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**JOB SATISFACTION, LEADERSHIP STYLES, AND TEACHING PRACTICES
AMONG CNMI PUBLIC ELEMENTARY SCHOOL TEACHERS**

by

Charles J. Algaier

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

**Doctor of Education
University of San Diego**

June 20, 2003

Dissertation Committee

**Robert Infantino, Ed.D., Chair
William Piland, Ph.D., Co-Chair
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ABSTRACT

This study investigated whether teacher leadership styles and teaching practices influenced teacher job satisfaction among public elementary school teachers in the Commonwealth of the Northern Mariana Islands. The study answered the following questions: (1) what is the level of job satisfaction among public elementary school teachers in the CNMI; (2) to what extent do CNMI teachers fall into the personal leadership style categories of transactional or transformational; (3) to what extent do CNMI public school teachers prefer either didactic or constructivist teaching practices; (4) to what extent do demographic factors, preferred leadership styles, and preferred teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers; and (5) to what extent does the interaction between leadership style and teaching practice affect the degree of job satisfaction expressed by the CNMI public elementary school teachers.

This study used survey research and multiple regression to answer the questions. Teachers were moderately satisfied with their jobs. They preferred transformational leadership styles to transactional ones and didactic teaching practices to constructivist ones. The dependent variable job satisfaction, when regressed against the eight independent variables age, gender, years teaching, highest degree held, English as a mother tongue, leadership styles, teaching practices, and an interaction variable between leadership styles and teaching practices called agreement, was found to be significantly influenced by only gender and agreement. For gender, females were more satisfied than men, and

for agreement, teachers whose leadership styles and teaching practices were in dissonance were more satisfied than those whose styles and practices were in harmony.

DEDICATION

This work is dedicated to those whom I love the most: my wife Lek, my daughter Absinthe, and my son Nate. They suffered my absences and inspired me to succeed. Without them, I am a marginalized character roaming dark streets, half-man, half-beast, barely able to feed myself and in need of a bath. With them, I am the idealized personification of all that is good in the world, full of freshness and light, with nice hair, and perhaps even able to leap tall buildings in a single bound.

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TABLE OF CONTENTS

ABSTRACT OF THE DISSERTATION.....	iv
DEDICATION.....	vii
ACKNOWLEDGMENTS.....	viii
TABLE OF CONTENTS.....	x
LIST OF TABLES.....	xiii
LIST OF FIGURES.....	xv
CHAPTER ONE - THE PROBLEM.....	1
Introduction.....	1
Background of the Problem.....	2
Local Setting – The CNMI.....	5
Conceptual Framework.....	7
Statement of the Problem.....	12
Purpose of the Study.....	12
Statement of Research Questions.....	13
Statement of Null Hypotheses.....	14
Definition of Terms.....	15
Organization of the Study.....	18
CHAPTER TWO - REVIEW OF THE LITERATURE.....	19
Introduction.....	19
Teacher Job Satisfaction.....	19
Leadership Styles.....	26
Transactional Leadership.....	29

Transformational Leadership.....	30
Differences between Transactional and Transformational Leadership.....	32
Teaching Practices.....	36
Didactic Teaching.....	37
Constructivist Teaching.....	41
The Staying Power of Didactic Methodology.....	49
Summary.....	53
CHAPTER THREE - RESEARCH DESIGN AND METHODOLOGY.....	55
Introduction.....	55
Instrumentation.....	57
Teacher Leadership Styles.....	57
Teaching Practices.....	61
Job Satisfaction.....	65
Data Collection.....	67
Sampling Frame and Survey Timetable.....	68
Data Analysis.....	73
Reporting the Analysis.....	78
Limitations.....	78
Ethical Considerations.....	80
CHAPTER FOUR - RESULTS AND FINDINGS.....	82
Introduction.....	82

Sample Demographics.....	83
Analysis of Research Questions.....	87
Regression Models – Analysis of the Data.....	94
The Full Demographic Model.....	95
The Significant Demographic Model.....	97
The Leadership Styles/Teaching Practices Regression.....	99
The Null Hypotheses Addressed.....	105
Job Satisfaction Hygiene and Motivation Factors.....	107
Summary.....	110
CHAPTER FIVE - SUMMARY, CONCLUSIONS, AND	
RECOMMENDATIONS.....	113
Introduction.....	113
Overview of the Study.....	113
Findings of the Study.....	116
Analysis of the Findings.....	125
Conclusions - Factors Influenced by Gender and Culture.....	134
Recommendations for Future Practices.....	138
Recommendations for Future Research.....	143
REFERENCES.....	146
APPENDICES.....	162
Appendix A - Information for Respondents.....	162
Appendix B - Elementary School Teachers Survey.....	165
Appendix C - Teacher Job Satisfaction Questionnaire.....	173

LIST OF TABLES

TABLE	PAGE
1. Survey Distribution and Return Rate.....	72
2. Demographic Frequency Data - Age	84
3. Demographic Frequency Data - Gender	85
4. Demographic Frequency Data - Years Teaching	85
5. Demographic Frequency Data - Language	86
6. Demographic Frequency Data - Degree.....	86
7. Summary Descriptive Statistics – Mean Age and Years Teaching..	86
8. Teacher Job Satisfaction Scores by Range.....	89
9. Average Teacher Satisfaction Scores by Hygiene Factors and Motivation Factors.....	90
10. Leadership Styles Distribution Among CNMI Public Elementary School Teachers.....	91
11. Teaching Practices Distribution Among CNMI Public Elementary School Teachers.....	92
12. Leadership Styles – Teaching Practices One-Way Analysis of Variance.....	93
13. A Comparison of Leadership Styles and Teaching Practices.....	93
14. Model Summary for Full Demographic Regression.....	96
15. Satisfaction by All Demographic Variables	97
16. Model Summary for the Significant Demographic Regression.....	98
17. Satisfaction by Gender	99

CHAPTER ONE

THE PROBLEM

Introduction

The Commonwealth of the Northern Mariana Islands (CNMI) has been making great efforts to enhance the quality and effectiveness of its public educational system. One way of enhancing that effectiveness is to create teaching staffs that are satisfied (Goodlad, 1984). Schools staffed by teachers who are satisfied are perceived by stakeholders as having fewer serious problems than schools which are staffed by teachers who are less than satisfied (Goodlad, 1984). While the CNMI public school system provides content knowledge standards for its teachers, those teachers remain free to choose their preferred teacher leadership styles and classroom teaching methodology. No research has been done among CNMI teachers on how teacher leadership styles and teaching practices may affect teacher job satisfaction. This study therefore investigated teacher leadership styles, preferred teaching practices, and job satisfaction among public elementary school teachers in the CNMI and examined the extent to which leadership styles and teaching practices affect teacher job satisfaction.

The rationale that follows presents a case for this study. Set in the context of educational reform in the 21st century, the dissertation discusses current

efforts to enhance school effectiveness, considers national needs for the employment of satisfied teachers, and examines those same needs as they exist in the Commonwealth of the Northern Mariana Islands. The study then examines current thinking about effective schools, discusses the role of teacher leadership, teaching practices, and internal and external motivators in recruiting teachers and establishing teacher job satisfaction, and considers the relationship between school vision and stakeholder perception of school reality. The dissertation then examines the research questions and the essential elements of those questions in a review of literature that is organized around the content themes of teacher job satisfaction, teacher leadership styles, and teaching practices.

Background of the Problem

President William Jefferson Clinton, the 42nd President of the United States, may not go down in history for it, but his presidency made the largest investment in education in 30 years (White House, 2000). He oversaw more educational reform bills passed through Congress in his first two years of office than in the previous two decades (Carnegie, 1999). In his February 17, 1993, address to the joint session of congress, Clinton announced his desire to “push education reform.” He also declared that the US needed to give teachers “the resources they need to meet high standards” and to “use the authority and the influence and funding of the Education Department to promote strategies that really work to increase learning in our schools” (Clinton, 1994, p. 9).

In 1996, Clinton saw Congress pass the Goals 2000 Educate America Act (Goals 2000 Amended, Omnibus 1996 Education Appropriation Bill (P.L. 104-

134)), part of a reform process that focuses on innovation, flexibility, and accountability. Clinton's promise of expanded funding for reform and expectations for greater accountability were further evidenced with the passage of the Title II Act. In redrafting the Higher Education Act of 1965, the Senate Committee on Labor and Human Resources expanded upon many of the teacher education provisions of the Title V into a new Title II called "Improving Teacher Quality." As stated in the 1998 Amendments to Higher Education Act of 1965 (P.L. 105-244), the purposes of the title are to "(1) improve student achievement; (2) improve the quality of the current and future teaching force by improving the preparation of prospective teachers and enhancing professional development activities; (3) hold institutions of higher education accountable for preparing teachers who have the necessary teaching skills and are highly competent in the academic content areas in which the teachers plan to teach, such as mathematics, science,...; and (4) recruit highly qualified individuals, including individuals from other occupations, into the teaching force" (p.1).

Clinton's efforts to push for reform led the nation into what can be considered a third wave of education reform that began in the early 1980s. Previous efforts focused on intensifying student academic requirements, enhancing the structure of the teaching occupation, and reorganizing and restructuring schools and districts. This current wave of policy focuses on improving the quality of teaching. Policy makers believe quality would be improved if standards could be raised and accountability required at the content preparation stage, at the teacher training stage, at the teacher licensure stage, at

the professional development stage, and during the early years of professional in-service employment (Carnegie, 1999). Then, when they know what they are doing, good teachers must stay in the profession to maximize their value. To improve the state of education, knowledgeable and capable teachers must be trained, nurtured, retained, kept satisfied, and allowed to build the schools in the images of model communities (Sergiovanni, 1996).

To get teachers into the classrooms and keep them satisfied while they are there, reform efforts have focused on extrinsic motivators: states have been increasing the salary and benefit packages that teachers are offered or receive. In 1999-2000, the average beginning teacher salary in the USA was \$27,989, a 4.6 percent increase from the 1998-99 salary of \$26,855, as measured in constant 2000 dollars (Nelson, Drown, & Gould, 2001). This contrasts with the 1970s, when in the ten years from 1973 to 1983, average teacher salaries dropped more than 10 percent in constant dollars (Ballou & Podgursky, 1997). This decline coincided with a drop in academic ability of teachers entering the profession (Ballou & Podgursky, 1997). However, in a later ten year period, between 1979 and 1989, and as measured in constant dollars, salaries for new teachers rose 13 percent, and by 1991 the ratio of teachers' starting salaries to those of other graduates had reached .86 (Ballou & Podgursky, 1997). Figures given by Nelson, Drown, and Gould reflect, agree with, and emphasize these trends: in 2000 dollars, beginning teacher salaries fell from \$28,536 in 1972 to \$21,457 in 1982, a 25 percent decline, but, as mentioned above, salaries have

since risen to \$27,989 in 2000, a 24 percent gain (Nelson, Drown, & Gould, 2001).

Local Setting – The CNMI

The Commonwealth of the Northern Mariana Islands shares in the national need for effective schools and satisfied teachers. The CNMI forms a chain of 17 volcanic islands in the western Pacific Ocean. The indigenous Chamorro and Carolinian people and many children of non-immigrant workers are U.S. citizens, and the islands are permanently a part of the United States. Most of the population of 71,790 live on the island of Saipan (CNMI Department of Commerce, 1999). At the start of the 2001-2002 school year, there were 12 public elementary schools and three junior and senior high schools on the three most populated islands of Saipan, Rota, and Tinian with a total of 9,902 students and 512 teachers (CNMI Public School System, 2001a). The public school system has been modeled after the U.S. educational system since the end of World War II.

The population of the CNMI is extremely diverse. The children are linguistically and culturally minority by U.S. standards, yet as native or having immigrated to the islands, they make up the local public school population. Ninety-nine percent are children of speakers of languages other than English as a first language. The indigenous Chamorro and Carolinian people are now in the minority of the total island population. However, Chamorro children comprise 40 percent of the school population, Carolinian 6.5 percent, and mixed Chamorro or Carolinian, 22 percent. The remaining 31.5 percent include children from other

Micronesian or Pacific islands (11 percent), the Philippines (15 percent), Korea, China, and Japan (2 percent), the United States mainland (fewer than 1 percent), and others (2.5 percent) (CNMI Public School System, 2001a). Besides English, languages spoken in the schools include Carolinian, Chamorro, Chuukese, Ilocano, Japanese, Korean, Kosraean, Mandarin, Marshallese, Palauan, Pohnpeian, Tagalog, Thai, Visayan, and Yapese.

Along with the diversity, there is poverty. Minimum wage in the CNMI, which sports a cost-of-living approximately 30 percent higher than the US mainland, is \$3.05 an hour. In the public school system, 82 percent of all students are eligible for the federal school lunch program (W. Matson, personal communication, March 10, 2000).

The CNMI Public School System is striving to raise standards and nationally normed test scores. The 2001 Stanford Achievement Test (version 9) indicates the need for such an effort. The SAT9 reported 4th, 8th, and 10th grade scores that ranked at the 30th percentile or lower (U.S. norm levels). The fourth grade composite score was in the 25th percentile. Reading scores were in the 19th percentile, math in the 24th, science in the 30th, and study skills in the 23rd. The eighth grade composite score was in the 24th percentile, reading in the 19th, math in the 25th, science in the 25th, and study skills in the 22nd. The tenth grade composite score was in the 25 percentile, reading in the 19th, math in the 23rd, science in the 28th, and study skills in the 20th (CNMI Public School System, 2001b).

Conceptual Framework

The conceptual framework for this study emerged from three areas: teacher job satisfaction, teacher leadership styles, and teaching practices. Teacher job satisfaction was the ultimate concern of this study. Teacher job satisfaction is here defined as the level at which the occupation of teaching meets the professional desires, needs, and demands of individuals who engage in that occupation. Determining the factors that lead to such satisfaction is a complicated matter; among factors that have previously been found to have varying levels of impact on teacher job satisfaction are mentoring program effectiveness, perceived community support, and teacher empowerment (Bemis, 1999; Taylor, 1997; Kearney, 1997; Donndelinger, 1997; Maddox, 1997). This study considered teacher job satisfaction through a relationship framework of teacher leadership styles, preferred teaching practices, and several demographic factors.

The role of teacher leadership has gained prominence in recent years (Sergiovanni, 1996; Lambert, 1998; Leiber mann & Miller, 2000) and will be examined both in terms of general leadership and specifically as classroom leadership. In the past, school leadership was generally thought to be the domain of principals or other school administrators (Sergiovanni, 1996). Today, however, serving as a leader for students, classes, and schools is considered a necessary part of being a teacher (Lambert, 1998). Teachers have moved from following executive orders to participating in the core decision-making process when schools are considering changes in curriculum, instruction, and

methodology (Leibermann & Miller, 2000). Teachers have moved from having exclusive concerns for individual classrooms to having general concerns for the school as a whole (Leiberman & Miller, 2000). Teacher leadership, then, is examined within the transactional – transformational leadership framework previously established for leadership studies in areas of business, management, and administration (Hersey, Blanchard, & Johnson, 1996; Bass, 1985) and expanded into the realm of education and the classroom (Lambert, 1998).

The dichotomy between didactic and constructivist instruction provides a context for the examination of teaching practices. Supporters of didactic or direct instruction base their instructional choices, when consciously made, on the premise that knowledge is often pre-constructed, that teachers are the bearers of that knowledge in an asymmetrical relationship with students, and that a conservatism is inherent in education due to the need to transmit core cultural concepts and understandings across generations (Arendt, 1954).

Direct Instruction, a quintessential didactic approach devised by Siegfried Englemann in the early 1960's, is defined by the researcher James Baumann in an on-line Washington Times newspaper article by Coombs as a method in which “the teacher, in a face to face, reasonably formal manner, tells, shows, models, demonstrates and teaches the skill to be learned. The key word is the teacher, for it is the teacher who is in command” (Coombs, 1998, p. 3).

Supporters of constructivism, on the other hand, believe that knowledge is actively acquired, understanding is socially constructed, and meaning is created and recreated by the learner (Perkins, 1999). The theory of constructivism “is

based on the idea that people learn better by actively constructing knowledge and by reconciling new information with previous knowledge" (Smerdon, Burkam, & Lee, 1999, p. 8). Students in a constructivist classroom are expected to form hypotheses, explore ways to test them, evaluate the information gained from these tests according to what they've know from previous experience and understanding of the topic, and then construct a deeper understanding of the topic.

In an interview by Scherer, Howard Gardner presents a clear view of the differences between didactic and constructivist classrooms (Scherer, 1999). In the didactic class, the answers are known, and the students try to shape their answers until they resemble a prototype held by the teacher or defined in a text. In a constructivist class, students create theories for themselves and try out ideas to either accept or reject the models or suppositions they construct. The didactic approach to education calls for a singular methodology to deliver knowledge; a constructivist approach demands a variety of methodologies to allow divergent learners opportunities to access the information they need (Scherer, 1999). In Scherer's article, Gardner describes seven different ways in which people can approach subject matter - what he calls the "multiple intelligences" - and notes that "when over time, one uses several of these entry points, one reaches more youngsters and one also conveys what it means to be an expert - someone who can represent a topic in diverse ways" (p. 14). Constructivist teaching practices should be recognizable, therefore, by the variety of methodology employed in a classroom.

The relationship of teacher job satisfaction with extrinsic and intrinsic motivators is also explored. Goodlad (1989) found that teachers entered the profession not for money but rather for the intrinsic satisfaction of working with children. However, though having a positive impact on student learning and growth appears to be the primary motivator for teachers, salaries clearly play an important role in recruiting and keeping good teachers. Research shows that teacher behavior is strongly linked with salary levels, including the decision to enter the profession, to stay in one school district rather than moving to another higher paying district, and the decision to stay in or leave the teaching profession itself (Odden & Kelley, 1997). In fact, teachers leaving the profession reported low pay as the second most important reason for leaving, trailing only the lack of efficacy (Odden & Kelley, 1997).

Kohn (1993) cites multiple studies to suggest that external rewards such as salaries, benefits, or incentives provide weaker motivation for workers than such intrinsic attributes as the content of tasks, the collaboration that defines the context of work, and the amount of autonomy workers have to make choices on the job. Kohn's findings concur with research conducted by Stevenson (1986) on the perceptions of high-performing teachers on the balance between efforts invested in, and the rewards in and missing from, teaching. Stevenson found that though high-performing elementary school teachers perceived such rewards as salary, status, respect from society, adequate recognition, and advancement as less than their efforts, they continued to give their best efforts to the profession. Rewards cited to keep the teachers performing include student

learning and relationships, peer interactions, challenge, fun, autonomy, and a sense of effectiveness.

Having an abundance of satisfied teachers is an integral part of a high performing school (Goodlad, 1984), but that satisfaction may be independent from the way schools are designed to operate (Holt, 1964; Goodlad, 1984; Carnoy & Levin, 1985). Those variations can be found in the way educators define school. According to Holt (1964), “schools should be places where children learn what they most want to know, instead of what we think they ought to know” (p.175). Carnoy and Levin (1985), however, see schools as being “functional institutions that satisfy the needs of adult society” by contributing to “the making of competent adults” (p. 20). The definitions of Holt and Carnoy and Levin exemplify the differences between the ways schools are organized. Holt’s perfect school is a place where children learn, while Carnoy and Levin’s ideal school is a locus for instruction where children are turned into adults.

Whence effectiveness, then? The observation of over 1,000 classrooms led Goodlad (1984) to contend that school quality had little to do with teaching practices. Rather, quality had everything to do with what Goeller (1992) called “shared perceptions of the school” (p. 153). A “common focus” and “clear, commonly defined goals” were seen by Schmoker and Marzano (1999) to be the contingent need for clarified understanding, collective purpose, and the success of any educational organization (p. 17). Ravitch (1984) found that high congruence between school mission statements and students’ and parents’ perception of the school mission equated a shared school climate conducive to

student learning. Goodlad (1984) supported this concept of congruence, noting that parents and teachers were generally satisfied with school performance when preferred goals and actual goals were in sync.

Statement of the Problem

Students, parents, teachers, school administrators, and public officials in the Commonwealth of the Northern Mariana Islands (CNMI) would like to see their public elementary schools become more effective places of learning. As Goodlad (1984) indicated, school effectiveness demands a need for congruence between school mission and school stakeholders. Research by Bryan (1997) suggests that conflicts between teaching beliefs and teaching practices lead to tensions in preservice teachers. No research has been published on teacher satisfaction, teacher leadership beliefs, or preferred teaching practices among public elementary school teachers in the CNMI. Nevertheless, public school authorities regularly adopt and mandate specific teaching practices and methodologies that may conflict with a teacher's personal leadership style or preferred method of teaching (Alejandro, 2000).

Purpose of the Study

The purpose of the study was to investigate the relationships, if any, among teacher job satisfaction, teacher leadership styles, and teaching practices in the Commonwealth's public elementary schools and to examine to what extent leadership styles and teaching practices affect teacher job satisfaction. This researcher sees a relationship between teaching practices and leadership styles; thus, he sought to examine the related questions: does a complementary

relationship between teacher leadership styles and teaching practices lead to increased job satisfaction among CNMI elementary school teachers; and conversely, does conflict between teacher leadership styles and teaching practices lead to tensions, and accompanying dissatisfaction with their jobs, among those same elementary school teachers. It was hoped that the research conducted would be of value to practitioners and policymakers alike.

Statement of Research Questions

The following five research questions were crafted both to guide the research and to ensure that the methodology was consistent with the study:

1. What is the level of job satisfaction among public elementary school teachers in the CNMI?
2. To what extent do CNMI public elementary school teachers fall into the personal leadership style categories of transactional or transformational?
3. To what extent do CNMI public elementary school teachers prefer either didactic or constructivist teaching practices?
4. To what extent do demographic factors, preferred leadership styles, and preferred teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?
5. To what extent does the interaction between leadership styles and teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?

These questions elicited a base of knowledge that the researcher analyzed to determine the level of teacher job satisfaction among elementary

school teachers on the island of Saipan. The researcher placed teachers on a transactional - transformational leadership continuum and defined them as being either transactional or transformational. He also placed those same teachers on a didactic - constructivist teaching practices continuum and defined them as being either didactic or constructivist. Finally, he examined the relationship among demographic factors, leadership styles, and teaching practices to determine the influence such relationships, if any, may have on job satisfaction. For a graphic illustration of the relationships that were examined, see Figure 1 below.

Statement of Null Hypotheses

The following null hypotheses all emerged from research questions four and five and all utilized the .05 level of confidence:

Null Hypothesis 1: No significant difference exists among CNMI elementary school teachers between teacher satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teacher leadership scores on the Elementary School Teachers Survey.

Null Hypothesis 2: No significant difference exists among CNMI elementary school teachers between teacher satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teaching practices scores on the Elementary School Teachers Survey.

Null Hypothesis 3: No significant difference exists among CNMI elementary school teachers between teacher leadership scores and the teaching practices scores on the on the Elementary School Teachers Survey.

Null Hypothesis 4: No significant difference exists among CNMI elementary school teachers between teacher satisfaction scores on the Teacher Job Satisfaction Questionnaire and teacher age, gender, years of experience, degree level, and native English speaking ability.

Null Hypothesis 5: No significant difference exists among CNMI elementary school teachers between teacher satisfaction scores on the Teacher Job Satisfaction Questionnaire and any interaction between the teacher leadership scores and the teaching practices scores on the Elementary School Teachers Survey.

Definition of Terms

Leadership, as defined by Rost (1991), “is an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes” (p.102). In this definition, the relationship is based on influence: the influence relationship is multidirectional and the influence behaviors are noncoercive; the relationship is between people: the followers are active, but the relationship is inherently unequal; the leaders and followers purposefully desire multiple substantive changes; and common purposes, not goals, are forged in the noncoercive influence relationship (Rost, 1991).

For the purpose of this study, leadership style referred to concepts of transactional and transformational leadership developed by Bass (1981, 1985, 1986) and Bass and Avolio (1990, 1995). As defined in the Multifactor Leadership Questionnaire Leaders Form (Bass and Avolio, 1995), transactional leadership is made up of three subcategories: contingent transactions,

management-by-exception (active), and management-by-exception (passive). Transformational leadership is composed of subcategories idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration. Further discussion of leadership style and the categories and subcategories that make it up can be found in Chapter Three.

Teacher practices in this study were defined as ranging from didactic to constructivist and are broken down into six subcategories: communication, management, presentation/activities, assessment, participation, and reward systems. The list was developed by this researcher and based upon the work of Engelmann and Carnine (1982), Brooks and Brooks (1999), Perkins (1999), Krynock and Robb (1999), and Kohn (1993). Further discussion regarding didactic and constructivist teaching practices and their related subcategories can be found in Chapter Three.

Teacher job satisfaction was defined using subcategories established by Herzberg as motivational and hygiene factors. These motivational subcategories are advancement, responsibility, work itself, and recognition; the hygiene factors are supervision, working conditions, pay, colleagues, and security (Herzberg, Mauser, & Snyderman, 1959). Further discussion of these subcategories is found in Chapter Three.

Finally, for the purpose of this study, the researcher used teachers from the island of Saipan to represent all teachers in the Commonwealth of the Northern Mariana Islands (CNMI). As discussed in Chapter Three, Saipan-based teachers make up 87 percent of all teachers in the CNMI.

Figure 1. The relationship among leadership styles, teaching practices, and demographic factors for CNMI Public Elementary School Teachers.

Organization of the Study

The research conducted is presented in the following four chapters.

Chapter Two presents a review of literature, which examines teacher job satisfaction, leadership styles, specifically transactional and transformational leadership styles, and teaching practices, specifically didactic and constructivist teaching practices.

Chapter Three presents the research design and methodology for the study. It examines the survey instruments, reports the sampling frame and survey timetable, discusses the methods used to collect and analyze the data and to report the analysis, and discusses the limitations of and ethical considerations given to the research.

Chapter Four provides the results and findings of the research. It reports on the sample demographics, analyzes the gathered data using ordinal least squares multiple regressions, and addresses the research hypotheses.

Chapter Five concludes the study by summarizing and further analyzing the findings, by drawing conclusions based on the data and the analysis, by offering recommendations for both future practices by policy makers and scholars, and by offering suggestions for future research. Chapter Five is followed by the references used in the research and by appendices to the study, which include information the researcher gave to participants and copies of the surveys used in the study.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

The purpose of the study was to investigate the relationships, if any, among teacher job satisfaction, teacher leadership styles, and teaching practices in the Commonwealth's public elementary schools and to examine to what extent leadership styles and teaching practices affect teacher job satisfaction. Five research questions, found in Chapter One, were developed to guide this investigation. To lay a framework for investigating the research questions, the literature review concentrates on three areas: teacher job satisfaction, transactional and transformational leadership styles, and constructivist and didactic teaching practices.

Teacher Job Satisfaction

Teacher job satisfaction has been investigated from a variety of approaches and through a variety of views over the years. Satisfaction with teaching emerges from the interaction among multiple dynamic factors: workplace, occupational, professional, and personal (Yee, 1988). Researchers such as Lester (1984) and Slavitt, Stamps, Piedmont, and Haase (1986) contributed to the field of teacher job satisfaction by developing research instruments that seek to measure the interplay among such dynamic factors.

Though no studies on the specific questions addressed by this research were found during an investigation into the literature of satisfaction, investigations by Daly (1980), Stevenson (1986), Bennett (1990), Goeller (1992), Felton (1995), and Deutsch (1996) looked at related areas of teacher satisfaction. Other studies focused primarily on the differing effects of intrinsic motivators and extrinsic motivators on satisfaction. The bulk of the studies examined agreed that the intrinsic motivation provided by working with students kept teachers satisfied (Taylor, 1997; Maddox, 1997; Ruben, 1993; Maxwell, 1992; Ralston, 1990; Saretsky, 1988; House, 1988; Radecki, 1987). Other studies (Nnadozie, 1993; Wells, 1993; Munoz, 1987) found that such extrinsic factors as empowerment, recognition, or salary affected teacher satisfaction or dissatisfaction. Finally, studies (Donndelinger, 1997; Kearney, 1997; Morgan, 1994; Stelmachowicz, 1991; Anschutz, 1987; Crawford, 1986) found factors of social, environmental, or existential comfort to affect satisfaction.

While not studying teacher job satisfaction directly, Lester (1984) contributed to the field when she developed her own Teacher Job Satisfaction Questionnaire (TSJQ). Based on the work of Maslow and Herzberg, the 77-item TJSQ has been translated into Spanish, French, Arabic, and Mandarin and elicits the satisfaction factors of supervision, colleagues, working conditions, pay, responsibility, work itself, advancement, security, recognition.

A related Job Satisfaction Questionnaire developed by Slavitt, Stamps, Piedmont, and Haase (1986) has been used by several of the above named investigators to measure job satisfaction levels of teachers. A major portion of

that instrument is a 44-item questionnaire that elicits the degree of job satisfaction with the factors of pay, autonomy, task requirements, organizational policies, interaction, and professional status.

Felton used the Slavitt, Stamps, Piedmont, and Haase's (1986) survey in conjunction with Bass and Avolio's (1990) Multifactor Leadership Questionnaire (MLQ) to investigate principal leadership styles and teacher job satisfaction. He found that principals exhibiting transformational styles had positive effects on teacher satisfaction with autonomy, task requirements, organizational policies, and interaction for both elementary and secondary school teachers. In addition, secondary school teachers felt their professional status was higher when working with transformational principals.

Daly (1980) used Likert-based survey data collected from 1,064 teachers, 6,900 parents, and 13,719 students in a stratified sample of 25 United States secondary schools to conduct a study on organizational effectiveness. Among his results, he found teacher satisfaction is affected primarily by objective feedback or individual perception of the prevailing performance level of the school and possibly also by the perceived ability of the principal to provide rewards for high quality teaching performance.

Stevenson (1986), in her investigation into the rewards in teaching for high-performing elementary school teachers, found teachers receiving more satisfaction from intrinsic factors (challenge, fun, autonomy, sense of effectiveness, and peer interactions) than from extrinsic factors (salary, status, recognition, respect from society, and advancement). Bennett (1990) found that

teachers were generally satisfied in their current situations but that they craved more influence in planning overall curriculum and instruction.

The intrinsic joy of watching students grow was the dominant factor in keeping teachers satisfied, while dissatisfaction was driven by lack of administrative support, low salary, or lack of professional esteem (Taylor, 1997). Taylor conducted structured interviews with groups of teachers who have either left or stayed long in the profession; his findings agreed that reasons for leaving were more related to the conditions of the work than the nature of the work. Maddox (1997) agreed. Examining such factors as induction and orientation, environmental support, physical attributes, organizational climate, and teacher empowerment, she found the primary causes of teacher dissatisfaction to be the absence of teacher empowerment, the lack of administrative, community, parental, and student support, a sense of alienation, feelings of entrapment, and burnout.

Ruben (1993) conducted a quantitative/qualitative study of job satisfaction with 200 tenured teachers from Virginia Beach, Virginia. Using the Lester's (1984) Teacher Job Satisfaction Questionnaire (TJSQ) with all, and conducting follow-up interviews with 80, Ruben found that the primary intrinsic satisfier was student success and that satisfying extrinsic conditions were working conditions, principal support, and coworker support. Intrinsic dissatisfiers included lack of teacher achievement, lack of recognition, and lack of student success, while extrinsic dissatisfiers included poor working conditions and unpleasant student relationships. Ruben also found the most satisfied teachers were female, in the

racial minority, and teaching at the elementary level. They were also older than, more experienced than, and about as equally educated as the least satisfied ones. Additionally, the least satisfied were teachers most concerned with the extrinsic factors of the job.

In a study measuring the features of schools most associated with teacher retention, Maxwell (1992) found teacher sense of efficacy – a feeling of value and satisfaction with student success – to make the strongest contribution to the propensity to remain in teaching. Ralston's 1990 study of California mentor teachers, however, suggested that while student success was a factor, the greatest source of satisfaction for mentor teachers was opportunity for professional growth and the greatest motivator for teachers to become mentors was increased salary. The greatest source of dissatisfaction with teaching for mentors was administrative or district policies that directed the mentor teaching programs.

House's investigation of the perceptions of another group of high profile teachers reflected similar results to others cited. Analyzing data from the 73.5 percent of the 347,255 Teachers of the Year from 1981 to 1987 who responded to her survey, House (1998) found that an overwhelming number of Teachers of the Year were satisfied with their careers and that the intrinsic rewards of working with students provided Teachers of the Year with their greatest source of satisfaction. The exemplary teachers were most dissatisfied with salaries, lack of career mobility within teaching, unprofessional working conditions, and a lack of empowerment on the job. Catholic high school teachers in San Francisco

showed similar responses to the findings from the Teachers of the Year study (Radecki, 1987). Student-related factors were the primary determinants of satisfaction, while teacher status and advancement opportunities led the factors perceived as negative. Saretsky (1988) found the same: New York City teachers in low achieving secondary schools reported that the intrinsic satisfaction gained from working with young people outweighed such extrinsic factors of fringe benefits, job security, and starting salary and that the factors that drove teachers out of the profession included the working environment and personnel processing concerns.

Researchers did not always cite student-related factors as the dominant elements in teacher satisfaction studies. Nnadozie (1993) surveyed 10,370 teachers to determine the relationship between empowerment and satisfaction. He used hierarchical regression techniques to determine that, in order, administrative leadership and support, achievement orientation, staff collegiality, participation in decision-making, bureaucratic impediments, and organizational commitment were the most important predictors of teachers' perceptions of job satisfaction. Munoz (1987) found elementary school teachers in Texas satisfied for intrinsic reasons related to self-esteem and acquisition of new knowledge and dissatisfied by the lack of opportunities for advancement and a lack of responsibility in the schools.

A handful of researchers examined other areas related to satisfaction with teaching. Examining satisfaction among African-American teachers, Kearney (1997) found African-American teachers had as high a retention rate each year

as European-American teachers, but Donndelinger (1997) disagreed.

Donndelinger found minority teachers to be significantly more dissatisfied with both teacher rapport and their jobs than their non-minority peers and that significantly greater numbers of those minority teachers were planning to leave the profession than were non-minority teachers.

Investigations were also made into levels of satisfaction among teachers potentially motivated by higher power. Morgan (1994) investigated retention among K-12 Seventh Day Adventist teachers, and Stelmachowics (1991) investigated the same among teachers in Lutheran secondary schools. Both researchers found intrinsic motivation among those who stayed related to a higher calling: service to God and synodic training. Teachers in these religious schools who left were primarily dissatisfied with their salary and compensation package.

A specialized area of investigation into teacher satisfaction and retention examined teachers in rural schools. Both Anschutz (1987) and Crawford (1986) found that rural districts (in Kansas and Georgia, respectively) had a greater teacher turnover rate than urban districts and that teachers resigned for reasons more related to community dissatisfaction than to job dissatisfaction. Both researchers concluded that community factors had a great impact on teacher satisfaction in rural areas and that teachers who stayed in rural areas were those who came from similar environments.

Leadership Styles

Rost's concept of leadership, relying as it does influence relationships, leaders and followers, mutual desire for change, and common purposes, was distilled from years of previous leadership studies (Rost, 1991). Classical leadership studies seek to root out the essence of effective leadership. Employers want to know how they can best influence employees to be productive and satisfied. To find the answer, such studies commonly examine the relationship between managers and workers: an understanding of how one influences the other should provide interested parties with clues on how best to behave on the job. Transactional and transformational leadership have been dominant recently as models for understanding and explaining the mutual influences of managers and workers, but these models are approaches to leadership that have emerged from a long line of leadership models (Hersey, Blanchard, & Johnson, 1996).

In 1911, Frederick Winslow Taylor published a treatise on what he considered to be scientific management (Hersey, Blanchard, and Johnson, 1996). Taylor considered that management was fundamentally technological; his approach to scientific management was to conduct time and motion studies, eliminate unnecessary worker motions, and thereby eliminate waste and increase efficiency. The approach was grounded in a faceless, emotionless asymmetrical relationship between workers and management in which management held all the power (Hersey et al.).

In 1933, Elton Mayo published the Hawthorne Studies; these investigations for the first time examined the factor of human relationships in managing organizations (Hersey et al., 1996). In addition to the technological aspects of production, Mayo's theories held that the interpersonal relations that developed among work units had great effect on organizational goal attainment and personal growth.

While the study of leadership traits dominated the early research with few significant findings, in the late 1940s, two major influences on leadership thinking were published. The 1948, regional rivals Ohio State and Michigan each published significant leadership studies; these studies launched the attitudinal phase of leadership investigation (Hersey et al., 1996). Under the leadership of Ralph Stodgill, the Ohio State team filtered leadership down to the twin attitudinal dimensions of initiating structure (task orientation) and consideration (personal orientation). The Michigan team found similar results: their two indicators of organizational effectiveness were the attitudes leaders had regarding production orientation and employee orientation (Hersey et al.).

The next major wave of leadership theory focused on the situational elements of leadership. In 1957, Tannenbaum and Schmidt published an article in the *Harvard Business Review* entitled "How To Choose a Leadership Pattern." This work was seminal in the field of situational leadership. By considering the situation, a leader could make a decision that would place his behavior on a continuum from authoritarian to democratic according to the needs of the situation (Hersey et al., 1996).

McGregor's Theory X – Theory Y perspective on leadership was also published in 1957. Theory X managers were those who considered workers to be intrinsically motivated to do the job; Theory Y managers were more focused on controlling the workers to get the job done (McGregor, 1992/1957). Kohn used Theory X - Theory Y as a theoretical basis for his 1993 work on motivation in educational settings (Odden & Kelley, 1997).

The field of situational leadership was enhanced further by the work of Fiedler on contingency theory. In 1967, Fiedler developed the Leadership Contingency model, in which he proposed that “the effectiveness of a group is contingent upon the relationship between leadership style and the degree to which the group situation enables the leader to exert influence” (Fiedler, 1967, p.15). Leadership Contingency suggested that leader-member relations, task structure, and position power were the situational variables that determined whether a situation is favorable to leaders (Fiedler, 1967). The interplay among these three variables in any given situation determined the effectiveness of leadership, with leader-member relations twice as important as task structure, and task structure twice as important as position power (Fiedler, 1967).

Other situational models followed. Hersey and Blanchard 1969 Tridimensional Leader Effectiveness model; Vroom and Yetten's 1973 contingency-based decision-making model; House and Mitchell's 1974 Path-Goal model; and Vroom's 1976 Expectancy Theory all contributed to the literature on situational leadership by investigating various aspects of leader relationship behavior and task structure orientation (Hersey et al., 1996).

Most of the work done by the previous leadership researchers focused on the relationships that existed among managers and workers in business and industry. The research sought to determine the essence of effective management. Similarly, educational leaders are interested in understanding the essence of effective schools. Teachers, as the largest, most stable, and most politically powerful group of adults in a school, have a responsibility for building leadership capacity in schools and ultimately for high student achievement; that responsibility is largely acted upon in the classroom. Lambert (1998) argues that student learning is the content of educational leadership. Teachers have a vested interest in knowing how they can best influence students to be productive and satisfied (Lambert, 1998). Similarly, teachers can be found variously to favor transactional or transformational processes as foundations for their instructional and classroom leadership styles (Felton, 1995).

Transactional Leadership

Transactional leadership suggests that workers and managers engage in a bargaining relationship (Hollander, 1978). Transactional leadership is hierarchical; it is based on the principles of behaviorism first stated by Edward Thorndike in 1898, developed by Frederick Taylor in 1911, promulgated by John B. Watson in 1912, and promoted largely by the work of B. F. Skinner (Kohn, 1993). Goodlad (1990) noted that a rise in higher education paralleled the growth of western industrialism and that with that rise came an "increased use and refinement" of the transactional mode of management in schools (p. 138).

Burns (1978) describes transactional leadership as one in which leaders and followers engage in an exchange. Further investigations into transactional management determined that aspects of such a relationship include a contingent reward system and management-by-exception (Bass, 1981, 1985). In the work place, contingent reward is work-for-pay. In the classroom, contingent reward is work-for-grades (Kohn, 1993). In both the workplace and the classroom, the worker/student is extrinsically motivated to do what he or she is told. Management by exception describes how a manager tends toward error correction: when the worker/student fails to meet performance objectives, the manager/teacher intervenes to correct the problems.

Transformational Leadership

Transformational leadership is quite different from transactional leadership. The transformational leader seeks to enhance productivity by cultivating participant acceptance of the group mission. Transformational leaders are concerned with motives in followers, seek to satisfy followers' higher needs, and engage the whole of their followers. As a result of the transformational leadership, followers become leaders themselves. They extend the vision and mission of leaders and allow leaders to become moral agents (Burns, 1978). As moral leaders, transformation leaders are concerned for the higher level needs of followers. Physiological, security, and affiliation concerns are satisfied, and leaders concentrate on meeting followers' needs for achievement, recognition, and self-actualization (Burns, 1978).

Bass (1985) further developed Burns's conception of transformational leadership. While Burns saw the need to move followers up Maslow's hierarchy of needs, Bass felt that this was not always necessary. Burns felt that the transformational leadership process would always serve the best interests of organizations, but Bass noted that transforming leadership could be Hobbesian in its application. Burns felt transformational leadership would provide favorable benefits to society; Bass saw transformational leadership as occurring at the expense of followers (Burns, 1978; Bass, 1985).

Bass believed that transformational was not separate from transactional leadership but was rather an extension of the same (Hater and Bass, 1988). Similarly, Tucker (1990) found transformational leadership to be an enhancement and extension of transactional leadership. The transformational relationship, whether in a factory or in a school, is one of mutual stimulation and is characterized by four primary elements: charisma, inspiration, individual consideration, and intellectual stimulation (Bass, 1985).

Charisma, or idealized attributes and behaviors, is a primary element of the transformational process. The ability to generate charisma allows the transformational leader great symbolic power with which followers want to identify. Followers idealize the leader and want to emulate or please him or her. Followers often develop a strong emotional attachment to charismatic transformational leaders (Bass, 1985).

Inspirational motivation is closely related to charisma. Inspiration is the ability of a leader to communicate a vision of a future, idealized state of affairs

that others want to share. The inspirational transformational leader will use visionary explanations to describe what followers can accomplish; excited followers are then motivated to achieve group objectives (Bass, 1985). Individual consideration explains how the transformational leader treats followers: he or she is a mentor who treats followers as individuals and who uses a developmental orientation to respond to follower needs and concerns (Bass, 1985).

Finally, intellectual stimulation describes how transformational leaders encourage followers to develop novel thinking patterns and problem solving strategies. The transformational leader who promotes intellectual stimulation expects and encourages followers to question the known and to work together to solve problems creatively by themselves (Bass, 1985).

Differences between Transactional and Transformational Leadership

As discussed, Waldman, Bass, and Einstein (1985) identify an important difference between transactional and transformational leadership practices: transactional leadership analyzes and addresses lower-order needs; transformational leadership attends to higher-order needs. Zaleznik (1983) describes the transactional manager as one who analyzes worker lower-level needs and who assigns lower-level tasks to be completed. The transactional leader attends to the follower's basic wants and needs and seeks to maintain the institutional or organizational status quo. However, Bass (1986) also suggests that transactional leadership, while acceptable to maintain the status quo, ultimately dooms an organization to mediocrity. He sees transactional leadership

as limiting an employee's effort toward goals, job satisfaction, and effectiveness toward contributing to organizational goals (Bass, 1985).

Waldman, Bass, and Einstein (1985) also see transformational leadership as surpassing the impact of transactional leadership. Transformational leaders identify and make use of employee higher-level needs that are greater than immediate self-interests. By appealing to higher-level needs, the transformational leader seeks to intrinsically motivate followers to perform beyond initial performance goals and objectives (Bass, 1985; Burns, 1978; Tichy & Devanna, 1986).

The principal-teacher relationship is a popular subject for investigations of transactional and transformational leadership. Mohr (as cited in Felton, 1995) reported having found leadership style to influence job satisfaction. Building on that work, Felton (1995) administered Bass and Avolio's (1990) Multifactor Leadership Questionnaires and Job Satisfaction surveys to 590 mid-delta Mississippi elementary and secondary teachers in an effort to determine the relationship between teacher job satisfaction and the leadership style of their transactional and transformational principals. He found that elementary principals tended to engage in transformational behavior more than their secondary counterparts and that transformational behavior led to more employee satisfaction than transactional behavior in a majority of areas studied for both elementary (four out of six) and secondary teachers (five out of six).

Examining the preferred leadership qualities of principals in selected American charter schools, California public elementary schools, and Alberta,

Canada public elementary schools, Mestinsek (2000) found similar results. Administering the Multifactoral Leadership Questionnaire to 40 principals in the various schools, Mestinsek found that principals in each group preferred transformational leadership practices to either transactional or non-leadership practices. He also found that, among the groups, the charter school principals perceived themselves as being significantly more transformational than either of the other two groups: the charter school group scored significantly higher than the Alberta group in the areas of charisma, inspiration, and intellectual stimulation and significantly higher than the California group in the area of charisma (Metinsek, 2000).

Ingram (1997) also found similar results in her study using the Multifactor Leadership Questionnaire. Surveying 44 teachers about their principals' behaviors, she found that teachers reported their principals exhibited more transformational than transactional behaviors and that the teachers were more highly motivated working for principals whom they perceived were transformational leaders. A similar study by Stone (1992) involving 27 principals and 482 teachers indicated that principals used transactional leadership to accomplish lower-order managerial objectives, such as maintaining performance and clarifying expectations, but that transformational leadership was related to development and change, produced higher levels of satisfaction and effort in followers, and led to greater productivity and quality outcomes for the institutions.

A later study by Peters (1997) found similar preferences for transformational leaders among workers in a college bookstore. In a study also

based on Bass and Avolio's (1990) Multifactor Leadership Questionnaire, Peters determined that transformational leadership characteristics augmented transactional characteristics when assessing employees' perception of manager effectiveness, satisfaction with managers' performance, and employees' willingness to exert extra effort. However, when investigating the influence of both characteristics on more budgetary concerns – sales per labor hour, labor as a percent of sales, meeting budget expectations, and turnover ratio -- which served as a predictor for organizational success, Peters found no relationship between leadership style and the meeting of organizational goals. Similar results were found by Bogler (1999), whose study of teachers in northern Israel found that principal leadership style did not significantly affect teacher satisfaction but that teachers preferred to work with principals who favored a transformational rather than a transactional leadership style, and by Eden (1998), in a case study of an Israeli senior school which found administrators to be most successful when sensibly combining transformational and transactional leadership behaviors. Lontos (1992) supports this balanced view, noting that though transformational leadership had a positive influence on teacher collaboration, improved teacher attitudes toward school improvement, and altered instructional behavior, it should remain only one part of a balanced approach to creating high performing schools.

A related study done by Wallace (1996) sought to investigate the premise that transformational leadership was a more intense extension of transactional leadership. Wallace surveyed 29 senior managers from a large technology firm

using a self-devised competency-based measure of transactional and transformational behaviors and motives. She found that leaders who were rated as primarily transformational by their followers showed significantly greater intensities than their transactional counterparts in the competencies of self confidence, conceptual thinking, people and organizational savvy, and impact and influence. However, she was surprised to find that transformational leaders did not significantly outrank transactional leaders in the competencies of effectiveness and developing others. Both groups were assumed to be equal in the competencies of information seeking, drive for results, and analytical thinking; this assumption proved true. Most telling, followers in both groups rated their leaders similarly in terms of perceived leader effectiveness and satisfaction with the leader. However, a middle group emerged in the research that suggested a middle path was the best to follow: leaders rated highest in both effectiveness and satisfaction by followers displayed a mixture of both transactional and transformational leadership behaviors. This support for a balanced leadership approach was also found by Wettersten (1994), who found in a case study of high school department chairs that reciprocal exchange relationships were not purely transactional or transformational but rather a combination of the two.

Teaching Practices

Throughout the 20th century and into the 21st, scholars and schools have practiced, experimented with, and at times argued about instructional methodology. The heart of the arguments can be seen to be noble – true believers believe passionately in what they see as truth – but conflicting

passionate arguments do not always offer clear solutions to teachers trying to find their methodological voice in the classroom. Teachers are looking for the best ways to teach, but the arguments over methodology can be disheartening to teachers and disruptive to school functioning. When administrators tamper with teachers and their approaches to teaching, everyone – administrators, faculty, students, and staff – suffers (Goodlad, 1994). Goodlad (1994) found that the schools most satisfying to their varied constituencies were those in which principals credited teachers for knowing what to do in the classrooms and “left them alone to do it” (p. 216). The teaching practices used by such teachers included both didactic to the constructivist methodologies.

The growth in literature on constructivist teaching practices suggests that this methodology is more popular than ever. However, other educators continue to passionately support didactic methods, while still others embrace constructivist thinking but continue to teach, as they were taught, in a mostly didactic manner. The argument over which approach – didactic or constructivist – is best continues to this day. Both camps can cite research to bolster the arguments for their exclusive superiority. Great teachers can be found using strictly didactic approaches; great teachers can be found using strictly constructivist approaches.

Didactic Teaching

The didactic approach to teaching has its roots in the philosophies of idealism and realism. Philosophical idealists from Plato and Aristotle to Rene Descartes, Baruch Spinoza, Immanuel Kant, and Georg Wilhelm Friedrich Hegel, and philosophical realists such as Thomas Aquinas, Francis Bacon, John Locke,

Thomas Hobbes, Alfred N. Whitehead, and Bertrand Russell have looked upon the world as a place wherein knowledge, and that which can be known, is measurable, definable, objective, and constant (Reed, Bergemann, & Olson, 1998; Miller, 1999). The philosophies of idealism and realism served as fertile ground for the development of the educational theories of perennialism, essentialism, and behaviorism (Reed, Bergemann, & Olson, 1998). All of these theories had great impact on the way knowledge is framed and delivered. Introduced to the working classes in Victorian England by such popular presses as "Lloyd's Penny Weekly" and promoted in the USA by such proponents as perennialists Robert Hutchins and Mortimer Adler, essentialist codifier E. D. Hirsch, and behaviorist B. F. Skinner, the theories defined what and how information should be taught: didactic instruction is the method of choice (Schaefer, 1996; Reed, Bergemann, & Olson, 1998). Thirty years after Dewey began espousing a constructivist approach to teaching and learning, Waller (1932) laid out general principles of didactic instruction: students are passive and empty receptacles into which all-knowing teachers pour knowledge. The primary method of instruction is lecture, classes are taught as a single unit, teachers write notes on chalkboards, and students copy those notes and regurgitate what they learn verbatim. In the didactic classroom, students fill out worksheets of pre-constructed knowledge. Knowledge is presented as fact, prior student knowledge is not important, and students solve problems according to strict, or "right," methods: experimentation is seen as a waste of time and is

discouraged. The teacher, a sage on the stage, is a knowing authority figure (Engelmann & Carnine, 1982).

Becker and Englemann believe, and cite evidence for those beliefs from an extensive study, Project Follow Through, that “the popular belief that it is necessary to teach different students in different ways is, for the most part, a fiction” (Becker and Englemann, 1995, p. 9). They also believe that “there is no way a child can learn the arbitrary conventions of a language system without someone who knows that system providing systematic teaching.... In addition, there can be no question that smart adults can organize and sequence experiences that will teach concepts and problem-solving skills better than children” (Becker and Englemann, 1995, p.9). Becker and Englemann also note that teachers, when first encountering a didactic model like Direct Instruction, “may react negatively to or be confused by the intensive, structured, in-class training” (Becker and Englemann, 1995, p.9). However, they further note that a majority of such teachers later come to believe that structure to be “one of the most positive features of the intervention” (Becker and Englemann, 1995, p. 8).

The basis of didactic instruction can be found in such classic instructional models as mastery learning, mastery teaching, and stimulus-locus direct instruction. Guskey (1995) cites educators Camenius, Pestalozzi, and Herbart as providing the philosophical foundations of mastery learning, but Benjamin Bloom (1976) published the most influential work on the subject. Bloom formulated a strict pedagogic model focused on feedback, corrective, and enrichment activities; he believed that tests should be used to provide feedback

and corrective information to students. If students had a mastery of subject matter, the teacher provided enrichment activities to deepen learner knowledge.

Madeline Hunter extended the work of Bloom into a full methodology for teachers. Hunter (1995) considered mastery teaching to be a way of thinking about and organizing activities that would take place prior to, during, and after a lesson. Hunter felt that these instructional decisions should be “based on research but ...implemented with artistry (p. 181).” Hunter’s step-by step approach to the organization of teaching – anticipatory set, objective and purpose, input, modeling, checking for understanding, guided practice, and independent practice, served as models for schools of education and in-service development trainings for years (Marzano, 2000).

The stimulus-locus and response-locus approach to methodology takes a theoretical hard line to direct instruction. Differing from behaviorism in its concern for logical analysis of the stimuli rather than a behavioral analysis of the learner, the approach commonly called direct instruction sought faultless presentation of prescribed material through the use of strictly written script (Engelmann & Carnine, 1982). Engelmann and Carnine (1982) postulated a learning mechanism with two attributes, the capacity to learn any quality that is exemplified through examples and the capacity to generalize new examples on the sameness of quality, which they assumed counted for nearly all cognitive behavior. Engelmann and Carnine (1982) also took a strong stance against what they feel are the dangers of humanism. Claiming socio-linguistic, natural-learning, and general-stimulation approaches to learning were “the greatest

impediment to intelligent instruction,” they considered what they called “a long standing trend that dominates the post-sputnik era” towards cultural and linguistic understanding, self-esteem and empathy, and honesty to be a “guarantee for failure” (p.376).

Engelmann and Carnine (1982) argue that instruction is manipulation and that it occurs through communication. They note that communication takes place in a classroom at all times. Whether it's structured by the teacher or not, learning occurs in the classroom. Thus, teachers are responsible for leaving nothing to chance and for guiding students to predefined outcomes.

Constructivist Teaching

The theories of perennialism, essentialism, and behaviorism are counter-balanced by those of progressivism and social reconstructionism. Based upon the philosophy of pragmatism, which sees life as change, knowledge as fluid, and values as relative, these latter theories were shaped by such thinkers as Francis Bacon, Jean-Jacques Rousseau, Charles Darwin, Charles S. Pierce, William James, John Dewey, Jean Piaget, and Lev Vygotsky (Reed, Bergemann, & Olson, 1998). Equally, in the 20th century, both theories were strongly influenced by the Great Depression, which led to a strong tendency towards pedagogic practices such as experiential learning through problem solving projects, which could address social problems. The theories promote the view that the learner should construct knowledge: to learn, students should engage in active, problem solving, social-based activities. John Dewey, considered by many to be the father of modern American education, took such an experiential

approach to learning. He suggested that knowledge was not fixed and that instruction should not be predetermined. Instead, he felt that student experience should determine the path of instruction and the creation of knowledge (Dewey, 1902).

Constructivist teaching methodology is based on the theory that people learn best when they construct their own knowledge and when they can reconcile new knowledge with previously learned knowledge. Because knowledge is constructed, on-going, and dynamic, assessment of it must be individualized and on-going (Krynock and Robb, 1999). It is seen as a democratic approach (Brooks and Brooks, 1999) in which the motivation to learn must be intrinsic for the students (Kohn, 1993). This methodology, also called authentic instruction, teaching for understanding, or student-centered instruction, centers on the notion of the student as an active participant in the seeking and recognition of knowledge (Perkins, 1999). The teacher, the guide on the side, is seen as a coach in the process, accessible and friendly (McKeown & Beck, 1999). According to Conley (1993), the theory of constructivism rests upon three basic assumptions: (1) learning is an active rather than passive process of knowledge construction; (2) some of what we consider knowledge may be culturally constructed, rather than fact or truth; and (3) knowledge is social in nature: knowledge is distributed among members of groups, and the knowledge of the group is greater than the sum of the knowledge of the individuals in the group.

A burgeoning interest by educators and researchers in constructivism as a viable teaching methodology for educational reform can be identified through a

35 year search of the Educational Resources Information Center (ERIC) database. In the 15 years from 1966 to 1981, only ten articles were abstracted by ERIC that could be retrieved using the key words “constructivism” and “education.” In the next ten-year period, from 1982 to 1992, a search yielded 160 records using the same key words. Finally, in a search of the next period, spanning only eight years, from 1992 to 2000, the same key words yielded 1,819 abstracted records. A search among Dissertations Abstracts International revealed similar results. The eight years from 1992 to 2000 yielded 84 dissertations containing the words “constructivism” and “education” in their abstracts, while the ten years from 1982 to 1991 yielded only five. None were found for the preceding fifteen years. Clearly, interest in constructivism has grown exponentially over the past 35 years.

Contemporary studies, books, and articles touting the benefits of a constructivist approach to education are abundant. For example, researchers have recently investigated constructivism in the areas of pre-service and in-service teaching (Allen, 1998; Alsup, 1995; Bryan, 1997; Heflich, 1997) and with learners in specific content areas and across cultures (Charles, 1999; Gregg, 1993; Hayes, 1997; Marsh, 1995; Sobol, 1998; Soeharto, 1998; Thomas, 1993).

Correlating scores from a personality survey and a teaching style inventory administered to pre-service teachers, Allen's (1998) results were of limited value to this study. Allen found that in-service teacher beliefs about instruction and correlations between personality factors and teaching styles did not change over the course of the student teaching semester and that

correlations between personality factors and a constructivist approach to teaching were higher for female than for male teacher candidates. Alsup (1995) looked deeper into constructivism and conceptual understanding with pre-service teachers. Prospective elementary school teachers employed a constructivist problem-solving methodology to gain a conceptual understanding of such mathematics concepts as fractions, decimals, and percentages. Alsup then used quantitative instruments to measure the prospective teachers' conceptual understanding as well as their confidence in their ability to teach the topics studied. Alsup also used qualitative methods – interviews and journal-based discourse analysis – to assess the effectiveness of the instruction. Among his findings, Alsup learned that many of the pre-service teachers suffered from math anxiety, low confidence in their ability to teach math, and an admitted lack of conceptual mathematics understanding. Alsup also observed that the pre-service teachers had come from traditional mathematics background and, though they could perform routine procedures, could not justify or explain the operations they would be teaching their future students. He also stated that most of the future teachers participating in the class reacted positively to the instruction and suggested that teachers-in-training would be well served by exposure to alternatives, such as constructivist methodologies, to traditional mathematics teaching methods.

Bryan (1997) used the context of reflective science education to examine how teacher beliefs and experiences influenced the development of professional knowledge. Working from a cognitive constructivist theoretical perspective in

conducting a case study of a preservice elementary teacher, Bryan found that her subject experienced tension and anxiety because of conflict between the teacher's learned theoretical approaches and vision – based on primarily constructivist principles – and her life-long science learner experiences. This conflict resulted in the teacher employing didactic teaching and classroom control approaches while desiring to use more constructivist methods. Bryan found that, ultimately, the didactic beliefs ingrained from the subject's previous experiences blocked her ability to reframe her teaching practice.

Heflich (1997) also examined teachers and constructivism. Heflich's interest was in on-line learning, and he conducted interviews with 25 teachers in two schools – one with plentiful on-line technology supporting the classroom; the other with minimal technological support – to determine whether those using on-line technology as an integral part of the classroom were more likely to exhibit the attitudes and behaviors of constructivist teachers than those who were not using such technology. He found that availability and unrestricted access to on-line technology by teachers and students enhanced and supported moves toward constructivist methodology.

Scholars in the 1990s were also busy examining the influence of constructivist approaches on specific subject matter, with mathematics and the sciences dominating the areas of study. Breaking 780 seventh, eighth, and ninth graders into two groups and giving each group either traditional, rule-based, didactic instruction or instruction that used Algebra Tile manipulatives more reflective of a constructivist environment, Sobol (1998) found that though the

manipulative rich group had higher gain scores on content-based pre and post tests, there was neither significant difference between the group attitudes towards mathematics nor any change in student interactions in the classroom. In other words, the classes using the manipulatives operated in the same didactic manner as the classes not using the manipulatives. The teachers using the manipulatives made some adjustment in lesson presentation to accommodate the new material, but they basically stuck to their known, didactic approaches to teaching the subject matter. Sobol found that students who learned the concept for the first time and had not previously been taught the rules benefited most from using the manipulatives. She also suggested that a redesigned approach to mathematics education should include not only what to teach but how to teach as well.

Charles (1999) concurred. She noted that national standards had been developed in the late eighties for science and mathematics which promoted inquiry-based learning, active student engagement, and learner constructed knowledge but that that information, transmitted in the same passive manner that math and science had been taught for much of the last century, was not transferring into effective classroom practices. Conducting a two and a half year qualitative study focused on 45 professional developers in a technical assistance academy, Charles determined that mathematics and science knowledge developed in a constructivist setting transferred into effective facilitator practice and that learning about those constructivist instructional strategies in a long-term

program affected participant likelihood to use similar strategies in their own instructional designs.

Thomas (1993) and Soeharto (1998) conducted further work regarding constructivism and mathematics among other cultural groups. Working with African-American high school geometry students, Thomas found that a constructivist approach to the subject had a positive influence for increasing discourse among the students in the study. He also noted that 97 percent of the students reported feeling more confident about their mathematical abilities after having worked in small groups and concluded that a constructivist learning environment was compatible with African-American learning styles. Soeharto tackled the same topic with sixth graders in rural Indonesia. Soeharto split two sets of 15 teachers each into treatment (constructivist) or control (traditional, didactic) groups for 16 weeks and then sampled and analyzed data from student math achievement, math attitude, and constructivist learning environment tests. Understandably, students in the treatment group reported their teachers used more constructivist methods than did students in the control group. Soeharto also stated that results of analysis of covariance techniques showed significant positive differences among results from students in the treatment group compared to students in the control groups.

Working with separated groups of 22 and 25 seventh grade geography students learning how to read and interpret maps, Gregg (1993) compared constructivist and didactic methodologies. She found that all students learned, no matter the methodology, and that both groups were able to transfer the skills

they learned to unfamiliar maps. She also found that map makers (constructivists) learned more than map readers (didactic) and that the constructivist lessons especially benefited low knowledge students.

A pair of studies examined computer-assisted instruction and constructivism in first grade classrooms and among first year graduate students. Marsh (1995) used qualitative methodology to examine the teaching styles of teachers using computer-assisted technology in inclusive first grade classrooms; she found that constructivist teachers allowed students more freedom of choice and access to the technology than did didactic teachers. Hayes (1997) split 73 beginning level graduate students in counseling into two groups for various didactic/experimental/computer-assisted instruction and analyzed pre and post videotapes of counseling sessions. She determined that students could use computer-assisted instruction as effectively as traditional methods to develop counseling skills.

Constructivist thinking can be found in many current texts on language and literacy development and instruction. Bruner (1986) argued that all knowledge is socially constructed. In agreement with Bruner, Goodman (1996) argued that the social context of language cannot be ignored. Language is personal and social and is also the medium of human thought and learning; thus, language development occurs in the context of its own use (Goodman, 1996). Introducing the idea of sociopsycholinguistics, Goodman (1996) argued that every social convention, including changes in language over time, is the process of someone's personal invention as modified by social forces.

Many educators promoted the idea that children develop ideas about language and literacy long before they enter school and that these ideas are driven by social contexts (Goodman & Altwerger, 1981). Harste, Woodward, and Burke (1984) proposed that young children use the same language processing strategies to signal and interpret meaning as adults but that those strategies are less sophisticated only because children, due to their more limited social experiences, have less available language information. Smith (1998) argues that children in print-rich societies are constructing notions about literacy from before the age of three and that schools should ensure that classrooms are constructivist friendly. As Smith (1998) explains,

activities should be culturally meaningful and structured around big ideas, not prescribed, rigid curricula. They should include invitations to practice literacy. The children should work in small groups that allow for dialogue and co-construction of meaning. These meanings will be valued and curriculum must be adapted after joint decision making by the child and the teacher....It is these issues that are preoccupying teachers and researchers who are interested in social constructivism today as they build on the past. (p. 15)

The Staying Power of Didactic Methodology

In spite of this flurry of constructivist thinking over the last twenty years, the didactic practitioners have not disappeared from the scene. Any number of recent studies can be found that rely upon didactic methodology for their instructional framework, and other didactic enthusiasts lament the disappearance

of the direct instruction model. A number of studies (Crum, 1998; Morrow, 1997; Marra, 1998; Norman, 1997; Walker, 1996; Gonzalez, 1998; Bysshe, 1996; Blackston, 1999) have been found which rely on didactic methods to deliver the knowledge under examination. Crum (1998) identified direct instruction to be the primary methodology for piano teachers attending the Florida State Music Teachers Association. Such skills as traditional and didactic repertoire, technique, and memorization were seen as especially important for beginning students of piano. Didactic material and presentation were also the methods of choice for social workers teaching socio-sexual education to individuals with developmental disabilities. Both Morrow (1997) and Marra (1998) found this methodology to be successful in separate investigations. Norman (1997) also found the didactic approach to be appropriate as a delivery system for training modules she developed for alcohol and drug counselors training and client assessment.

Gonzalez (1998) found didactic programs to be the model for two dietetic training programs she investigated in California. Noting a need to increase the cross-cultural component in the programs, Gonzalez had little else to say about the didactic methodology. Bysshe (1996), examining three United Kingdom breastfeeding education programs, found a mix of methodology – a didactic approach, a constructivist approach, and a mixed approach – and determined that mothers in the study seemed to choose the program that most closely matched their own views on breastfeeding. She also found that mothers who attended the constructivist program breastfed for an average of 32 months,

compared to the mixed group (five months) and the didactic group (three months). Walker (1996) examined a church-based program for Southern Baptists that used a mixed didactic-experiential approach to teach good Christian people how to discover intimacy. Though the ability of the course to raise one's level of personal authority was not found to be statistically significant, self-report evaluations indicated positive change in characteristics associated with the personal authority construct.

An interesting and seemingly divergent study conducted by Blackston (1999) sought to determine the effectiveness of a didactic program to teach preservice teachers how to create better collaborative intervention plans for students exhibiting problem behavior. The plans were developed collaboratively and created didactic intervention scripts. Blackston found that participants demonstrated close adherence to the scripts and that targeted student behavior demonstrated changes in the right direction in all cases.

While many recent studies have found the constructivist approach to be the most appropriate methodology to enhance and develop student knowledge, some researchers disagree. Delpit (1995) argues that such child-centered and progressive holistic approaches as whole language reading, process writing, or problem-solving mathematics may result in a *de facto* withdrawal from explicit, knowledge-based teaching. Delpit further notes that when students do not realize that teachers are operating under the changed conceptions of power that allow for a constructivist approach, students feel "that secrets are being kept, that

time is being wasted, that the teacher is abdicating his or her duty to teach (Delpit, 1995, p. 31).

Zolkower (1997) agrees with Delpit. Tracing didactic transpositions of mathematics in arithmetic textbooks from the turn of the century to the 1957 Sputnik crisis, comparing the documents which framed the “new math” revolution of the 1960s with the “new new math” reforms of the late 1980s, and exploring the effects of that “new new math” as implemented in a public, bilingual, mostly Hispanic elementary school in East Harlem, New York, Zolkower found that constructivist approaches to mathematics education conflict with effective mathematics education. Zolkower suggests that an inherent tension must exist in a classroom and in learning when pedagogy is child-centered, progressive, and constructivist and subject matter is a pre-constructed body of knowledge known by the teacher. Zolkower further believes that child-centeredness, progressivism, and constructivism pushed to their limits results in teachers necessarily following the tenets of reductionism (omitting what fails to interest the student), incidentalism (teaching only what can be used to solve a problem at the moment), and anti-didacticism (restraining from explicit instruction). When these tenets collide with a subject matter that is still “a formal discipline, an abstract science, a de-contextualized knowledge, a subjectless and noiseless language, a monological discourse, and a value-free field of inquiry” and which still “occupies a central place as a status symbol, a highly valued form of academic and cultural capital, and an almost inescapable educational filter” (Zolkower, 1997, p. 11), the result is discordance in learning and teaching. Without appropriate didactic tools

and a feeling of entitlement to use them, teachers witness students producing “erroneous concepts, awkward forms of notation, time-consuming algorithms, and primitive solution procedures” and never entering “into the community of mathematically literate people” (Zolkower, 1997, p. 43).

Summary

The review of literature on teacher job satisfaction, leadership styles, and teaching practices establishes a base for this research. Satisfaction with teaching emerges from the interaction among multiple dynamic factors; work conducted by Maslow and Herzberg on such factors provided Lester (1984) with the basis for her development of the Teacher Job Satisfaction Questionnaire (TJSQ). A long history of leadership study among business managers supports a much smaller base of similar studies among educators; research into leadership, the growth and changes in the field of leadership studies, and the development of transactional and transformational leadership behaviors provided Bass (1986), Bass and Avolio (1990), and Bass and Avolio (1995) with the basis for the development of the Multifactoral Leadership Questionnaire (MLQ), which forms the first part of this researchers own Elementary School Teachers Survey. Similar research into teaching practices has been reviewed; studies on both sides of the didactic vs. constructivist battleground, particularly those conducted by Engelmann and Carnine (1982), Perkins (1999), Brooks and Brooks (1999), Krynock and Robb (1999), and Kohn (1993), have contributed to the development of the second part of the aforementioned Elementary School Teachers Survey.

Proponents of didactic approaches to education trust their viewpoints and believe strongly in their models. Not surprisingly, their constructivist colleagues share a similar passion for their diametrically opposite beliefs. In reading the literature, one may think that these disparate groups of educators could find no common ground. But ultimately, both groups have the same objectives: they want education to take place, they want knowledge to grow; they want learners to learn. One should think that they would also share another belief: that teachers should feel satisfied with the task of teaching. There have been no studies to investigate teacher satisfaction, teaching practices, or leadership styles in the Commonwealth of the Northern Mariana Islands; similarly, there have been no studies conducted that examine the relationship among those three topics among elementary school teachers as a whole. This study should therefore add to the body of knowledge in these areas.

Chapter III explains the methods and procedures that guided this study. The primary study group is identified. The five research questions are stated and discussed and the questions to be addressed by the analysis are explained. Finally, a detailed description of the research design, including limitations and ethical considerations, is given.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

The purpose of this study was to investigate teacher leadership styles, preferred teaching practices, and job satisfaction among public elementary school teachers in the Commonwealth of the Northern Mariana Islands (CNMI), and more specifically among teachers on the most populated and dominant island of Saipan, and to examine to what extent leadership styles and teaching practices affect teacher job satisfaction. To conduct this investigation, this study utilized survey research with questionnaires. As discussed in the introduction and review of literature, this study investigated the following questions:

(1) what is the level of job satisfaction among public elementary school teachers in Saipan?;

(2) to what extent do CNMI public elementary school teachers fall into the personal leadership style categories of transactional or transformational?;

(3) to what extent do CNMI public elementary school teachers prefer either didactic or constructivist teaching practices?;

(4) to what extent do demographic factors, preferred leadership styles, and preferred teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?; and

(5) to what extent does the interaction between leadership styles and teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?

The responses to these questions elicited a base of knowledge and allowed the researcher to determine the level of teacher job satisfaction among elementary school teachers on the island of Saipan, to identify teachers as being transactional or transformational in their leadership styles, to identify teachers as being didactic or constructivist with regard to their teaching practices, to examine the relationships between leadership styles and teaching practices and to determine whether there is any influence between those relationships and teacher satisfaction, and to determine whether age, gender, years of experience, degree levels, and native English speaking abilities are related to any differences in CNMI public elementary school teachers' job satisfaction.

To address these questions, surveys were used to collect the requisite data, and the techniques of Ordinary Least Squares multiple regression were used in the analysis. Because the researcher was seeking single data point information on a group of subjects, a survey-based research design was chosen as most appropriate for this study (Drew, 1976). Information gathered was both nominal (demographic) and ordinal (strength of beliefs/frequency of practices).

Data were analyzed by grouping related survey items according to categories, using linear transformations to convert each group's raw scores into a zero to 100 range, and then assigning respondents into categories according to their scores. A multiple regression analysis was then conducted on those

categories both to describe and to make inferences about the data. These research techniques are discussed in detail in the next three sections.

Instrumentation

Two surveys were used to gather data in the study: a Elementary School Teachers Survey (Appendix B) and a Teacher Job Satisfaction Questionnaire (Appendix C). The Elementary School Teachers Survey is based in part on the work of Bass (1986), Bass and Avolio (1990), and Bass and Avolio (1995) and represents a modified version of their survey. An early version of this survey was created as part of a special study for the committee co-chair; that version was revised and expanded after critique. The current version contains a demographics section and 46 questions arranged in two areas: teacher leadership styles and preferred teaching practices. Each of these sections contains questions focused on sub-areas. Teacher leadership styles surveyed included transactional and transformational. Preferred teaching practices surveyed ranged from didactic to constructivist. Demographic information gathered includes age, gender, years of experience, degree level, and native English speaking ability.

Teacher Leadership Styles

The first collection of items found in the Elementary School Teachers Survey is concerned with teacher leadership styles and contains 22 questions. Relying upon the above-mentioned works of Bass and Avolio (1986, 1990,1995), the survey breaks leadership style down into two main categories containing

eight subcategories. The two main categories of leadership are transactional and transformational; explanations of the subcategories for each follow.

The category of transactional leadership is broken down into three subcategories: *contingent transactions*, *management-by-exception (active)*, and *management-by-exception (passive)*. The subcategory of contingent transactions refers to the leaders' methods of setting expectations, defining goals, and establishing rewards. Transactional leaders provide others with help in exchange for support, let subordinates know in specific terms who is responsible for meeting performance targets, clarify what subordinates can expect for meeting goals and deadlines, express satisfaction when subordinates meet expectations, make clear what outcomes are expected, and deliver what is promised in exchange for effort (Bass and Avolio, 1990, 1995).

The transactional subcategory of management-by-exception refers to the way leaders deal with error. As elucidated by the second transactional subcategory, management-by-exception (active) leaders are those who are proactive in monitoring and correcting mistakes. Management-by-exception (active) leaders focus attention on mistakes, exceptions, deviations from standards, and operational or content irregularities. They keep track of mistakes, watch for violations of rules and regulations, focus on the failure to meet standards, try to know if and when things are going wrong, and concentrate on addressing complaints, mistakes, and failures (Bass and Avolio, 1990, 1995).

The focus of the third transactional subcategory, management-by-exception (passive) leaders take an avoidance approach to problems and risk.

The operational philosophy of management-by-exception leaders is “if it ain’t broke, don’t fix it.” Management-by-exception (passive) leaders wait for things to go chronically wrong before taking action, they fail to act until complaints are heard, they fail to interfere until problems get serious, and they have to be told what went wrong before they address any problems (Bass and Avolio, 1990, 1995).

The category of transformational leadership is broken down into five subcategories: *idealized attributes*, *idealized behaviors*, *inspirational motivation*, *intellectual stimulation*, and *individualized consideration*. The transformational subcategory of idealized attributes refers to leaders' methods for establishing respect, trust, and faith in followers. Leaders who exhibit idealized attributes act in ways that instill pride in others for being connected with them and build others respect. They make personal sacrifices for the good of the group and value group interests over personal interests. They exhibit a sense of power and competence and spend time reassuring others that problems can be solved (Bass and Avolio, 1990, 1995).

The transformational subcategory of idealized behaviors refers to leaders' approaches to living their ideals. Leaders who exhibit idealized behaviors share their most important values and beliefs with their followers, impart the importance of having a strong sense of individual and group purpose, and support novel options for actions. They also discuss the importance of trusting one another and overtly consider the ethical and moral consequences of decisions (Bass and Avolio, 1990, 1995).

The transformational subcategory of inspirational motivation refers to leaders ability to inspire others. Leaders who exhibit inspirational motivation create for their followers a positive vision of the future. They discuss with enthusiasm the actions that must be undertaken by followers to accomplish goals and express confidence that those goals will be accomplished. They take stands on controversial issues and provide exciting images of what followers need to consider when making plans (Bass and Avolio, 1990, 1995).

The transformational subcategory of intellectual stimulation refers to leaders' ability to stimulate others. Leaders who exhibit intellectual stimulation encourage followers to seek new ways to solve problems and to examine issues from multiple perspectives. They encourage non-traditional thinking about problems and get followers to re-examine key assumptions when considering issues of concern (Bass and Avolio, 1990, 1995).

The transformational subcategory of individualized consideration refers to leaders' ability to coach and develop individual followers. Leaders who exhibit individualized consideration spend time working with individuals according to their needs. They promote self-development and help others develop their strengths. They listen attentively to the concerns of others and focus on the needs of individuals as much as on the needs of the group (Bass and Avolio, 1990, 1995).

Listed below are the first 22 survey items, questions 1 through 22, of the Elementary School Teachers Survey by teacher leadership category and subcategory:

Transactional leadership:

Contingent transactions: (survey items 1, 10, and 16)

Management-by-exception (active): (survey items 15 and 17)

Management-by-exception (passive): (survey items 3 and 21)

Transformational leadership:

Idealized attributes: (survey items 5, 7, and 13)

Idealized behaviors: (survey items 2, 9, and 22)

Inspirational motivation: (survey items 8, 18, and 19)

Intellectual stimulation: (survey items 4, 11, and 20)

Individualized consideration: (survey items 6, 12, and 14)

Teaching Practices

The second collection of survey questions found in the Elementary School Teachers Survey is concerned with teaching practices and includes 24 questions. Based upon the work of Engelmann and Carnine (1982), Perkins (1999), Brooks and Brooks (1999), Krynock and Robb (1999), and Kohn (1993), the survey breaks teaching practices down into two main categories, defined as didactic and constructivist, and contain six subcategories: *communication, management, presentation, assessment, participation, and reward systems*.

The subcategory of communication refers to how teachers communicate with their students. Didactic teachers value formal asynchronous power relationships with students; communication is directed by the teacher (Engelmann and Carnine, 1982). Constructivist teachers adopt more democratic

approaches to communication; they seek and value student input and discussion (Brooks and Brooks, 1999).

The subcategory of management refers to how teachers structure and manage their instructional time. Didactic teachers work from a set, prescribed curriculum that should not vary (Engelmann and Carnine, 1982). Constructivist teachers create or adapt curriculum or let students choose the direction the quest for knowledge may take them (Perkins, 1999).

The subcategory of presentation refers to how teachers present and how students interact with material. Didactic teachers prefer to lecture, model behaviors, and have students strive for the recreation of the presented model, form, or content (Engelmann and Carnine, 1982). Constructivist teachers provide students with resources and have students seek out principles, processes, and information on their own (Perkins, 1999).

The subcategory of assessment refers to how teachers evaluate their students' knowledge and abilities. Didactic teachers see knowledge as preconstructed and value formal and static approaches to testing (Engelmann and Carnine, 1982). Constructivist teachers see knowledge as emerging and try to adopt individualized and dynamic approaches to evaluation (Krynock and Robb, 1999).

The subcategory of participation refers to how teachers allow their students to interact with one another. Didactic teachers command direct participation; didactic students often listen to presentations together but solve problems alone (Engelmann and Carnine, 1982). Constructivist teachers allow

collaborative practices among students; constructivist students work together to solve problems (Perkins, 1999).

The subcategory of reward systems refers to how teachers value and motivate student work. Didactic teachers use extrinsic reward and/or punishment motivational structures with their students (Kohn, 1993). Constructivist teachers use intrinsic motivational structures with their students (Kohn, 1993).

Listed below are the second 24 survey items, questions 23 through 46, of the Elementary School Teachers Survey by teaching practices category and subcategory:

Didactic:

Communication: (survey items 23 and 39);

Classroom management: (survey items 26 and 28);

Presentation/activities: (survey items 27 and 30);

Assessment: (survey items 34 and 35);

Student participation/cooperation: (survey items 38 and 41);

Reward systems: (survey items 42 and 43).

Constructivist:

Communication: (survey items 24 and 25);

Classroom management: (survey items 29 and 32);

Presentation/activities: (survey items 31 and 33);

Assessment: (survey items 36 and 37);

Student participation/cooperation: (survey items 40 and 46);

Reward systems: (survey items 44 and 45).

Responses to the Elementary School Teachers Survey questions were scored on a five-point Likert scale. For the leadership continuum, the answers ranged from *Never* to *Frequently, if not always*. For the teaching practices continuum, the answers ranged from *Never or rarely* to *Twice a week or more*. Content validity for the Elementary School Teachers Survey was established by a panel of judges experienced in elementary education and postgraduate leadership studies and through a field test of the instrument with a group similar to the target group. Reliability for the survey was established through determination of Cronbach's coefficient alpha, a measure of reliability estimated from internal consistency. To calculate the Cronbach alpha, the researcher compared items within subcategories and then compared the subcategories using formula for the correlation of sums to estimate the reliability of the total (Thorndike, 1982). While originally done as a field test of the instrument with a group similar to the target group – 18 future teachers in their last semester before student teaching – the researcher realized that the alpha could also be calculated with the subject population and that that calculation would yield the most accurate measure of the instruments reliability. Thus, using the sample of 189 surveys returned, the researcher found the Elementary School Teachers Survey alpha to be measured at .80, with the leadership styles items alpha measured at .85 and the teaching styles alpha measured at .68; as .70 is determined to be the base level of reliability, the overall instrument is determined to be reliable, but the researcher recognizes that the teaching styles section needs improvement.

Job Satisfaction

Job satisfaction was measured using the Teacher Job Satisfaction Questionnaire (TJSQ) developed by Lester (1984). The TJSQ (Appendix C) is based on the work of Maslow and Herzberg (Lester, 1984) and includes nine factors related to teacher job satisfaction: supervision, colleagues, working conditions, pay, responsibility, work itself, advancement, security, and recognition.

Supervision refers to the kind of supervisory style a teacher uses, which relates to task- and person-oriented behaviors;

colleagues refers to the fellow teachers and the social atmosphere of the school setting and includes collegial cooperation and support towards the achievement of common goals;

working conditions includes both the physical environment of the school and the overall aspects of the school organization as defined and enforced by administrative policies;

pay refers to annual income, an element which may serve as an indicator of achievement or failure;

responsibility refers to the desire to be accountable for one's own work;

work_itself refers to the job of teaching, including creativity and autonomy;

advancement refers to a change in status or position, which may be equated with growth and advancement to higher level tasks;

security refers to job security and includes such organizational policies as those relating to dismissal, layoffs, tenure, seniority, retirement, and pensions; and

recognition refers to the attention, prestige, and esteem of supervisors, colleagues, students, and parents (Lester, 1984).

Herzberg developed a two-factor hygiene and motivation theory that has been used extensively to examine how satisfied or dissatisfied people are with their jobs (Hersey, Blanchard, and Johnson, 1996). Hygiene factors (supervision, working conditions, pay, colleagues, and security) relate to the job environment; they do not lead to motivation but rather prevent dissatisfaction (Hersey, Blanchard, and Johnson, 1996). Motivation factors (advancement, responsibility, work itself, and recognition) relate to what people actually do on the job; they result from internal generators in employees and motivate people to superior performance (Hersey, Blanchard, and Johnson, 1996). Thus, the instrument included the following items by factor category:

Hygiene factors:

Supervision (survey items 5, 10, 16, 23, 30, 39, 42, 46, 52, 55, 58, 59, and 61);

Working conditions (survey items 9, 15, 17, 25, 27, 34, and 54);

Pay (survey items 2, 4, 35, 43, 56, 60, and 64);

Colleagues (survey items 14, 19, 31, 36, 38, 40, 47, 50, 53, and 65);

Security (survey items 12, 22, and 28).

Motivation factors:

Advancement (survey items 1, 8, 20, 32, and 49);

Responsibility (survey items 18, 21, 33, 37, 51, 57, 62, and 63);

Work itself (survey items 3, 7, 11, 24, 26, 29, 41, 44, and 45);

Recognition (survey items 6, 13, and 48).

Content validity for the full TJSQ was established by a panel of judges at New York University (Lester, 1984). Approximately 50 percent of the items are written in positive form and 50 percent are written in a negative form to avoid response set bias. Negative items were reversed in the data analysis. The data were cross-validated using a split-sample technique. Construct validity was obtained through factor analysis.

Reliability for the TJSQ has been established through a random sample of 620 teachers throughout New England. The reliability estimated from the internal consistency of questions being used was generally high, with consistency scores in the 70s (responsibility - .73; security - .71; and recognition - .74), the 80s (colleagues - .82; working conditions - .83; pay - .80; work itself - .82; and advancement - .81), and the 90s (supervision - .92). The overall internal consistency for the survey questions, using Cronbach's alpha, was 93 percent.

Data Collection

The researcher was granted written permission from the CNMI Public School System Commissioner of Education to administer the surveys to all CNMI PSS elementary school teachers on Saipan; this permission was submitted to the University of San Diego Human Subjects Committee prior to its granting approval

to conduct the research. The schools participating in the study, all of them on the island of Saipan, were DanDan Elementary, Garapan Elementary, G.T. Camacho Elementary, Kagman Elementary, Koblerville Elementary, Oleai Elementary, San Antonio Elementary, San Vicente Elementary, Tanapag Elementary, and W. S. Reyes Elementary; however, no individual teachers or individual schools are identified, nor are collected data analyzed according to individual schools, in the course of this research.

The research conducted was sponsored by no one; though the researcher worked for the local community college at the time, the work he undertook had no official sponsorship from that institution, from the public school system in which he conducted his research, nor from any other agency or individual. In addition, no persons were coerced in any manner to participate in this study; all participation was voluntary, and the researcher stressed the voluntary nature of all participation during any presentations made to potential participants. Participants signed a form (see Appendix B) acknowledging the voluntary nature of their participation and giving the researcher explicit permission to use the data gathered for the purposes of the study. Finally, every effort has been made to keep the information gathered from the surveys private and secure.

Sampling Frame and Survey Timetable

After contacting individual principals, the researcher visited every school to explain the research and to disseminate the surveys during the Spring 2002 semester. The researcher first contacted all principals by phone to explain the purpose of the study. The researcher then went to every school to meet with

teachers. When possible, the researcher addressed all teachers together at school faculty meetings. When the researcher was not able to meet all teachers collectively at faculty meetings, he worked with individual teachers, or in one case with a principal, who served as facilitators, to explain the study and the surveys. At these meetings with teachers, the researcher described the purpose of the study, gave each teacher a copy of the dissertation proposal abstract, and explained the mechanics of completing and submitting the survey. In addition, each survey had a cover page that explained the purpose of the research, addressed concerns regarding confidentiality of survey participants, and provided the researcher's name, address, telephone number, and email address (see Appendix A). Provisions were made for respondents to access the results of the study upon completion.

To facilitate the collection of the surveys, the researcher recruited one individual, most often a teacher, at each school to serve as a collection agent. Surveys were distributed with an envelope; participants filled out the surveys, sealed them in envelopes, and gave them to the collection agents, who secured them in boxes or envelopes that the researcher later collected. An honorarium of one dollar was attached to each survey distributed in order to provide token compensation and to encourage survey return. In addition, one week after distributing the surveys at each school, the researcher placed a memo in each teacher's mailbox requesting the return of the completed surveys. Two weeks after the surveys were distributed, the researcher returned to the schools to collect the data.

The surveys were given to all regular, full-time CNMI Public School System elementary school teachers on Saipan. According to the 2001 edition of the CNMI PSS Facts and Figures, which supplies statistics for the 2001-2002 school year, there were 267 regular, full-time teachers at the beginning of the 2001-2002 school year, or 87 percent of the total CNMI public elementary school teacher population of 304. Of that 267 Saipan total, 199, or 75 percent, were female (CNMI Public School System, 2001a). However, by the time the researcher was able to distribute the surveys, which were given to all regular classroom teachers late in the 2001-2002 school year, the total number of full-time CNMI Public School System elementary school teachers on Saipan had fallen to 245.

The researcher had hoped to meet with all the teachers at all of the schools, explain the surveys, and have them filled out while the researcher waited. Unfortunately, due to the timing of the study, the researcher had to visit schools as they were finishing the school year. Thus, graduations, grading processes, and other end-of-year events competed for the time the teachers needed to fill out the survey. In some cases, the researcher was able to meet with all the teachers in a large group to explain the study and survey as planned. In two of those cases, teachers were able to fill out the survey on the spot. Those schools had the highest return rate in the study. In five other schools, the researcher was able to meet with all the teachers and explain the study, but the teachers then took the surveys with them to fill out later. In four of those cases, the researcher designated a teacher in the school to serve as facilitator in

retrieving the surveys. Those four schools had return rates between 76 percent and 88 percent.

In one of those schools, though, the researcher asked an administrator who had been a former student to help collect the surveys. Unbeknown to the researcher at the time, however, the teachers in that school were having disagreements with their administration about school issues, and when the researcher went to pick up surveys, teachers told him variously that they had completed the surveys but were hesitant to turn them in, that they were afraid the researcher would be sharing the surveys with the administrators, and that the researcher should have used someone else to collect the data. The researcher did get another teacher to help collect surveys, but in the end was only able to collect 50 percent of the surveys from that school.

In the three remaining schools, scheduling conflicts kept the researcher from meeting with all of the teachers as a group as planned. In one of the cases, a scheduling misunderstanding between the researcher and the principal caused the researcher to miss a meeting in which all the teachers had been gathered. Thus, the principal distributed and collected the surveys; 71 percent were returned. In two other cases, scheduling difficulties prevented the researcher from meeting the teachers as well; in both those cases, the researcher was able to enlist the assistance of a well-respected teacher to help distribute and collect the surveys; return rates from those schools were 75 percent and 84 percent respectively.

Of the 245 total surveys distributed, 189, or 77 percent, were returned. As alluded to above and as shown in Table 1, of the 10 Public Elementary Schools participating in the study, one had a survey return rate of 50 percent, four had return rates in the 70s (71 percent, 75 percent, 76 percent, and 78 percent), three had return rates in the 80s (81 percent, 84 percent, and 88 percent), and two had return rates in the 90s (90 percent and 95 percent).

Table 1

Survey Distribution and Return Rate

School	Surveys distributed	Surveys returned	Percent returned
Oleai	20	19	95
Tanapag	22	20	90
W.S. Reyes	32	28	88
Kagman	33	28	84
G.T. Camacho	11	9	81
San Vicente	28	22	78
San Antonio	13	10	76
Koblerville	20	15	75
DanDan	24	17	71
Garapan	42	21	50
Totals	245	189	77

Data Analysis

Survey instruments were collected, scored, and entered into the popular statistical analysis software program SPSS, version 11.5, by the researcher. Teacher job satisfaction is the dependent variable in the study; job satisfaction scores obtained from the Teacher Job Satisfaction Surveys were analyzed, converted into a number by linear transformation, and categorized in one of five groups as highly dissatisfied, dissatisfied, neutral, satisfied, and highly satisfied. The scoring was determined by assigning a point value to each answer, totaling the scores, and then converting the raw scores by linear transformation into a range from zero to 100; questions written in the negative or as unfavorable (items 5, 6, 8, 11, 15, 20, 22, 23, 26, 28, 29, 34, 36, 40, 42, 44, 46, 47, 48, 51, 55, 62, and 65) were reversed before scoring. *Strongly Disagree* was worth 1 point, *Disagree* was worth 2 points, *Neutral* was worth 3 points, *Agree* was worth 4 points, and *Strongly Agree* was worth 5 points. After points had been totaled, each respondent had a possible range from 65 to 325. These scores were then be multiplied by a scaling factor of .384, a number derived by subtracting 65 from 325, and then dividing 100 by the remainder (in this case, 260). The scores were then rounded to yield scores with a range from 25 to 125. Twenty-five points were then subtracted from each score to get the zero to 100 range. Individuals were then placed on a continuum according to their converted scores; scores ranged from a low of 42.9 to a high of 93.2.

Individuals were also assigned to a leadership category according to their scores from survey; in this case, the categories were transactional or

transformational. Each of the first 22 questions on the Elementary School Teachers Survey is concerned with teacher leadership styles and focuses on one of the two primary leadership categories of transactional and transformational. The questions were separated into their individual groups and the scores were tallied and converted; again, one question written in the negative (question three) was reversed before scoring. *Not at all* was worth 1 point, *Once in a while* was worth 2 points, *Sometimes* was worth 3 points, *Fairly Often* was worth 4 points, and *Frequently* was worth 5 points. As noted above, seven of the questions were related to the area of transactional leadership and 15 were related to the area of transformational leadership. For transactional items (items 1, 3, 10, 15, 16, 17, and 21), after points had been totaled, each respondent had a raw score range from 7 to 35. As above, these scores were then multiplied by the scaling factor of 3.571 and rounded to yield scores with a range from 25 to 125. Twenty-five points were then subtracted from each score to get the zero to 100 range. For transformational items (items 2, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 18, 19, 20, and 22), after points had been totaled, each respondent had a possible raw score range from 15 to 75. These scores were then multiplied by 1.666 and rounded to yield scores with a range from 25 to 125. Again, twenty-five points were subtracted from each score to get the zero to 100 range. Individuals then had separate scores in each of the leadership categories; the category in which they scored the highest became then the leadership category to which they were assigned.

For example, if a respondent got a raw score of 12 on the transactional scale and a raw score of 45 on the transformational scale, he would get converted scores of 43 (transactional) and 75 (transformational). He would then be assigned to the leadership category of transformational.

Similarly, respondents were also assigned to one of two teaching practices categories; in this case, the categories were didactic or constructivist. Each of the remaining 24 questions on the Elementary School Teachers Survey focused on one of the two primary teaching practices categories of didactic and constructivist. The questions were again separated into their individual groups and the scores were tallied; again, questions written in the negative were reversed before scoring. *Never or rarely* was worth 1 point, *Once a month* was worth 2 points, *Twice a month* was worth 3 points, *Once a week* was worth 4 points, and *Twice a week or more* was worth 5 points. Again, as noted above, 12 of the questions were related to the area of didactic teaching practices and 12 were related to the area of constructivist teaching practices. For didactic items (items 23, 26, 27, 28, 30, 34, 35, 38, 39, 41, 42, and 43), after points had been totaled, each respondent had a raw score range from 12 to 60. These scores were then multiplied by the scaling factor of 2.083 and rounded to yield scores with a range from 25 to 125. Twenty-five points were then subtracted from each score to get the zero to 100 range. For constructivist items (items 24, 25, 29, 31, 32, 33, 36, 37, 40, 44, 45, and 46), after points had been totaled, each respondent also had a raw score range from 12 to 60. These scores were also multiplied by 2.083 and rounded to yield scores with a range from 25 to 125.

Again, twenty-five points were subtracted from each score to get the zero to 100 range. Individuals then had separate scores in each of the two teaching practices categories; as with the leadership category above, the category in which they scored the highest became the teaching practices category, either didactic or constructivist, to which they were assigned.

The researcher chose various options if surveys were returned partially filled out or if respondents could not be clearly classified into one category or another. For example, if an individual failed to answer fewer than 50 percent of all items within a specific subcategory, the researcher used the total data means to fill in those items. If a respondent failed to answer more than 50 percent of all items within a subcategory, but did answer more than 50 percent in a related subcategory, the researcher ran the data using only the subcategory that was more than 50 percent answered. If an individual received raw scores in any of the categories that, after conversion, resulted in a categorical tie (for example, a 21 in transactional and a 45 in transformational, for converted scores of 50 in each), the researcher analyzed the data by assigning the individual first to one category and then to the other and examining any possible difference these scores may have. All cases involving incomplete data and how that data were included in the analysis are explicitly discussed in the limitations section that follows.

Ordinary least squares multiple regression was the most appropriate statistical technique to apply to the data collected in the study. The technique allowed the researcher to both describe and make inferential statements about

the data. The study worked with one dependent variable – job satisfaction – and eight independent variables: transactional leadership, didactic teaching practices, age, gender, years teaching, baccalaureate degree, masters degree, and English as a mother tongue. To avoid the problem of perfect co-linearity between regressors, one variable from each related group was dropped in the formula. Thus, transformational leadership was dropped from the leadership group, constructivist was dropped from the teaching practices group, and doctorate degree was dropped from the highest education level attained group. The dummy variable for transactional leadership numerically describes the difference in teacher satisfaction between transactional and transformational leaders, the dummy variable for didactic teaching practices numerically describes the difference in teacher satisfaction between didactic and constructivist teaching practices, and the dummy variables for baccalaureate and master degrees numerically describes the difference in teacher satisfaction among holders of those degrees and the doctorate.

The primary regression formula is:

$$TS = b_0 + b_1DTA + b_2DDI + b_3 AGE + b_4DGN + b_5YRS + b_6DBA + b_7DEN + b_8(DTA \times DDI)$$

With TS being teacher job satisfaction,

b_0 being the constant for the value of the dependent variable when the independent variables equal zero,

DTA being a dummy variable to represent transactional leadership,

DDI being a dummy variable to represent didactic teaching practices,

AGE being age of respondent (a continuous variable),

DGN being a dummy variable to represent gender,
YRS being years teaching (a continuous variable),
DBA being a dummy variable to represent a baccalaureate degree,
DEN being a dummy variable to represent English as a mother tongue,
and
(DTAxDDI) being a dummy variable to represent the interaction between
transactional leadership and didactic teaching practices.

Reporting the Analysis

To make the data easily understood, the analysis is reported both textually and, whenever possible, in graphic format. The researcher provides descriptive statistics tables to show relationships among the dependent and independent variables. In addition to the information gathered about the primary variables, cross tabulations are run on the sub-categories that make up the variables to uncover other possible findings of interest.

Limitations

The researcher understands that though the Elementary School Teachers Survey used in this study is predicated upon existing surveys, his instrument is new and untested. Twenty-two experts have examined the survey questions; these experts include educators currently at the end of their course work in an accredited doctoral program and instructional faculty in that same program. Upon their recommendations, the researcher revised some survey questions to ensure content validity.

To further establish validity, the researcher contacted the designer of the Multicultural Leadership Questionnaire (MLQ), Dr. Bernard Bass, and asked for his feedback on and permission to use the modified MLQ that is the instrument in appendix A. Dr. Bass granted that permission through email on August 2, 2000, and Mindgarden, the company to which Dr. Bass has given control of his survey, through mail on December 12, 2001.

The researcher also recognized that surveys may be returned only partially filled out. If a survey was more than 50 percent filled out, individual missing answers were addressed by using zero order correction, the sample mean filling any data gaps. If a form was less than 50 percent filled out, it would have been discarded; however, no forms less than 50 percent filled out were received. Upon final submission of the data, the researcher also considered any non-response bias that may have occurred due to individuals not submitting the surveys. For example, if 100 surveys are returned, teachers who are 30 years old or younger fill out 60 percent, and PSS demographic data show that only 25 percent of PSS teachers are 30 or younger, the data could suffer from non-response bias. Therefore, demographic comparisons were made between the study data and PSS demographic records to determine the degree of similarity between the respondents and the actual teachers in the CNMI Public School System.

This non-response bias relates as well to the larger issue of generalizability. The researcher gathered data only from public elementary school teachers on the island of Saipan and generalizes from that data to the

CNMI as a whole. Saipan is by far the most populated island in the CNMI; nearby Tinian and more distant Rota contain only .059 and .062 percent of the total elementary school teaching population respectively. Thus, while the teacher population groups among the three islands may be similar, this study only gathered data from among teachers on Saipan, not from among teachers throughout the whole of the CNMI.

The researcher also notes that the veracity of the data is ultimately dependent upon the truthfulness or carefulness of the respondents. Respondents who lied or merely filled out survey forms randomly could skew the data. Finally, the researcher notes that there may be conditions which may affect the study for which he has no control and which the survey instruments will not address; for example, a general animosity within the school which is not touched upon by the surveys, problems in a respondent's home life that may increase dissatisfaction or decrease concentration when filling out survey forms, and other such concerns.

Ethical Considerations

The established procedures of the University of San Diego's Committee on Protection of Human Subjects were followed in undertaking this research study. Since participation in this study was voluntary, there was no expense, other than in time, and there was no risk to the participants. All federal and state regulations were followed to ensure confidentiality and conformance to regulations governing such research. Information to Respondents (Appendix A) detailing the nature and purpose of the study were given and signed consent to

participate were requested of all participants. Participants' confidentiality was assured through the use of non-coded instruments, and every effort was made to utilize and report the results in a non-identifying manner. Raw survey data and completed survey forms were kept in a locked file in the researcher's office. In June, 2004, the researcher destroyed the data by shredding and discarding the completed survey forms.

Chapter Four

Results and Findings

Introduction

This chapter describes the results of the survey analysis conducted for the study. The purpose of the study was to investigate the relationships, if any, among teacher job satisfaction, teacher leadership styles, and teaching practices and to examine to what extent leadership styles and teaching practices affect teacher job satisfaction. In essence, the researcher sought to examine the related questions of whether a complementary relationship between teacher leadership styles and teaching practices lead to increased job satisfaction among elementary school teachers and, conversely, does conflict between teacher leadership styles and teaching practices lead to tensions, and accompanying dissatisfaction with their jobs, among elementary school teachers. To answer these questions, the researcher conducted survey research with elementary school teachers on the island of Saipan, located in the Commonwealth of the Northern Mariana Islands, and used a series of multiple regression analyses to examine the results of those surveys.

The first part of the chapter discusses the demographic make-up of the sampled population. The second part offers an examination of the dependent variable called satisfaction and the sub-factors that make up that variable for the

sampled population. The third part answers the research questions. As part of that process, the researcher discusses the various regression analyses conducted and addresses the analytical questions posed in Chapter Three in the context of the research questions. After answering the research questions, the researcher reexamines and addresses the research hypotheses. Finally, the last part of the chapter examines the results of a series of regressions conducted in which the sub-factors that make up the dependent variable satisfaction are themselves regressed as dependent variables against all of the independent variables.

Sample Demographics

Five demographic variables were included in this study; those variables were age, gender, years teaching, native language, and highest degree earned. In the sample, the age of the respondents ranged from 20 to 65, with four cases unreported (see Table 2). The mean age of the respondents was 37.4 (see Table 7). The gender of the subjects was reported in all but four of the cases; 150 of the respondents, or 81 valid percent, which accounts for the missing cases, were female (see Table 3). Respondents to the survey ranged from first-year (or, in some cases, first-semester) teachers to teachers with 36 years of experience (see Table 4); the mean teaching experience of the respondents was 8.4 years (see Table 7).

Ninety-seven teachers, or almost 53 valid percent of the respondents, identified themselves as non-native speakers of English, with five missing cases (see Table 5). Not surprisingly, the most frequent native language listed by non-

native speakers was the indigenous language Chamorro, with 37 respondents listing it, and the remaining languages identified as being native included Burmese, Carolinian, Filipino, Belauan, Pangasinanese, Pohnpeian, Sonsorolese, Spanish, Tagalog, and Visayan.

Because only one respondent listed having a doctoral degree, for the purposes of the study the category for degree was broken into two: baccalaureate and graduate. Excluding the five missing cases, 157, or 85 valid percent, of the respondents identified a BA or a BS as their current degree, with 27, or 15 valid percent, listing a graduate degree (see Table 6).

Table 2

Demographic Frequency Data - Age

Age	N	Percent	Valid Percent
20 - 29	45	23.8	23.8
30 - 39	76	40.2	40.2
40 - 49	45	23.8	23.8
50 - 59	12	9.6	9.6
60 and over	5	2.6	2.6
Total	189	100.0	100.0

Table 3

Demographic Frequency Data - Gender

Gender		N	Percent	Valid Percent
	male	35	18.5	18.9
	female	150	79.4	81.1
Subtotal		185	97.9	100.0
	missing	4	2.1	
Total		189	100.0	

Table 4

Demographic Frequency Data – Years Teaching

Years Teaching	N	Percent	Valid Percent
1 – 5	90	47.5	47.5
6 – 10	45	23.7	23.7
11 – 15	23	12.2	12.2
16 – 20	17	9.0	9.0
21 – 25	3	1.5	1.5
26 – 30	5	2.7	2.7
31 – 35	5	2.7	2.7
36	1	.5	.5
Total	189	100.0	100.0

Table 5

Demographic Frequency Data – Language

Language	N	Percent	Valid Percent
non-native speaker	97	51.3	52.7
native speaker	87	46.0	47.3
Subtotal	184	97.4	100.0
missing	5	2.6	
Total	189	100.0	

Table 6

Demographic Frequency Data – Degree

Degree	N	Percent	Valid Percent
Graduate degree	27	14.3	14.7
BA/BS	157	83.1	85.3
Subtotal	184	97.4	100.0
missing	5	2.6	
Total	189	100.0	

Table 7

Summary Descriptive Statistics – Mean Age and Years Teaching

Age and Years Teaching	N	Mean	Std. Deviation
Age	189	37.4	9.69
Years Teaching	189	8.4	8.10

Analysis of Research Questions

The researcher used data from one survey (see Appendix B) to gather information about the leadership styles and teaching practices among elementary school teachers on the island of Saipan. He used data gathered from another survey (see Appendix C) given at the same time to determine the level of teacher job satisfaction among those same teachers. Survey respondents did not know to which category or category factor any particular survey question related. The researcher placed teachers on a transactional - transformational leadership continuum and defined them as being either transactional or transformational. As an example of how respondents were placed in a category, a random respondent is examined. For example, teacher X answered the survey in such a manner to yield a transactional score of 89.27 and a transformational score of 76.63. Thus, the respondent was placed in the transactional category for leadership style ($89.27 > 76.63$).

The researcher also placed those same teachers on a didactic - constructivist teaching practices continuum and defined them as being either didactic or constructivist. Again, for example, in answering the survey, the aforementioned anonymous and randomly selected Teacher X mentioned above received a didactic score of 83.32 and a constructivist score of 52.07. Thus, the respondent was placed in the didactic category for teaching practice ($83.32 > 52.07$). With both leadership style category and teaching style category thus determined, Teacher X would therefore be categorized as a transactional-didactic teacher. Further information regarding the scoring of the survey items or

the methodology used can be found in Chapter Three in the section on Data Analysis.

Finally, the researcher examined the relationship among demographic factors, leadership styles, and teaching practices to determine the influence such relationships, if any, may have on job satisfaction. The results of the study are reported based on the five research questions that guided the study.

Research Question 1. What is the level of job satisfaction among public elementary school teachers in Saipan?

As mentioned in Chapter Three, job satisfaction was measured using the Teacher Job Satisfaction Questionnaire (TJSQ), which was developed by Lester based on the work of Maslow and Herzberg (Lester, 1984). The TJSQ includes nine factors related to teacher job satisfaction, five of them hygiene factors (supervision, working conditions, pay, colleagues, and security), and four of them motivation factors (advancement, responsibility, work itself, and recognition). Hygiene factors relate to the job environment; they do not lead to motivation but rather prevent dissatisfaction (Hersey, Blanchard, and Johnson, 1996). Motivation factors relate to what people actually do on the job; they result from internal generators in employees and motivate people to superior performance (Hersey, Blanchard, and Johnson, 1996).

According to the survey results, the average, or mean, level of job satisfaction among public elementary school teachers on Saipan was 70.4. Teacher job satisfaction scores ranged from a low of 42.9 to a high of 93.2 (see

Table 8). Nine teachers scored in the 40s, 23 in the 50s, 52 in the 60s, 66 in the 70s, 38 in the 80s, and one scored in the 90s.

Table 8

Range of Teacher Job Satisfaction Scores

Range of Scores	N	Percent	Valid Percent
42.9 – 49.5	9	4.8	4.8
50.65 – 59.4	23	12.1	12.1
60.25 – 69.8	52	27.5	27.5
70.23 – 79.8	66	35	35
80.22 – 89.4	38	20.1	20.1
93.27	1	.5	.5
Total	189	100.0	100.0

Mean = 70.4

As shown in Table 9, among the nine factors that made up the job satisfaction score, two motivational factors – responsibility and work itself – brought the most satisfaction to teachers, with scoring averages of 89.2 and 78.5 respectively. The factors also produced a possible scoring range from zero to 100. A low range score of zero means at least one respondent answered every question for that factor with a one; a high range score of 100 means at least one respondent answered every question with a five. The factors responsibility and work itself produced scores with the overall highest range, from a low of 65.6 to a high of 100 for responsibility and from a low of 47.2 to a high of 100 for work itself. The hygiene factor of colleagues left teachers satisfied at an average of

73.6, with a range from 12.5 to 100, and the motivation factor of advancement ranked fourth at 69.2, though at least one respondent established its low end range at zero. The hygiene factor of security scored an average of 66.9 (with a zero to 100 range), the motivation factor of recognition averaged 64.9 (with a zero to 100 range), and the hygiene factors of working conditions and supervision averaged 66.3 (range of 14.2 to 96.4) and 65.6 (range of 7.6 to 100) respectively. The lowest ranking factor for satisfying teachers was pay, which averaged 52.9. Interestingly, the low end of the range for pay was 21.4, which was better than the low end of six factors that had higher overall average scores, while the high end for pay, 82.1, was the lowest overall high end score.

Table 9

Average Teacher Satisfaction Scores by Hygiene Factors and Motivation Factors

Hygiene and Motivation Factors	N	Minimum	Maximum	Mean	Std. Deviation
Responsibility	189	65.6	100.0	89.2	8.7
Work Itself	189	47.2	99.9	78.5	9.7
Colleagues	189	12.5	100.0	73.6	14.3
Advancement	189	0	100.0	69.2	19.7
Security	189	0	100.0	66.9	19.6
Work Conditions	189	14.2	96.4	66.3	16.0
Supervision	189	7.6	100.0	65.6	21.5
Recognition	189	0	100.0	64.9	20.7
Pay	189	21.4	82.1	52.9	9.8

Research Question 2. To what extent do CNMI public elementary school teachers fall into the personal leadership style categories of transactional or transformational?

As stated in Chapter Three and previously in this chapter, the leadership style placement for each respondent was determined by assigning each respondent to a category, either transactional or transformational, based upon the respondent's scores on the surveys.

Using that method, the researcher determined that public elementary school teachers in the CNMI prefer transformational leadership styles to transactional ones, with about 12 percent more being identified as transformational than transactional (Table 10). Survey data for 189 public elementary school teachers on Saipan indicate that 83, or 44 percent, are transactional and 106 teachers, or 56 percent, are transformational. No respondents' had scores that were tied in this category.

Table 10

Leadership Styles Distribution Among CNMI Public Elementary School Teachers

	N	Percent	Valid Percent
Transformational	106	56.1	56.1
Transactional	83	43.9	43.9
Total	189	100.0	100.0

Research Question 3. To what extent do CNMI public elementary school teachers prefer either didactic or constructivist teaching practices?

Chapter Three describes the teaching practices placement for the respondents, which was determined by assigning each respondent to either the didactic or constructivist category based upon the respondent's scores on the surveys.

Similar to the leadership styles category, CNMI public elementary school teachers are split in preferring either didactic or constructivist teaching practices, with a ratio of six teachers to four preferring the didactic versus the constructivist approach (see Table 11). With six of the respondents, or three percent, not falling clearly into either category, 108, or 59 valid percent, of the remaining 183 respondents were determined to prefer didactic teaching practices and 75, or 41 valid percent, were determined to prefer constructivist approaches.

Table 11

Teaching Practices Distribution Among CNMI Public Elementary School Teachers

	N	Percent N = 189	Valid Percent N = 183
Constructivist	75	39.7	41
Didactic	108	57.1	59
Neither category	6	3.2	
Total	189	100.0	100.0

To determine whether the leadership styles and teaching practices categories had any significant influence on each other, a one-way analysis of variance (ANOVA) was run, with the leadership styles score used for the dependent variable and the teaching practices score used for the independent

variable. The results indicate that while approaching significance, the variables have no significant effect on each other (see Table 12).

Table 12

Leadership Styles – Teaching Practices One-Way Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.923	1	.923	3.770	.054
Within Groups	44.333	181	.245		
Total	45.257	182			

With all leadership styles and teaching practices categories reported, Table 13 provides a cross-tabulation comparison among the subsets of those two categories. It shows that 35 of the respondents are defined as transformational/constructivist, 66 are defined as transformational/didactic, 40 are defined as transactional/constructivist, and 42 are defined as transactional/didactic. Six respondents did not place clearly into either teaching style and thus are not reported on this chart; the total of 183 reflects those unclassified respondents.

Table 13

A Comparison of Leadership Styles and Teaching Practices

		Teaching Style Category		Total N
		constructivist	didactic	
Leadership Category	Transformational	35	66	101
	Transactional	40	42	82
Total		75	108	183

Research Question 4. To what extent do demographic factors, preferred leadership styles, and preferred teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?

To answer question four, the researcher conducted three regressions to determine to what extent any of the independent variables affected the degree of job satisfaction expressed by the CNMI public elementary school teachers. Those regressions are a full demographic regression, a regression that contains only the significant demographic variable, and a final regression that regressed the dependent variable satisfaction against the only significant demographic variable and the leadership styles/teaching practice variables.

Regression Models – Analysis of the Data

The survey results were analyzed using SPSS 11.5, a popular statistical analysis software program. The researcher conducted a series of Ordinary Least Squares multiple regressions with the data. The first regression conducted, the full demographic model, regressed the dependent variable, job satisfaction, against the independent demographic variables age, gender, years teaching, native language, and degree. The second regression conducted, the final demographic model, regressed the dependent variable, job satisfaction, against the only demographic variable that was found to be significant in the first demographic regression. The final regression conducted, the leadership styles/teaching practices regression, regressed the dependent variable job

satisfaction against the only significant independent demographic variable (gender) and the independent variable for leadership style (transactional), the independent variable for teaching practice (didactic), and, to answer Research Question Five, the interaction variable between leadership styles and teaching practices (agreement).

The Full Demographic Model

The full demographic model regression compared the dependent variable satisfaction with the independent variables – age, gender, years teaching, native language, and degree – that made up the demographic information requested in the survey. That regression formula was:

$$TS = b_0 + b_1AGE + b_2DGN + b_3YRS + b_4DBA + b_5DEN$$

With TS being teacher job satisfaction,

b_0 being the constant for the value of the dependent variable when the independent variables equal zero,

AGE being age of respondent (a continuous variable),

DGN being a dummy variable to represent gender, with $DGN = 1$ if the respondent is female and $DGN = 0$ if the respondent is male,

YRS being years teaching (a continuous variable),

DBA being a dummy variable to represent a baccalaureate degree, with $DBA = 1$ if the respondent holds a baccalaureate degree and 0 if the respondent holds a post-baccalaureate degree (masters or higher),

and

DEN being a dummy variable to represent English as a mother tongue, with DEN = 1 if the respondent is a native speaker of English and DEN = 0 if the respondent is not.

The model summary for this regression yielded the following statistics:

Table 14

Model Summary for Full Demographic Regression

R	R Squared	Adjusted R Squared	Std. Error of the Estimate
.263	.069	.043	10.65

The R square in Table 14 indicates that the independent variables listed as predictors explain almost seven percent of the variation in the dependent variable job satisfaction. Taking into account the number of independent variables, the adjusted R squared indicates that these independent variables explain over four percent of the variance in job satisfaction. In addition to the information presented in Table 14, the model also yielded an F-statistic of 2.64, indicating with almost 98 percent certainty that demographic factors were an important determinant of teacher job satisfaction. With the alpha for significance set by the researcher at the .05 level, the analysis of the coefficients for the model (see Table 14) also yielded a t-statistic for one of the variables, gender, of 2.08, statistically significant at the .004 level, indicating, with over 99 percent certainty, that when regressed with other demographic variables, gender strongly influences the level of job satisfaction for teachers in the CNMI. The unstandardized coefficient also indicates that, when regressed with all of the other independent demographic variables, the mean score for females was 6.13

points higher than the mean score for men on the Teacher Satisfaction Survey, indicating that females were more satisfied with their jobs than were the males in the sample.

Table 15

Satisfaction by All Demographic Variables

	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	62.49	6.09	10.26	.000
Gender	6.13	2.08	2.95	.004
Language	-2.09	1.61	-1.30	.197
Degree	1.13	2.38	.48	.635
Age	.042	.11	.41	.685
Years Teaching	.01	.13	.08	.939

Only the independent variable gender displayed any significant influence on the dependent variable job satisfaction. Additional details regarding the variable gender are found in the analyses of the regressions that follow.

The Significant Demographic Model

The significant demographic model regression regressed the dependent variable job satisfaction against the only demographic variable (gender) that was found to be significant. That regression formula was:

$$TS = b_0 + b_1DGN$$

With TS being teacher job satisfaction,

b_0 being the constant for the value of the dependent variable when the independent variables equal zero, and

DGN being a dummy variable to represent gender, with DGN = 1 if the respondent is female and DGN = 0 if the respondent is male.

The model summary for this regression yielded the following:

Table 16

Model Summary for the Significant Demographic Regression

R	R Squared	Adjusted R Squared	Std. Error of the Estimate
.244	.060	.054	10.58

The R square in Table 16 indicates that the independent variable gender explains almost seven percent of the variation in the dependent variable job satisfaction. Taking into account that a single independent variable is being regressed, the adjusted R squared not surprisingly yields a score quite close to that found for R squared. As part of this regression, the model yielded an F-statistic of 11.59 for the analysis of variance (ANOVA), and, as seen in Table 16 below, the model yielded an t-statistic for gender of 3.4, statistically significant at the .001 level, indicating with almost 100 percent certainty that, when regressed alone, gender was an important determinant of teacher job satisfaction. As previously, gender here represents females, and the regression coefficient for gender suggests that, on average and when the variable gender is regressed alone, the mean score for women is 6.76 points higher than the mean score for men on the teacher job satisfaction scale (see Table 17), indicating that females are more satisfied with their jobs as teachers than are their male counterparts.

Table 17

Satisfaction by Gender

	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	64.81	1.79	36.21	.000
Gender	6.76	1.98	3.40	.001

The Leadership Styles/Teaching Practices Regression

The leadership styles/teaching practices regression regressed the dependent variable job satisfaction against the independent variable gender (the only demographic variable which had any significance) and against the independent variables leadership style, teaching practice, and the interaction variable between leadership styles and teaching practices called *agreement*.

The regression formula was:

$$TS = b_0 + b_1DTA + b_2DDI + b_3DGN + b_4(DTA \times DDI)$$

With TS being teacher job satisfaction,

b_0 being the constant for the value of the dependent variable when the independent variables equal zero,

DTA being a dummy variable to represent transactional leadership, with $DTA = 1$ if the respondent is identified as having a preferred leadership style of transactional and $DTA = 0$ if the respondent is identified as having a preferred leadership style of transformational,

DDI being a dummy variable to represent didactic teaching practices, with $DDI = 1$ if the respondent is identified as preferring a didactic teaching style and

DTA = 0 if the respondent is identified as preferring a constructivist teaching style,

DGN being a dummy variable to represent gender, with DGN = 1 if the respondent is female and DGN = 0 if the respondent is male,

and

(DTAxDDI) being a dummy variable to represent agreement, the interaction between transactional leadership styles and didactic teaching practices, with (DTAxDDI) = 1 if the leadership styles and teaching practices of the respondent are identified as being in dissonance (transactional/constructivist or transformational/didactic) and (DTAxDDI) = 0 if the leadership styles and teaching practices of the respondent are identified as being in harmony (transactional/didactic or transformational/constructivist).

The model summary for this regression yielded the following:

Table 18

Model Summary for the Leadership Styles/Teaching Practices Regression

R	R Squared	Adjusted R Squared	Std. Error of the Estimate
.32	.102	.082	10.50

The R squared for the model summary for the leadership styles/teaching practices regression (Table 18) shows that all of the independent variables in the model explain just over 10 percent of the variation in teacher satisfaction. In addition, the summary clearly shows that the independent variables agreement, gender, leadership style, and teaching practice, taken together, are significantly associated with teacher job satisfaction. This was determined by examining the

F statistic, which provides a test to see if any of the model's variables have an effect on teacher satisfaction. For the full regression, the *F* statistic was 4.96, which is significant at .001, indicating with almost 100 percent certainty that some of these independent variables were important determinants of the dependent variable teacher satisfaction.

The analysis of the coefficients for leadership styles/teaching practices regression, which follows in Table 19, indicates that the independent variable gender once again has a significant influence on job satisfaction. This was determined through examination of the variables *t*-statistic (see Table 19), which was significant at .000 for gender, well below the .05 level needed for significance.

Table 19

Coefficients for the Leadership Styles/Teaching Practices Regression

	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	58.30	3.09	18.81	.000
Gender	8.17	2.06	3.95	.000
Agreement	1.85	.81	2.27	.024
Teaching Practice	2.29	1.62	1.40	.161
Leadership Style	2.32	1.91	1.21	.227

Taken together, these regressions allow the researcher to finish answering Research Question Four, to what extent do demographic factors, preferred leadership styles, and preferred teaching practices affect the degree of

job satisfaction expressed by the CNMI public elementary school teachers? The researcher found that demographic factors, preferred leadership styles, and preferred teaching practices taken together did affect the degree of job satisfaction expressed by the CNMI public elementary school teachers. However, of the above, only one demographic factor, that of gender, had any effect on the degree of job satisfaction expressed by the CNMI public elementary school teachers. That factor was significant for gender at the .000 level (Table 18), indicating a 100 percent certainty that the variable gender, when regressed with the independent variables of leadership styles, teaching practices, and the interaction variable agreement, had a positive effect for females. The unstandardized coefficient indicates that the mean score for females was 8.17 points higher than the mean score for men, indicating that females are more satisfied with their jobs than are men. For each of the other independent variables under scrutiny in Research Question Four, controlling for all but the one examined, no significant effects were found. These results were determined by examining the regression coefficients, or the amount the dependent variable changes for every one-unit change in an independent variable, controlling for all the other independent variables in the formula.

Research Question 5. To what extent does the interaction between leadership styles and teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?

To begin answering Research Question Five, the researcher must first explain how the interaction factor, a variable called agreement, consisting of

categories labeled harmony and dissonance in the regressions, was determined for each respondent. The agreement placement was determined by examining the leadership style placement and the teaching practices placement for each respondent (see Table 13). Respondents who had a leadership style placement of transactional and a teaching practices placement of didactic were determined to be in harmony and were placed into the category labeled harmony for purposes of these comparisons. Similarly, respondents who had a leadership style placement of transformational and a teaching practices placement of constructivist also were determined to be in harmony and also were placed into the same harmony category (see Table 20).

Conversely, respondents who had a leadership style placement of transactional and a teaching practice placement of constructivist were determined to be in dissonance. They were thus placed into the category labeled dissonance for the same purposes of comparison. Similarly, respondents who had a leadership style placement of transformational and a teaching practices placement of didactic were also determined to be in dissonance and were placed into that category for purposes of comparison (Table 20).

Excluding the six respondents who showed no specific preference in the teaching practice categories, 183 of the respondents were determined to have leadership styles and teaching practices that were either in harmony or in dissonance (Table 20). Of that total, 77, or 42 percent, were in harmony and 106, or 58 percent, were in dissonance. Of those in harmony, 42, or 54 percent, were transactional/didactic and 35, or 46 percent, were

transformational/constructivist. Of those in dissonance, 39, or 37 percent, were transactional/constructivist, and 67, or 63 percent, were transformational/didactic.

Table 20

Amount of Agreement between Leadership Styles and Teaching Practices

Leadership Practice/Teaching Style Categories	Harmony	Dissonance	N
Transactional/Didactic	42		
Transformational/Constructivist	35		
Transactional/Constructivist		39	
Transformational/Didactic		67	
Total	77	106	183

Research Question Five asks, to what extent does the interaction between leadership style and teaching practice affect the degree of job satisfaction expressed by the CNMI public elementary school teachers? Referring back to the leadership styles/teaching practices regression, the simple answer is that the interaction between leadership style and teaching practice was found to have a small but significant effect on the degree of job satisfaction expressed by the CNMI public elementary school teachers, with that significance being calculated at the .024 level (see Table 19). The unstandardized coefficient in Table 19 indicates that agreement influences job satisfaction, with the mean score for dissonance 1.85 points higher than the mean score for harmony. This indicates that teachers whose leadership styles and teaching practices are in dissonance are slightly more satisfied than those teachers whose leadership styles and teaching practices are in harmony.

The Null Hypotheses Addressed

With the research questions addressed, the researcher can now address the research hypotheses. The following null hypotheses all utilized the .05 level of confidence and were based on the research questions guiding the study:

Null Hypothesis 1: No significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teacher leadership style scores on the Elementary School Teachers Survey.

According to the analysis of the data (see Table 19), no significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teacher leadership style scores on the Elementary School Teachers Survey. Thus, the researcher cannot reject the null hypothesis.

Null Hypothesis 2: No significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teaching practices scores on the Elementary School Teachers Survey.

According to the analysis of the data (see Table 19), no significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teaching practices scores on the Elementary School Teachers Survey. Thus, the researcher cannot reject the null hypothesis.

Null Hypothesis 3: No significant difference exists among CNMI elementary school teachers between teacher leadership scores and the teaching practices scores on the on the Elementary School Teachers Survey.

According to the analysis of the data (see Table 12), no significant difference exists among CNMI elementary school teachers between teacher leadership scores and the teaching practices scores on the on the Elementary School Teachers Survey. Thus, the researcher cannot reject the null hypothesis.

Null Hypothesis 4: No significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and teacher age, gender, years of experience, degree level, and native English speaking ability.

According to the analysis of the data (see Table 15), a significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and teacher age, gender, years of experience, degree level, and native English speaking ability. That significance exists for gender, is measured at the .000 level, is significant for females, and indicates that females are likely to be more satisfied than males. Thus, the researcher rejects the null hypothesis and fails to reject the research hypothesis, which states that there is a relationship between gender and job satisfaction.

Null Hypothesis 5: No significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and any interaction between the teacher

leadership style scores and the teaching practices scores on the Elementary School Teachers Survey.

According to the analysis of the data (see Table 19), a significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and an interaction between the teacher leadership style scores and the teaching practices scores on the Elementary School Teachers Survey. The significance can be measured at the .024 level and is significant for dissonance, meaning that teachers whose leadership styles and teaching practices were not in agreement were more satisfied than those teachers whose leadership styles and teaching practices were in agreement, or in harmony. Thus, the researcher rejects the null hypothesis and fails to reject the research hypothesis, which states that there is a relationship between job satisfaction and the interaction between leadership styles and teaching practices, although not necessarily the relationship the researcher might have expected.

Job Satisfaction Hygiene and Motivation Factors

In an effort to gain a better understanding of the influence of the various independent variables on the dependent variable satisfaction, the researcher ran a series of other regressions in which the hygiene and motivation factors which made up the satisfaction score were each regressed against the independent variables age, gender, years teaching, native language, degree, leadership style, teaching practice, and the interaction variable between leadership styles and teaching practices (agreement) (see Table 21).

Table 21

Significant Independent Variables for Satisfaction Hygiene and Motivation Factors

Dependent variables	Independent variables	Unstandardized coefficients	Significance
Hygiene factors			
Colleagues	Gender (female)	6.8	.016
	Teaching practice (didactic)	6.1	.006
Pay	Language (non-native)	4.1	.005
Security	Gender (female)	11.5	.002
Supervision	Agreement (dissonance)	8.2	.012
Working Conditions	Gender (female)	8.5	.007
	Language (non-native)	5.3	.029
	Agreement (dissonance)	5.2	.035
Motivation factors			
Advancement	Gender (female)	16.5	.000
	Language (non-native)	7.7	.005
Recognition	Gender (female)	14	.000
	Agreement (dissonance)	7.0	.026
Responsibility	Gender (female)	5.6	.001
	Agreement (dissonance)	3.0	.023
Work Itself	Gender (female)	6.0	.001

Thus, dissonance in the agreement between leadership styles and teaching practices is a significant determinant of satisfaction with the hygiene factors supervision and working conditions and with the motivation factors recognition and responsibility. Gender, specifically being female, was found to be a significant determinant of satisfaction with the hygiene factors colleagues, security, and working conditions and with the motivation factors advancement, recognition, responsibility, and work itself. Language, specifically being a non-native speaker, was a significant determinant of satisfaction with the hygiene factors pay and working conditions and with the motivation factors advancement, recognition, responsibility, and work itself. Finally, teaching practice, specifically the didactic approach, was a significant determinant of satisfaction with hygiene factor colleagues.

In some cases, the magnitude of this effect is large. For example, female teachers in the CNMI Public School System are far more satisfied, specifically 16.5 percentage points more than males, regarding what they perceive to be their levels of and opportunity for advancement (Table 21). Additionally, these same females are 14 percentage points more satisfied than their male counterparts in what they perceive to be the amount and quality of recognition they receive (Table 21). They are also 11.5 percentage points more satisfied with their perceived job security, 8.5 percentage points more satisfied with their work conditions, 6.8 percentage points more satisfied with their colleagues, 6.0 percentage points more satisfied with the work itself, and 5.6 percentage points

more satisfied with the amount of responsibility they have than their male colleagues (Table 21).

As a dissonance between leadership styles and teaching practices among teachers was found to be significant for overall teacher satisfaction, it is not surprising to find that this same dissonance is also significant among several of the satisfaction subcategories. Teachers who indicate a dissonance between their leadership styles and teaching practices were 8.13 percentage points more satisfied with the supervision they received than were teachers whose leadership styles and teaching practices were found to be in harmony (Table 21). These same teachers were almost seven percentage points more satisfied with their level of recognition, 5.2 percentage points more satisfied with their work conditions, and 3.0 percentage points more satisfied with the amount of responsibility they were given than were their harmonious counterparts (Table 21). Non-native speakers of English were 7.7 percentage points more satisfied with their opportunities for advancement, 5.3 percentage points more satisfied with their workload, and 4.1 percentage points more satisfied with their salaries than were their native-speaking colleagues (Table 21). Finally, didactic teachers were 6.1 percentage points more satisfied with their colleagues than were those teachers who indicated they preferred constructivist methodologies (Table 21).

Summary

To recapitulate the data in the study, the researcher found that over 80 percent of the 189 PSS elementary school teachers who participated in the study were female, that their average age was just over 37, and that they averaged

between eight to nine years of teaching experience. In addition, these teachers were predominantly baccalaureate degree holders, as only 15 percent held post-baccalaureate degrees. Just over half were non-native speakers of English, with those non-native speakers coming from a host of language backgrounds.

These teachers had a 70 percent level of satisfaction with their jobs, but their levels of satisfaction within the various hygiene and motivation factors that made up the overall category varied, with a high of almost 90 percent satisfaction with the level of responsibility they were given (a motivation factor) to a low of nearly 53 percent satisfaction with their pay (a hygiene factor). Other hygiene factor scores include colleagues (73.6), and security (66.9), working conditions (66.3), and supervision (65.6). Other motivation factor scores include work itself (78.5), advancement (69.2), and recognition (64.9) (Table 9).

The researcher further found that, while no significant difference could be found between teacher leadership style scores and job satisfaction scores, between teaching practice scores and job satisfaction scores, between teacher leadership style scores and teaching practice scores, or between teacher age, years of experience, degree level, or native English speaking ability and job satisfaction scores, significant differences on job satisfaction scores were found for gender and for the agreement between teacher leadership style scores and teaching practice scores. Specifically, for gender, females were more satisfied than males, and for agreement, teachers whose leadership styles and teaching practices were in dissonance were more satisfied than those whose leadership styles and teaching practices were in harmony.

The researcher also found that gender, specifically being female, was a significant determinant of satisfaction with the hygiene factors colleagues, security, and working conditions and with the motivation factors advancement, recognition, responsibility, and work itself. Language, specifically being a non-native speaker, was a significant determinant of satisfaction with the hygiene factors pay and working conditions and with the motivation factors advancement, recognition, responsibility, and work itself. Dissonance in the agreement between leadership styles and teaching practices is a significant determinant of satisfaction with the hygiene factors supervision and working conditions and with the motivation factors recognition and responsibility. Finally, teaching practice, specifically the didactic approach, was a significant determinant of satisfaction with hygiene factor colleagues.

In Chapter Five, the researcher summarizes the study, further discusses these results, and delineates conclusions drawn from the findings of the research. He also provides recommendations for future practices and further research based on the findings.

CHAPTER FIVE

SUMMARY AND DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The first section of Chapter Five contains an overview of the study that includes the purpose, the conceptual framework for the study, a summary of the literature review, the methodology used, and the findings of the study. The second section contains an analysis of the findings and delineates the conclusions drawn from those findings and that analysis. The final section provides recommendations for future practices, which include implications for policymakers, and recommendations that emerge from the study for further research.

Overview of the Study

The purpose of the study was to investigate the relationships, if any, among teacher job satisfaction, teacher leadership styles, and teaching practices and to examine to what extent leadership styles and teaching practices affect teacher job satisfaction. The notion of congruence prompted the researcher to investigate this topic. Influenced both by research by Bryan (1997) that suggests that conflicts between teaching beliefs and teaching practices lead to tensions in preservice teachers, and by research by Goodlad (1984) that indicates that

school effectiveness demands a need for congruence between school mission and school stakeholders, the researcher saw a similar relationship between teaching practices and leadership styles. The study therefore sought to examine the related questions: does a complementary relationship (harmony) between teacher leadership styles and teaching practices lead to increased job satisfaction among elementary school teachers; and conversely, does conflict between teacher leadership styles and teaching practices (dissonance) lead to tensions, and accompanying dissatisfaction with their jobs among elementary school teachers. No research had been published on teacher satisfaction, teacher leadership beliefs, or preferred teaching practices among public elementary school teachers in the Commonwealth of the Northern Mariana Islands (CNMI), and the researcher hoped to provide information that could fill some of the knowledge gaps in that area.

To fill those gaps, the researcher surveyed elementary school teachers on the island of Saipan, located in the Commonwealth of the Northern Mariana Islands (see Table I, Chapter Three). The study used a series of multiple regression analyses to examine the results of those surveys. The research questions posited in Chapter One are restated in this chapter to focus and guide the discussion and the analysis of the findings. These questions are as follows:

1. What is the level of job satisfaction among public elementary school teachers on Saipan?
2. To what extent do CNMI public elementary school teachers fall into the personal leadership style categories of transactional or transformational?

3. To what extent do CNMI public elementary school teachers prefer either didactic or constructivist teaching practices?

4. To what extent do demographic factors, preferred leadership styles, and preferred teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?

5. To what extent does the interaction between leadership styles and teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?

The conceptual framework for this study emerged from three areas in the literature: teacher job satisfaction, teacher leadership styles, and teaching practices. The relationship between extrinsic and intrinsic motivators and job satisfaction framed the concepts presented for teacher job satisfaction (Taylor, 1997; Kearney, 1997; Donndelinger, 1997; Maddox, 1997; Bemis, 1999). Teacher leadership was examined within the transactional – transformational leadership framework established for leadership studies in areas of business, management, administration, and education (Bass, 1985; Hersey, Blanchard, & Johnson, 1996; Sergiovanni, 1996; Lambert, 1998; Leibermann & Miller, 2000). Finally, the dichotomy between didactic and constructivist instruction provided a context for the examination of teaching practices (Arendt, 1954; Goodlad, 1989; Kohn, 1993; Stevenson, 1986; Odden & Kelley, 1997; Coombs, 1998; Perkins, 1999; Smerdon, Burkam, & Lee, 1999; Scherer, 1999).

As directed by the conceptual framework and suggested by the research questions, a literature review was conducted that focused on the areas of teacher

job satisfaction, leadership styles, transactional leadership, transformational leadership, differences between transactional and transformational leadership, teaching practices, didactic teaching practices, constructivist teaching practices, and the staying power of didactic teaching methodologies. The literature review provided insight to the elements that make up teacher job satisfaction, the ways in which teacher leadership styles influence the mood in schools and amount of student learning that takes place, and the philosophical roots and historical growth of, and active pedagogical conflict between, didactic and constructivist teaching methodologies.

The study provided a clear picture of the demographic makeup of the respondents, of the level of job satisfaction among those public elementary school teachers in the CNMI, and of how the several independent variables examined affected the hygiene and motivation factors that made up the job satisfaction category. However, only two of the five Null hypotheses (numbers four and five) generated for this study, first described in Chapter One and reported in Chapter Four, were rejected. The demographic makeup, the level of job satisfaction, all of the Null hypotheses, and the hygiene and motivation factors that made up the category of job satisfaction are discussed in the findings of the study.

Findings of the Study

Respondent Demographics

Out of 245 surveys distributed to what was at the time all of the public elementary school teachers on Saipan, the researcher received 189 responses.

In the sample, the age of the respondents ranged from 20 to 65, and the mean age of the respondents was 37.4, which indicates that the CNMI employs a younger teaching population than most school districts in the United States. The gender of the subjects was reported in all but four of the cases; 150 of the respondents, or 81 percent, were female and 35, or 19 percent, were male. Respondents to the survey ranged from first-year (or, in some cases, first-semester) teachers to those with 36 years of experience. The mean teaching experience of the respondents was 8.4 years, but 90 teachers, or almost 48 percent of the respondents, had five years or fewer of experience. In addition, 37 percent had three years or fewer of experience, and 30 percent had two years or fewer of experience, indicating that teachers in the CNMI are largely inexperienced and have fewer experienced teachers upon whom they can relay as role models.

Ninety-seven, or 51 percent, of the respondents identified themselves as non-native speakers of English, with five missing cases. The most frequent native language listed by non-native speakers was the indigenous language Chamorro, with 37 respondents listing it. The remaining languages identified as being native included Burmese, Carolinian, Filipino, Belauan, Pangasinanese, Pohnpeian, Sonsorolese, Spanish, Tagalog, and Visayan. Excluding five missing cases, 157, or 85 percent, of the respondents identified a BA or a BS as their current degree, with 27, or 15 percent, listing a graduate degree, and only one of those listing the doctorate.

Job Satisfaction

Job satisfaction was measured in order to answer Research Question 1: What is the level of job satisfaction among public elementary school teachers in Saipan?

As reported in Chapters Three and Four, job satisfaction was measured using the Teacher Job Satisfaction Questionnaire (TJSQ), developed by Lester and based on the work of Maslow and Herzberg (Lester, 1984). The TJSQ includes nine factors related to teacher job satisfaction, five of them hygiene factors (supervision, working conditions, pay, colleagues, and security), and four of them motivation factors (advancement, responsibility, work itself, and recognition). Hygiene factors relate to the job environment; they do not lead to motivation but rather prevent dissatisfaction (Hersey, Blanchard, and Johnson, 1996). Motivation factors relate to what people actually do on the job; they result from internal generators in employees and motivate people to superior performance (Hersey, Blanchard, and Johnson, 1996).

According to the survey results, the average, or mean, level of job satisfaction among public elementary school teachers in Saipan was 70.4 on a scale of zero to 100. Teacher satisfaction scores ranged from a low of 42.9 to a high of 93.2. Nine teachers scored in the 40s, 23 in the 50s, 52 in the 60s, 66 in the 70s, 38 in the 80s, and one scored in the 90s.

Among the nine factors that made up the job satisfaction score, two motivational factors – responsibility and work itself – brought the most satisfaction to teachers, showing averages of 89.2 and 78.5 respectively. These

factors also produced scores in the highest range, from a low of 65.6 to a high of 100 for responsibility and from a low of 47.2 to a high of 100 for work itself. The hygiene factor of colleagues left teachers satisfied at an average of 73.6, with a range from 12.5 to 100, and the motivation factor of advancement ranked fourth most positive at 69.2, though at least one respondent established its low end range at zero. The hygiene factor of security scored an average of 66.9 (with a zero to 100 range), the motivation factor of recognition averaged 64.9 (with a zero to 100 range), and the hygiene factors of working conditions and supervision averaged 66.3 (range of 14.2 to 96.4) and 65.6 (range of 7.6 to 100) respectively. The lowest ranking factor for satisfying teachers was pay, which averaged 52.9. Interestingly, though, the low end of the range for pay was 21.4, which was better than the low end of six factors that had higher overall average scores, while the high end of the range for pay, 82.1, was the lowest overall high end score (see Tables 8 and 9, Chapter Four).

Null Hypothesis 1

Null Hypothesis 1 was developed to address part of Research Question 4 concerning job satisfaction and leadership styles. The first null hypothesis stated that no significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teacher leadership style scores on the Elementary School Teachers Survey.

In order to examine this null hypothesis, the researcher first placed teachers on a transactional - transformational leadership continuum and defined

them as being either transactional or transformational according to their scores from the leadership styles section (questions 1 – 22) on the Elementary School Teachers Survey (Appendix B). For further information on this process, see the section on Data Analysis in Chapter Three and the section on Analysis of Research in Chapter Four.

According to the multiple regression analysis of the data, no significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teacher leadership style scores on the Elementary School Teachers Survey. The observed significance level for the leadership styles score was .227 when regressed against the job satisfaction score. However, the alpha for rejection was set at .05 by the researcher (see Table 19, Chapter Four). Thus, the researcher cannot reject null hypothesis one.

Null Hypothesis 2

Null Hypothesis 2 was also developed to address part of Research Question 4 concerning job satisfaction and teaching practices. The second null hypothesis stated that no significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teaching practices scores on the Elementary School Teachers Survey.

In order to examine this null hypothesis, the researcher first placed those same teachers on a didactic - constructivist teaching practices continuum and defined them as being either didactic or constructivist according to their scores

from the teaching practices section (questions 23 – 46) on the Elementary School Teachers Survey (Appendix B). For further information on this process, see the section on Data Analysis in Chapter Three and the section on Analysis of Research in Chapter Four.

According to the multiple regression analysis of the data, no significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the teaching practices scores on the Elementary School Teachers Survey. The observed significance level for the teaching practices score was .161 when regressed against job satisfaction score (see table 19, Chapter Four). As the alpha for rejection was set at .05, the researcher cannot reject null hypothesis two.

Null Hypothesis 3

Null Hypothesis 3 was developed to address the relationship between leadership styles and teaching practices. The third null hypothesis stated that no significant difference exists between teacher leadership style scores on the Elementary School Teachers Survey and the teaching practices scores on the Elementary School Teachers Survey.

According to the analysis of the data, no significant difference exists among CNMI teachers between leadership style scores on the Elementary School Teachers Survey and the teaching practices scores on that same survey. The researcher set the alpha for rejection at .05, and the significance for the one-way analysis of variance between the two scores was .054, just over the limit

(see Table 12 in Chapter Four). Thus, while approaching significance, the variables have no significant effect on each other, and the researcher cannot reject null hypothesis three.

Null Hypothesis 4

Null Hypothesis 4 was developed to address part of Research Question 4: To what extent do demographic factors, preferred leadership styles, and preferred teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?

The fourth null hypothesis stated that no significant difference exists within groups of CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and teacher age, gender, years of experience, degree level, and native English speaking ability.

According to the analysis of the data, a significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the demographic factor gender. No significance exists for teacher age (.685), years of experience (.930), degree level (.635), or native English speaking ability (.197). Significance does exist for gender, measured at the .000 level when regressed with the independent variables of leadership styles, teaching practices, and the interaction variable agreement, and is significant for females (see Table 15, Chapter Four). The researcher set the alpha for rejection at .05, thus, the researcher rejects null hypothesis four and fails to reject the research hypothesis which states that a significant difference exists among CNMI elementary school teachers between

teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and the independent demographic variable gender.

Null Hypothesis 5

Null Hypothesis 5 was developed to address Research Question 5 concerning the interaction between leadership style and teaching practice and job satisfaction. The fifth null hypothesis stated that no significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and any interaction between the teacher leadership style scores and the teaching practices scores on the Elementary School Teachers Survey.

In order to examine this null hypothesis, the researcher created an interaction factor, described in Chapter Four, a variable called agreement, consisting of categories labeled in the regressions as harmony and dissonance. Each respondent was then placed into one or the other category. Respondents who had a leadership style placement of transactional and a teaching practices placement of didactic were determined to be in harmony and were placed into the category labeled harmony for purposes of these comparisons. Similarly, respondents who had a leadership style placement of transformational and a teaching practices placement of constructivist also were determined to be in harmony and also were placed into the same harmony category.

Conversely, respondents who had a leadership style placement of transactional and a teaching practice placement of constructivist were determined to be in dissonance. They were thus placed into the category labeled

dissonance for the same purposes of comparison. Similarly, respondents who had a leadership style placement of transformational and a teaching practices placement of didactic were also determined to be in dissonance and were placed into the category labeled dissonance for purposes of comparison.

According to the analysis of the data, a significant difference exists among CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and an interaction between the teacher leadership style scores and the teaching practices scores on the Elementary School Teachers Survey. The significance can be measured at the .024 level and is significant for dissonance, meaning that teachers whose leadership styles and teaching practices were not in agreement were more satisfied than those teachers whose leadership styles and teaching practices were in agreement, or in harmony. The alpha was set at .05 for rejection (see Table 19, Chapter Four). Thus, the researcher rejects the fifth null hypothesis and fails to reject the research hypothesis which states that a significant difference exists within groups of CNMI elementary school teachers between teacher job satisfaction scores on the Teacher Job Satisfaction Questionnaire and an interaction between the teacher leadership style scores and the teaching practices scores on the Elementary School Teachers Survey.

Job Satisfaction Hygiene and Motivation Factors

In an effort to gain a better understanding of the influence of the various independent variables previously discussed on the dependent variable satisfaction, the researcher ran a series of other regressions in which the hygiene

and motivation factors that made up the satisfaction score were each regressed against the independent variables age, gender, years teaching, native language, degree, leadership style, teaching practice, and the interaction between leadership styles and teaching practices (agreement).

Dissonance in the agreement between leadership styles and teaching practices was found to be a significant determinant of teacher satisfaction with supervision, workload, responsibility, and recognition. Gender, specifically being female, was found to be a significant determinant of teacher satisfaction with workload, colleagues, security, advancement, responsibility, work itself, and recognition. Language, specifically being a non-native speaker of English, was a significant determinant of teacher satisfaction with workload, pay, advancement, responsibility, work itself, and recognition. Finally, teaching practice, specifically the didactic approach, was a significant determinant of teacher satisfaction with colleagues.

Analysis of the Findings

The findings presented in the section are analyzed according to the research questions.

Research Question 1: What is the level of job satisfaction among public elementary school teachers in Saipan?

As was discussed in the section Findings of the Study above, the mean level of job satisfaction among public elementary school teachers in Saipan was 70.4 on a scale of zero to 100. However, the researcher never defined a scale to indicate for what that score of 70 could stand. An analysis of the satisfaction

scores must keep in mind the idea of central tendencies; that is, the common tendency of respondents to score items in a neutral manner, or down the middle of any Likert-based survey form. Thus, given that the respondents to the survey are in the later end of the zero to one hundred scale, one could argue that they were moderately satisfied with their jobs. One could further argue that teachers are quite satisfied with the level of responsibility they are given and with the work itself, are moderately satisfied with their colleagues, and somewhat satisfied with their chances for advancement, their job security, the work conditions, the amount and quality of the supervision they receive, and the recognition they receive. Teachers in general are not very satisfied with their pay.

Research Question 2: To what extent do CNMI public elementary school teachers fall into the personal leadership style categories of transactional or transformational?

Public elementary school teachers in the CNMI are split quite evenly between the transactional and transformational leadership styles camps, with about 12 percent more being self-identified as transformational than transactional. Survey data for 189 public elementary school teachers in Saipan indicate that 83, or 44 percent, are transactional and 106 teachers, or 56 percent, are transformational. All respondents were placed in one or another of these categories.

The researcher anticipated that PSS teachers would be fairly evenly distributed between these two leadership categories. Unless one makes a conscious investigation of the topic, leadership style is commonly something that

is developed over time, nurtured through experience, determined by context, and dependent upon the goals and objectives of the leader. Thus, while one teacher may simply want to get through his or her day by engaging in a series of transactional exchanges with his or her students, another may be driven by a transformational vision of possibilities and may lead accordingly.

Research Question 3: To what extent do CNMI public elementary school teachers prefer either didactic or constructivist teaching practices?

Commonwealth of the Northern Mariana Islands public elementary school teachers are split in preferring either didactic or constructivist teaching practices, with a nearly sixty to forty percent majority preferring the didactic approach. With six of the respondents, or three percent, not selecting into either category, 108, or 57 percent, of the remaining 183 respondents were determined to be didactic and 75, or 40 percent, were determined to be constructivist.

While leadership styles are often adopted according to personal experiences and preferences, teaching methods are commonly learned behaviors, and these behaviors are even more commonly learned in the schools – elementary through college – that all teachers attend. This study did not collect information on whether the teachers responding attended schools of education, when those schools might have been attended, or the philosophies of those various schools. However, the researcher is able to make some suppositions based upon his own knowledge of teachers in the CNMI schools system. While all of the respondents had a baccalaureate degree or higher, the researcher knows that many teachers in the CNMI have degrees in areas other than

education. Many elementary school teachers hold degrees in content areas and have taken few if any courses in teaching methodology. Thus, a large number of teachers teach the way they were taught, and, as the review of literature conducted on the topic and described in Chapter Two indicates, if they were students in school before 1992, the methodology used to teach them was probably a didactic one. In the 15 years from 1966 to 1981, only ten articles that could be retrieved using the key words “constructivism” and “education” were abstracted through an ERIC search. In the next ten-year period, from 1982 to 1992, a search yielded 160 records using the same key words. Finally, in a search of the next period, spanning only eight years, from 1992 to 2000, the same key words yielded 1,819 abstracted records.

Thus, for teachers who attended schools of education, only those who graduated after the mid-90s would likely have received any formal training in constructivist methodologies; that class of teachers would therefore be limited to those having fewer than 10 years experience, about 70 percent of the sample. However, even those teachers who learned formal methodology in a school of education may not have learned constructivist methods, and teachers who may have been exposed to constructivist methodologies in formal classes may well have done their student teaching, a major influence on the methodology teachers eventually adopt, with didactic instructors. As the review of literature also shows, didactic methodologies continue to have a place in education, and as most schools of education have a healthy balance of constructivist and didactic

methodologies, individual teachers will tend to adopt those methodologies that they find most attractive and valuable.

Research Question 4: To what extent do demographic factors, preferred leadership styles, and preferred teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?

As indicated by the rejection of Null Hypothesis 4 above, the demographic factor of gender has a significant effect on job satisfaction among Public School System (PSS) elementary school teachers in the CNMI. When regressed with the independent variables of leadership styles, teaching practices, and the interaction variable agreement, that factor was significant for females at the .000 level, indicating with a virtual 100 percent probability that women were 8.17 percentage points more satisfied with their jobs as teachers than were men.

The question then arises, why are women so much more satisfied than men? This researcher suggests that the answer can be found in the demographic distribution among gender itself: 80 percent of the respondents, as well as 80 percent of the teachers who make up the population of PSS elementary school teachers, are female. In addition, female leaders staff the senior management positions of CNMI Public School System, the bulk of the mid-management positions, and 80 percent of all elementary school principal positions. In the CNMI public elementary schools, as in most US elementary schools, the world very much belongs to females. This increased level of job satisfaction for females over males is also found when examining satisfaction with the motivation and hygiene factors which make up the category of

satisfaction. Female teachers in the CNMI Public School System are far more satisfied than their male counterparts, specifically 16.5 percentage points more than males regarding what they perceive to be their levels of and opportunities for advancement. Additionally, these same females are 14 percentage points more satisfied than their male counterparts in what they perceive to be the amount and quality of recognition they perceive. They are also 11.5 percentage points more satisfied with their perceived job security, 8.5 percentage points more satisfied with their workload, 6.8 percentage points more satisfied with their colleagues, 6.0 percentage points more satisfied with the work itself, and 5.6 percentage points more satisfied with the amount of responsibility they have than their male colleagues (see table 21, Chapter Four).

As mentioned in the Findings of the Study section above, other independent variables showed different levels of significance with the various hygiene and motivation factors that made one satisfied with his or her job. Non-native speakers of English, who made up 51 percent of the total respondents, were 7.7 percentage points more satisfied with their opportunities for advancement, 5.32 percentage points more satisfied with their working conditions, and 4.11 percentage points more satisfied with their salaries than were their native-speaking colleagues (see Table 21, Chapter Four). This researcher interprets that finding as a matter of relativity. Again, though native country was not part of the demographic questions, it can be somewhat deduced from the responses given to the question of native language. Of the 97 respondents who claimed to be non-native speakers of English, 37 identified their

native language as Chamorro, meaning they came from either the CNMI or Guam. Of the remaining 60 respondents, the majority of those responded that their native language was Pilipino, Tagalog, Visayan, or another of the languages that the many teachers from the Philippines speak. Thus, relative to the opportunities for advancement, working conditions, and salaries available in their native country, opportunities, conditions, and salaries in the CNMI are not so bad.

Finally, didactic teachers were 6.13 percentage points more satisfied with their colleagues than were those teachers who indicated they preferred constructivist methodologies (Table 21, Chapter Four). One suggestion for this difference is found in the literature reviewed in Chapter Two. Delpit (1995) suggests that constructivist teaching methods may cause students to feel that teachers are keeping secrets and abdicating their duties to teach. Kolkower (1997) further suggests that a constructivist approach will create an inherent tension in the classroom due to discordance in teaching and learning. Such doubt on the part of students and discordance in the classroom could well result in greater tension, and less job satisfaction, for teachers employing more constructivist teaching practices. That dissatisfaction could well be transferred from the job in general and specifically towards colleagues who are didactic. If the constructivist teacher sees herself as working hard to bring new experiences in to her students, but then sees her didactic colleagues following scripts given to them by administrators or found in teacher's books, the constructivist teacher could very well resent her colleague for the methodology they've chosen to use.

Research Question 5: To what extent does the interaction between leadership styles and teaching practices affect the degree of job satisfaction expressed by the CNMI public elementary school teachers?

As indicated by the rejection of Null Hypothesis 4 above, the interaction between leadership styles and teaching practices has a significant effect on job satisfaction among PSS elementary school teachers in the CNMI. The interaction between leadership styles and teaching practices was found to have a small (1.9 percentage points) but significant effect on the degree of job satisfaction expressed by the CNMI public elementary school teachers, with that significance being calculated at the .024 level. That effect was positive for dissonance, meaning that teachers whose leadership styles and teaching practices were not in agreement were 1.9 percentage points more satisfied as teachers than those whose leadership styles were deemed to match their teaching practices.

While the existence of a significant effect between the interaction of leadership styles and teaching practices allowed the researcher to reject the null hypothesis, this effect was not what the researcher expected. The researcher hypothesized that an effect would be found, but he expected that the interaction that would be significant would be that of harmony, or the interaction between complementary leadership styles and teaching practices.

The researcher has few explanations for this effect. Perhaps some of the answers may be found by examining the survey instrument itself. While analysis of Cronbach's alpha for reliability indicates acceptability, the researcher does feel

that perhaps some of the questions may be less discriminating than first thought. For example, the Elementary School Teachers Survey presents several items to determine the presentation practices of teachers. One item asks teachers to indicate how often they give lectures; another asks teachers to indicate how often they do demonstrations. While the literature indicates that lecture may be a preferred method to deliver information for the didactic teacher and that demonstration may be a preferred method to do the same for her constructivist colleague, both didactic teachers and constructivist teachers at times lecture and demonstrate activities in the classroom. Further suggestions to address this issue are made in the section on Recommendations for Future Research below.

Since dissonance between leadership styles and teaching practices among teachers was found to be significant for overall teacher satisfaction, it is not surprising to find that this same dissonance is also significant among several of the satisfaction subcategories. Teachers who indicate a dissonance between their leadership styles and teaching practices were 8.1 percentage points more satisfied with the supervision they received than were teachers whose leadership styles and teaching practices were found to be in harmony. These same teachers were almost seven percentage points more satisfied with their level of recognition, 5.2 percentage points more satisfied with their working conditions, and three percentage points more satisfied with the amount of responsibility they were given than were their harmonious counterparts. Other than the suggestion above that the instrument itself could perhaps be refined, the researcher has few explanations for this triumph of dissonance over harmony. The concepts of

leadership styles and teaching practices were deduced from questionnaire items. The items themselves, and the way respondents may have wanted themselves seen as teachers, may therefore had some negative influence on construct validity. Additionally, a difference of less than two percent, though significant, is both quite small and much smaller than the other significant variable, gender.

Conclusions – Factors Influenced by Gender and Culture

The overall level of job satisfaction, on a scale of one to 100, was 70.4, meaning teachers were moderately satisfied with their jobs. Only two variables, gender and agreement, showed significant influence on job satisfaction. Gender was the only demographic variable that had a significant influence on teacher job satisfaction. That influence was positive for females at the .000 level, indicating with a virtual 100 percent probability that when regressed with the independent variables of leadership styles, teaching practices, and the interaction variable agreement, women were 8.2 percentage points more satisfied as teachers than men. This greater satisfaction indicated by females was evident across the hygiene and motivation factors that made up the variable labeled satisfaction. For example, the overall level of satisfaction with responsibility was 89.2, and females were 5.6 percentage points more satisfied with responsibility than were men. The overall level of satisfaction with work itself was 78.5; females were 6.0 percentage points more satisfied with the work itself than their male counterparts. Total satisfaction with colleagues scored 73.6, with females showing 6.8 percentage points more satisfaction with their colleagues than that shown by men. The overall level of satisfaction with advancement was 69.2. Females

were far more satisfied with their chances for advancement than were their male counterparts; that difference was measured at 16.5 percentage points. The overall level of satisfaction with working conditions was 66.3, with recognition 64.9, and with security 66.9. Females were 8.45 percentage points, 14 percentage points, and 11.5 percentage points more satisfied than were men in each area respectively.

The research notes the four to one ratio of females to males in the public elementary schools and in the public school system and thus attributes these levels of satisfaction to the comfort that comes when working in a culture and environment in which one's own gender is the dominant one. In the period when the study was conducted, eight of the principals in the ten selected schools, or 80 percent of the total, were female, and that the three top offices in the PSS – Commissioner of Education, Deputy Commissioner for Instruction, and Deputy Commissioner for Administration – were all held by women. Thus, female teachers could generally look at the offices of their administrators and feel that their gender would not be a cause for discrimination in assignments or an issue that might limit any possible upward mobility.

Females may also have more generally positive attitudes about school and education than men; this general attitude could be vested in maternal instincts that result from being the first teachers of their own children. Such attitudes could well carry over into the workplace as enhanced self-esteem and greater esteem for colleagues and for the job itself.

The only independent variable among leadership styles, teaching practices, and the interaction between those two variables to have any effect on job satisfaction among PSS elementary school teachers in the CNMI was the variable labeled agreement, the interaction between leadership styles and teaching practices; that interaction was small (1.9 percentage points) but significant, with that significance being calculated at the .024 level. As stated previously in this chapter, that effect was positive for dissonance, and indicated that teachers whose leadership styles and teaching practices were not in agreement were 1.9 percentage points more satisfied as teachers than those whose leadership styles were deemed to match their teaching practices. Teachers whose leadership styles and teaching practices were in dissonance were also significantly more satisfied with three other hygiene and motivation factors than were teachers whose leadership styles and teaching practices were in harmony; these factors were working conditions, supervision, and recognition. Teachers whose leadership styles and teaching practices were in dissonance were 5.2 percentage points more satisfied with their working conditions, 8.1 percentage points more satisfied with their supervision, and 7.0 percentage points more satisfied with the recognition they received than were teachers whose leadership styles and teaching practices were in harmony.

None of these effects were what the researcher expected. As mentioned above, the questionnaire could be faced with issues of construct validity; some of the questions might not have differentiated teaching practices or leadership styles as finely as possible. Didactic teachers could have self-selected into the

transformational leadership category because they perceived it to be more desirable or felt that it was something to which they aspired. Additionally, the connection between leadership styles and teaching practices may be only tangentially related to job satisfaction. Further research might help determine the extent of that relationship.

Teachers who were non-native speakers of English were more satisfied than their native speaking colleagues in several areas: advancement, working conditions, and pay. These non-native English speakers were 7.7 percentage points more satisfied with advancement, 5.3 percentage points more satisfied with working conditions, and 4.1 percentage points more satisfied with their salaries than were teachers who were native speakers of English. The researcher attributes most of these increased levels of satisfaction to the relatively greater benefits that accrue to individuals who come to the CNMI from more economically depressed nations.

Noting that only one native English speaker held a principal's position at the time of the study, and that two of those positions were held by non-native non-Chamorro speakers (a Filipina and a Palauan; the rest were all held by Chamorros), the researcher attributes the satisfaction with advancement to the relative opportunities for advancement offered by the public school system in the CNMI to non-native speakers of English in general and to non-native English speaking Chamorros in particular. The researcher attributes the satisfaction with working conditions to the comparatively better working conditions found in the public school system in the CNMI to those found in their native country if non-

Chamorro or Carolinian, and to the comparatively worse conditions found by native English speakers who may have come to the CNMI from US-based schools. Finally, the researcher attributes the greater satisfaction with pay to the comparatively greater salaries offered by the public school system in the CNMI to those found in the native countries of more than sixty percent of these non-native speakers of English.

Finally, teachers whose teaching practice was didactic were 6.1 percentage points more satisfied with their colleagues than were teachers whose teaching practice was constructivist; the literature suggests that a lack of trust on the part of the constructivist teacher's students and a discordance that can emerge in the constructivist classroom may result in a greater dissatisfaction for the constructivist teacher. As discussed above, this dissatisfaction may possibly be directed towards colleagues through transference, allowing didactic teachers to emerge as significantly more satisfied in this category than their constructivist counterparts.

Recommendations for Future Practices

The results of the study, particularly the information provided by the Teacher Job Satisfaction Survey, generate implications that should be considered by the educational leadership in the CNMI Public School System, education policy makers in the CNMI, and any educators who may benefit from them. As noted in Chapters Three and Four, the survey had a high completion and return rate and is therefore reliably reflective of the feeling of job satisfaction held by PSS elementary school teachers. Policymakers in the CNMI should

therefore consider the results of the research when considering taking actions that affect the feelings of satisfaction those public school teachers have in their jobs.

In Chapter One, while stating the primary problem the research meant to address, the researcher pointed to a connection made by Goodlad (1984) between teaching staffs that are satisfied and the quality and effectiveness of educational systems. If the CNMI truly has a vested interest in enhancing the quality and effectiveness of the PSS, it in turn has a vested interest in keeping the teachers who make up that system as satisfied with their jobs as possible.

The question can then be posed: what can the CNMI do to increase teacher job satisfaction, particularly in a time when budgetary funds are scarce and demands for funding high? Fortunately for policymakers and administrators, many of the factors that make up job satisfaction can be supported at little or no material cost to the school, the school system, or the government. The motivation factors of responsibility and recognition cost nothing. Allowing teachers to be accountable for their own work and recognizing them when they do good work have price tags written only in empowerment and praise. The motivation factors of work itself and advancement can similarly be relatively low cost investments. Work itself refers to the job of teaching, including creativity and autonomy, and advancement is the open door to enhanced status or position. Giving teachers autonomy and letting them choose the course of their future would make for more satisfied teachers and in turn more effective schools. Allowing administrators to move more towards positions of trust and away from

positions of micromanagement would result not only in more satisfied teachers but also in more relaxed administrators, who could both bask in the reflections of their more effective schools and enjoy less stressful lives.

One way that administrators and policymakers could provide that autonomy with a measure of security is to ensure that teachers have the proper training that they need to most effectively do their jobs. The researcher knows that a large number of teachers who work for the PSS elementary schools have only a baccalaureate degree in a specific content area. Having never formally studied any methodology, these teachers tend to teach as they were taught; they scramble to learn what they can from equally overworked colleagues and through their limited certificate courses. PSS should ensure that an ongoing professional development program is available to teach teachers best practice methodology. Teachers need to understand multiple approaches to subject matter and know when to use whichever approach is most appropriate for the task at hand.

It would also behoove PSS to provide teachers opportunities to clarify and develop their personal leadership styles. As leaders, teachers are change agents in the classrooms. As noted in Chapter One, Rost (1991) defined leadership as “an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes” (p. 102); as applied to the classroom, those leaders and followers are teachers and students, the mutual purpose in which they are engaged is learning, and the real changes they intend are gains they can make in lifelong knowledge, attitudes, and understanding. While a teacher may have an intuitive idea of how best to lead a room full of

students, explicit examination of leadership principles and techniques could make all teachers more effective leaders.

The cost of enhancing the hygiene factors that make up job satisfaction, or more specifically, that prevent dissatisfaction, should also be considered by policymakers. Supervision refers to the primary independent variables that were the focus of this study, leadership style and teaching practices. The supervisory style a teacher chooses to use should be left up to the teacher. Mandating a teacher to adopt a style antithetical to his or her personal preferences will certainly lead to dissatisfaction with the job. Forcing a transactional teacher to lead in a transformational manner, or asking a constructivist teacher to teach in a didactic manner, will lead to the same level of dissatisfaction with the job as would the reverse. Again, the no cost solution is found in autonomy. The school system may prescribe the content of curriculum, but allowing teachers the freedom to deliver that curriculum in a manner most conducive to themselves and to their students will result in more satisfied teachers and could result in more effective schools. This increase in autonomy could well carry over into the hygiene factor of colleagues, which refers to the social climate of the school, the amount of collegial cooperation and support towards the achievement of common goals. Satisfied teachers will not be found in a school whose climate is dominated by fear, paranoia, and suspicion; if such an atmosphere exists, policymakers have a responsibility to change it.

The last three hygiene factors do have costs, but it would behoove policymakers to consider the costs involved and the related benefits that would

accrue if the costs were paid. Working conditions and security both have some costs connected to them, but both also can in some areas be amended cost free. Working conditions refer not only to the physical plant of schools but also to the policies that define the overall aspects of the school organization. Security here refers not only to the physical security at the school but also to the emotional security that comes from sound organizational policies. It costs money to ensure that schools are well built, well maintained, clean, and safe, but schools are an investment in the health of the state, so that investment must be made. Similarly, it sometimes costs money to keep institutional promises. If teachers are promised supplies to conduct new curricular initiatives mandated by the school, or are promised raises or bonuses for achieving educational goals set by the organization, these promises must be kept. Rapidly changing policies, especially those that take away benefits or security, will lead to dissatisfaction with the job and could result in turnover and poor performance.

Finally, the issue of pay must be given close consideration. While pay was the lowest rated factor among those that made up the category of job satisfaction, policymakers should keep in mind that though it is only one factor among the nine that make up the overall variable of job satisfaction and will not by itself change how people feel about their jobs, it is, as the literature reminds us, quite an important one. Odden and Kelley (1997) note that low pay was the second most important reason, ranking only behind efficacy, for teachers leaving the profession. Still, while everyone likes to be better compensated for the work he or she does, no teacher ever gets into education because he or she wants to

get rich. Regular pay raises are always appreciated, as teachers also have lives to live and families to feed, and teachers are always among the lowest paid and hardest working public servants in any government system. But pay alone will not increase the levels of job satisfaction for PSS teachers in the CNMI. Other matters also need attention if job satisfaction is going to increase; as outlined above, much more can and needs be done.

Recommendations for Future Research

The researcher proposes several recommendations for future research that could further clarify the study reported here or otherwise enhance the volume of research available in the area of teacher job satisfaction. The research conducted has provided a good general overview of the current level of job satisfaction among public elementary school teachers in the CNMI. It would be interesting to learn how that level of job satisfaction changes over time. Thus, a similar study conducted at some point in the future would be of value, particularly if that research could be conducted at a time after possible recommendations discussed in the Recommendations for Future Practices section of this chapter may have been initiated. In addition, the public school system could benefit if it were to conduct a similar study on a school-by-school basis. This study never focused on individual schools, but it was clear to the researcher while he gathered his data that the school climates varied greatly from one institution to another. If teachers could be assured of both anonymity and the absence of repercussions for giving truthful, even if discomforting responses, individual schools could learn much about their climates and the

changes they need to make to improve teacher job satisfaction and school effectiveness.

It may also enhance understanding of teacher job satisfaction in the CNMI if additional research were conducted among junior high or high school teachers in the CNMI, among private school teachers in the CNMI, or among teachers on the islands of Tinian and Rota. Furthermore, conducting similar research in school systems other than that of the CNMI, such as those in the United States or even in other international settings such as the Philippines, Thailand, or Japan, would provide interesting comparative data that could either confirm or alter this study's findings and that could be used to make interesting cultural comparisons about the relative importance of the various motivation or hygiene factors which make up job satisfaction.

Additionally, a qualitative study of teacher job satisfaction, leadership styles, and teaching practices among CNMI public elementary school teachers could be conducted. Interviews with teachers concerning their satisfaction with all the elements of the job, coupled with observations of their teaching practices and leadership styles in the classroom could provide rich empirical data that could enhance this study. In-depth case studies of a few schools, using ethnographic research methods, could prove invaluable as well. Additional research such as this might help to flesh out the quantitative information given in this study.

Available information about the level of satisfaction among CNMI public elementary school teachers might also be enhanced by additional analysis of the

present data set. Relationships may exist among such variables as age and teaching experience that could shed further light on the issues of job satisfaction, leadership styles, and teaching practices.

Finally, other researchers could further examine the Elementary Schools Teacher Survey instrument itself for improvement or refinement. This researcher recognizes that some of the questions on the survey, particularly in the section on teaching practices, may not have provided the level of distinction between didactic and constructivist practices desired by the researcher. Any work done in this area would advance the field concerning teaching practices. The survey instrument used to determine leadership styles could also be examined and improved. Because the survey contains 15 transformational items compared to only seven transactional items, transformational leadership is being more accurately measured than transactional. In addition, because the original work – the Multifactoral Leadership Questionnaire, or MLQ – by Bass (1986) and Bass and Avolio (1990, 1995) from which this survey was adapted contained only three questions on *laissez-faire*, that category was dropped from the study. The researcher does not doubt, however, that some teachers in PSS would have fallen into that category. Thus, a revision of the leadership survey that would include the *laissez-faire* category and a more balanced selection of items for all categories would be an addition to the quantitative tools available to researchers.

REFERENCES

- Alejandro, E. (2000, November 9). WSR bats for reading. Marianas Variety, pp. 8, 23.
- Allen, R. H. (1998). Relations between personality factors and teaching style preferences. (Doctoral dissertation, Arizona State University, 1998).
Dissertation Abstracts International, 59, 02A.
- Alsup, J. K. (1995). The effects of mathematics instruction based on constructivism on prospective teachers' conceptual understanding, anxiety, and confidence. (Doctoral dissertation, University of Wyoming, 1995). Dissertation Abstracts International, 56, 08A.
- Anschutz, J. M. (1987). Conditions influencing recruitment and retention of teachers in rural schools. (Doctoral dissertation, Kansas State University, 1987). Dissertation Abstracts International, 48, 04A.
- Arendt, H. (1954). Between past and future: Six exercises in political thought. Cleveland, OH: The World Publishing Company.
- Ballou, D., & Podgursky, M. (1997). Teacher pay and teacher quality. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- Bass, B. M. (1981). Stogdill's handbook of leadership: A survey of theory and research. New York: Free Press.
- Bass, B. M. (1985). Leadership and performance beyond expectations. New York: Free Press.
- Bass, B. M. (1986). Implications of a new leadership design. Binghamton: School of Management, State University of New York.

- Bass, B. M., & Avolio, B. J., (1990). Transformational leadership development: Manual for the multifactor leadership questionnaire. Palo Alto, CA: Consulting Psychologists Press.
- Bass, B. M., & Avolio, B. J., (1995). Multifactor Leadership Questionnaire Leaders Form (5x-Short). Redwood City, CA:: Mind Garden, Inc.
- Becker, W. & Englemann, Z., (1995, Winter). Sponsor findings from Project Follow Through. Effective school practices [On-line serial], 15 (1). Available: <http://darkwing.uoregon.edu/~adiep/ft/151toc.htm>, pp. 1-11.
- Bemis, D. G. (1999). Effects of mentoring programs on new teacher satisfaction in selected suburban schools. (Doctoral dissertation, Boston College, 1999). Dissertation Abstracts International, 60, 05A.
- Bennett, R. G. (1990). What is the relationship between shared decision-making, teacher satisfaction, and student performance. (Doctoral dissertation, University of Southern California, 1990). Dissertation Abstracts International, 51, 08A.
- Blackston, A. R. (1999). Instructing teachers in collaborative problem solving: Adherence to intervention plans and the resulting effect on target student behavior. (Doctoral dissertation, University of Cincinnati, 1999). Dissertation Abstracts International, 60, 07A.
- Bloom, B. S. (1976). Human characteristics and school learning. New York: McGraw-Hill.
- Bogler, R. (1999). Reassessing the behavior of principals as a multiple-factor in teachers' job satisfaction. Paper presented at the annual meeting of the

American Educational Research Association, Montreal, Quebec, Canada.

[On-line]. Abstract from: ERIC (1999-2000/03) Item: ED432800.

Brooks, M. G., & Brooks, J. G. (1999). The courage to be constructivist.

Educational Leadership, 57 (3), 18-24.

Bruner, J. (1986). Actual minds: Possible worlds. Cambridge, MA: Harvard University Press.

Bryan, L. A. (1997). A case of learning to teach elementary science:

Investigating beliefs, experiences, and tensions. (Doctoral dissertation, Purdue University, 1997). Dissertation Abstracts International, 58, 12A.

Burns, J. M. (1978). Leadership. New York: Harper.

Bysshe, J. E. (1996). Basic instinct? An exploration into the nature of

breastfeeding experiences of women attending three different

breastfeeding education programs. (Doctoral dissertation, University of

Southampton (United Kingdom), 1996). Dissertation Abstracts

International, 58, 03C.

Carnegie Corporation of New York. (1999). Higher Education Act Title II State Grant Opportunities (binder). The National Conference of State

Legislatures and The National Governors' Association, March 19-20,

1999, Washington, DC.

Carnoy, M., and Levin, H. M. (1985). Schooling and work in the democratic state. Stanford, CA: Stanford University Press.

Charles, K. J. (1999). Changing the attitudes and practices of professional developers through a constructivist model: The technical assistance

- academy for mathematics and science services. (Doctoral dissertation, The University of North Carolina at Greensboro, 1999). Dissertation Abstracts International, 60, 06A.
- Clinton, W. J. (1994, February). A new direction. Address to Joint Session of Congress. [On-line], Available: www.pub.whitehouse.gov/urires/l2R?urn:pdi//oma.eop.gov.us/1993/2/17/3.text.1
- CNMI Department of Commerce Central Statistic Division. (1999, 1st quarter). Population Statistics. Saipan, MP: Author.
- CNMI Public School System. (2001a). Facts and Figure: School Year 2001-2002. Saipan, MP: Author.
- CNMI Public School System. (2001b). Report to the School Board for CNMI PSS. Saipan, MP: Author.
- Conley, D. T. (1993). Road map to restructuring: Policies, practices, and the emerging vision of schooling. Eugene, OR: University of Oregon Press
- Coombs, M. K. (1998, March 24). Honest follow-through needed on this project. The Washington Times [On-line]. Available: www.washtimes.com.
- Crawford, J. H. (1986). Teacher recruitment and retention in a rural school district: A case study. (Doctoral dissertation, Georgia State University, 1986). Dissertation Abstracts International, 47, 08A.
- Crum, J. T. (1998). Attitudes and opinions toward beginning through intermediate piano instruction among Florida State Music Association piano teachers. (Doctoral dissertation, Auburn University, 1998). Dissertation Abstracts International, 59, 11A.

- Daly, R. E. (1980). A casual analysis of satisfaction, performance, work environment and leadership in selected secondary schools. (Doctoral dissertation, University of California, Berkeley, 1980). Dissertation Abstracts International, 42, 02A.
- Delpit, L. (1995). Other people's children: Cultural conflict in the classroom. New York: The New Press.
- Deutsch, G. L. (1996). Influencing factors along the road to reflective practice. (Doctoral dissertation, University of Hartford, 1996). Dissertation Abstracts International, 57, 04A.
- Dewey, J. (1902). The child and the curriculum. Chicago: The University of Chicago Press.
- Donndelinger, G. M. (1997). A comparison study: Job satisfaction and retention of minority versus non-minority teachers. (Doctoral dissertation, University of Southern California, 1997). Dissertation Abstracts International, 58, 05A.
- Drew, C. J. (1976). Introduction to designing research and evaluation. St. Louis, MO: The C. V. Mosley Company.
- Eden, D. (1998). The paradox of school leadership. Journal of Educational Administration 36(3-4), 249-261.
- Engelmann, S., & Carnine, D. (1982). Theory of instruction: Principles and applications. New York: Irvington Publishers, Inc.

- Felton, S. L. (1995). Transactional and transformational leadership and teacher job satisfaction. Unpublished doctoral dissertation. The University of Mississippi.
- Fiedler, F. E. (1967). A Theory of leadership Effectiveness. New York: McGraw-Hill.
- Goeller, K. A. (1992). Here, effective is spelled...extraordinary. Contemporary Education (Winter), 63(2), 153-156.
- Gonzalez, C. L. (1998). Cultural training in two Los Angeles didactic programs in dietetics. (Doctoral dissertation, University of California, Los Angeles, 1998). Dissertation Abstracts International, 59, 029B.
- Goodlad, J. I. (1984). A place called school: Prospects for the future. New York: McGraw-Hill.
- Goodlad, J. I. (1990). Teachers for our nation's schools. San Francisco: Jossey-Bass.
- Goodlad, J. I. (1994). Educational renewal: Better teachers, better schools. San Francisco: Jossey-Bass.
- Goodman, K. (1996). On reading. New York: Scholastic.
- Goodman, Y., & Altwerger, B. (1981). Print awareness in preschool children: A working paper (Occasional Paper No. 4). Tucson, AZ: Program in Language and Literacy.
- Gregg, E. L. (1993). Learning geographic reasoning: Mapping the course. (Doctoral dissertation, University of Pittsburgh, 1993). Dissertation Abstracts International, 54, 07A.

- Guskey, T. R. (1995). Mastery learning. In J. H. Block, S. T. Everson, & T. R. Guskey (Eds.), School improvement programs (pp. 91-108). New York: Scholastic.
- Hater, J. J., & Bass, B. M. (1988). Superiors' evaluations and subordinates' perceptions of transformational and transactional leadership. Journal of Applied Psychology, 4, 695-702.
- Harste, J., Woodward, V. A., & Burke, C. L. (1984). Language stories and literacy lessons. Portsmouth, NH: Heinemann.
- Hayes, B. L. (1997). Assessing the effectiveness of computer-assisted instruction in teaching communication skills to counselor education students at a beginning graduate level. (Doctoral dissertation, University of South Carolina, 1997). Dissertation Abstracts International, 58, 03A.
- Heflich, D. A. (1997). The impact of online technology on teaching and learning: The attitude and ideas of educators in the field. (Doctoral dissertation, The University of Alabama, 1997). Dissertation Abstracts International, 58, 06A.
- Hersey, P., Blanchard, K. H., and Johnson, D. E. (1996). Management of organizational behavior (7th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Herzberg, F., Mauser, B., and Snyderman, B. B. (1959). The motivation to work (2nd ed.). New York: Wiley.
- Hollander, E. P. (1978). Leadership dynamics: A practical guide to effective relationships. New York: Free Press.
- Holt, J. (1964). How children fail. New York: Pitman.

- House, N. G. (1988). An investigation of the retention in teaching and the job satisfaction of recognized high quality teachers. (Doctoral dissertation, The University of North Carolina at Chapel Hill, 1988). Dissertation Abstracts International, 49, 09A.
- Hunter, M. (1995). Mastery teaching. In J. H. Block, S. T. Everson, & T. R. Guskey (Eds.), School improvement programs (pp. 181-204). New York: Scholastic.
- Ingram, P. D. (1997). Leadership behavior of principals in inclusive educational settings. Journal of Educational Administration 35(5), 411-427.
- Kearney, J. E. H. (1997). Factors affecting satisfaction and retention of African-American and European-American teachers in Columbus public schools. (Doctoral dissertation, Ohio University, 1997). Dissertation Abstracts International, 59, 04A.
- Kohn, A. (1993). Punished by rewards. New York: Houghton-Mifflin.
- Krynock, K. & Robb, L. (1999). Problem solved: How to coach cognition. Educational Leadership, 57 (3), 29-33.
- Lambert, L. (1998). Building leadership capacity in schools. Alexandria, VA: Association for Supervision and Curriculum Development.
- Lester, P. E. (1984). Development of an instrument to measure teacher job satisfaction. Unpublished doctoral dissertation. New York University.
- Lieberman, A. & Miller, L. (2000). Teaching and teacher development: A new synthesis for a new century. In R. S. Brandt (Ed.), Education in a new era

(pp. 47-66). Alexandria, VA: Association for Supervision and Curriculum Development.

Liontos, L. B. (1992). Transformational leadership. ERIC Digest 72.

Maddox, G. G. H. (1997). Factors affecting teacher turnover and retention.

(Doctoral dissertation, University of Colorado at Denver, 1997).

Dissertation Abstracts International, 58, 08A.

Marra, C. A. (1998). Effects of interactive versus didactic sexuality training on attitudes and behavioral responses of program staff. (Doctoral

dissertation, Hofstra University, 1998). Dissertation Abstracts

International, 59, 11B.

Marsh, S. C. (1995). The role of computer-assisted instruction and other techniques to modify instruction in inclusive first-grade classrooms:

“You’re doing work, but the work’s fun.” (Doctoral dissertation, Boston University, 1995). Dissertation Abstracts International, 56, 04A.

Marzano, R. J. (2000). 20th century advances in instruction. In R. S. Brandt (Ed.), Education in a new era. Alexandria, VA: Association for Supervision and Curriculum Development.

Maxwell, D. L. T. N. (1992). A multivariate analysis of school features associated with urban teachers’ sense of efficacy and propensity to stay with teaching. (Doctoral dissertation, Morgan State University, 1992).

Dissertation Abstracts International, 53, 07A.

- McGregor, D. M. (1992). The human side of the enterprise. In J. M. Shafritz & J. S. Ott (Eds.), Classics of organizational theory, 3rd Ed., (pp. 174-180). Pacific Grove, CA: Brooks/Cole. (Original work published 1957).
- McKeown, M. G., & Beck, I. L. (1999). Getting the discussion started. Educational Leadership, 57 (3), 25-28.
- Mestinsek, R. M. (2000). A comparative study of leadership characteristics of principals in charter schools and traditional schools. Unpublished doctoral dissertation, University of San Diego.
- Miller, T. H. (1999). Making certain: Thomas Hobbes, geometry, and the educational politics of early modernity. (Doctoral dissertation, University of California, San Diego, 1999). Dissertation Abstracts International, 60, 06A.
- Morgan, R. D. (1994). Factors affecting the retention of kindergarten through twelfth grade teachers in the Pacific Union Conference of Seventh Day Adventists. (Doctoral dissertation, La Sierra University, 1994). Dissertation Abstracts International, 55, 07A.
- Morrow, D. N. 1997. An evaluation of a socio-sexuality education program for individuals with a developmental handicap. (Masters dissertation, Wilfrid Laurier University (Canada), 1997). Masters Abstracts International, 36, 02.
- Munoz, D. (1987). A study of the potential of innovative personnel practices to increase job satisfaction and job retention of the elementary teacher in a

- selected school district. (Doctoral dissertation, The University of Texas at Austin, 1987). Dissertation Abstracts International, 48, 05A.
- Nelson, F. H., Drown, R., & Gould, J. C. (2001). Survey and analysis of teacher salary trends 2000. Washington, DC: American Federation of Teachers, AFL-CIO.
- Nnadozie, C. A. (1993). A study of the relation between participation in decision-making and school culture and perception of job satisfaction among teachers. (Doctoral dissertation, Morgan State University, 1993). Dissertation Abstracts International, 54, 06A.
- Norman, S. L. (1997). A trainer's manual for alcohol and other drug counselor training and client assessment. (Doctoral dissertation, The Union Institute, 1997). Dissertation Abstracts International, 58, 05B.
- Odden, A., & Kelley, C. (1997). Paying teachers for what they know and do. Thousand Oaks, CA: Corwin Press, Inc.
- Perkins, D. (1999). The many faces of constructivism. Educational Leadership, 57 (3), 6-11.
- Peters, T. J. (1997). Transactional and transformational leadership: Predictors of employee satisfaction, commitment, and productivity. (Doctoral dissertation, Marquette University, 1997). Dissertation Abstracts International, 59, 02A.
- Radecki, D. J. (1987). The identification and analysis of factors contributing to lay teacher attrition and retention in Catholic high schools. (Doctoral

- dissertation, University of San Francisco, 1987). Dissertation Abstracts International, 48, 07A.
- Ralston, C. L. (1990). The effectiveness of California mentor teacher program in retaining quality teachers in the classroom. (Doctoral dissertation, Indiana University of Pennsylvania, 1990). Dissertation Abstracts International, 51, 07A.
- Ravitch, D. (1984). A good school. American Scholar 53(4), 480-493.
- Reed, A. J. S., Bergemann, V. E., & Olson, M. W. (1998). In the classroom: An introduction to education (3rd ed.). New York: McGraw Hill.
- Rost, J. C. (1991). Leadership in the Twenty-First Century. New York: Praeger.
- Ruben, J. J. (1993). Perceived factors associated with high and low job satisfaction among teachers. (Doctoral dissertation, Virginia Polytechnic Institute And State University, 1993). Dissertation Abstracts International, 54, 08A.
- Saretsky, S. T. (1988). Attraction and retention of teachers in low achieving secondary schools in an urban school district. (Doctoral dissertation, Columbia University Teachers College, 1988). Dissertation Abstracts International, 49, 09A.
- Schaefer, J. B. (1996). "Lloyd's Penny Weekly Miscellany of Romance and General Interest": A study of its cultural and historical context in relation to its Victorian working-class readers. (Doctoral dissertation, Duquesne University, 1996). Dissertation Abstracts International, 58, 02A.

- Scherer, M. (1999). The understanding pathway: A conversation with Howard Gardner. Educational Leadership, 57 (3), 12-16.
- Schmoker, M., & Marzano, R. J. (1999). Realizing the promise of standards-based education. Educational Leadership, 56 (6), 17-21.
- Sergiovanni, T. J. (1996). Leadership for the Schoolhouse. San Francisco: Jossey-Bass Publishers.
- Slavitt, D., Stamps, P., Piedmont, E., & Haase, A. (1986) Index of work satisfaction. Ann Arbor, MI: University of Michigan Press.
- Smerdon, B. A., Burkam, D. T., & Lee, V. E. (1999). Access to constructivist and didactic teaching: Who gets it? Where is it practiced? Teachers College Record 101 (1), 5-34.
- Smith, P. G. (1998). Coming to know one's world: Development as social construction of meaning. In R. Campbell (Ed.), Facilitating preschool literacy (pp.12-28). Newark, DE: International Reading Association.
- Sobol, A. J. (1998). A formative and summative evaluation study of classroom interactions and student/teacher effects when implementing algebra tile manipulatives with junior high school students. (Doctoral dissertation, St. John's University, 1998). Dissertation Abstracts International, 59, 04A.
- Soeharto, S. (1998). The effects of a constructivist learning environment on grade six student achievement and attitude toward mathematics in Indonesian primary schools. (Doctoral dissertation, University of Houston, 1998). Dissertation Abstracts International, 59, 10A.

- Stelmachowicz, C. L. (1991). Teacher retention and teacher satisfaction in Lutheran secondary schools. (Doctoral dissertation, Western Michigan University, 1991). Dissertation Abstracts International, 52, 11A.
- Stevenson, C. M. (1986). An investigation into the rewards in teaching for high-performance elementary school teachers (Doctoral dissertation, University of Colorado at Boulder, 1986). Dissertation Abstracts International, 47, 09A.
- Stone, P. (1992). Transformational leadership in principals: An analysis of the Multifactor Leadership Questionnaire results. Professional Leadership Development Monograph Series 2(1).
- Taylor, A. W. (1997). Factors affecting retention of teachers in the teaching profession. (Doctoral dissertation, Georgia State University, 1997). Dissertation Abstracts International, 58, 08A.
- Thomas, C. D. (1993). Constructivism and African-American students' confidence in mathematics. (Doctoral dissertation, Georgia State University, 1993). Dissertation Abstracts International, 54, 07A.
- Thondike, R. L. (1982). Reliability. In Wahlberg, H. J., & Haertel, G. D., (eds.). (1990). The international encyclopedia of educational evaluation. Oxford: Pergamon Press.
- Tichy, N. M., & Devanna, M. A. (1986). The transformational leader. New York: John Wiley.

- Tucker, M. L. (1990). Higher education transformational leadership as a predictor of satisfaction, effectiveness, and extra effort. Unpublished doctoral dissertation, University of New Orleans, New Orleans, Louisiana.
- Waldman, D. A., Bass, B. M., & Einstein, W. O. (1985). Effort, performance, and transformational leadership in industrial and military service (Working Paper 85-80). Binghamton School of Management, State University of New York.
- Walker, B. W. (1996). A study of church-based program for the development of personal authority for adult attachments among divorced single adults attending selected Southern Baptist churches. (Doctoral dissertation, Southwestern Baptist Theological Seminary, 1996). Dissertation Abstracts International, 58, 05A.
- Wallace, J. L. (1996). An examination of comparable behavioral and motivational features of transactional and transformational leadership as regards effectiveness and follower satisfaction. (Doctoral dissertation, City University of New York, 1996). Dissertation Abstracts International, 57, 10B.
- Waller, W. (1932). The sociology of teaching. New York: J. Wiley & Sons.
- Wells, D. L. (1993). Factors affecting teachers: commitment to stay in teaching: A causal model. (Doctoral dissertation, Virginia Polytechnic Institute and State University, 1993). Dissertation Abstracts International, 54, 12A.
- Wettersten, J. A. (1994). Low profile, High Impact: Four case studies of high school department chairs whose transactions "transform" teachers and

administrators. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, Louisiana. [On-line]. Abstract from: ERIC (1999-2000/03) Item: ED376604.

White House. (2002). A nation transformed: Clinton-Gore administration accomplishments: 1993 – 1999. [On-line]. Retrieved June 5, 2001 from <http://www.whitehouse.gov/WH/Accomplishments/education.html>

Yee, S. M. (1988). Careers in the classroom: Teachers who want to teach and schools that let them. (Doctoral dissertation, Stanford University, 1988). Dissertation Abstracts International, 49, 09A.

Zaleznik, A. (1983). The leadership gap. Washington Quarterly, 6(1), 32-39.

Zolkower, B. A. (1997). Math fictions: Elementary mathematics education and the modern pedagogical paradigm. Unpublished doctoral dissertation, City University of New York.

APPENDIX A
INFORMATION FOR SUBJECTS

Information for Subjects

The following surveys have been designed to gather data from teachers on topics related to personal leadership styles, teaching practices, and teacher job satisfaction. These data are being collected as part of a study being conducted by the researcher to fulfill requirements for the doctorate in Education.

The results of this study have potential to benefit the CNMI in several ways. The research will yield a report on the overall level of satisfaction among public elementary school teachers in Saipan and will specify the level of individual factors which make up that satisfaction. It will report on the preferred leadership styles and preferred teaching practices of Saipan elementary school teachers as a whole. It will yield information regarding the influences that these preferred styles and practices have on overall satisfaction. This statistical information should therefore benefit not only teachers who reason that they should have autonomy in choosing how they lead and teach in the classroom but also administrators or policy makers who seek to increase the level of satisfaction among teaching personnel.

No specific CNMI schools or individual CNMI teachers will be identified when the data are gathered, and no school-specific analysis of data will be made. By signing, completing, and submitting the attached consent and survey forms, the subject explicitly allows the researcher permission to use the data gathered for the purposes of the study. The researcher will keep survey data private and secure; completed and analyzed forms will be stored in a private file.

Two years after the study is complete, the researcher will destroy the data by shredding and discarding the completed survey forms. All responses will be kept confidential and anonymous.

The survey forms should take between 20 minutes to one hour to fill out. The researcher can identify no potential risks or benefits for the subjects from their participation in this research.

This research is sponsored by no one; though the researcher works for Northern Marianas College, this work has no official sponsorship from that institution, from the CNMI Public School System, nor from any other agency or individual. In addition, all participation in this project must be voluntary; under no circumstance should anyone feel coerced in any manner to participate in this study. In addition, the subject may withdraw his or her consent, and from the research, at any time.

Upon completion of the study, the researcher will post a copy of the accepted dissertation on a web site for access and examination. The URL for this website will be provided all PSS elementary principals on Saipan for school-wide dissemination. Thank you assisting this research by completing these forms. Questions or comments may be passed to the researcher:

Chas J. Algaier
Northern Marianas College
PO Box 501250
Saipan, MP 96950
(670) 234-5498

APPENDIX B
ELEMENTARY SCHOOL TEACHERS SURVEY

Elementary School Teachers Survey

Explicit permission - Consent Form

This is to certify that I am an elementary school teacher working on Saipan for the CNMI Public School System. I have read the **Information for Subjects** given by the researcher. I hereby give Chas J. Algaier permission to use the submitted data for his doctoral dissertation. The information I am submitting has been given voluntarily and without coercion.

I, the undersigned, understand the above explanations and on that basis, I give consent to my voluntary participation in this research. There is no agreement, written or verbal, beyond that expressed in the **Information for Subjects** or the Consent Form.

Signature of Subject

Date

Location (e.g. Saipan)

Signature of Principal Researcher

Date

Signature of Witness

Date

Demographic information

1. Age (please indicate)

2. Gender (please choose)
☐ Male
☐ Female
3. Years experience teaching
(please indicate)

4. Is English the language you first
spoke at home? (please choose)
☐ Yes
☐ No

If no, what language was it?

5. What is the highest degree
you've received?
☐ BA/BS/BEd
☐ MA/MS/MEd
☐ Doctorate

Elementary School Teachers Survey

For Questions 1 – 22, use the following scale:

Never	Once in a while	Sometimes	Fairly Often	Frequently if not always	
1	2	3	4	5	
<hr/>					
1. I remind students of the outcomes they're expected to achieve.	1	2	3	4	5
2. I talk with my students about the importance of trusting one another.	1	2	3	4	5
3. I don't attend to problems until they become serious.	1	2	3	4	5
4. I encourage creative approaches to solve common problems.	1	2	3	4	5
5. I provide students with a vision of excellence that they can achieve.	1	2	3	4	5
6. I work with each student individually to address specific and personal needs.	1	2	3	4	5
7. I consciously show respect to my students.	1	2	3	4	5
8. I describe for students an obtainable vision of future excellence.	1	2	3	4	5
9. I share my values and beliefs with my students.	1	2	3	4	5
10. I let students know what they'll receive for meeting performance goals.	1	2	3	4	5
11. I show students how to examine assumptions when trying to solve problems.	1	2	3	4	5

Never	Once in a while	Sometimes	Fairly Often	Frequently if not always	
1	2	3	4	5	
12. I listen attentively to student concerns.				1 2 3 4 5	
13. I try to project a sense of personal power and competence in the classroom.				1 2 3 4 5	
14. I individualize student work as much as possible.				1 2 3 4 5	
15. I keep track of student mistakes and let students know when they occur.				1 2 3 4 5	
16. I deliver what I promise to students when they accomplish their objectives.				1 2 3 4 5	
17. I enforce classroom rules and watch for violations.				1 2 3 4 5	
18. I engage my students in discussions of possible future accomplishments.				1 2 3 4 5	
19. I take a stand in my classroom on controversial issues.				1 2 3 4 5	
20. I encourage students to examine problems from different perspectives.				1 2 3 4 5	
21. I let students solve problems until they are unable to manage them.				1 2 3 4 5	
22. I talk with my students about the ethics involved in decision-making.				1 2 3 4 5	

For Questions 23 – 46, use the following scale:

Never or rarely	Once a month	Twice a month	Once a week	Twice a week or more	
1	2	3	4	5	
<hr/>					
23. I ask questions to which I already know the answer.	1	2	3	4	5
24. I ask my students what activities they want to do.	1	2	3	4	5
25. I ask questions to which I don't know the answer.	1	2	3	4	5
26. I use the assigned textbooks according to the curriculum guide.	1	2	3	4	5
27. I review work from the previous day.	1	2	3	4	5
28. I adapt the curriculum to fit my needs.	1	2	3	4	5
29. My students choose what to study.	1	2	3	4	5
30. I give lectures to my students.	1	2	3	4	5
31. I demonstrate how to do activities.	1	2	3	4	5
32. My students choose what to read.	1	2	3	4	5
33. Hands-on activities are a part of my classroom.	1	2	3	4	5
34. I rely on paper and pencil tests to establish grades.	1	2	3	4	5

	<div> <div>Never or rarely</div> <div>Once a month</div> <div>Twice a month</div> <div>Once a week</div> <div>Twice a week or more</div> </div>				
	<div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div>				
35. My class takes the same tests; each student works independently on the test.	1	2	3	4	5
36. My students can go back to improve upon graded work.	1	2	3	4	5
37. My students self-correct their work.	1	2	3	4	5
38. My students listen together but solve problems alone.	1	2	3	4	5
39. I call upon students when I want them to answer.	1	2	3	4	5
40. My students are expected to help one another.	1	2	3	4	5
41. My students have directions to follow when working in groups.	1	2	3	4	5
42. I reward students for doing well.	1	2	3	4	5
43. I punish students for doing poorly.	1	2	3	4	5
44. My students do work without the expectation of praise or reward.	1	2	3	4	5
45. I stress the acceptability and value of mistakes.	1	2	3	4	5
46. My students make their own decisions when working in groups.	1	2	3	4	5

APPENDIX C
TEACHER JOB SATISFACTION QUESTIONNAIRE

Teacher Job Satisfaction Questionnaire

The Teacher Job Satisfaction Questionnaire questions use the following scale:

	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1. Teaching provides me with an opportunity to advance professionally.	1	2	3	4	5
2. Teacher income is adequate for normal expenses.	1	2	3	4	5
3. Teaching provides an opportunity to use a variety of skills.	1	2	3	4	5
4. Insufficient income keeps me from living the way I want to live.	1	2	3	4	5
5. My immediate supervisor turns one teacher against another.	1	2	3	4	5
6. No one tells me that I am a good teacher.	1	2	3	4	5
7. The work of a teacher consists of routine activities.	1	2	3	4	5
8. I am <u>not</u> getting ahead in my present teaching position.	1	2	3	4	5
9. Working conditions in my school can be improved.	1	2	3	4	5
10. I receive recognition from my immediate supervisor.	1	2	3	4	5
11. I <u>do not</u> have the freedom to make my own decisions.	1	2	3	4	5

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
12. Teaching provides for a secure future.			1	2 3 4 5
13. I receive full recognition for my successful teaching.			1	2 3 4 5
14. I get along well with my colleagues.			1	2 3 4 5
15. The administration in my school <u>does not</u> clearly define its policies.			1	2 3 4 5
16. My immediate supervisor offers suggestions to improve my teaching.			1	2 3 4 5
17. Working conditions in my school are comfortable.			1	2 3 4 5
18. Teaching provides me the opportunity to help my students learn.			1	2 3 4 5
19. I like the people with whom I work.			1	2 3 4 5
20. Teaching provides limited opportunities for advancement.			1	2 3 4 5
21. My students respect me as a teacher.			1	2 3 4 5
22. I am afraid of losing my teaching job.			1	2 3 4 5
23. My immediate supervisor <u>does not</u> back me up.			1	2 3 4 5
24. Teaching is very interesting work.			1	2 3 4 5

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	
<hr/>					
25. Working conditions at my school <u>could not</u> be worse.	1	2	3	4	5
26. Teaching discourages originality.	1	2	3	4	5
27. The administration at my school communicates its policies well.	1	2	3	4	5
28. I <u>never</u> feel secure in my teaching job.	1	2	3	4	5
29. Teaching <u>does not</u> provide me the chance to develop new methods.	1	2	3	4	5
30. My immediate supervisor treats everyone equitably.	1	2	3	4	5
31. My colleagues stimulate me to do better work.	1	2	3	4	5
32. Teaching provides an opportunity for promotion.	1	2	3	4	5
33. I am responsible for planning my daily lessons.	1	2	3	4	5
34. Physical surroundings in my school are unpleasant.	1	2	3	4	5
35. I am well paid in proportion to my ability.	1	2	3	4	5
36. My colleagues are highly critical of one another.	1	2	3	4	5
37. I do have responsibility for my teaching.	1	2	3	4	5

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5			
<hr/>							
38. My colleagues provide me with suggestions or feedback about my teaching.			1	2	3	4	5
39. My immediate supervisor provides assistance for improving instruction.			1	2	3	4	5
40. I <u>do not</u> get cooperation from the people I work with.			1	2	3	4	5
41. Teaching encourages me to be creative.			1	2	3	4	5
42. My immediate supervisor <u>is not</u> willing to listen to suggestions.			1	2	3	4	5
43. Teacher income is barely enough to live on.			1	2	3	4	5
44. I am indifferent toward teaching.			1	2	3	4	5
45. The work of a teacher is very pleasant.			1	2	3	4	5
46. I receive too many meaningless instructions from my immediate supervisor.			1	2	3	4	5
47. I dislike the people with whom I work.			1	2	3	4	5
48. I receive too little recognition.			1	2	3	4	5

49. Teaching provides a good opportunity for advancement 1 2 3 4 5

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

50. My interests are similar to those of my colleagues. 1 2 3 4 5

51. I **am not** responsible for my actions. 1 2 3 4 5

52. My immediate supervisor makes available the material
I need to be my best. 1 2 3 4 5

53. I have made lasting friendships among my colleagues. 1 2 3 4 5

54. Working conditions at my school are good. 1 2 3 4 5

55. My immediate supervisor makes me feel uncomfortable. 1 2 3 4 5

56. Teacher income is less than I deserve. 1 2 3 4 5

57. I try to be aware of the policies of my school. 1 2 3 4 5

58. When I teach a good lesson, my immediate supervisor notices. 1 2 3 4 5

59. My immediate supervisor explains what is expected of me. 1 2 3 4 5

60. Teaching provides me with financial security. 1 2 3 4 5

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	
61. My immediate supervisor praises good teaching.					1 2 3 4 5
62. I <u>am not</u> interested in the policies of my school.					1 2 3 4 5
63. I get along well with my students.					1 2 3 4 5
64. Pay compares with similar jobs in other schools or school districts.					1 2 3 4 5
65. My colleagues seem unreasonable to me.					1 2 3 4 5