

Measuring Work Conditions for Teachers of American Indian Students

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The purpose of this study was to re-validate the Quality of Teacher Work Life Survey (QTWLS) with a population of 404 teachers in Montana schools with predominant American Indian student enrollments; and to describe the job-related stress and satisfaction of those teachers. Factor analysis showed nine satisfaction and eight stress factors with this population compared to eleven satisfaction and 10 stress factors in Pelsma, Richard, and Harrington's (1989) original study with primarily Caucasian teachers and students. Knowledge of these results on the QTWLS could lead to interventions that contribute to an improved work life for teachers of American Indian students and increased learning among the students.

Keywords: *Teacher Retention, Quality of Work Life, Indian Education*



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 (Pelsma, Richard, and Harrington, 1989). Cunningham (1983), in a review 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 et al. (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. With this in mind, our current educational environment needs to address the issues associated with a teacher's quality of work life.

The quality of a teacher's work life has been studied extensively in the areas of teacher job satisfaction, teacher stress, teacher motivation, teacher burnout, school climate and school culture (Coates & Thoreson, 1976; Cunningham, 1983; Harrington et al., 1989; Kumarakulasingam, 2002). Yet, there were no studies found examining the relationship of the quality of the teacher's work life in schools on or near Indian reservations. The quality of a teacher's work life affects a number of factors related to student academic success. Some of these factors include recruiting, retention, student achievement, and teacher development (Darling-Hammond, 2003).

Maintaining highly qualified teachers in schools serving predominantly indigenous student populations is a significant problem. According to the data maintained by the Montana Office of Public Instruction (OPI), teacher turnover in the last four years for schools serving predominantly American Indian students has been 21.1% as compared to the state average of 10.5% (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, 2005). Over the years numerous local, regional, and statewide initiatives have been attempted to recruit, retain and develop high-performing teachers in these schools.

This study examined teacher perceptions of their work life to see if the original factor structure of the Quality of Teacher Work Life Survey (QTWLS; Pelsma et al., 1989) continues to hold for teachers of American Indian student populations of Montana schools. The QTWLS consists of 36 items that address two scales—job-related satisfaction and stress. Specifically: (1) Does the QTWLS factor structure replicate when used to assess teachers from Montana schools with predominant American Indian student enrollments? (2) What job-related satisfaction, job-related stress and potential Quality Teacher Work Life factors have the greatest influence on the total scores?

By better understanding, the specific factors that impact teachers serving American Indian students specific strategies can be developed to improve teacher work life quality. Increased teacher work satisfaction would improve retention and ultimately result in improved student achievement.

THE QTWLS

The development of the QTWLS addressed the impact of teacher job satisfaction and stress in our public schools (Harrington et al., 1989). Field-tested during its construction, several researchers used it successfully in the field since its inception (Konert, 1997; Kumarakulasingam, 2002; Mace, 1992). In each study, the instrument demonstrated both reliability and validity in measuring teacher stress and teacher job satisfaction.

The QTWLS consists of 36 items that are used to measure satisfaction and stress. Each statement is rated on two dimensions using Likert scales: satisfaction and stress experienced. The rationale for measuring both ratings involves the assumption that satisfaction and stress, though similar, are not the same thing.

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 (Chen & Miller, 1997). Farber (1991) suggested that the school restructuring movement may intensify a teacher's frustration. (1) School-based management increased pressure on teachers creating frustration if changes do not lead to clear educational benefits. (2) Accountability increased teacher stress by promoting covert competition. (3) The intense atmosphere and professional demands of schools-within-schools can exacerbate tensions, favoritism, and competition for scarce resources. Finally, (4) curriculum initiatives can generate stress when their implementation lacks appropriate staff development, mentoring, and peer coaching. 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 (Larchick, 1996).



More importantly, 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 (Naylor, 2001).

Intrinsic and extrinsic factors affected teacher job satisfaction. 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. The United States Department of Education, Office of Educational Research and Improvement (1997) conducted a national study of 40,728 elementary and secondary teachers and found workplace conditions were strongly associated with teacher job satisfaction. Teachers found salary and benefits to be important, but only weakly related to teacher job satisfaction. The factors that 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. Additionally, teachers identified administrative support, leadership, good student behavior, a positive school atmosphere, and teacher autonomy as factors associated with higher job satisfaction (Lumsden, 1998).

QUALITY OF WORK LIFE INFLUENCES ON RETENTION

Teacher satisfaction affected attrition. Hall (1987) revealed that 31% of respondents planned to quit teaching. This percentage did not include those who were planning on retiring. The reason most often 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 unions than other teachers. A study by Bobbitt, Broughman, and Gruber (1995) 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. 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 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 was noted in several studies on teacher turnover (Billingsley, 1993; Brownell & Smith, 1992).

A primary reason to be concerned about high rates of turnover among teachers was the relationship established between teacher turnover and student achievement (Esposito, 1999; Frieberg, 1998; Hoy & Hannum, 1997; Marzano, 2003). A study of over 2,500 4th and 8th graders in 44 states on the 1990-1996 National Assessment of Educational Progress suggested that turnover was not only disruptive and an imposition for administrators, but that it may affect student achievement (Grissmer, Flanagan, Kawata, & Williamson, 2000).

METHOD

This quantitative study focused on the validation of the QTWLS with teachers serving in schools with predominantly



American Indian populations. Researchers conducted multiple regression analyses using the satisfaction and stress scale items and factors as independent variables and their total scores as dependent variables. This analysis intended to yield the item or factors that have the greatest influence on teacher work life. The researchers analyzed correlation statistics found in the coefficients table in terms of the appropriate research questions.

PARTICIPANTS

The American Indian population comprises 11% of the total population in Montana (OPI, 2005). This study focused on Montana schools within K-12 school districts of at least 100 students that have at least a 70% American Indian student population. There were 574 full-time teachers selected from 11 school districts meeting this study's criteria. All of these schools are located in rural areas and have high poverty rates.

MEASURES

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 ($\pm .586$ and $\pm .523$, 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, Vandyke, & 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 10-factor solution for the stressed scale with the first three factors accounting for 39.0% of the variance.

PROCEDURES

Trained survey coordinators administered the QTWLS. 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 $\pm 5\%$. Researchers completed data entry manually into the Statistical Package for Social Sciences program. Each survey had 125 numbered entries. The researchers conducted a random check of 25% of the surveys each week to accomplish quality assurance.

RESULTS

The original studies resulted in an 11-factor solution for the satisfaction scale and a 10 factor solution for the stress scale when using Eigen values of 1.00. With this population, the factor structure resulted in a nine factor solution for the satisfaction scale and an eight factor solution with the stress scale using Eigen values of 1.00.

INDIVIDUAL SATISFACTION AND STRESS FACTORS

Satisfaction factor one. Researchers interpreted this satisfaction factor as Support from Administration (items 20, 33, 34, 35, 38, 44). The content of these items focused on teacher relations with



administration, work environment and allocation of resources.

Stress factor one. Researchers interpreted this stress factor as Professional Worth from External Sources (items 29, 30, 41, 47, 48, 49, 50). This factor supports the desire of teachers to feel respected for their contributions to the school and community. Content included inclusion in school decision making, formal evaluation, and intrinsic motivators.

Satisfaction factor two. Satisfaction factor two, Professional Worth to the Administration, (items 41, 47, 48, 49 and 50) was the second satisfaction factor to emerge. This factor supported the desire of teachers to be respected for their professional expertise and contributions. The content of this factor included opportunity for advancement and public recognition.

Stress factor two. Researchers interpreted factor two of the stress scale as Administrator Interaction (items 20, 33, 38 and 44). This factor loading represented teacher perceptions that curriculum and school equipment were not the major stressors when it comes to administrator interaction. The content of this factor included perceptions of administrator competence and working conditions such as school climate

Satisfaction factor three. The third satisfaction factor, interpreted as Time Constraints, (items 17, 18, 19, 32 and 46) was associated with the time required to adequately address student-learning needs. The content of this factor focused on allocation of daily preparation time and class size.

Stress factor three. Researchers interpreted the third stress factor as Time Constraints (items 19, 31, 32, 37 and 46). The content of this factor included the time spent to individualize instruction, inclusion of

special education students in classrooms, and ability to evaluate student progress.

Satisfaction factor four. The fourth satisfaction factor to emerge "Student Value of Learning" (items 42, 43 and 45) assessed teacher perceptions of student motivation, interest and relationships with parents. The content of this factor focused on teacher-parent relationships, student attentiveness and student disposition toward instruction.

Stress factor four. The fourth stress factor to emerge, Distractions to Learning, (items 24, 26, 27 and 28) assessed teacher perceptions of time spent in administrative and clerical work. The content of this factor included interruptions to the learning process such as student absence, interference of instruction due to extra-curricular events and the number of breaks in the learning process.

Satisfaction factor five. Researchers interpreted the fifth group of items to emerge as Threat to Work Life (items 29, 30, 31 and 37). The grouping of variables in this factor viewed teacher evaluations of student performance as influencing the security of their job. The content of this factor focused on teaching assignment and availability of jobs.

Stress factor five. Researchers interpreted the fifth group of items to emerge as a stress factor was interpreted as Community Support to the Teaching Process (items 34, 35, 39, 40 and 45). Teachers perceived community, parental support and parental relationships as being a part of and influencing curriculum and equipment. This seemed to manifest in the school community's desire to integrate American Indian culture into all aspects of the school curriculum. The content of this factor focused on the availability of equipment and public support of the curriculum.

Satisfaction factor six. Parent and Community Support emerged as



satisfaction factor six (items 39 and 40). The content of this factor reflected the parents' and community's disposition toward education and schooling.

Stress factor six. Student value of Education emerged as stress factor six (items 25, 42 and 43). This factor was similar to satisfaction factor four Student Value of Learning except that student discipline was grouped with this factor instead of parent relationships. Teachers seemed to perceive student discipline as being a stress issue attributed to students.

Satisfaction factor seven. Researchers interpreted satisfaction factor seven as Distractions to the Learning Environment (items 24, 26, 27 and 28). Teachers perceived that clerical responsibilities were a distraction and affected their job satisfaction. The content of this factor included the number of breaks in instruction due to announcements and time spent on non-instructional tasks.

Stress factor seven. Researchers interpreted stress factor seven as Rewards (items 15, 16, 17 and 18). The content of this factor included salary, employment benefits and daily time to recuperate.

Satisfaction factor eight. Satisfaction factor eight, Peer Relationships, was comprised of items related to competence and relationships with staff (items 21, 22 and 36). The content included perceptions of the competence of other teachers, their relationships with other teachers as well as staff members of the school.

Stress factor eight. Stress factor eight was the last stress factor and was comprised of items associated with Peer Relations (items 21, 22 and 36). The content focused on teacher and staff competence and relationship among all school employees.

Satisfaction factor nine. Researchers interpreted the item structure of satisfaction factor nine as External Rewards (items 15,

16 and 23). The content of this factor included the opportunity and time spent engaged in extra-curricular activities for which they received financial compensation.

TEACHER PERCEPTIONS OF THEIR JOB-RELATED SATISFACTION AND STRESS

QTWL scores result from doubling a five-point Likert scale, so scores could range from a low of two to a high of 10. In this study, the overall QTWL computed score was 6.51 with a score of 6.0 being neutral. None of the previous QTWL studies reported an overall score this low with their populations. The total overall Job-related Satisfaction score for this population was 6.18. The total overall Job-related Stress score was 6.84. These scores were evidence that job satisfaction was more of an issue than job stress. An examination of the factor and item scores revealed specific reasons for this.

There were nine factors (job-related categories) of teacher concern for satisfaction. Three satisfaction factors scored below six—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 assessed teacher perceptions of student motivation, interest and relationships with parents and teachers perceived this as being responsible for the most dissatisfaction experienced among these teachers. This factor scored the lowest (4.91) among teachers and indicated the teachers surveyed in this study perceived student motivation for learning as unsatisfactory and perceived parent-teacher relations as a factor in student motivation. External Support (4.94) emerged as a close second as the lowest factor score on the satisfaction scale. Professional Worth to the Administration was the third lowest factor



(5.86) to emerge. The Threat to Work Life satisfaction factor (7.52) was responsible for the most satisfaction experienced by these teachers. Teachers felt relatively secure in their jobs. They may not be happy with the overall quality of the work environment, but they felt job security.

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. The highest stress factor score was Distractions to the Learning Process (5.26) and was similar to satisfaction factor Student Value of Learning. Distractions to Learning (7.48) was responsible for the least amount of stress. This factor assessed perceptions of interruptions, breaks caused by support staff during class and students missing class due to extracurricular activities.

DISCUSSION

The literature suggested that addressing the quality of a teacher's work life in appropriate ways would 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, and Montana's schools with predominant American Indian enrollment are clearly in that category. Schools may continue to experience challenges in their efforts to increase student achievement unless someone adequately addresses the issues of stress, job satisfaction, and burnout.

This was the first use of the QTWLS using a population that has the unique characteristics associated with schools on or near Indian reservations in Montana. If strategies targeted at student achievement incorporate the quality of a teacher's work life then a useable instrument is critical. When using the QTWLS, the ten identified

factors that influence the teacher's work life at schools with predominantly Caucasian populations require modification for schools with predominantly American Indian populations. A valid instrument that accurately reflects the factors that affect the quality of a teacher's work life seems essential in measuring the status of teacher perceptions forming a foundation where school improvement efforts can succeed.

This study provided initial information on the satisfaction and stress factors that contribute to teacher work life in Montana schools that have predominant American Indian enrollments. It appeared that differences do exist for teachers in schools with predominantly American Indian students. Sensitizing pre-service teachers to such differences might contribute to forming this foundation. Along these same lines, a more concrete, shared understanding of these differences may facilitate efforts to improve the work environment for teachers working in schools with predominantly American Indian enrollments.

The teacher/parent relationship emerged as an important influence in the student's attitude toward learning and was a strong contributor towards teacher satisfaction. Since teachers who are not American Indian are a majority in schools with predominantly American Indian students, establishing positive parent/teacher relationships offer unique challenges to both sides. Teachers' frustration with lack of support from parents was a key factor. Teachers perceive students' attendance in class as being part of the stress induced by this factor. This reinforces previous studies that report teacher satisfaction increases (Anderman, 1991) and stress decreases when their building principal reinforces to parents and the community that classroom instruction is a priority by actively seeking



to reduce student absence and facilitating constant communication between teachers and parents.

Teacher's dissatisfaction may reflect their discontent with the execution of the collegiality process in the district. 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) required representative and collaborative leadership teams in all districts providing all stakeholders input to the school improvement process. For many of these schools this process is relatively new.

The findings of this research lent support to a need for additional factor analytic studies of the QTWLS with schools having predominant indigenous student populations. This population's factor structure is different enough from the original QTWLS to warrant a modified instrument. Research focused on the test-retest reliabilities with this population followed by research aimed at teachers of this population explaining the unique outcomes of the factor structure would be beneficial. Qualitative research and naturalistic inquiry could elicit additional information on the study of those factors produced by this study.

The major contribution of this study was the analysis of satisfaction and stress factors with comparisons between teachers serving in school with predominantly American Indian populations and schools serving predominantly Caucasian students. The results of this study may provide educators and communities with insights to enhance the teaching environment. Ultimately, such understandings may contribute to increased satisfaction and retention of teachers serving students in schools on or near Indian reservations.

REFERENCES

- Anderman, E. M. (1991). Teacher commitment and job satisfaction: The role of school culture and principal leadership. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL. Available: ERIC Document Reproduction Services No. ED 375 497.
- Billingsley, B. S. (1993). Teacher retention and attrition in special education: A critical review of literature. *The Journal of Special Education, 27*, 137-174.
- Brownell, M. T., & Smith, S. W. (1992). Attrition/retention of special education teachers: Critique of current research and recommendations for retention efforts. *Teacher Education and Special Education, 15*, 229-248.
- Bobbitt, S.A., Broughman, S. P., & Gruber, K.J. (1995). Schools and staffing in the United States: Selected data for public and private schools 1993-94. (ERIC Document Reproduction Service No ED 374 134) Washington D.C.: National Center for Educational Statistics.
- Chen, M., & Miller, G. (1997). Teacher stress: A review of the international literature (Eric document reproduction services ED 410187).
- Coates, T. J., & Thoreson, C. E. (1976). Teacher anxiety: A review with recommendations. *Review of Educational Research, 46*(2), 159-184.
- Cunningham, W. G. (1983). Teacher burnout-solutions for the 1980s: A review of the literature. *Urban Review, 15*(1), 37-51.
- Darling-Hammond, L. (2003). Keeping good teachers: Why it matters, what leaders can do. *Educational Leadership, 60*(8), 6-13.
- Esposito, C. (1999). Learning in urban blight: School climate and its effect on



- school performance of urban, minority, low-income children. *School Psychology Review*, 28(3), 365-377.
- Farber, B. A. (1991). *Crisis in education: Stress and burnout in the American teacher*. San Francisco, CA: Jossey-Bass.
- Ford, L., Van Dyke, D.T., & Thompson, B. (1991). The impact of teacher workload on time and administrative stress. Unpublished manuscript. University of Kansas, Lawrence, KS.
- Frieberg, J. H. (1998). Measuring school climate: Let me count the ways. *Educational Leadership*, 56, 22-26.
- Grissmer, D. W., Flanagan, A., Kawata, J., & Williamson, S. (2000). *Improving student achievement: What do state NAEP scores tell us?* RAND, 2000.
- Hall, B. (1987). Teachers at risk: A profile of the teacher predisposed to quit. *Florida Journal of Educational Research* 29(1), 55-72.
- Hoy, W. K., & Hannum, J. W. (1997). Middle school climate: An empirical assessment of organizational health and student achievement. *Educational Administration Quarterly*, 33(3), 290-311.
- Ingersoll, R., & Rossi (1995). Which types of schools have the highest teacher turnover? Issue Brief (NCES publication No. 95-778). Washington, D.C.: U.S. Department of Education, Office of Educational Research and Improvement.
- Konert, E. (1997). The relationship among middle school teacher burnout, stress, job satisfaction, and coping styles. Unpublished doctoral dissertation. Wayne State University, Detroit, Michigan.
- Kumarakulasingam, T. M. (2002). Relationships between classroom management, teacher stress, teacher burnout and teachers' levels of hope. Unpublished doctoral dissertation. University of Kansas. Lawrence.
- Larchick, R. F. (1996). A study of the effect of personal life-stressors on teacher performance. Unpublished dissertation. University of Oklahoma. Norman, OK.
- Lumsden, L. (1998). Teacher morale. Eugene, OH: ERIC Clearinghouse on Educational Management. Available: ERIC Document Reproduction Service No. ED 422 601.
- Mace, W.J. (1992). The relationship between stress and the classroom management styles of regular education and special education teachers. Unpublished doctoral dissertation. University of Kansas, Lawrence.
- Marzano, R. J. (2003). *What works in schools: Translating research into action*. Association for Supervision and Curriculum Development. Alexandria, VA.
- Montana Education Association (2005). MEA Contract Data Base. Helena, Montana.
- Montana Office of Public Instruction (2005). Statewide Educational Profile. Retrieved January 15, 2005, from <http://opi.mt.gov>.
- Naylor, C. (2001). Teacher workload and stress: An international perspective on human costs and systematic failure. *British Columbia Teacher's Federation Research Report*. Vancouver, Canada. (17 pages).
- No Child Left Behind Act (2001). Washington, D.C.: 107th Congress.
- Office of Educational Research and Improvement (1997). Job satisfaction among America's teachers: Effects of work place conditions, background characteristics and teacher



compensation. Washington, D.C.:
Department of Education.

Pelsma, D., Richard, G. V., & Harrington, R.
(1989). The Quality of Teacher Work
Life Survey: A measure of teacher stress
and job satisfaction. *Measurement and
Evaluation in Counseling and Development*,
21, 165-175.

