewide Education Profile (1999-2005) reported teachers over 40 at 68% (8,952/13,164), female teachers are at 68% (7,553/13,164), and males at 32% (3,583/13,164).

The research population differs from the rest of Montana in retention and in the number of American Indian teachers employed. The Montana Statewide Education Profile (1999-2005) reported the turnover for teachers in Montana has been averaging 14.5%, while at the same time the schools in this study have been averaging 21.1% (OPI Database, 2005). The retention rate for the school districts was corroborated by contacting the personnel director of each one. The latest data for number of American Indian teachers reported working in all Montana schools was 2.2%. Many of these Montana teachers, 41% (121/295), came from the school districts that participated in this study.

Higher turnovers and lack of an equitable ethnic representation in high needs schools contributes to the learning difficulties experienced by the students in these schools. Many of these students are already at risk for a number of reasons previously cited. The challenges for success are even greater when you add to the equation an unstable, inexperienced teacher population in which 70 to 80% are not representative of the community's ethnicity.

Having good ethnic representation is viewed from both a negative and positive standpoint by indigenous communities. There exists a second and third generation of cultural resentment because of the acts of degradation that indigenous people historically experienced from non-indigenous people. Many feel that their rights are still being denied by a dominant non-indigenous population. Discounting that issue, the majority of

American Indian people would still like to see role models from within their tribes teaching in their public schools (MAC, 2001). They feel that native teachers create a positive learning climate and provide important role models for their children.

The demographic profile of the target population can be summarized. One-half to two-thirds of the surveyed teachers in this study have less than eight years experience in high poverty schools or those with predominantly indigenous enrollments. Sixty percent of the teachers have families to rear and 72.5% live at least 40 miles from an urban area. Almost 87% have lived in Montana at least eight years. Despite the fact that these schools have indigenous enrollments averaging 85 to 100%, all but one of these districts are only averaging 21% indigenous teaching staff. Generally a teacher in one of these schools has a good chance of being Caucasian, female, middle age, having moderate to low experience and married with children.

Research Question Two

The second research question asked, "Is the factor structure of the QTWLS replicated when used to assess teachers from Montana schools with predominantly indigenous student enrollments?" The results of the factor analysis with the QTWLS supported the identification of the stressed and satisfied scales of the QTWLS for this study. The original studies resulted in an 11-factor solution for the satisfaction scale and a 10-factor solution for the stress scale when using Eigenvalues of 1.00. With the population of this study the factor structure resulted in a nine-factor solution for the satisfaction scale and an eight-factor solution with the stress scale using eigenvalues of

1.00. The factor loadings for this study are found in Appendix G and their interpretations and descriptives are found in Tables 5 and 6 in Chapter 4.

A partial replication of the factor analysis is normal under the circumstances of this study. It was expected that factorization would be affected by: 1) The difference in work environment with this group of teachers as compared to previous research, 2) Differences in physical or geographical environments, and 3) The differences associated with the evolving national and local school improvement attempts. This is supported by Gliner and Morgan (2000) in which they state, "Construct Validity is never achieved. It is a continuing process of experimentation and modification leading to the refinement of the instrument……..". Green and Salkind (2003) report that one of the primary applications of factor analysis is to define dimensions of an existing measure. Logically the measure could be affected by the time, population and various external influences.

Satisfaction Factor One. This satisfaction factor was Support from Administration. The item content defining this factor reflected administrator competence, work environment, school equipment, curriculum, administrative support, and teacher relationship with administrators. The commonality that existed in this factor appeared to support the teacher perception that administrators are responsible for the instructional, relationship and physical resource needs that affect teachers' daily success in the classroom. The factor Administration from the original QTWLS (Harrington et al, 1989) most closely aligned with this factor (Items 20, 38 and 44).

Stress Factor One. This stress factor was interpreted as Professional Worth from External Sources. The item content defining this scale reflected job security, opportunity for promotion, formal evaluations, feedback other than pay, public perceptions, and

participation in decision-making policies. This factor supports the Professional Learning Communities research (DuFour & Eaker, 1999), citing the desire of teachers to feel respected for their contributions to the school and community. The expression of this can come from many sources both inside and outside the school district. This recognition is interpreted as "external" in that it differs from reinforcement found in the classroom while involved in the teaching process. None of these factors were found in Factor One of the satisfaction scale though administrators influence many of these variables. The factor Job Market from the original QTWLS (Harrington et al, 1989) most closely aligned with this factor (Items 29, 30 and 41).

Satisfaction Factor Two. Satisfaction factor two, Professional Worth from External Sources, was the second satisfaction factor to emerge. The item content defining this scale dealt with opportunities for promotion, formal evaluations, feedback or reinforcement, public perceptions and opportunities for participation in decision-making. This factor aligned with the first stress factor, Professional Worth from External Sources, with the exception of job security which is absent in this factor. Once again this factor supports the desire of teachers to be respected for their professional expertise and contributions. Job security appears to be associated more with stress than satisfaction when considered in the context of professional worth. The factor Administration from the original QTWLS most closely aligned with this factor (Items 48 and 50).

Stress Factor Two. Stress factor two of the stress scale was interpreted as Administrator Interaction. The item content defining this scale dealt with competence of administrators, work environment, support from administration, and teacher relationship with administrators. This factor aligned with the first stress factor, Support from

Administration, with the exceptions of curriculum and school equipment. This factor loading represents teacher perception that curriculum and school equipment are not the major stressors when it comes to administrator interaction. Instead curriculum and school equipment are issues that show up with the stress factor Community Support to the Teaching Process. The factor Administration from the original QTWLS most closely aligned with this factor (Items 20, 38 and 44).

Satisfaction Factor Three. The third satisfaction factor, interpreted as Time Constraints, was associated with items related to daily time to recuperate between responsibilities, daily time for preparation, time spent individualizing programs, time required to adapt instruction to students, and class sizes. All of these variables are associated with the time required to adequately address student learning needs. Teachers appear to recognize class size and professional and personal time to recuperate between responsibilities as influencing this factor as well. The factor Time from the original QTWLS aligned with this factor (Items 17,18,19,32 and 46).

Stress Factor Three. The third stress factor was also interpreted as Time Constraints and was associated with items related to daily time for preparation, time spent individualizing programs for special needs, time required to adapt instruction to individual students, ability to evaluate student performances and teaching assignments. The commonality that existed in this factor supported the teacher perception that time required to adequately address student needs is also associated with their teaching assignment and possibly the “time” required to adequately evaluate student performance. Teachers who assess “for learning” as opposed to the assessment “of learning” would

likely make this distinction. The factor Time from the original QTWLS most closely aligned with this factor (Items 19, 32 and 46).

Satisfaction Factor Four. The fourth satisfaction factor to emerge, Student Value of Learning, assesses teacher perceptions of student motivation, interest and relationships with parents. This grouping indicated that teachers perceive the parent/teacher relationship as being an important influence in the student's attitude toward learning. Since non-indigenous teachers are a majority in these schools; parent/teacher relationships offer unique challenges to both sides. The factor Students from the original QTWLS most closely aligned with this factor (Items 42 and 43).

Stress Factor Four. The fourth stress factor to emerge, Distractions to Learning, assessed teacher perceptions of time spent in administrative and clerical work, interruptions due to phone calls etc., breaks caused by support staff during class, and students missing class due to extracurricular activities. This has the same item content as satisfaction factor seven, Distractions to the Learning Process for Environment. Teachers perceive students missing due to extracurricular activities as being part of the stress induced by this factor, possibly exacerbated by dismissal due to extracurricular activities during class time. The factor Interruptions from the original QTWLS most closely aligned with this factor (Items 26, 27 and 28).

Satisfaction Factor Five. The fifth group of items to emerge as a factor was interpreted as Threat to Work Life. The items comprising this scale were related to job security, availability of jobs, teaching assignment and ability to evaluate students. The grouping of variables in this factor make a case for teacher perceptions that view their evaluations of student performance as influencing the security of their job and perhaps

even their teaching assignment. Too often teachers of high needs schools are misassigned for expediency and their ability to perform well is affected. This could affect their perceptions of job security. The factor Job Market from the original QTWLS most closely aligned with this factor (Items 29 and 30).

Stress Factor Five. The fifth group of items to emerge as a stress factor was interpreted as Parent and Community Support. The items comprising this scale were related to school equipment, proper curriculum, community and parental support, and relationships with parents. Community, parental support and parental relationships are perceived by teachers as being a part of and influencing curriculum and equipment. This may be manifested in the school community's desire to integrate American Indian culture into all aspects of the school curriculum. This grouping may also indicate the effect that the various poverty issues have on the lack of proper care and maintenance of the school facilities. The factor External Support from the original QTWLS most closely aligned with this factor (Items 39, 40 and 45).

Satisfaction Factor Six. Parent and Community Support which emerged as satisfaction factor VI. The factor External Support from the QTWLS also partially aligned with this factor (Items 39 and 40).

Stress Factor Six. Student Value of Learning emerged as stress factor six. These items were related to student discipline, student motivation and student interest in the learning process. This factor was similar to satisfaction factor four, Student Value of Learning, except that student discipline is grouped with this factor instead of parent relationships. Student discipline appears to be perceived by teachers as being a stress issue attributed to students. It is considered an administrator issue when addressed in the

context of job satisfaction. The factor Students from the original QTWLS aligned with this factor (Items 25, 42 and 43).

Satisfaction Factor Seven. Satisfaction factor seven was interpreted as Distractions to Learning. Items associated with this factor were related to number of breaks due to announcements and support personnel, students missing due to extracurricular activities and clerical requirements. This factor was similar to stress factor four Distractions to the Learning Environment except this factor included time spent in clerical work. Teachers perceived that clerical responsibilities were a distraction and affected their job satisfaction. This may be due in part to the requirement for teacher participation in the school improvement process, which is partly administrative, brought on by the new federal and state requirements. The factor Interruptions from the original QTWLS most closely aligned with this factor (Items 26, 27 and 28).

Stress Factor Seven. Stress factor seven was interpreted as Rewards. Items associated with this factor were related to high salaries, fringe benefits, class sizes, and daily time to recuperate. This factor was similar to satisfaction factor nine, External Rewards, except this factor included daily time to recuperate and class sizes as a reward issue. The researcher can see no logical reason to exclude the same variables from the factor External Rewards in the satisfaction scale. Being assigned smaller and more manageable class sizes as well as additional time could be perceived as rewarding and less stressful but it should also be perceived as more satisfying by the same teachers. The factor Time and Extrinsic Rewards from the original QTWLS both equally aligned with this factor (Items 15, 16, 17 and 18).

Satisfaction Factor Eight. Satisfaction factor eight was comprised of items associated with Peer Relations. The Peer Relations factor was found to contain items related to competence and relationships with staff. This factor also duplicated the results found in factor eight, Peer Relations of the stress scale and Internal Support of the original QTWLS.

Stress Factor Eight. Stress factor eight was the last stress factor and was comprised of items associated with Peer Relations. The Peer Relations factor was found to contain items related to competence and relationships with staff. This factor also duplicated the results found in factor eight, Peer Relations of the satisfied scale and Internal Support of the original QTWLS.

Satisfaction Factor Nine. The item structure of stress factor nine was interpreted as External Rewards. Items in this area were related to salaries, fringe benefits and time spent in extracurricular activities. Teachers may perceive the financial compensation derived from working in extracurricular activities as lending itself to this factor. The items in this factor matched the original factor, Extrinsic Rewards, from the original QTWLS with the exception of Item 23.

Research Question Three

The third research question asked, “How do teachers in these schools perceive their levels of quality work life, of job-related satisfaction and job-related stress?” This section will discuss the mean scale, factor and item scores as a measure of teacher perceptions of their job-related satisfaction and stress.

The overall QTWLS score for this population was simply the mean of all 36 items after they had been summed (satisfaction score + stress score = item quality score). The lowest possible score could be 2 and the highest 10. The score of 6, which is the center of the quality likert scale (2-10), was considered a neutral quality score. In this study the overall QTWL score was computed to be 6.51. This is slightly higher than a neutral score. None of the previous QTWL studies reported an overall score this low with their populations. Considering the need for stable and high performing teachers in high needs schools, this supports the call for intervention strategies designed to address the factors that influence teachers' work life. In their own way these teachers are as at risk as their students for failing in their classrooms.

A common measure of teacher effectiveness is student achievement. Compare a work environment in which teachers cite high levels of job satisfaction with students' motivation to learn and strong parental support with one that reports the opposite. Compare a work environment in which teachers report high levels of stress when interacting with the administration with one that doesn't. Several studies cited in Chapter 2 report on the relationship between a positive work climate and student success (Wright et al., 1997; Freiberg, 1998; Bossert, 1988; and Hoy & Sabo, 1998).

Scale scores were computed for job-related satisfaction and job-related stress. The total overall job-related satisfaction score for this population was found to be 6.18. The total overall job-related stress score was 6.84. These scores are evidence that job satisfaction is more of an issue than job stress. An examination of the factor and item scores revealed specific reasons for this. Previous studies (Harrington et al, 1988; Ford, 1992; Terhune, 1993; Konert, 1997; and Kumarakulasingam, 2002) reported satisfied and

stressed scale scores between 6.70 and 7.47 with populations in the mid and upper Midwest.

Mean scores for each of the 36 items revealed that the job-related satisfaction scores for Items 24, 32 and 50 were below the neutral score while the same scores for job-related stress items were above the neutral score. This indicated that Item 24, Time spent in administrative and clerical work, Item 32, Time spent in individualizing programs for special needs children, and Item 50, Participation in decision-making affecting school policy, are contributing issues to lower satisfaction scores but not with stress. None of these items group together with either a satisfaction or a stress factor.

Taken collectively, it may be that the common relationship is indicative of dissatisfaction with serving special needs children. There are considerable collaborative and administrative requirements associated with producing an appropriate individual education plan (IEP) for special needs students. This would account for Item 24. Probably the primary reason for such a low score for Item 32 is that high needs schools have larger populations of special needs students. This entails more work for the teacher. Item 50 is not as easy associated with special needs issues. A case could be made surrounding the disagreements that occur among members of the IEP teams. The teachers may be experiencing frustration with the emphasis on inclusion that almost always becomes an integral part of the IEP. There is also a common phenomenon in these schools in which special needs students appear to get a free pass when it comes to eligibility for extracurricular activities. Students with disabilities are often exempt from academic standards for extracurricular eligibility. Parents with a child who struggles academically but has aptitude or motivation for basketball may actively seek a special

needs status for their child. In these situations teachers feel like their learning environment is at the mercy of external decision-making.

Teachers' dissatisfaction may not be associated with special needs issues at all. It may reflect their discontent with the execution of the collegiality process in the district. Item 50 did group with the satisfaction factor, Professional Worth to the Community. A case could be made that their role in decision-making, especially those decisions associated with their classrooms, may be falling on deaf ears. The NCLB Act (2001) requires representative and collaborative leadership teams in all districts in which all stakeholders are afforded input to the school improvement process. For many of these schools this process is relatively new. Dysfunctional or nonexistent leadership teams could account for the low score. It is likely that if there is not a genuine collaborative process in place for one aspect of the school, it is probably not happening elsewhere—for example, during IEP meetings. In that case it is likely that both special needs issues and teachers' lack of input are affecting this important variable. This issue lends itself to further research using a Natural Inquiry approach with school staff.

There were nine factors (job-related categories) of teacher concern for satisfaction. There were three satisfaction factors that scored below six. They were Student Value of Learning (4.91), External Support (4.94), and Professional Worth to the Administration (5.86).

The Student Value of Learning satisfaction factor had the lowest mean score (4.91). It assessed teacher perceptions of student motivation, interest and relationships with parents and was perceived as being responsible for the most dissatisfaction experienced among these teachers. Not only do they perceive student motivation for

learning as unsatisfactory but parents as having contributed to this issue. The teacher/parent relationship is considered an important influence in the student's attitude toward learning and is a strong contributor towards teacher satisfaction. Since non-indigenous teachers are a majority in these schools, establishing positive parent/teachers relationships offers unique challenges to both sides.

The NCLB Act (2001) recognized the broad research base supporting the critical role of parents and community teaming with educators in closing the achievement gap among disaffected minorities. The law protects the parental right to be notified of individual and collective efforts by the schools on behalf of their children. School districts are required to take the initiative in communicating and involving parents in the education of their children. School districts are required to report by demographics data on a number of school measures related to student success and school improvement. Many of the districts in this research population have long histories of omitting the parents and community in school improvement processes. NCLB Act (2001) establishes guidelines for parental inclusion. At the time of this study many of these districts reported to the researcher that they were attempting to come to grips with the need to create collaborative and responsible efforts between the schools and the communities they serve. More parents are serving on building leadership teams, parent organizations are meeting with district leaders, tribal councils are asking local school leaders to report regularly, and the schools are creating more forums for the exchange of information. It is expected that if parents are part of the school improvement solutions, student motivation and interest will increase. Future research in this area should track teacher perceptions to see if schools and communities have experienced success in this area.

Parent and Community Support (4.94) emerged with the next lowest factor score (4.94) on the satisfaction scale. Parent and Community Support are the contributing items. All of the observations relating to the previous factor, Student Value of Learning, pertain to this factor as well. Teachers don't feel they are being adequately supported by parents and community. There is clear evidence of community discontent for the lack of progress in Montana schools in the areas of indigenous teacher recruitment, school community links, student tracking, curriculum development and civil rights enforcement (MAC, 2001). As mentioned earlier in the chapter, there is a large disparity between the percentage of indigenous teachers and indigenous students. Teachers, on the other hand, have little or no control over hiring and curriculum development related to the indigenous culture. Unless current collaborative efforts succeed, these schools will continue to be a fertile environment for polarization.

Professional Worth from External Sources had the next lowest mean score (5.86). The item content defining this scale dealt with opportunities for promotion, formal evaluations, feedback or reinforcement other than pay, public perceptions, and opportunities for participation in decision making. It would be logical to assign responsibility of most, if not all of these items, to the administrator. To do so, though, would be to oversimplify the problem. One would have to accept the premise that this population of teachers experienced the same kinds of leadership issues in all 11 of these schools. It is not likely that all of these administrators are inexperienced and lacking in basic leadership skills. You would also expect, under normal circumstances, that some of these administrators would have aspirations of long-term contracts, a stable job, making a difference in the school, buying a home, rearing their families and settling down in the

area. It doesn't happen. It is rare if any stay longer than three years.

Since all of these school districts are rural and many of them relatively small, it is conceivable that all of these variables can be and often are strongly influenced by the parents and the community, including the longevity of administrators. This is often accomplished by the community's pressure on the board of trustees. The parents and community members are a far more constant variable than the administration and because of this they are in a better position to affect these variables either positively or negatively. Parent and community involvement in a constructive manner can be the catalyst for effective school reform (Marzano, 2005).

An accurate profile of the district that includes disaggregated data driving a research based school improvement plan is essential to student achievement and other measures of school success. If allowed the time and resources, a combined school effort under effective leadership can lead to this (Marzano, 2005). The obstacle to this is educator longevity. Effective change requires five to seven years of stable leadership. If lay members of the community are making it difficult for administrators and teachers to stay long enough to effect change, then a cycle of hope and helplessness results in flight or isolationism and/or apathy among the school staff.

When interpreting the items that comprise this factor, the term Administration includes the school board and all the influences exerted upon it by the community and parents. As long as the variables that influence the administration are understood, this factor is appropriately interpreted as Professional Worth to the Administration.

All three of these factors represent the lowest scores in teacher satisfaction and point to the necessity for stable and effective school collaboration with the community.

Leadership teams that contain representative and collaborative members are paramount for success. These teams are representative in that students, parents, community members and school staff participate by representing their various constituencies. These teams are collaborative in the sense that they are versed and effective in consensus building. It would be unfair to lay the cause of this failure at the feet of either group. The problem is big enough to require the combined efforts of state, county, city, district and school communities. As previously stated, federal mandates have to some extent forced the issue.

The Threat to Work Life satisfaction factor (7.52) was responsible for the most satisfaction experienced by these teachers. The items comprising this scale were related to job security, availability of jobs, teaching assignment and ability to evaluate students. Despite the issues of support relationships mentioned in the preceding paragraphs, teachers feel relatively secure in their jobs. The difficulty in recruiting and retaining staff for these schools contributes to this phenomenon. The staff may not be happy with the overall quality of the work environment but they feel job security. This may also foster frustration with the parents and community, thus contributing to the already poor relationships with school personnel.

There are eight factors (job-related categories) of teacher concern for stress. Only one, Student Value of Learning, scored below the neutral score of 6.0. Distractions to the Learning Process yielded the highest quality mean score of 7.48.

The factor, Student Value of Learning, had the lowest mean score (5.26) and assessed teacher perceptions of student discipline, student motivation, student interest and time spent in clerical and administrative duties. This stress factor was similar to

satisfaction factor Student Value of Learning except that student discipline and clerical responsibilities are grouped with this factor instead of parental relationships. At least from the standpoint of being stressed, student discipline appears to be perceived by teachers as being an issue attributed to students as opposed to the administration's response to it. Reducing stress for teachers involved reducing their administrative and clerical responsibilities and this is supported by Raschke's (1985) research. The perceptions of this population underscored that issue. There were no other stress factors with a mean score below the neutral score of six.

Distractions to Learning had the highest mean score (7.48) for the stress scale and assessed teacher perceptions of interruptions due to phone calls, etc., breaks caused by support staff during class, and students missing class due to extracurricular activities. This has the same grouping as satisfaction factor seven, Distractions to the Learning Environment. Teachers perceive students missing due to extracurricular activities as being part of the stress induced by this factor, possibly exacerbated by dismissal due to extracurricular activities during class time. This reinforces previous studies that report teacher satisfaction increases (Anderman, 1991) and stress decreases (Chen & Miller, 1997) when their building principal reinforces classroom instruction as a priority.

The mean score for this factor indicates that it is the least stressful factor affecting teachers' work environment. It can mean that most if not all of these school districts are effectively protecting classroom instruction. This reinforces previous studies that report teacher satisfaction increases (Anderman, 1991) and stress decreases (Chen & Miller, 1997) when their building principal reinforces classroom instruction as a priority. It may also indicate that it is the least problem of many others. If classroom interruptions are

common and have been institutionalized to the point that it is part of the school culture, then it becomes expected and less of an issue. Certainly issues of violence, drugs, intimidation, classroom management and learning are occurring far too frequently and create far more stress. Classroom interruptions by other staff and for authorized extracurricular activities pale in comparison. The issue is deserving of a closer look.

Discussion

The rationale for this study centers on motivation theory and its relationship to public school teachers' work life. Formal studies of motivation have indicated evolving research that leads to the study of the variables measured by the QTWLS. Over the last 50 years considerable research has been accomplished in the related areas of behavioral, cognitive, psychoanalytic, humanistic, transpersonal, and achievement motivation. Most of it supports the early research put forth by Maslow and Herzberg. More current research has been aimed specifically at the factors that influence the quality of teachers' work life.

Theoretical Implications

The literature suggests that addressing the quality of teachers' work life in appropriate ways will more likely result in a stable teacher population that is more productive. High needs schools face greater challenges in educating students to the prescribed educational standards than those that are not, and Montana schools with predominantly indigenous enrollment are clearly in that category. Unless the issues of stress, job satisfaction, and burnout are adequately addressed, schools such as those in

this study may continue to experience challenges in their efforts to increase student achievement.

The QTWLS had not been tested with a population that has the unique characteristics associated with indigenous people of Montana. If strategies are to be targeted at student achievement by targeting the quality of teachers' work life, then a useable instrument is critical. The ten identified factors that influence teachers' work life with non-indigenous populations when using the QTWLS must be modified for indigenous populations.

The lowest score for any item when conducting this study was related to the new laws associated with the NCLB Act of 2001. This item was not part of the original instrument but was added to further develop teacher perceptions of the current educational environment. Previous research supports the addition of Item 51. The NCLB Act (2001) incorporated many of the principles adopted during the restructuring movement of the early 1990s and cited by Farber's study (1991). He reported that while school restructuring was meant to reduce stress, sometimes it led to an increased burnout among teachers. The study suggested that the following initiatives of the school restructuring movement may intensify teachers' frustration: (1) School-based management may raise the community's expectation but increase pressure on teachers and increase teacher frustration if new control does not lead to clear educational benefits; (2) Accountability may increase teacher stress and promote covert competition; and (3) Curriculum initiatives can generate stress when their implementation lacks appropriate staff development, mentoring, and peer coaching.

When considering further research using an instrument like the QTWLS, the impact of recent legislation moving schools into the arena of stricter accountability and high stakes testing should be weighed carefully. With the advent of the accountability movement, high needs schools have been directed to make sound educational improvements so that their students can meet the same or higher standards of schools that are not. This entails strong collaboration between communities and the schools that serve them. This is a formidable challenge but it can be accomplished. The greatest chance of success lies with the combined support of all stakeholders and a competent and stable school staff.

It is generally acknowledged that funding and resources are woefully inadequate. For decades educators of high needs schools have been asked to teach under the most trying conditions. Much of the research indicates that unless the issues of stress, job satisfaction, and burnout are adequately addressed, high needs schools such as the ones where our indigenous students are attending may continue to fail.

Previous research clearly demonstrates that the administration of a school directly and indirectly influences the majority of these factors. This would imply that some type of professional approach can and should be developed that would effectively address those factors in a positive manner. The theoretical implication then is that a combination of five to seven years of professional intervention by the administration and staff, and a combined effort by all stakeholders to bring the community and school staff together will contribute to a more stable and effective teacher population and ultimately higher student achievement. A valid instrument that accurately reflects the factors that affect the quality of teachers' work life would be essential in measuring the status of teacher perceptions.

Practical Considerations

This study provides initial information on the satisfaction and stress factors that contribute to teacher work life and ultimately more effective instruction in Montana schools with predominantly indigenous enrollments. It also has implications for the practice of professional leaders primarily in the field of education.

At the professional development level for teachers, this research supports the need for specialized training for this population in mitigating stress. It appears that differences in perception do exist between teachers of indigenous and non-indigenous students. The factors that contribute to overall quality of work life ought to be addressed in the higher education curriculum and in-service before and during school.

There are numerous practical concerns related to addressing the quality work life of teachers in Montana's schools with indigenous populations. They are: 1) student poverty and its attendant side effects, 2) language and cultural differences, 3) the need for indigenous teaching staff, 4) community and parental support, 5) resources (funding), 6) teacher turnover, and 7) rural remoteness. Identifying those factors that most affect the teachers in these schools (QTWLS) is an important first step.

The new federal and state laws that are an outgrowth of the No Child Left Behind Act of 2001 seem to have both helped and hurt in addressing quality work life issues. The mandate in Montana to have representative and collaborative district/school leadership teams that implement research-based school improvement plans (SIP) helped districts identify and address instructional and climate issues. Many educators recognize that such an approach will yield long-term benefits to the education community. On the other hand identifying and addressing these issues require additional expenditures in human and

fiscal resources, this from schools that are already financially and emotionally strained. The teachers in this study have identified Time Constraints as one of the top four stressors in their work life. Now they are being asked to do more with less. It is not surprising to see that the items of the survey that scored the lowest in satisfaction was associated with Time Spent in Administrative and Clerical Work, Time Spent in Individualizing Programs for Special Needs Children, and Participation in Decision-Making Affecting School Policy. All three reflect the repercussions of the NCLB Act of 2001.

External Support reflected teachers' frustration with lack of support from parents and to a slightly lesser extent the community. Successful schools cite this factor as critical in high needs schools. Perceptions, poverty and the rurality of these districts are issues that will require whole communities (tribal, city, county, state and federal) to get involved. The practical considerations are centered on the ability of these schools and communities to involve all the stakeholders in meaningful dialogue that result in action, fund programs, professional development and to maintain stable and effective staff in their schools. This study can aid these communities in identifying and getting started on one of the most critical contributors to student achievement, the teacher.

Teacher satisfaction and stress has been linked to attrition. Unfortunately but predictably, high needs schools in rural and urban districts are much more likely than suburban schools to experience shortages. Students in these schools are also less likely to be taught by teachers who are properly endorsed to do so. Among high poverty districts, 65% hire non-endorsed or long-term substitute teachers. Substitute teachers typically do not meet the standards for being highly qualified as required by each State

Educational Agency (SEA). This will continue to be an issue unless communities come together and recognize that resources must be increased, staff must be stabilized, and effective teaching and leadership is applied collaboratively with parents and local communities.

Limitations of the Study

This study had limitations. One involved the time of year the study was conducted. Satisfaction and stress levels are not likely to remain constant during the school year. The project time was selected because October through November was a fairly neutral time of year for stress and satisfaction experiences. Typically school start-up and end-of-year experiences are more intense. It also offered a time of year when most teachers were in a routine and had a little more expendable time. It was hoped that it would positively affect the return rate of the QTWLS. The limitation is that the results, both the return rate and the perceptions, might not hold for other times of the school year.

Another limitation was the survey instrument itself. The instrument was originally tested for use with teachers of mostly non-indigenous students. This study represented the first use with teachers of indigenous students.

The results of this study are only generalizable to the entire population of teachers in Montana schools with high enrollments of indigenous students and not to individual schools. A school that is extremely remote is not facing the same issues as one that is not. The schools also varied in student enrollment from 118 to 1,896 and one would expect differences in perception between these schools. The author has conducted preliminary

research in his own school which is predominantly indigenous and has an enrollment of approximately 600 students and found some minor variation in results.

Recommendations for Further Research

The findings in this study are preliminary to the use of multiple regression analyses. A multiple regression analysis using the job-related satisfaction and stress factors identified with this population as predictor variables is recommended. This would entail use of the results from a similar instrument for the criterion variable. The Quality Work Life in Teaching scale adapted by Sergiovani (2001) from a more general survey by Sashkin and Lengermann (1984) is one recommendation. The predictability of the factors to teacher satisfaction, stress or overall quality of work life would contribute significantly to the development of specific interventions in this area. In addition, research that addresses the predictability of demographics to job-related satisfaction and stress would contribute to this body of research.

Satisfaction and stress levels are not likely to remain constant during the school year. Studies conducted at various times of the year would provide a better understanding of the variables and their impact throughout the year.

The findings of this research also lent support for additional factor analytic studies of the QTWLS in schools with predominantly indigenous student populations. This population's factor structure is different enough from the original QTWLS to warrant a modified instrument. Qualitative research and naturalistic inquiry would elicit additional information on the study of those factors produced by this study. Additional

analyses of the QTWLS factor structure with this population may result in fewer factors and new information for reanalyzing the results.

Chapter Summary

This research attempted to examine teachers' perceptions of their work life in Montana public schools with a predominantly indigenous student population. In doing so, a demographic profile was established, job related factors were investigated as they related to the QTWLS and this population, and teachers' perceptions of their work life were reported.

It was found that retention of teachers and percent of indigenous staff in Montana schools with predominantly indigenous student enrollment differed significantly from Montana's statewide distribution. Thirteen other demographics were reported.

Support for this study is found in the results of previous studies on stress, job satisfaction and the quality of teacher work life. The major contribution of this project is the analysis of these factors and comparisons between teachers of indigenous and non-indigenous populations. The QTWLS proved to be a valid instrument for the separate scales of job-related satisfaction and stress but the factor structure of the QTWLS, though similar in many instances, did not duplicate.

This field of study now has indications of perceived work life from Montana's teachers of indigenous student populations. On a Likert scale from 2-10 in which 6 was neutral; the overall QTWLS score was 6.51. The scale score for satisfaction was 6.18 and for the stress scale 6.84. Teachers' perceptions of their job-related satisfaction and stress factors were reported and compared. It was discovered that these teachers had their

lowest scores in the areas of Student Value of Learning, External Support, and Professional Worth to Communities. They reported their highest scores as Distractions to Learning and Threat to Work Life.

In summary, the results of this research can be used to further understand the issues surrounding the quality of work life that impact the lives of teachers in schools with indigenous populations. The results of this study may provide educators and communities at all levels with insights to enhance the environment in which these teachers work. Ultimately such understandings may lead to effective training and other interventions that contribute to greater learning by the affected students.

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APPENDICES

APPENDIX A

QUALITY OF TEACHER WORK LIFE SURVEY (QTWLS)

APPENDIX A-1

SURVEY COVER LETTER

Dear Educator:

You are invited to contribute to important research aimed at shedding light on the factors that influence the quality of a teacher's work life. The literature on the topic indicates that all members of a school community are benefitted if the issues surrounding a teacher's work life are addressed appropriately. Your input is absolutely essential and voluntary to this area of research. Please take 15-20 minutes to complete the attached survey.

Confidentiality of survey participants and schools will be maintained. The coded number on the survey is standard procedure for follow up and will be used by your survey coordinator in order to obtain the minimum return rate. Multiple schools and districts are participating and data will be analyzed as one complete group. The results of the study, which will include combined data from 12 schools, will be shared with any interested participants upon request.

This research is part of a doctoral research program but its primary purpose is to shed light on the quality work life issues surrounding our Montana schools that have a predominant American Indian enrollment. This research has the full support of Superintendent Ivan Small who serves as the President of the National and Montana Indian Impacted Schools organizations (NIISA and IISM), and Everall Fox who is the Director of Indian Education at the Office of Public Instruction. Thank you for contributing your very valuable time in this effort.

Please fill out all sections and items on the survey or it cannot be used. The coded number on your survey is standard procedure for follow up by your survey coordinator in order to obtain the minimum return rate.

M. Neil Terhune
Superintendent (Harlem Public Schools)

APPENDIX A-2

QTWLS

Quality of Teacher Work Life Survey
Demographic Information

Instructions: Circle the answer that is most appropriate for you.

1. Age in years: _____ 20-30 _____ over 30 but less than 40 _____ 40 or more

2. Gender: _____ Female _____ Male

3. Are you enrolled in a federally recognized American Indian Tribe: ___ Yes ___ No

4. Total teaching experience (yrs): ___ 0-2 ___ 3-5 ___ 6-10 ___ over 10 less than 20 ___ more

5. Total experience in current school (yrs): ___ 0-2 ___ 3-5 ___ 6-10 ___ over 10 less than 20 ___ more

6. Highest Degree Completed: ____ BS/BA ____ MS/MA ____ Higher than an MS/MA

7. Current grade:

___	K-4 Self Contained	___	5-8 Self Contained
___	Grades 5-8 not self contained	___	Grades 5-12
___	Grades 9-12	___	Alt. School 9-12
___	Alternative School K-8	___	K-12 Teacher

8. Present subject (Circle more than one if applicable)

___	Elementary Self Contained	___	Title/ Coordinator
___	Math	___	Science
___	Language Arts	___	Social Studies
___	Reading	___	Fine Arts
___	Practical Arts	___	World Language
___	SPED	___	Other (ISS, Dean, Elective…)

9. Family Status: ___ No spouse ___ Spouse only ___ Spouse w/children

10. Proximity to city with a population of 10,000 or more:

___ 0-20 miles ___ Over 20 but less than 40 miles ___ 40 or more miles

11. Number of head principals worked for in current school: ___ 1-2 ___ 3-4 ___ more

12. Years teaching in schools of predominant American Indian enrollment:

___ 0-4 years ___ Over 4 but less than 8 years ___ 8 or more years

13. Years teaching in other high poverty communities (over 50% free and reduced lunch):

___ 0-4 years ___ Over 4 but less than 8 years ___ 8 or more years

14. How long have you lived in Montana?

___ 0-4 years ___ Over 4 but less than 8 years ___ 8 or more years

QUALITY OF TEACHER WORK LIFE SURVEY
(INSTRUCTIONS)

For this part of the survey, please write the appropriate number representing your present degree of satisfaction and the degree of stress you experience in each of the following job related areas. For example, you may be moderately dissatisfied with the, "daily time for preparation" and would place the number 2 in the space provided indicating "Moderately Dissatisfied". On the other hand, "daily time for preparation" may cause you to experience little or no stress so you would place a 5 in the space provided indicating, "No Stress".

How Satisfied:					How Stressed:				
1	2	3	4	5	1	2	3	4	5
Very Dissatisfied	Moderately Dissatisfied	Neither Satisfied Nor Dissatisfied	Moderately Satisfied	Very Satisfied	Extreme Stress	Much Stress	Moderate Stress	Mild Stress	No Stress

How Satisfied (1-5)	Job-Related Areas	How Stressed (1-5)
15. _____	Salaries	15._____
16. _____	Fringe Benefits	16._____
17. _____	Class Sizes	17._____
18. _____	Daily time to recuperate between work responsibilities	18._____
19. _____	Daily time for preparation	19._____
20. _____	Competence of administration	20._____
21. _____	Competence of Teachers	21._____
22. _____	Competence of staff	22._____
23. _____	Time spent in extracurricular activities	23._____
24. _____	Time spent in clerical and administrative work	24._____
25. _____	Student discipline	25._____
26. _____	Number of breaks in the teaching process (i.e., telephone calls, announcements, etc.)	26._____
27. _____	Number of breaks in the teaching process due to support personnel	27._____
28. _____	Students missing class due to extracurricular classes	28._____
29. _____	Job Security	29._____
30. _____	Availability of jobs within the educational profession	30._____
31. _____	Your ability to evaluate student performance	31._____

32. _____		Time spent individualizing programs for special needs children	32._____
33. _____		Work environment	33._____
34. _____		School equipment	34._____
35. _____		Education curriculum	35._____
36. _____		Faculty relations	36._____
37. _____		Present teaching assignment (e.g., subject area or grade level)	37._____
38. _____		Support from administration	38._____
39. _____		Support from parents	39._____
40. _____		Support from local community	40._____
41. _____		Opportunity for promotion and advancement.	41._____
42. _____		Amount of student motivation	42._____
43. _____		Amount of student interest student performance	43._____
44. _____		Teacher relationship with administrators	44._____
45. _____		Teacher relationship with parents	45._____
46. _____		Time required to adapt instruction to individual differences in ability, interest and needs.	46._____
47. _____		Formal evaluation of teaching performance	47._____
48. _____		Feedback or reinforcement other than pay	48._____
49. _____		Public perception of education	49._____
50. _____		Participation in decision-making affecting school policy	50._____
51. _____		New Federal and State Requirements generated by law (No Child Left Behind Act 2001, IDEA, MONTCAS, etc.)	51._____

APPENDIX B

MONTANA RESERVATIONS

APPENDIX B-1

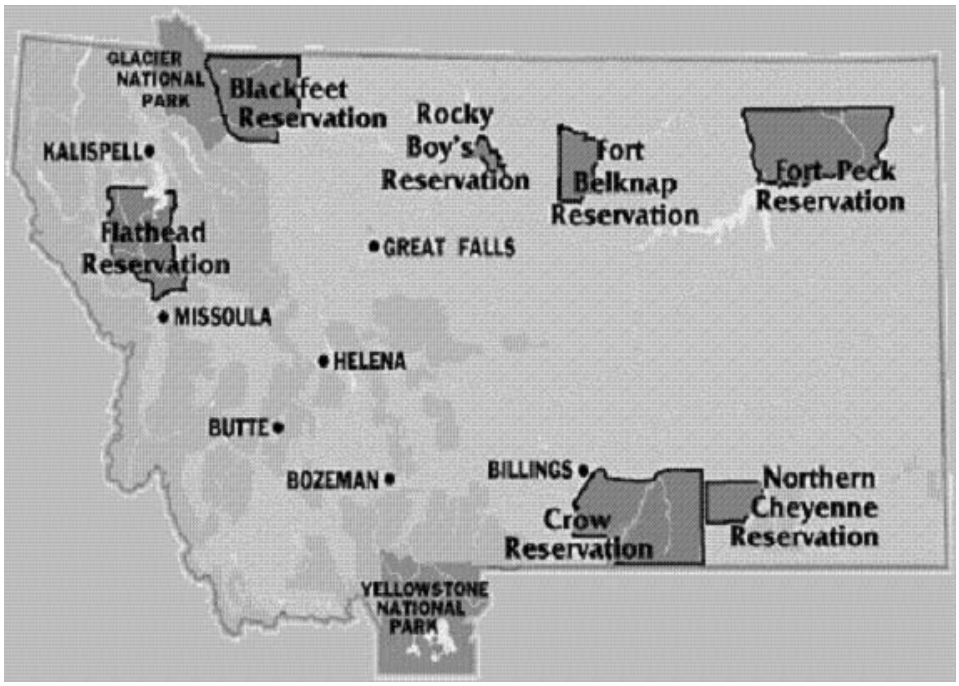
RESERVATION AND SCHOOL DATA

Reservation and School District Data

Reservation Location	Reservation Population	School District	District Enrollment
Blackfoot Indian Reservation Browning, Montana	8,507	Browning Public Schools	1,896
		Heart Butte Public Schools	198
Crow Indian Reservation Crow Agency, Mt.	5,165	Lodge Grass Public	439
		Pryor Public Schools	136
Ft. Belknap Indian Reservation Ft. Belknap, Mt.	2,790	Hays/Lodge Pole Public Schools	247
Northern Cheyenne Indian Reservation, Lame Deer, Mt.	4,029	Lame Deer Public	485
Ft. Peck Indian Reservation Poplar, Mt.	6,391	Brockton Public Schools	175
		Frazer Public Schools	118
		Poplar Public Schools	901
Rocky Boy Indian Reservation Rocky Boy, Mt.	2,578	Box Elder Public Schools	342
		Rocky Boy Public Schools	535
Total	29,460		5,472

APPENDIX B-2

LOCATIONS OF MONTANA'S INDIAN RESERVATION


GLACIER NATIONAL PARK
Blackfeet Reservation
Rocky Boy's Reservation
Fort Belknap Reservation
Fort Peck Reservation
KALISPELL
Flathead Reservation
GREAT FALLS
MISSOULA
HELENA
BUTTE
BOZEMAN
BILLINGS
Crow Reservation
Northern Cheyenne Reservation
YELLOWSTONE NATIONAL PARK

APPENDIX C

ORIGINAL QTWLS DATA

Table C-1

Factor Titles for the Satisfied and Stressed Scales of the OTWL with Regular Education Teachers

Factor	Satisfied	Stressed
I	Administrative-work environment	Administrative-work environment
II	Relationships with students and parents	Time
III	Interruptions	Local Support
IV	Time Allowances	
V	Work Environment	Student motivation and interest
VI	Internal Support	Teaching interruption
VII	Time devoted to specific activities	Internal teaching Support
VIII	Job perceptions	Job market
IX	Undefined	Job benefits
X	Undefined	Undefined
XI	Undefined	

Note. From "Factors contributing to Teacher Stress" by R.G. Harrington, J.A. Burry, and D. Pelsma, 1989. In Stressful Life Events (p. 693). T.W. Miller (Ed.)

Table C-2

Means, Standard Deviations, Reliability Coefficients, and Standard Errors of Measurement for the Satisfied and Stressed Scales of the Quality of Teacher Worklife Survey with Regular Education Teachers

Scale	X	SD	Cronbach Alpha Coefficients	SEM
Satisfied	116.91	16.25	0.87	5.86
Stressed	133.49	18.49	0.92	5.23

Note. From "Factors Contributing to Teacher Stress" by R.G. Harrington, J.A. Burry, and D. Pelsma, 1989. In Stressful Life Events (p. 683), T.W. Miller (Ed).

Table C-3

Factor Loadings, Percent of Variance and Cumulative Percent for stressed Scale of the Quality of Teacher Worklife Survey with Regular Education Teachers

Factor	Latent Roots	Percent of Variance	Cumulative Percent
I	9.63870	26.8	26.8
II	2.66383	7.4	34.2
III	1.75038	4.9	39.0
IV	1.75038	4.8	43.8
V	1.64072	4.6	48.4
VI	1.54190	4.3	52.7
VII	1.42664	4.0	56.6
VIII	1.30939	3.6	60.3
IX	1.09772	3.0	63.3
X	1.00166	2.8	66.1

From "Factors Contributing to Teacher Stress" by R.G. Harrington, J.A. Burry, and D. Pelsma, 1989. In Stressful Life Events (p. 685), T.W. Miller (Ed.).

Table C-4

Factor Loadings, Percent of Variance and Cumulative Percent for Satisfied Scale of the Quality of Teacher Worklife Survey with Regular Education Teachers

Factor	Latent Roots	Percent of Variance	Cumulative Percent
I	8.03693	22.3	22.3
II	3.02669	8.4	30.7
III	2.37805	6.6	37.3
IV	1.81344	5.0	42.4
V	1.68662	4.7	47.1
VI	1.42151	3.9	51.0
VII	1.27431	3.5	54.5
VIII	1.20071	3.3	57.9
IX	1.05911	2.9	60.8
X	1.03797	2.9	63.7
XI	1.00900	2.8	66.5

Note. From "Factors Contributing to Teacher Stress" by R.G. Harrington, J.A. Burry, and D. Pelsma, 1989. In Stressful Life Events (p. 689), T.W. Miller (Ed).

APPENDIX D

LETTER OF SOLICITATION

October 6, 2005

TO: Superintendent

FROM: M. Neil Terhune, Superintendent, Harlem Public Schools

SUBJECT: Quality of Teacher Work Life Survey (QTWLS) Research Survey

Per our previous phone conversation I am conducting research on the level of the quality of teacher work life in Montana schools that have a predominant American Indian student enrollment. The schools that comprise the target population are: Harlem Public Schools, Rocky Boy Public Schools, Browning Public Schools, Box Elder Public Schools, Lodge Grass Public Schools, Poplar Public Schools, Heart Butte Public Schools, Lame Deer Public Schools, Brockton Public Schools, Hays/Lodge Pole K-12 Schools, Pryor Public Schools, and Frazer Public Schools.

The intent is to examine the relationship of selected demographics (gender, race, age etc.) and job-related categories (students, salary, work environment etc.) to the overall quality work life score reported by the teachers of these schools. Individual names of survey recipients will remain confidential and this study will report overall not individual data for these schools. This study is part of a doctoral research program designed to provide the state and our schools *valuable information leading to a better understanding of factors that may influence our ability to maintain stable and effective teacher populations in our schools.* The results of this study will be a sent to all participant schools as a matter of courtesy.

Each school that participates should assign a survey coordinator. *Because of the supervisory relationship that exists, this coordinator should not be an administrator. It should be some other staff member who also has a history of effective collaboration with your teachers, even a fellow teacher.* It should be communicated to them that the study has potential to affect them personally and positively in the future but the survey is not compulsory. This coordinator will receive simple, non intrusive instructions on conducting and returning the survey. A stipend for this person is available in the amount of $50, $75, and $100 for Class C, B and AA schools respectively. A survey return rate of 39.3% is required to make the study valid. The survey takes approximately 15-20 minutes to complete and is enclosed.

This project has the approval and support of the Indian Ed Office at OPI (Everall Fox), the Director of the Indian Impacted Schools of Montana (IISM), Ivan Small; and the Montana State University's Institutional Review Board for Ed leadership. The superintendent or Board Chair should sign below indicating that the researcher has permission to proceed. Please provide the name and work number/email address of the survey coordinator. If you have questions please call me at 406-353-2289. Thank you.

The_____ agrees to participate in the
(Name of District)
QTWLS study. _____ Date_____
(Superintendent or Board Chair)

_____ Phone #/email_____
(District Survey Coordinator)

APPENDIX E

SUPPORT DOCUMENTS

APPENDIX E-1

EMAIL FROM INDIAN EDUCATION OFFICE

Neil,
I am happy to support your efforts in research in this area. This is a timely topic, as we have been discussing some of the factors that need to be addressed before a serious approach to addressing the achievement gap can be approached. Retaining qualified teachers at schools serving our Indian students. Getting at the factors that may help schools make a teachers experience better at these schools is a way we can seriously address these issues, instead of talking about them ad nauseam.

Addressing the achievement gap between Indians and non-students is coming back to the forefront here in Helena. Not only is it being discussed at the highest levels at OPI, but Quality Schools Interim Committee has taken up as part of need to fully fund schools in this state. Let me know if you need anything at all. It is important for our work continue collaboration with schools that serve Indian students. Since I am from Ft. Belknap, I have a special concern to help with Hays, Harlem and Dodson schools whenever they ask assistance. Thanks again, Neil!

---Original Message---
From: Neil Terhune [mailto:NeilT@harlem-hs.k12.mt.us]
Sent: Wednesday, September 07, 2005 4:34 PM
To: Fox, Everall
Subject: Survey

I left a voicemail for a call back today but thought I would em ail this to you. I would like to have your support of the attached survey to be administered to the eleven 100% LOT schools (including mine) sometime this fall. The cover letter pretty much explains what I am doing but if you have questions please call me at 353-I'm hoping with yours and Ivan's support I will get a better return rate. If is OK please let me know a reply to this email. Thanks, MNT

M. Neil Terhune
Supt.
Harlem Public Schools

Neil Terhune

APPENDIX E-2

EMAIL FROM PRESIDENT IVAN SMALL

From: Neil Terhune
Sent: Wednesday, September 21,200510:27AM
To: 'Ivan Small'
Subject: RE:Survey

Thanks. @MNT

From: Ivan Small [mailto:ismall@montanavision.net]
Sent: Wednesday, September 21, 2005 9:55 AM
To: Neil Terhune
Subject: RE: Survey

Neil, Looks good. This is info we all can use in recruitment and retention of educators... Have a upper day...lvan

From: Neil Terhune [mailto:NeiIT@harlem-hs.k12.mt.us]
Sent: Wednesday, September 07, 20054:28 PM
To: Ivan Small
Subject: Survey

See attached. If this is Ok just reply. I have phone call in to Everall but have not heard back from him yet. I expect him to be supportive also. Thanks, @MNT

APPENDIX F

SURVEY COORDINATOR INSTRUCTIONS

Dear Survey Coordinator:

Enclosed with this package you will find enough QTWLS (surveys) for each licensed teacher in your school district. They are coded by district and building. The district and building codes are a way for me to insure I have addressed all the districts and buildings. Please keep track of those who have filled out a survey so that you can follow up on those who have not. One way of doing this would be to maintain a teacher roster that you can check off as each teacher completes his or her survey. It is recommended that they be distributed at a staff meeting or some other like forum that will allow you 30 minutes. It will take approximately 10 minutes for you to explain the intent of the research, the importance of their contribution to it and the instructions. The survey itself is usually completed in 20 minutes. Ask the teachers to fill out the survey and turn it in to you. If someone wishes to complete theirs later, encourage them to complete it now, but don't insist. If you do not get at least one half on the first attempt please conduct a follow-up meeting identical to the first. If you are still short then, do individual follow-ups only with those who have not stated that they do not wish to fill one out. It is important that no teacher feels that this is compulsory. I need them back by October 31st, but the sooner the better. The cover page of the survey states that their input is essential but optional. It also reminds them to fill out the entire survey or it cannot be used. You need to scan each survey as it is turned in to insure that they are complete. Please emphasize that this research may lead to improvements in the quality of their work life.

I will call you about the planned instructions to further assist you. Call me if you wish at 406-353-2289 (Work) or 353-2777 (Home). If any teacher desires a copy of the research findings please send me the name and address on a roster. I *will send you a check after the surveys reach my office and thanks.* ☺ *MNT*

Script: (Please stay as close to the script as possible so as to create research consistency among the districts)

Pass out the surveys

Explain that you are serving as the district survey coordinator for an important study being conducted in Montana schools that have predominant American Indian enrollment.

Please take a moment to read the cover letter (teachers). Hold questions to the end.

Explain that Mr. Everall Fox is the Indian Education Director for OPI and reports directly to Linda McCulloch for Montana's Indian Education Issues; then read the first two paragraphs of his letter aloud (see attached). Explain that Ivan Small is from the Northern Cheyenne and Crow areas, feels similarly and has been the Superintendent at Poplar for 7 years and an administrator for Browning before that. He has advocated and lobbied for Indian Education and Impact Aid funding in Montana and Washington DC for most of his professional life. He is currently serving as the president of the National and State Impact Aid organizations (NIISA and IISM).

The first part of the survey covers each teacher's background and demographics. Please do not identify yourself you need only select an answer for each response by circling it.

For the second part of the survey, please write the appropriate number representing your present degree of satisfaction and the degree of stress you experience in each of the following job related areas. For example, you may be moderately dissatisfied with the, "daily time for preparation" and would place the number 2 in the space provided indicating "Moderately Dissatisfied". On the other hand, "daily time for preparation" may cause you to experience little or no stress so you would place a 5 in the space provided indicating, "No Stress". These numbers will be tallied and summarized by the researcher. *(Remind everyone that there are survey questions on the back of the last page.)*

When completed please leave it with me. It is critical that you fill out the entire survey and leave no area unanswered. It cannot be used if you do not. If you desire a copy of the overall results please sign the attached roster. They should be available early next summer. (*Answer questions that you are comfortable with but also feel free to give my work number, 353-2289).*

APPENDIX G

FACTOR LOADINGS FOR SATISFACTION AND STRESS SCALE OF THE QTWL

APPENDIX G-1

FACTOR LOADINGS FOR SATISFACTION SCALE OF THE QTWL

Table G-1
Factor Loadings for Items on the Satisfied Scale of the QTWL

Item No.	Factor I	II	III	IV	V	VI	VII	VIII	IX	Communality Estimates
I										
20	.84									.76
38	.82									.79
44	.78									.73
33	.58									.59
34	.47									.49
35	.39									.42
II										
48		.68								.72
50		.57								.62
47		.57								.59
49		.54								.65
41		.50								.54
III										
19			.81							.72
18			.79							.68
32			.52							.58
46			.49							.66
17			.38							.41

Table G-1 (cont.)
Factor Loadings for Items on the Satisfied Scale of the QTWL

Item No.	Factor I	II	III	IV	V	VI	VII	VIII	IX	Communality Estimates
IV										
43				.80						.75
42				.77						.71
45				.50						.57
V										
37					.68					.52
30					.61					.56
31					.59					.58
29					.55					.59
VI										
39						.80				.78
40						.77				.77
VII										
26							.70			.66
27							.69			.69
28							.63			.62
24							.38			.45

Table G-1 (cont.)
Factor Loadings for Items on the Satisfied Scale of the QTWL

Item No.	Factor I	II	III	IV	V	VI	VII	VIII	IX	Communality Estimates
VIII										
21								.87		.84
22								.84		.79
36								.47		.51
IX										
15									.76	.67
16									.75	.68
23									.50	.51

APPENDIX G-2

FACTOR LOADINGS FOR STRESS SCALE OF THE QTWL

Table G-2
Factor Loadings for Items on the Stressed Scale of the QTWL

Item No.	Factor I	II	III	IV	V	VI	VII	VIII	Communality Estimates
I									
48	.68								.73
41	.65								.60
47	.64								.63
50	.59								.67
49	.53								.61
30	.46								.54
29	.44								.54
II									
38		.77							.76
20		.75							.71
44		.73							.77
33		.59							.67
III									
37			.68						.55
31			.64						.55
32			.64						.57
46			.60						.63
19			.47						.61

Table G-2 (cont.)
Factor Loadings for Items on the Stressed Scale of the QTWL

Item No.	Factor I	II	III	IV	V	VI	VII	VIII	IX	Communality Estimates
IV										
27				.71						.64
26				.68						.60
24				.62						.50
28				.57						.51
V										
40					.76					.78
39					.73					.80
45					.46					.63
34					.46					.61
35					.43					.49
VI										
42						.82				.78
43						.82				.78
25						.42				.44
VII										
15							.75			.70
16							.73			.64
18							.52			.67

Table G-2 (cont.)

Factor Loadings for Items on the Stressed Scale of the QTWL

Item No.	Factor I	II	III	IV	V	VI	VII	VIII	IX	Communality Estimates
17							.48			.46
VIII										
21								.85		.80
22								.76		.75
36								.51		.54