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Relationship between school principals' workload and their quality of life in Taiwan

Hui-Tzu Wu

The University of Montana

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Relationship Between School Principals’ Workload and
Their Quality of Life in Taiwan

by
Hui-Tzu Wu

M.Ed. National ChiNan University, Taiwan, 2001
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presented in partial fulfillment of the requirements
for the degree of
Doctor of Education
The University of Montana
December, 2004

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Dean, Graduate School

12-29-04
Date
The school principal directly influences the essential quality of education for the student. Problems or difficulties, such as high turnover rate and overwork, that are associated with dissatisfied principals impact the schools' educational opportunities. This study was conducted to determine what relationship, if any, existed between school principals’ workload and their quality of life in Taiwan.

This study found that 54% of school principals were identified as having a Positive Quality of Life (PQL) and 46% of principals were indicated as having a Challenging Quality of Life (CQL). The findings of this study determined that there was an experimentally important and consistent predictability of a Challenging Quality of Life (CQL) using the students’ dropout rate as the predictor variable. There was an experimentally important and consistent predictability of a Positive Quality of Life (PQL) using actual hours school principals spent on their primary duties. An experimentally important and consistent predictability of both a Positive and a Challenging Quality of Life were found using the school principals’ weekly working hours as the predictor variable.

According to the findings of this research, this study recommends that (a) the Ministry of Education in Taiwan may consider creating a position of the assistant principal; (b) the Ministry of Education in Taiwan may consider a full-time secretary to assist each school principal; (c) the Ministry of Education in Taiwan may consider developing in-service training programs, such as time-management strategies, technology skills and knowledge, and participatory management/leadership; (d) the Ministry of Education in Taiwan may consider minimizing overly burdensome requirements in areas such as paperwork, regulations, and red tape; and (e) because of the larger percentage of Challenging Quality of Life principals, the Ministry of Education in Taiwan would benefit K-12 education by providing additional recognition of the difficult job performed by school principals and encouraging them to hold a positive attitude while the Ministry of Education seeks to address this issue.
ACKNOWLEDGEMENTS

No huge task is ever accomplished alone.

My sincere and eternal gratitude go to Dr. Merle Farrier, who was my dissertation chairperson at The University of Montana. I appreciate his time and dedication to help my dream become a reality. His intelligence and wisdom are important and consistent acute as I struggled through my research. I am honored to be one member of his doctoral students. I wish to express my deepest appreciation to my dissertation committee, to Dr. McCaw, Dr. O’Reilly, Dr. Stolle, and Dr. Alexander, for establishing high standards and providing instructional support, guidance and direction in my professional growth and development. Special thanks to Dr. Sorenson, Dr. Lundt, Dr. Evans, Dr. Chin, Dr. Wasta, Dr. Williams, and Dr. Foster, who increased my interest in research and demonstrated what it means to inspire students by teaching.

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Thank you to my dear friends, who continually believed I could accomplish this task, when I doubted myself many times. Thank you to SD and Chingying, who provided encouragement and assistance during my study. Finally and mostly, I am forever grateful to all members of my family for their unconditional love and support.

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CHAPTER ONE
STATEMENT OF THE PROBLEM

Introduction

Educational researchers, who often believe in different theories of educational leadership for school principals, believe that the principal significantly influences the quality of education. For instance, Sergiovanni (2001) wrote:

Since the beginning of school in America, the relationship between quality of schools and quality of learning for students has been accepted as an article of faith...Quality schooling does indeed lead to quality learning, and the key to quality schooling is the amount and kind of leadership that the school principal provides directly and promotes among teachers and supporting staff. These assertions are supported by hundreds of studies on school effectiveness and success...It appears that the old maxim “It’s not the school, it’s the principal of the thing” has some credence. (pp. 161-162)

A number of studies have focused on the concepts of effectiveness, success, excellence, and improvement in the quality of schooling. Some researchers investigating the characteristics of effective, successful, excellent, or improving schools typically relied on student test scores as an indicator of effectiveness, success, excellence and improvement of a school. Effectiveness, success, excellence, or improvement in these schools was often determined by pupil performance on standardized tests of reading and math skills such as American College Test (ACT) or Scholastic Aptitude Test (SAT) scores. Student achievement in basic skills was the most familiar criterion for identifying an effective, successful, excellent, or improving school. The typical reason for using
student achievement it was one measure which one was able to use to define school effectiveness, successful, excellence, or improvement (Sergiovanni, 1987; Farrier, 1998). However, it was a misuse of test scores, without first defining education and/or considering the validity of any given test, as a measurement of a student’s, a school district’s or a state’s educational quality (Farrier, 1998). Therefore, Farrier (2001) purported that the mission of education was to improve the quality of life. He stated:

Research is not taught in a single class; research methods reflect mastery of the whole curriculum, from elementary to high school, requiring skills in writing, mathematics, technology, science and, above all, logic. A good public educational system is always the result of a holistic effort among students, faculty and administration working under the liberty of local control where state officials govern the general and families have significant input regarding the particular….the mission of education is to improve the quality of life rather than a score on an ordinal index. (p. A9)

The principal is at the very heart of improving the quality of education. Researchers have verified that good principals are essential to successful schools, and that higher levels of student learning could be attained through the exercise of leadership at the building level (Austin & Reynolds, 1990; Sergiovanni, 2001). The National Commission for the Principalship (NCP) similarly concluded that the “United States cannot have excellent schools without excellent leaders” (National Commission for the Principalship, 1990, p. 9). In the United States, each school building is staffed by a principal and, as size warrants, any number of assistant principals, teachers, and a number of others in staff and clerical positions (Cunningham & Cordeiro, 2000). The principal is
responsible for all of the building level duties necessary to run an effective school, such as administering all policies and programs; making recommendations regarding improvements to the schools; planning, implementing, and evaluating the curricular and instructional programs; hiring, coordinating, and developing staff; organizing programs of study and scheduling classes; maintaining a safe school environment; providing stewardship for all school resources, and providing for co-curricular and athletic activities (Cunningham & Cordeiro, 2000).

Statement of the Problem

Life as A School Principal

Researchers have found school principals work long hours often at the expense of their health and their family time (Golembiewski & Munzenrider, 1988; Lyman, 2000). Lyman (2000) described that working in the capacity of a school principal meant a loss of time with family, never having the work at school finished, and being responsible 24 hours a day for the school. Golembiewski and Munzenrider (1988) said principals risk developing stress-related illnesses such as headaches, gastrointestinal illness, high blood pressure, muscle tension, chronic fatigue, anxiety, depression and insomnia. Nomura (1999) suggested that principals must make the time to live a balanced and healthy life. Adams (1999) noted that principals work long hours leaving little time for family or personal renewal. Moreover, he pointed out that this is one of the factors dissuading those freshly certified as eligible for administrative posts from applying for them, causing practicing administrators to consider leaving the field entirely or as an alternative to request classroom teaching assignments.
Problems of Principals' Retention and Turnover

Recently studies have indicated that there are serious problems with school principals' retention and turnover, both in Taiwan (Wang, 2003) and in the United States (Educational Research Service, 1998). In a recent Taiwanese study, Fwu and Wang's (2004) research purported, that 48% of the Taiwanese school principals were planning to leave their principal positions. The same study reported that only 8% of Taiwanese school principals looked forward to remaining in their work as a school principal. It is clear that Taiwanese school principals lack motivation to stay in their jobs. An international study by Mulford (2003, p. 29) reported that “the school principal shortage” is also a problem in countries such as Australia (Grady, Macpherson, Mulford & Williamson, 1994; Lacy, 2000, 2001, 2002), Canada (Williams, 2001), and South Africa (Pounder & Merrill, 2001) and this issue was particularly obvious in countries such as United States (Galvin & Shepherd, 2000; OECD, 2001) and United Kingdom (Copland, 2001; James & Whiting, 1998).

Shortage of Highly Qualified School Principals

There is a shortage of highly qualified school principals in the United States as indicated by the shortage of applicants for the position of the principal (Hertling, 2001). A 10-year study conducted by the National Association of Elementary School Principals (1999) in the United States in 1998 found that there has been a 42% annual turnover rate in the elementary school principalship since 1988 (Doud & Keller, 1998). In addition, evidence suggested that the turnover rate during the next decade also is likely to exceed 40% (Doud & Keller, 1998). Similarly, Roza, Celio, Harvey and Wishon (2003) reported that superintendents articulated that finding qualified principals is a significant challenge.
Among superintendents in their study, 80% noted that employing qualified school principals was either a moderate or a major problem. Table 1 also shows that 6% of the responding superintendents said finding qualified school principals was not a problem (Roza et al., 2003).

Table 1

Superintendents Report that Finding Qualified School Principals is a Problem

<table>
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<th>Measure of Difficulty</th>
<th>A major problem</th>
<th>A moderate problem</th>
<th>A slight problem</th>
<th>Not a problem</th>
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<td>Percentage</td>
<td>39%</td>
<td>41%</td>
<td>14%</td>
<td>6%</td>
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School principals must focus on improvement of teaching and student learning (Erickson, 2003). More than ever, schools, educational leaders, school teachers, and even students are being held accountable for the quality of learning that takes place. The current shortage of highly qualified school principals has implications that have far reaching effects in all aspects of the educational system.

Summary

The high turnover of principals effects education in many arenas. For example, additional time and resources are required to train a new principal to be as competent as an experienced principal who has left the profession. Without qualified principals who can competently lead instruction and manage the operations of the school, teachers will become frustrated and students’ learning will suffer (Hirsch & Groff, 2002). In brief, school principals have a vital impact on education, which ultimately seeks to improve the
students' quality of life. A turnover rate caused by dissatisfied principals is contrary to providing the quality of education necessary to achieve this end.

Research Question

The research question for this study was: What is the relationship, if any, between school principals' workload and their quality of life in Taiwan?

The Purpose of the Study

The purpose of this study was to investigate the relationship between school principals' workload and their quality of life in Taiwan. According to the educational policy for Grade 1-9 Curriculum in Taiwan, education is a learning process to help students explore their potential as well as develop their capacity of adapting and making necessary efforts to improve their living environment (Ministry of Education, 2004a). In other words, education is a learning process to improve learners' quality of life.

School principals have significant influence on students' education (Buck, 1997; Sergiovanni, 2001). Therefore, it is vital to quality education that school principals have sufficient stability within their employment in order to successfully perform their full range of responsibilities. This research sought findings consistent with that goal. Specifically, this study determined the relationship between school principals' workload and their quality of life in Taiwan, in order to provide information that may ultimately serve to improve the retention of school principals if they can improve the quality of their lives while serving as educational leaders in the schools.

Significance of the Study

The principal is a key ingredient in an effective school (Buck, 1997). When a community strives to develop and maintain an effective school for its youth, that
community must secure an effective principal for its school (Buck, 1997). Studies have shown that serving as a school principal can jeopardize an individual's health and intrude on their family time. Therefore, problems such as the retention and shortage of highly qualified school principals are increasing. More and more certified candidates avoid applying for the job of a school principal. In addition, school principals reveal low motivation to stay in their job while serving as a school principal (Fwu & Wang, 2004).

This study sought to explore the relationship between school principals' workload and their quality of life in Taiwan. The findings of this study, if any, have implications for following areas: (a) raising awareness among school principals, teachers, communities, and policy makers about issues pertaining to the quality of life and ways of improving that quality; (b) recommendations for educational policy makers to examine the school principals' workload and their responsibilities, and (c) suggestions for solutions to the retention and the shortages of highly qualified school principals.

Definitions of Terms

For the purpose of this study, the following definitions were used:

*Workload.* The workload of a person is the amount of work they are responsible to complete (Cobuild, 1999). For this study, workload was defined further as the duties and the amount of time identified by the principals in the course of performing and fulfilling their job responsibilities as educational leaders.

*Quality of life.* Quality of life is defined as the individuals' perceptions of their positions in life in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns. It is a broad ranging concept, incorporating in a complex way the persons' physical health, psychological state, level of
independence, social relations, personal beliefs, and relationship to salient features of the environment (Bonomi & Patrick, 1997; Szabo, 1995; The WHOQOL Group, 1994). For the purpose of this study, the definition of quality of life for school principals emphasized their perceptions of seven major domains, such as health, economics, relationships, self-actualization, job satisfactions, challenges, and work-life balance. Positive Quality of Life (PQL) and Challenging Quality of Life (CQL) referred to Chapter Three.

Summary

The school principal directly influences the quality of education for the students. Principals can become dissatisfied due to overwork or long working hours. This can cause a high turnover rate and can significantly impact the quality of a school's teaching and the learning of its students. The purpose of this study was to examine the relationship between school principals' workload and their quality of life in Taiwan. Therefore, the increased awareness that this study offered could aid in reconsidering the workload for the principals as well as in improving the quality of life for the school leaders so that they can successfully meet new demands both personally and professionally, and ultimately in improving the quality of education for the students. The following chapter reviewed and discussed important literature related to this study.
CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

The review of the relevant literature in this chapter generally included concepts of leadership and the associated responsibilities and workload of K-12 school principals. More specifically speaking, this chapter consisted of the leadership definitions, the purpose of leadership, leadership theories, leadership in schools, and history of the principalship, the role and responsibilities of the principals today, and crucial issues for school principals such as standards, assessment, certification, licensure, accreditation, and preparation. This review also provided information in the literature pertaining to leadership and quality of life issues relevant to Taiwan. The review of the relevant literature also included studies of the school principals in other countries, such as Hong Kong, China, Japan, New Zealand, Australia, and England. Furthermore, this review of the literature examined appropriate quality of life issues for school principals.

Concepts of Leadership

Leadership Definitions

The concept of leadership can be viewed as one of the world’s oldest preoccupations, but the word “leadership” is a sophisticated, modern concept (Bass, 1990, p. 11). For the duration of world history, the interest in examining and reexamining this concept continues to the present day. Bass (1990) noted that distinctions in the understanding of leadership have lead to what he refers to as the modern concept of leadership. As early as the sixth century B.C., the Chinese classics were written to advise the country’s leaders about their responsibilities to the people. For instance, “Confucius
urged leaders to set a moral example and to manipulate rewards and punishments for
teaching what was right and good" (Bass, 1990, p. 3). Taoism focused on “the need for
the leader to work himself out of his job by making the people believe that successes
were due to their efforts” (Bass, 1990, p. 3).

Leadership has been of many interests to scholars and researchers for centuries
(Bennis & Nanus, 1985; Hackman & Johnson, 2000; Leithwood, Jantzi & Steinbach,
(1974), the 1933 edition of the Oxford English Dictionary stated that the word leader
appeared as early as 1300 in the English language, but the word leadership did not appear
until the first half of the nineteenth century. However, Jennings (1960) wrote that
leadership can be traced back to the early Greek and Latin era. The word “leadership”
evolved from the verb “to act” (p. 3). He also stated that the two Greek action words,
“archein” (to begin, to lead, and finally, to rule) and “prattein” (to pass through, to
achieve, to finish) coincide with the two Latin verbs “agree” (to set into motion, to lead)
and “gerere” (the original definition of which was to bear) (p. 3). He continued the
explanation of the history of the word “leadership” that “…each action is divided into
two parts, the beginning, made by a single person, and the achievement, performed by
others who “bearing” and “finishing” the enterprise see it through” (p. 3). Thus the leader
depends upon other people for assistance or help, and the followers depend on the leader
for an occasion or reason to act.

Stogdill’s Handbook of leadership (1974) contains an extensive display of
leadership theories; leadership traits, roles, personalities, behaviors, and values; and how
leaders interact with their followers. This handbook contains over 70 definitions of
leadership based on research up to that time period (Immegart, 1988). The third edition of
the book written by Bass (1990) is over 900 pages and contains 189 pages of references
as well as about 7,500 citations which represent the 4,725 studies on leadership that he
has collected and analyzed (Rost, 1991). Bass (1990) stated that methodology had
become more refined, more field and longitudinal studies have appeared in the field of
leadership, and changes in the society have increased the growth of research literature, 20
years after Stogdill’s first edition of this handbook.

Bennis and Nanus (1985) had collected more than 350 definitions of leadership
over the “decades of academic analysis” (p. 4). They found that the definitions of
leadership are countless, with little agreement in the message. Leadership has “almost as
many different definitions as there are persons who have attempted to define the concept”
(Bass, 1990, p. 11). Yukl (1981) said,

it is neither feasible nor desirable at this point in the development of the discipline
to resolve the controversy over the appropriate definition of leadership. For the
time being, it is better to use the various conceptions of leadership as a source of
different perspectives on a complex, multifaceted phenomenon. (p. 5)

Bennis and Nanus (1985) stated that,

never have so many labored so long to say so little. Multiple interpretations of
leadership exist, each providing a sliver of insight but each remaining an
incomplete and wholly inadequate explanation. Most of these definitions don’t
agree with each other...Definitions reflect fads, fashions, political tides and
academic trends. (pp. 4-5)
Typical representative definitions are:

1. Leadership is a process whereby an individual influences a group of individuals to achieve as common goal. (Northouse, 2001, p. 3)

2. Leadership is an interaction between two or more members of a group that often involves a structuring or restructuring of the situation and the perceptions and expectations of the members. Leaders are agents of change—persons whose acts affect other people more than other people’s acts affect them. Leadership occurs when one group member modifies the motivation or competencies of others in the group. Research in the 1970s and 1980s often expressed this idea as the directing of attention of other members to goals and the paths to achieve them. It should be clear that with this broad definition, any member of the group can exhibit some amount of leadership, and the members will vary in the extent to which they do so.

The introduction of the concepts of goal attainment and the solution of problems in certain definitions recognizes the fact that leadership serves a continuing function in a group. But these concepts do not account for the continuation of leadership. The concepts of role, position, reinforcement of behavior, and structuring expectation serve better to account for the persistence of leadership. For the purpose of theory development, it would seem reasonable to include variables in the definition of leadership that account for the differentiation and maintenance of group roles. Finally, room is needed for a conception of leadership as an attribution that is consistent
with the implicit theories about it that are held by the individuals and groups
who are led. (Bass, 1990, pp. 19-20)

*The Purposes of Leadership*

In a Kellogg Leadership Project report entitled *Leadership in the Twenty-First
Century* (1997), the purposes of leadership were defined by a team of researchers as
follows (Cunningham & Cordeiro, 2000):

1. To create a supportive environment where people can thrive, grow, and live in
peace with one another.
2. To promote harmony with nature and thereby provide sustainability for future
generations.
3. To create communities of reciprocal care and shared responsibility—where
every person matters and each person’s welfare and dignity is respected and
supported. (p. 202)

*Leadership Theories*

The development of leadership theories and the evolution of administrative
science are relevant. Before exploring leadership theories, a basic understanding of the
paradigm shifts in organizational and administrative theories is needed. The evolution of
organizational thought and theory can be viewed from four vantage points: (a) classical
organizational thought, (b) the human relations approach, (c) the social science approach,
and (d) emergent nontraditional perspectives (Hoy & Miskel, 1996).

First, classical organizational thought, starting with Frederick W. Taylor’s
scientific analysis of work, emphasized the formal organizational structure. Taylor (1911),
the father of the scientific management movement, is given credit for developing a
scientific approach to the study of leadership. Cunningham and Cordeiro (2000) stated, "since Taylor's day, many paradigms have been developed to make leadership more rational and therefore more understandable (p. 154).

Second, the human relations approach sees informal and individual relations as most important in organizational activities, and the Hawthorne studies placed the informal organization at the heart of a new philosophy of management (Hoy & Miskel, 1996). Follett (1942) was among the first to critique Taylor's mechanistic interpretation of organizations and the disregard of the human factor in the structuralist approach to leadership. The development of the human relations paradigm is usually traced back to Elton Mayo and the studies completed in the Hawthorne plant of the Western Electric Company in Chicago (Roethlisberger & Dickson, 1939). Mayo's findings argued the concept that human beings could be viewed as "passive cogs in a machine" (Cunningham & Cordeiro, 2000, p. 155). Mayo suggested that human beings are not generally passive but are affected by and affect the environment in which they work. While scientific management has been criticized for mechanizing employees, the human relations approach was criticized for oversimplifying solutions for all problems.

Third, the social science perspective balances recognition of both the formal and the informal organization in explaining human action. The social science perspective also synthesizes the mechanistic and human relations approach while using modern social science methods for its analyses (Hoy & Miskel, 1996).

Fourth, emergent nontraditional perspectives, such as post-modernism, critical theory, and feminist theory, challenge the assumptions of mainstream theory and provide alternative explanations of organizational life. A paradigm shift that will explain "rational,
nonrational, and irrational elements of behavior as well as environmental constraints on organizational life" is needed (Hoy & Miskel, 1996, p. 23). The challenge of leadership, therefore, is to redefine what it means to lead in a culture of change which may be rational, nonrational, and irrational. The following paragraphs described the historical development of leadership theories. Based upon a study by Risius (2002), much of the literature was able to be traced back to their primary resources.

Great Man or Hero Theory

Great Man or Hero Theory is one of the earliest leadership theories (Bass, 1990; Bennis, 1997; Bennis & Nanus, 1985; Getzels, Lipham & Campbell, 1968; Stogdill, 1974). This theory has its belief that the leader was born and not made. Great Man Leaders possessed power from their inheritance or some other uncertain process that very few individuals possessed (Risius, 2002). Like Bennis and Nanus (1985) described, "Those of the right breed could lead; all others must be led" (p. 5). Thomas Carlyle who was one of the first writers of this theory wrote the series of lectures and presented them in Portman Square, entitled On Heroes, Hero-Worship, and the Heroic in History (Heifetz, 1994; Lehman, 1928). Carlyle wrote that the great man is superior and is followed, admired, and obeyed to the point of worship, and this great leader has extraordinary insight and to whom we unavoidably bow (Carlyle, 1904).

Trait Theory

One of the first approaches in the twentieth century to leadership was the Trait Theory (Bass, 1990; Northouse, 2001; Yukl, 1981). These traits were used to identify leaders and nonleaders and were based on personality and character (Bass, 1990; Stogdill, 1974). Bird (1940) wrote about 20 studies that focused on 79 traits. Of these traits, 65%
were found in only one study (Stogdill, 1974). The 124 studies that Stogdill (1974) analyzed between 1904 and 1947 found clusters of traits such as capacity, achievement, responsibility, participation, and status. Stogdill in his 1974 publication wrote about 163 traits studies he analyzed between 1949 and 1970 (Hackman & Johnson, 2000; Yukl, 1981). Stogdill discovered that there were fewer inconsistencies between the 1950s and 1960s research (Hackman & Johnson, 2000). The 1948 and 1974 reviews suggested that there was no consistent list of traits that determined a leader (Hackman & Johnson, 2000; Heifetz, 1994; Heilbrunn, 1996; Owens, 1991; Risius, 2002). Mann’s 1959 review of 125 leadership studies led to 750 findings focused on personality traits of leaders, and concluded there was no consistency in a common set of traits from one leader to another (Hoy & Miskel, 1996; Risius, 2002).

**Behaviors and Leadership Theory**

Krietner (1983) described that the study of leadership had shifted from leader traits to leader’s behavior and the study of leadership had shifted from who the leaders were to how the leaders behaved. Hoy and Miskel (1996) stated, “early conceptualizations of leadership typically relied on two distinct categories of leader behavior—one concerned with people and interpersonal relations and the other with production and task achievement” (p. 382). Yukl (1981) described that the behavioral approach to leadership fell into two general categories: one category was research on the nature of managerial work; another was research on managerial work in order to compare the behaviors of effective and ineffective leaders. The types of theories that were illustrative of this behavioral approach to leadership were McGregor’s Theory X and Y, the Ohio State Studies, and the University of Michigan Studies. According to
McGregor’s (1960) study, Theory X was related to autocratic style of leadership in which leaders make decisions, and Theory Y was related to democratic style of leadership in which leaders delegate responsibilities and authority. The Ohio State Studies explained leadership behavior as two dimensions of structure and consideration that resulted in four leadership styles, such as low structure and low consideration, low structure and high consideration, high structure and low consideration, and high structure and high consideration (Halpin, 1966). The University of Michigan Studies found four leadership styles that included system one named exploitative authoritative, system two named benevolent authoritative, system three named consultative, and system four named participative (Likert, 1967).

Contingency and Situational Theory

Contingency and Situational Leadership theorists reject the conclusion that there is one best approach to leadership (Cunningham & Cordeiro, 2000). In 1967, Fiedler found that a leader’s effectiveness in a given situation depends on the fit between his or her style and the task, authority level, and nature of the group. Hersey and Blanchard (1969) posited Situational Theory as a curvilinear relationship between task behavior, relationship behavior, and maturity. Cunningham and Cordeiro (2000) suggested that Contingency Theories indicated that one cannot change his or her style, but Situational Theories actually required that leaders to readily modify their styles to cope with changes in the work environment.

Transformational and Transactional Leadership Theory

James MacGregor Burns (1978) proposed transformational and transactional leadership theory. Transformational leaders develop followers, help map new directions,
mobilize resources, facilitate and support employees, and respond to organizational challenges, while transactional leaders focus on defining needs, assigning clear tasks, rewarding congruent behavior, and having a command-and-control mentality (Cunningham & Cordeiro, 2000).

Burns (1978) wrote that "the relation of most leaders and followers are transactional-leaders approach followers with an eye to exchanging one thing for another" (p. 4). Bass (1990) noted transactional political leaders were opinion leaders, bargainers or bureaucrats, party leaders, legislative leaders, and executive leaders. According to the theory of transactional leadership, the leaders do not always initiate the exchange between leaders and followers (McCaw, 1999).

Transformational leadership for Burns (1978) however, was "a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents" (p. 4). Transformational leaders were identified as intellectual leaders, leaders of reform or revolution, and heroes or ideologues (Bass, 1990) and relationships between leaders and followers are long-term as well as "at the crux of transformational leadership" (McCaw, 1999, p. 24). Burns (1978) described that "a transformational leader is a leader who looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower" (p. 4).

Leadership in Schools

The concepts, definitions, purpose and theories of leadership have been reviewed in this chapter. The role of a leader in a school setting has its foundation in these findings, but the term "leader" in the educational field is relatively new (Risius, 2002, p. 28). The

*The Relation of Superintendents and Principals to the Training and Professional Improvement of Their Teachers* published in 1908 was the first reference for administrators that elaborated on leadership in education (1990). In the 1946 yearbook, *Changing Conceptions of Educational Administration*, the authors wrote about educational administration as an area of study and practice. It was not until 1917, however, that the word “leader” appeared in the title, *Leaders in American Education*, Seventieth Yearbook, Part II (p. 1).

Sharp and Walter (2003) noted that the school principal, whether elementary or secondary, is the single most important person to a school’s success. They further specified that a successful school must have a strong leader, and the principal is the one who must provide this leadership. Edmonds (1979) had a similar conclusion, and he found, in his classic study of inner-city schools, that strong leadership is vital to a successful school. A U.S. governmental study in 1972 concluded that:

In many ways the school principal is the most important and influential individual in any school...It is his leadership that sets the tone of the school, the climate for learning, the level of professionalism and morale of teachers and the degree of concern for what students may or may not become...If a school is a vibrant, innovative, child-centered place; if it has a reputation for excellence in teaching; if students are performing to the best of their ability one can almost always point to the principal’s leadership as the key to success. (United States Senate, 1972, p. 305; Sergiovanni, 2001, p. 99)
History of the Principalship

The principal is viewed as the leader of the school. The future of the school principalship as a professional position can be predicted in the light of its past (Jacobson, Reavis, & Logsdon, 1963). It is therefore necessary to sketch the history of this position as a means of evaluating its development and determining its future trends (Jacobson et al., 1963). This section of the study focuses on the emergence of the principal beginning in 1800s. There are no historical records that report the exact date of the creation of the principal in American educational system (Risius, 2002), but there were several factors that contributed to its creation:

- the rapid growth of cities,
- the grading of the schools,
- the consolidation of department under a single principal,
- the freeing of the principal from teaching duties,
- recognition of the principal as the supervisory head of the school,
- and the establishment of the Department of Elementary-School and Secondary-School Principals within the National Education Association. (Pierce, 1935, p. 7)

The earliest kind of schooling in the United States was the one-room school concept (Brint, 1998). Cities developed rapidly in the United States after 1830, and school enrollments, especially in the elementary schools, increased at a very rapid rate. A study by Morris, Crowson, Porter-Gehrie, and Hurwits (1984) asserted that in the mid-1800s, long after the emergence of publicly supported education in America, local school boards were managing their own schools on a “part-time, hip-pocket basis” (p. 4). At a town meeting, initially a teacher was chosen and he was supervised by a school committee of laymen. This committee visited the school periodically and checked to be
sure that the students were behaving and that some learning was taking place (National Education Association, 1948).

According to Morris’s et al. book (1984), when the degree of commitment of the teacher who was chosen by the school committee of laymen was seen as insufficient, many of these boards adopted the practices of releasing one of their teachers for part of the school day to attend to the school’s clerical responsibilities. As schools grew, particularly in urban communities, the clerical duties of the “head teacher” increased, and the teaching load diminished (Morris et al., 1984). From the colonial period until 1840, this educational system existed.

With the increasing population in cities, the enrollment of students in schools increased as well. One reason for the increase in numbers of students in Massachusetts in 1837 was that education was compulsory (Schuster & Stewart, 1973). The chief state school officer from 1837 to 1848, Horace Mann, had the responsibility to be sure these compulsory statutes were enacted (Knight, 1952), and other states gradually followed with attendance being compulsory (Schuster & Stewart, 1973; Risius, 2002).

The official role of the principal was found in 1838 in Cincinnati (Kimbrough & Burkett, 1990; Schuster & Stewart, 1973; Risius, 2002). The word “principal” comes from the word “prince” and means “first in rank, degree, importance, and authority” (Kimbrough & Burkett, 1990, p. 3). This appointment was recorded in the Ninth Annual Report of the Trustees and Visitors of the Common Schools of Cincinnati, placing the principal in charge of “grading teachers, fixing salaries, and classifying pupils” (Schuster & Stewart, 1973, p. 27). In early school board reports, this “principal teacher” was designated as the “controlling head of the school…indicating that teaching was the chief
duty” (Pierce, 1935, p. 11). According to the *Tenth Annual Report of the Common Schools of Cincinnati*, “the principal teacher” was:

(a) to function as the head of the school charged to his care, (b) to regulate the classes and course of instruction of all pupils, whether they occupied his room or the rooms of other teachers, (c) to discover any defects in the school and apply remedies, (d) to make defects known to the visitor or trustee of a ward, or district, if he were unable to remedy conditions, (e) to give necessary instruction to his assistants, (f) to classify pupils, (g) to safeguard school houses and furniture, (h) to keep the school clean, (i) to instruct assistants, (j) to refrain from impairing the standing of assistants, especially in the eyes of their pupils, and (k) to require the co-operation of his assistants. (Pierce, 1935, p. 12)

In 1850, “head teachers,” “principal teachers,” or “headmasters” were found in the larger school systems (Gross & Herriott, 1965, p. 3). With the continued growth of common schools in both size and number, and with the advent of the secondary school in the 1870s, the need arose for coordination of whole school systems and for an administrator at the superintendent level. Although a few districts, particularly in the larger cities, established the superintendency in the 1835-55 period, the position of general superintendent did not become common until 1900 (Morris et al., 1984; Schuster & Stewart, 1973).

*Early 20th Century Studies*

By 1900, the principal had become a manager of the school rather than a head teacher of the school (Sharp & Walter, 2003). Pierce (1935) described some responsibilities of the emerging principal, those were:
(a) the right to have orders or suggestions to teachers given only through the medium of principals, (b) the right to a voice in transfers and assignments of teachers connected with their school, and (c) the right to direct teachers, enforce safeguards to protect the health and morals of pupils, supervise and rate janitors, require the co-operation of parents, and requisition educational supplies. (p. 211)

By the year 1900 the principal in city systems was clearly recognized as the administrative head of this school (Jacobson et al., 1963).

By the 1920s, principals were looked upon as professionals, and they were relieved of their teaching responsibilities (Cuban, 1988). The Department of Secondary-School Principals was organized in 1916 at the Detroit meeting of the National Education Association. In 1920 the Department of Elementary-School Principals of the National Education Association was formed as well (Jacobson et al., 1963). These two professional organizations of principals have an important influence and “marked a turning point in the professional leadership development of the principal” (McCown, Arnold, Miles, & Hargadine, 2000, p. 14). Since 1920 standardized tests of ability and achievement have come to be used widely in the supervisory program and testing tends to make supervision more objective and it improves the teacher-principal relationships as it affects instruction (Jacobson et al., 1963). Gross and Herriott (1965) believed that when NAESP was created,

principals were urged to place greater emphasis on leadership of the instructional program and less on the routine and purely housekeeping facets of their work. They were encouraged to work closely with their staffs to improve the quality of teaching and the curriculum. Publications of their national association discussed
research studies and new and improved practices in classroom organization and methods of teaching, and the principals were expected to introduce these new ideas into their own schools. (p. 4)

According to the *Twenty-seventh Yearbook of the National Elementary Principal* (National Education Association, 1948), research was routinely gathered by the job analysis procedure before 1928. For a week or month at a time, school principals kept a record of how they spent their time. This showed two things of great importance: the large number of duties that they performed each day and whether or not they were managing their time successfully. The National Education Association stated that it showed “how successfully people and things managed the principal” (p. 85). The 1948 study was based on data from a questionnaire in which principals reported how they thought their time was spent and how they would like to spend their time. Total hours spent at school was one of the survey’s data categories: in 1948, 8.65 hours was the median time spent at school compared to 8.68 hours in 1928 (National Education Association, 1948).

In 1938, the Advisory Committee on Education stated that there were more than 20,000 state, county, and city school administrators and assistants and about 30,000 principals and supervisors. They were designated to lead in more than 250,000 public schools in the United States (Knight, 1952; Risius, 2002).

**Mid 20th Century Studies**

In 1948, in the Department of Elementary School Principals of the National Education Association’s yearbook, one of the eleven educational leaders was interviewed and asserted this opinion of the future of principalship. This yearbook wrote:
Supervision is no longer direction and inspection. Supervision has become leadership in the inservice professional development of classroom teachers...Organization for supervision thus becomes the organization for the inservice professional development of teachers; the chief function of supervision becomes “teacher development;” and the techniques of supervision consist largely of teacher education procedures.

The future role of the elementary-school principal will not be that merely of a line officer responsible for the entire program and all the individuals in his school. The future role of the principal will be primarily that of coordinator, consultant, and staff education leader. He will take an active part in teacher education. His chief function will be to help identify problems, to coordinate the various phases of the program in his school, to consult with individual teachers and groups of teachers regarding their problems. (National Education Association, 1948, p. 271)

This 1948 yearbook stated that the principal needs to be a follower as well as a leader. This yearbook asserted that the principal needs to be ready to compromise and because of this, larger opportunities to be a leader and have “constructive influence” will be present (National Education Association, 1948, p. 11).

Because of the baby boom and school consolidation, the number of schools increased and their size increased in the 1950s and 1960s, causing new school buildings to be constructed all over the country (Sharp & Walter, 2003). In addition, in 1950 and 1951 the Cooperative Program in Education Administration got under way in eight institutions including Harvard, Columbia Teachers College, The University of Chicago,
The University of Texas, Peabody College for Teachers, Ohio State University, Stanford University, and The University of Oregon (Jacobson et al., 1963). The experimental program of action-research and in-service training was underwritten by the W. K. Kellogg Foundation in Michigan, with approximately $3,000,000. Later a grant was made to the Canadian Education Association and another to The University of Alberta to begin a similar program in Canada. The Developmental Committee, which was influential in securing the grant and in shaping general policies was represented by the American Association of School Administrators, the Association of Chief State School Officers, and the County Superintendents Association (Jacobson et al., 1963). Although most of the programs were concerned with the superintendency, as the program developed, there was more research carried out about the principalship. Therefore, more principals were needed for new buildings as well as were prepared by professional institutions.

The Department of Elementary School Principals, National Education Association (1968), described the years of 1967 and 1968 in the United States as the following:

It was an era of rapid scientific progress, it was an era of plodding toward better socio-governmental goals; it was an epoch of vast expenditures for foreign aid and wars, it was an epoch of financial restrictions upon domestic programs for education, health, and welfare; it was a time of strong political leadership, it was a time of unprincipled competition among would-be leaders; it was an age of rapid communication, it was an age of too little reliable information. (p. 5)

The National Association of Elementary School Principals (National Association of Elementary School Principals, 1979; Pharis & Zakariya, 1979) wrote:
In the *Crack-Up*, F. Scott Fitzgerald wrote: The test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time and still function. That statement seems to reflect the particular problems associated with serving as a school principal in 1978. For while the resources at our disposal have decreased, the tasks assigned to us have grown. Legislative and judicial decisions during the past decade have meant that schools now provide more services—from free breakfasts to immunizations—to a broader segment of the school-age population (including the handicapped) than ever before.... one theme of this study might be “learning to live with less.” (p. xi)

In 1978, many of school problems seem to be the opposite of those principals faced in the previous 10 years, such as declining enrollment, reductions in staff, and school closings. This report stated (a) there was less support of both political and financial resources for educational innovation, (b) less diversity in principals’ profession, (c) fewer women and fewer minorities in the principalship than ever before, (d) less money was available to local school districts for teachers’ salary increases and as a result teachers’ strikes were increasing in number and duration, (e) there was less agreement among professional educators on all issues facing them, and (f) administrators and teachers had formed separate professional organizations to better articulate their individual viewpoints (National Association of Elementary School Principals, 1979; Pharis & Zakariya, 1979). Pharis and Zakariya (1979) wrote as follows:

On the basis of the data gathered in this study, we can describe the typical elementary school principal of 1978 pretty accurately. He is a white male, 46 years old and married. He has a master’s degree, and his professional morale is
high. He feels secure in his job and sees the elementary school principalship as his final occupational goal. In fact, he likes the position so well that, if he were starting over, he would still want to be principal of an elementary school. He is a registered Democrat but tends to be conservative in his political outlook. (p. 1)

Since the publication in 1983 of *A Nation At Risk* by the National Commission On Excellence in Education, the years from 1978-1988 had been marked by the most concentrated attention that American education has ever received. According to the survey in 1988 of the elementary and middle school principalship, the typical K-8 principal was described by Doud (1989):

This person is a white male, now 47 years old. He is the administrator of one school, is responsible for 472 pupils, and has been this school’s principal for five years. The school staff includes 21 full-time teachers, four special area teachers, three teacher aides, and one full-time secretary. There exists in his school both a student council and some type of parent advisory council. A professional in education for 22 years, he has been a school principal for 11 years, always in the school district he serves now. He holds a master’s degree and state certification as a principal. A member of his local principal’s group and his state association, he also is or has been a member of the National Association of Elementary School Principals. Although he “certainly” or “probably” would become a principal again if given the opportunity to start over, he is upwardly mobile and has aspirations that go beyond the K-8 principalship. Politically he tends to be conservative. He has a written contract with the school district that calls for 217 days of employment (11 months) at a 1986-87 salary of $39,988. His typical work week
is 45 hours plus six additional hours spent in school-related activities. His performance as an administrator is formally evaluated once each year. Secure in his job and confident of his abilities, he sees unsatisfactory student performance as his greatest potential job security problem. He believes that he is increasingly being given authority for decisions within his school and is increasingly being held responsible for the results. Personnel evaluation, the promulgation of optimum instructional practices, and development of the curriculum are the primary areas in which his role is growing. He exercises discretionary control over 17% of the school budget and has at least some voice in the employment of staff within his school. All things considered, he believes the authority he is given to run his school is appropriately balanced with the degree to which he is held responsible when things go wrong. As a group, elementary school principals are satisfied in their job, confident in their skills, and upbeat about their future. (pp. 143-144)

_Late 20th Century and Recent Studies of the Principal_

Doud and Keller (1998) described the typical elementary principal as following:

The typical elementary principal in 1998 is a 50-year-old white male. He earns $60,285 as the full-time principal of a single suburban school that enrolls 425 students. An educator for 25 years, he has been a principal for 11 years-6 in his current position. Working without the help of an assistant principal, he is responsible for supervising 30 professional staff and 14 support staff members. He works 10 hours a day at school, and devotes an additional 8 hours or less to
school-related activities each week. This principal has tenure as a professional employee and works under the terms and conditions of both an individual contract and a master agreement. He has a written job description that is standard for all principals, and he is held accountable for it. He is evaluated formally once a year by the superintendent, and has the right to respond to the superintendent after the evaluation. Opinions about his performance are most often furnished by the superintendent and by himself. He sets goals and is accountable for progress toward those goals.

While he has authority for only 26% of the school’s budget, he believes his level of authority for school decisions is commensurate with his responsibilities. He also believes he has some influence on district decisions that affect his school. He is a voting member of a site-based council composed of teachers, parents, and non-teaching staff. He develops the council’s agenda and carries out duties assigned by the council. There is a student council in his school. He enjoys excellent relationship with those who work in the school and district office, and his relationships with members of the community and school board are good. This principal spends most of his time in three areas: contacting and supervising staff, interacting with students, and discipline/student management. He chooses his teachers and has primary responsibility for their supervision. He has established a formal process for involving teachers in the development and evaluation of the instructional process, and he is likely to share responsibility for instructional improvement with the teachers. During the last three years, his level of involvement with marketing/politics to generate support for his school and for
education has increased significantly. He also has become more involved in working with social service agencies, planning and implementing site-based staff development, development of instructional practices, curriculum development, and working with site-based councils/other constituencies.

Although he has no major concerns about job security, he has expressed considerable concern about fragmentation of his time, student assessment, students not performing to potential, professional development and retraining of staff, and financial resources. His morale is good, but it could be better. He is certified as a principal and must be re-certified according to state law. He holds a master's degree from an NCATE-approved [National Council for Accreditation of Teacher Education] program. He is a member of NAESP [National Association of Elementary School Principals], his state association, and ASCD [Association for Supervision and Curriculum Development]. He values his experience as a principal and as a teacher highly, and feels his major professional development needs are understanding and applying technology and improving staff performance. If he were starting out again, he would again become an elementary school principal, and he considers the position his final occupational goal. This principal can retire at age 57, and probably will do so. Following retirement he will continue working, either inside or outside of education. He is concerned about the ability of public education to continue to attract quality people to the position of elementary school principal. (pp. 115-116)
The Roles and Responsibilities of the Principal Today

*Principal as Manager*

A school principal was looked upon as solely a manager of the school, from the existence of the principal in American schools until the late 1970s (Hallinger, 1992). In the 1960s and 1970s, a school principal acquired several new responsibilities such as supervising the federally sponsored and funded programs to assist special needs students, compensatory education, bilingual education, education for students with disabilities, and curricular innovation (Hallinger, 1992).

Drake and Roe (1986) wrote that studies of "the principals duties have been done many times. Generally, all of them reiterated what was already known-principals spent most of their time on management detail" (p. 17). Likewise, Sharp and Walter (2003) asserted that:

managerial responsibilities are a legitimate and important part of the overall role of the principal. While many of today's textbooks stress the importance of the instructional role-and rightly so-they often omit, or give only cursory attention to, the managerial role. (p. 7)

Morris et al. (1984), Knezevich (1975), Lipham and Hoeh (1974), and Sharp and Walter (2003) are among the many authors who still emphasized the principal as a manager.

*Principal as Instructional Leader*

Educational researchers have recognized that the school principal has two roles, instructional leader of the school and manager of the school (Sharp & Walter, 2003). They furthermore stated,

From the literature, it is evident that the following statements are true:
1. Principals have two functions: instructional leadership and school management.

2. These two functions are both important. Neither can be ignored.

3. While some individual tasks within a function may be delegated, the entire function cannot be delegated, and

4. Although many principals would like to spend more time on the instructional function, they often find their time consumed by the managerial function. (p. 10-11)

Ron Edmonds, in 1979, was instrumental in beginning the movement for principals to be actively involved in becoming instructional leaders and focusing staff on student outcomes (Hallinger, 1992). By 1985, it was not acceptable for principals to place a large emphasis on maintenance of the school or managing the programs (Hallinger, 1992). Instructional leadership was a focus in most states and in-service was centered on developing this leadership. The principal was expected to “be knowledgeable about curriculum and instruction and able to intervene directly with teachers in making instructional improvements” (1992, p. 37). This new role of instructional leader meant “high expectations for teachers and students, close supervision of classroom instruction, co-ordination of the school’s curriculum, and close monitoring of student progress” (p. 37). The principal’s large range of responsibilities is well represented by Barth’s (1980) quote. He asserted:

The principal is ultimately responsible for almost everything that happens in school and out. We are responsible for personnel-making sure that employees are physically present and working to the best of their ability. We are in charge of program-making sure that teachers are teaching what they are supposed to and
that children are learning it. We are accountable to parents-making sure that each is given an opportunity to express programs and that those programs are addressed and resolved. We are expected to protect the physical safety of children-making sure that the several hundred living organisms who leave each morning return, equally lively, in the afternoon.

Over the years principals have assumed one small additional responsibility after another-responsibility for the safe passage of children from school to home, responsibility for the safe passage of children from home to school, responsibility for making sure the sidewalks are plowed of snow in winter, responsibility for health education, sex education, moral education, responsibility for teaching children to evacuate school buses and to ride their bikes safely. We have taken on lunch programs, then breakfast programs; responsibility for the physical condition of the furnace, the wiring, the playground equipment. We are now accountable for children’s achievement of minimum standards at each grade level, for the growth of children with special needs, of the gifted, and of those who are neither. The principal has become a provider of social service, food services, health care, recreation programs and transportation-with a solid skills education worked in somehow. (Barth, 1980, pp. 4-6)

Principal as Diagnostician

According to a recent study by Portin, Schneider, DeArmond, and Gundlach (2003), the core of the principal’s job is diagnosing his or her particular school’s needs and, given the resources and talents available, deciding how to meet them. In other words, understanding what the school needs and then delivering what is required is the core job
of the principal. In this study they found that ability to understand and deliver lies at the heart of school leadership (p. 9). Their central point is that regardless of a school’s type or stage of development, a school leader has to be a master diagnostician. How school leaders diagnose, interpret, and dissect what are necessarily complex systems is a key element to their success as a principal. They asserted that these skills help define school principals’ ability to succeed not simply in managing the multiple demands of the job but in moving their school toward the aims and goals it holds out for itself. Portin et al. (2003) stated:

While diagnosing and analyzing complex problems sometimes occurs in the moment—during a serious disciplinary crisis, an unexpected turnover of key staff, the loss of anticipated funding, or even a facilities breakdown—the choices effective school leaders make at these moments are not ad hoc. Even amidst crisis, the best principals consider the long-term interests of the school, continuously touching on intangibles like vision, mission, and motivation as they proceed to a decision. Ultimately they are grounded in the broader context of their schools’ goals and commitments. (p. 13)

From an extensive list of tasks, functions, roles, and duties, Portin et al. (2003) identified seven common functions of leadership evident in all types of schools and performed by school principals. Table 2 lists these seven functions and describes generic actions associated with each (Portin et al., 2003, p. 14). Their study provided a broad point of view when describing roles and responsibilities of the school principal.
Table 2

*Seven Critical Functions for the School Leader*

<table>
<thead>
<tr>
<th>Critical Function</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>Assuring quality of instruction, modeling teaching practice, supervising curriculum, and assuring quality of teaching resources.</td>
</tr>
<tr>
<td>Cultural Leadership</td>
<td>Tending to the symbolic resources of the school (e.g., its traditions, climate, and history).</td>
</tr>
<tr>
<td>Managerial Leadership</td>
<td>Tending to the operations of the school (e.g., its budget, schedule, facilities, safety and security, and transportation).</td>
</tr>
<tr>
<td>Human Resource Leadership</td>
<td>Recruiting, hiring, firing, inducting, and mentoring teachers and administrators; developing leadership capacity and professional development opportunities.</td>
</tr>
<tr>
<td>Strategic Leadership</td>
<td>Promoting a vision, mission, goals, and developing a means to reach them.</td>
</tr>
<tr>
<td>External Development</td>
<td>Representing the school in the community, developing capital, public relations, recruiting students, buffering and mediating external interests, and advocating for the school's interests.</td>
</tr>
<tr>
<td>Micropolitical Leadership</td>
<td>Buffering and mediating internal interests, maximizing resources (financial and human).</td>
</tr>
</tbody>
</table>

Standards, Assessment, Certification, Licensure, Accreditation and Preparation

States have authority for determining the qualifications and preparation of school leaders and for establishing the conditions they practice under. States use licensure, certification, and accreditation requirements as levers to set the expectations for educational leadership practice (Erickson, 2003). Murphy (2001a) posited that the problem today with administration preparation programs is that they are not driven by education or leadership. Several states are reshaping preparation programs for educational leadership by insisting that relevant, high quality training be provided to produce effective school leaders (Erickson, 2003). They are working to alter educational leadership preparation training programs by insisting that more rigorous, diverse, and better grounded training in the everyday setting of teaching and learning in public schools is included. Some states are considering alternative backgrounds to licensure with preparation in the fields of business and management. States can regulate the quality and quantity of such programs by controlling accreditation status and funding (Erickson, 2003).

Using standards to explain and define what principals and other administrators should be doing is the focus of today (Murphy, 2001b; Sergiovanni, 2001; Risius, 2002). Hart and Pounder (1999) stated that the move to outcome-based standards (versus course-driven or curricular standards) is one of the most prevalent changes in administrator licensure, certification, and accreditation...standards are developed based on the analysis of administrator’s work-the skills, knowledge, and dispositions necessary for competent job performance. (p. 137)
Standards and Assessment

Many states have implemented standardized testing of principals that are often performance-based (Erickson, 2003). The Council of Chief State School Officers (2001) suggested that states support change in the role and definition of school leaders by establishing the central goal of improved teaching and learning. In addition, they suggested that states develop standards based on this goal to assess school principals (Erickson, 2003). The Interstate School Leaders Licensure Consortium (ISSLC) Standards, the National Council for the Accreditation of Teacher Educational (NCATE) Standards, and the National Policy for Educational Administration (NPBEA) Standards are three well-known associations that have developed standards for licensing school principals. Many states, in the last several years, have adopted standards created by ISSLC, along with an assessment based on the standards, as a means of licensing principals. Since 1997, NCATE has applied standards to educational leadership programs preparing school principals. The NPBEA recently studied a proposal to align the NCATE standards for the review of educational leadership programs with the ISSLC Standards for licensing principals (Erickson, 2003).

ISSLC’s focus was to “develop a powerful framework for redefining school leadership and to connect that framework to strategies for improving educational leadership throughout the nation” (Murphy, Yff & Shipman, 2000, p. 2). The Interstate School Leaders Licensure Consortium (ISLLC) Standards are delineated as follows:

1. Standard 1: A school administrator is an educational leader who promotes the success of all students by facilitating the development, articulation,
implementation, and stewardship of a vision of learning that is shared and supported by the school community.

2. Standard 2: A school administrator is an educational leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.

3. Standard 3: A school administrator is an educational leader who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.

4. Standard 4: A school administrator is an educational leader who promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.

5. Standard 5: A school administrator is an educational leader who promotes the success of all students by acting with integrity, fairness, and in an ethical manner.

6. Standard 6: A school administrator is an educational leader who promotes the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context. (ISLLC, 1996, p. 1)

The NCATE and the NPBEA wrote and adopted new standards for the accreditation of departments of educational leadership (Risius, 2002). The standards address the “knowledge, skills, and attributes required to lead and manage an educational enterprise centered on teaching and learning” (National Policy Board for Educational
The National Council for the Accreditation of Teacher Education (NCATE) Standards for educational leadership are:

Area I. Strategic Leadership: The knowledge, skills and attributes to identify contexts, develop with others vision and purpose, utilize information, frame problems, exercise leadership processes to achieve common goals, and act ethically for educational communities.

Area II. Instructional Leadership: The knowledge, skills and attributes to design with others appropriate curricula and instructional programs, to develop learner centered school cultures, to assess outcomes, to provide student personnel services, and to plan with faculty professional development activities aimed at improving instruction.

Area III. Organizational Leadership: The knowledge, skills and attributes to understand and improve the organization, implement operational plans, manage financial resources, and apply decentralized management processes and procedures.

Area IV. Political and Community Leadership: The knowledge, skills and attributes to act in accordance with legal provisions and statutory requirements, to apply regulatory standards, to develop and apply appropriate policies, to be conscious of ethical implications of policy initiatives and political actions, to relate public policy initiatives to student welfare, to understand schools as political systems, to involve citizens and service agencies, and to develop effective staff communications and public relations programs.
Area V. Internship: The internship is defined as the process and product that result from the application in a workplace environment of the strategic, instructional, organizational and contextual leadership program standards. When coupled with integrating experiences through related clinics or cohort seminars, the outcome should be a powerful synthesis of knowledge and skills useful to practicing school leaders. (Erickson, 2003, pp. 110-118)

The National Policy Board for Educational Administration (NPBEA) Standards focus was to develop national certification standards (Thomson, 1999). The latest standards publication by the NPBEA is Standards for Advanced Programs in Educational Leadership in 2002. The NPBEA Standards are enumerated as follows:

Standard 1: Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by facilitating the development, articulation, implementation, and stewardship of a school or district vision of learning supported by the community.

Standard 2: Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by promoting a positive school culture, providing an effective instructional program, applying best practice to student learning, and designing comprehensive professional growth plans for staff.

Standard 3: Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by managing the organization, operations, and resources in a way that promotes a safe, efficient, and effective learning environment.
Standard 4: Candidates who complete the program are educational leaders who have knowledge and ability to promote the success of all students by collaborating with families and other community members, responding to diverse community interests and needs, and mobilizing community resources.

Standard 5: Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by acting with integrity, fairly, and in an ethical manner.

Standard 6: Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context.

Standard 7: Internship. The internship provides significant opportunities for candidates to synthesize and apply the knowledge and practice and develop the skills identified in Standards 1-6 through substantial, sustained, standards-based work in real settings, planned and guided cooperatively by the institution and the school district personnel for graduate credit. (NPBEA, 2004, pp. 2-18)

_Licensure, Certification, and Accreditation_

Zimmerman studied certification requirements for both the positions of principal and superintendent in all 50 states and concluded that there are no nationally accepted certification requirements for school principals, qualifications very dramatically from state to state (Zimmerman, 2002). According to her studies, certification requirements for school principals in most states demand a master’s degree. Likewise, Glass, Bjork and Brunner (2000) found that most states require a master’s degree in educational leadership.
for administrator licensure. Additionally, many states require graduate level coursework, professional development, internship experience, and inservice training in order to maintain administrator licensure (Erickson, 2003).

_Montana Certification Requirements for School Leaders_

Individuals seeking certification in school administration in Montana must complete a master’s degree as either a member of a cohort, as an individual, or as part of the Office of Public Instruction (OPI) internship program (Erickson, 2003). Principals in Montana can be certified grades K-8, 5-12, or K-12, and additional course work is required for superintendent certification (Erickson, 2003). According to Erickson’s (2003) study, Montana school administrator preparation programs vary by institution and, additionally, the state may grant a provisional administrator certification, with expectations that individuals will meet standards for certification within a given time period. She also stated,

currently a committee from the Certification Standards and Practices Advisory Council of the Montana Board of Public Education is working on revising Chapter 57 of the Montana Code that specifies certification requirements for principals and superintendents...and this will be the first comprehensive review of the these rules since 1972...the committee will also review licensure renewal for school leaders. (p. 48)

_School Principals in Montana_

According to Montana state law, appointment and dismissal of district superintendent or county high school principal are as follows (School Laws of Montana, 2000, MCA 20-4-401):
1. The trustees of any high school district, except a county high school, and the
trustees of the elementary district where its high school building is located shall
jointly employ and appoint a district superintendent. The trustees of a county high
school shall employ and appoint a district superintendent, except that they may
employ and appoint a holder of a class 3 teacher certificate with a district
superintendent endorsement as the county high school principal in lieu of a
district superintendent. The trustees of any other district may employ and appoint
a district superintendent.

2. Whenever a joint board of trustees has been formed by a county high school
and the elementary district where the county high school is located, the joint
board shall jointly employ and appoint a district superintendent. During the term
of contract of the jointly appointed district superintendent, neither district may
separately employ and appoint a district superintendent or county high school
principal.

3. School districts other than those provided in subsection (2) that form a joint
board of trustees or the boards of trustees of two or more districts may jointly
employ and appoint a district superintendent, as allowed in 20-3-362, or may
enter into an interlocal agreement pursuant to Title 7, chapter 11, part 1, to
cooperatively share the employment of a district superintendent.

4. The written contract of employment of a district superintendent or a county
high school principal must be authorized by the proper resolution of the trustees
of the district or the joint board of trustees and executed in duplicate by the
presiding officer of the trustees or joint board of trustees and the clerks of the
districts in the name of the districts and by the district superintendent or the county high school principal. The contract must be for a term of not more than 3 years, and after the second successive contract, the contract is considered to be renewed for a further term of 1 year from year to year unless the trustees, by resolution passed by a majority vote of its membership, resolve to terminate the services of the district superintendent or the county high school principal at the expiration of the existing contract. The trustees shall take the termination action and notify the district superintendent or the county high school principal in writing of their intent to terminate the superintendent's or principal's services at the expiration of the superintendent's or principal's current contract not later than February 1 of the last year of the contract.

5. Whenever a joint board of trustees or the boards of trustees of two or more districts employs a person as the district superintendent under subsection (2) or (3), the districts shall prorate the compensation provided by the contract of employment on the basis of the number of teachers employed by each district.

6. At any time the class 3 teacher certification or the endorsement of the certificate of a district superintendent or a county high school principal that qualifies the person to hold the position becomes invalid, the trustees of the district or the joint board of trustees shall discharge the person as the district superintendent or county high school principal regardless of the unexpired term of the contract. The trustees may not compensate the superintendent or principal under the terms of the contract for any services rendered subsequent to the date of the invalidation of the teacher certificate.
7. A district superintendent or county high school principal may not engage in any work or activity that the trustees consider to be in conflict with the duties and employment as the district superintendent or county high school principal.

According to Montana state law, the duties of district superintendent or county high school principal are as follows (School Laws of Montana, 2000, MCA 20-4-402):

MCA 20-4-402. Duties of district superintendent or county high school principal.
The district superintendent or county high school principal is the executive officer of the trustees and, subject to the direction and control of the trustees, the executive officer shall:

1. have general supervision of all schools of the district and the personnel employed by the district;

2. implement and administer the policies of the trustees of the district;

3. develop and recommend courses of instruction to the trustees for their consideration and approval in accordance with the provisions of 20-7-111;

4. select all textbooks and submit the selections to the trustees for their approval in accordance with the provisions of 20-7-602;

5. select all reference and library books and submit the selections to the trustees for their approval in accordance with provisions of 20-7-204;

6. have general supervision of all pupils of the district, enforce the compulsory attendance provisions of this title, and have the authority to suspend for good cause a pupil of the district;

7. report the pupil attendance, absence, and enrollment of the district and other pupil information required by the report form prescribed by the superintendent of
public instruction to the county superintendent, or county superintendents when
reporting for a joint district; and
8. perform other duties in connection with the district as the trustees may
prescribe.

In addition, according to Montana state law, powers and duties of principals are as
follows (School Laws of Montana, 2000, MCA 20-4-403):

1. Whenever the trustees of a district employ and appoint a school principal but
do not employ and appoint a district superintendent, such principal shall perform
the duties of a district superintendent as prescribed in subsections (4), (5), (6), (7),
and (8) of 20-4-402 and shall have general supervision of such school and the
personnel assigned to such school.

2. If granted authority by the board of trustees, a school principal in a district that
does employ and appoint a district superintendent may suspend for good cause
any pupil of the school where the principal is employed.

9. "Principal" means a person who holds a valid class 3 Montana teacher
certificate with an applicable principal's endorsement that has been issued by the
superintendent of public instruction under the provisions of this title and the
policies adopted by the board of public education and who has been employed by
a district as a principal. For the purposes of this title, any reference to a teacher
must be construed as including a principal.

According to Montana school accreditation standards, the school administrative
personnel are as follows (Montana Office of Public Instruction, 2004, Montana School
Accreditation 10.55.705):
10.55.705 Administrative personnel: assignment of school administrators (1)

School districts shall employ appropriately endorsed school administrators as follows: (a) a district superintendent or supervising teacher and county superintendent for schools with fewer than 9 full-time equivalent (FTE) certified staff; (b) .5 FTE for schools with 9-17 FTE certified staff; (c) 1 FTE for schools with 18-29 FTE certified staff or 250-550 students; (d) 2 FTE for schools with 551-1050 students; (e) 3 FTE for schools with 1051-1550 students; (f) 4 FTE for schools with 1551-2050 students; and (g) 5 FTE for schools with 2051 or more students.

(2) In schools with more than one school administrator, the first administrator shall be appropriately endorsed as principal. The additional administrators shall have administrative endorsement(s) at the appropriate level(s) and in the area(s) that accurately reflect their supervisory responsibilities. For example, a school may assign properly certified and endorsed curriculum coordinators to supervise the appropriate instructional programs.

(3) In schools with at least three FTE school administrators who are administratively endorsed, release time of department coordinators or chairpersons may be counted toward additional school administration.

Department coordinators or chairpersons counted toward school administration may observe and supervise but shall not formally evaluate classroom instruction.

The Current Practice in Taiwan

The Compulsory Education Act (國民教育法) regarding the selection of school principals was changed significantly in 1999. Before promulgating the amendment of the
Compulsory Education Act on February 3, 1999, school principals in compulsory education were selected and were appointed to one school by the central government or local government. The Compulsory Education Act was initially promulgated in 1979 and was amended in 1999. The amendments of the Compulsory Education Act in 1999 indicated that, the compulsory education principals shall be hired by the competent educational authority following selection from among qualified personnel. This selection process was conducted by a selection committee organized by the competent educational authority. Several articles (法條) of the Compulsory Education Act were amended again in 2001 and 2003. The latest amendment of the Compulsory Education Act was promulgated in 2003.

According to the Compulsory Education Act amended in 2003, elementary and junior high schools shall have one principal, who shall be charged with responsibility for overall management of school affairs. A principal shall be a full-time employee, and shall serve for specific terms. There are four major steps which a new school principal must experience, according to the amendment of the Compulsory Education Act (Ministry of Education, 2004b): (a) first step is to employ by an examination which includes paper and pencil testing, structured interviews, and assessment of their experiences and performance; (b) second step is to participate the principal preparation program; (c) third step is to be selected by a selection committee which organizes by the competent educational authority; and (d) fourth step is to be hired by the competent educational authority.

A general definition of the roles and responsibilities of school principals was found from the review of Taiwan’s literatures, in terms of the education law. The
Compulsory Education Act even though it is a broad regulation is the only education law that can be found defining the roles and responsibilities of school principals. According to the Compulsory Education Act (Ministry of Education, 2004b), elementary and junior high schools shall have one principal, who shall be charged with the responsibility for overall management of school affairs. It does not regulate specific workload, but indicates a general idea of workload. Therefore, some researchers argued that school principals’ workload is so ambiguous that it creates problems and difficulties for principals (Li, 1999; Wang, 2003). According to the governmental regulation in Taiwan, the working hours in a week are 40-44 hours for the school principals in elementary, junior high, and senior high schools (Ministry of Education, 2004b).

The profession of school principal, however, is still in its infancy in Taiwan. The process of selection, preparation, and assessment is also at the initial developing stage, especially after the amendments to the Compulsory Education Act in 1999. More and more studies focused on the profession of school principal, such as their preparation program, certification system, and assessment. Consequently, the role and workload of school principals in Taiwan have become more complex and diverse.

**Related Studies of School Principals in Taiwan**

Using Taiwan’s Dissertation and Thesis Abstract System, 283 studies were found in April 2004 through entering the keyword as principal (校長). The results included 16 doctoral degree dissertations and 267 master degree theses. According to the searching results, these are the studies that focused on and were related to school principals in Taiwan from 1970 to 2004.
According to the Taiwan’s Dissertation and Thesis Abstract System, the earliest study related to school principals in Taiwan was written by Liu (1970). The compulsory education in Taiwan did not include junior high school until 1968. Prior to this time there were only 5% of students who graduated from the elementary school and continued studying in junior high school. Since 1968 when compulsory education in Taiwan became nine years instead of six years the Taiwan government promoted improving the education system through more investment in education. Liu’s (1970) study focused on the selection of junior high school principals and he found that a qualified school principal is crucial for a successful junior high school.

From 1970 to 1989, there were 25 master’s studies and two doctoral studies regarding school principals, and most of those studies emphasized the relationship between the principal and teachers. Specifically, those studies focused on the relationship of the principal’s leadership with teachers’ job satisfaction and school effectiveness. For instance, a doctoral dissertation by Yang (1988) investigated the relationship, if any, of the following variables: the elementary school principal, the level of teachers’ maturity, teachers’ job satisfaction, and organizational effectiveness. He studied the leadership of elementary school principals by utilizing Situational Leadership Theory. Yang (1988) concluded that elementary school principals were high relationship people and were apt to perform tasks at a high level. Examples of studies regarding school principals at that time are listed in Table 3. Several variables enumerated in Table 3 were identified in those studies and Situational Leadership and Contingency Leadership were utilized to identify the individual school principals’ leadership style.
### Table 3

**Taiwan's Principals' Research from 1970 to 1989**

<table>
<thead>
<tr>
<th>Focus</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Chen (1986) focused on how or if Fiedler's Contingency Leadership had been implemented by principals in Taiwan's elementary schools. He suggested that different leadership styles of principals are suitable to lead in different organizational structures, and principals should be appointed in different schools based upon their leadership styles to improve educational effectiveness.</td>
</tr>
<tr>
<td>Decision</td>
<td>Huang (1987) found that the relationship between a principal's job stress and the quality of their decision making is low, however, the principal's gender, principal's experiences, school type and school size were identified having a high association with a principal's decision making and their job stress.</td>
</tr>
<tr>
<td>Making</td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>Lin (1981) focused on the relationship between the power of a school principal and teachers' job satisfaction and found the teachers' job satisfaction could be predicted by the power of a school principal. He suggested that school principals in elementary and junior high school should learn how to apply Contingency Leadership.</td>
</tr>
<tr>
<td>School Climate</td>
<td>Liu (1986) focused on the relationship between school climate and the principal's gender and she found that there are different leadership styles between male principals and female principals. She also found that, based upon the perception of teachers, the school climate in a school lead by a female principal was better than the climate in a school lead by a male principal.</td>
</tr>
</tbody>
</table>
From 1990 to 1999, there were 48 master’s studies and five doctoral studies regarding school principals, and again variables were identified in those studies including leadership of principals, power of principals, communication of principals, school climate and school effectiveness. It is critical that studies initially focused on principals’ instructional leadership. For instance, a doctoral dissertation by Chang (1998) focused on the relationship among principals’ instructional leadership, school climate, and teachers’ instructional effectiveness. She ascertained that the school principals did not emphasize instructional leadership, however, the principal as the instructional leader was recognized as an important role. She concluded the higher the level of the principal’s instructional leadership is, the better school effectiveness is.

Examples of studies regarding school principals from 1990 to 1999 are listed in Table 4. Variables such as leadership of principals, powers of principals, roles of principals, competence of principals, stress of principals, teachers’ job satisfaction, teachers’ commitment, school climate and school effectiveness were identified in those studies. Meanwhile, leadership theories such as instructional leadership, the learning organization, and transformational and transactional leadership were adopted to analyze principals’ leadership strategies.
Table 4

*Taiwan's Principals Research from 1990 to 1999*

<table>
<thead>
<tr>
<th>Focus</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Chao (1996) focused on instructional leadership of the elementary principal. Principals reported that the expectation that school principals’ be instructional leaders was lower than other roles such as management and public relationship. Chang (1997) also found that principals’ instructional leadership was associated with the school size. Huang (1999) focused on principals’ transformational leadership and parents’ participation. He found that teachers reported their perceptions of the level of their principals’ transformational leadership and considered this as very important. In addition, there was a positive relationship between principals’ transformational leadership and parents’ participation.</td>
</tr>
<tr>
<td>Powers</td>
<td>Zheng’s (1990) study focused on the relationship among the powers of elementary school principals, communication and school climate. He found that the power of elementary school principals was related to their communication and their school climate. Tsao (1997) focused on the power of senior high school principals. He found that there were three major power foundations used by senior high school principals: connection power, expert power, and referent power.</td>
</tr>
<tr>
<td>Focus</td>
<td>Study</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Roles</td>
<td>Su’s (1991) study found a negative relationship between role conflicts of school principals and their job satisfaction. His study also reported that, based upon the perception of school principals, if the level of a principal’s role conflicts was low, then the school principal tended to be satisfied with his/her job. Li’s (1999) study focused on the role of the principal and school effectiveness. She found that school principals spent most of their time on management and had difficulties in implementing their instructional roles.</td>
</tr>
<tr>
<td>Competency</td>
<td>Hsu’s (1996) study focused on the basic competencies of principals of vocational high school and he concluded there were five major competencies of principals, such as attitude and value, professional strategies, human relationship, management, and abilities. Yu’s (1997) study found that the level of principals’ competencies could predict the level of school effectiveness because there was a positive relationship between these two variables.</td>
</tr>
<tr>
<td>Stress</td>
<td>Jang (1995) focused on job stress and coping strategies for beginning elementary school principals. He found that some factors such as administration, duties, budgets, parents, teachers’ commitment, and management of new constructions were identified as major sources of principals’ job stress.</td>
</tr>
</tbody>
</table>
From 2000 to 2004, there were 193 master’s studies and nine doctoral studies regarding school principals, and more diverse variables were identified in those studies. It was crucial that increasingly numerous studies had focused on school principals’ selection, principals’ evaluation, principals’ professional development (in-service training), school principals’ preparation, and principals’ certification. There were 37 studies focusing on school principals’ selection, 18 studies on their evaluation, 16 studies on principals’ professional development, 8 studies regarding preparation, and 6 studies focusing on certification for school principals, according to the delineation of those 193 master’s studies.

A doctoral dissertation that focused on the certification system for the principals of elementary and junior high school by Pan (2003) analyzed the meaning and function of the certification system for the principals of elementary and junior high school. He established the standards of certifications of school principals for its practice, the contents for implementation and other supplementary measures. His study suggested that the certification system for the principals in the elementary and junior high school is necessary and important since there had been no certification system for the school principals in Taiwan. In Pan’s point of view, to establish the certification system served as a professional milestone of educational leadership in the schools. He concluded that it is necessary to establish a certification system for the principals of elementary and junior high school. Pan (2003) purported that it could be a stimulus for self-development, and provide the basis of selection, protect the right of principals, ensure eligibility for this position, improve the social status of principalship, and to ensure efficiency. Shih (2001),

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in his doctoral dissertation, ascertained that the preparation program for elementary school principals should be redesigned. He suggested that, in principal preparations the candidates should be trained before they are selected and not selected and then be asked to participate in future training. In addition, he suggested that the preparation program should increase its hours, and also develop an accreditation system of elementary school principals.

Moreover, Cheng (2002) emphasized the evaluation system for elementary and junior high school principals and found it was vital to develop an evaluation system for school principals. He suggested that developing standards for evaluation is a critical process and that all stakeholders need to be involved. Since 1999 the school principals’ selection process has become a more important issue. Chen’s (2002) doctoral dissertation focused on the selection policy of elementary and junior high school principals. He concluded that the new selection policy for principals had increased problems and difficulties for school leaders. He suggested it was necessary to redesign or define the role of the school principal in order to attract high quality candidates applying for a position as a school principal.

The roles and responsibilities of school principals have changed over the past 30 years. A remarkable study of elementary and junior high principals’ tasks and leadership roles was conducted by Lin from 1998 to 2000 in Taiwan. Lin’s (1999, 2001) studies investigated the tasks, functions, and roles of the elementary as well as junior high school principals. He found out that the principals’ tasks covered a lot of areas, ranging from the future development of the school to picking up waste paper. Facing both inside and outside increased pressures and job requirements, the tasks of the principals tended to be
uncertain, fast, and temporary. The principal’s tasks included planning the development of the school, maintaining the normal operation of the school, supervising instruction, representing the school, maintaining the performance standards, encouraging the staff and students, solving problems, and building good relationships with the community (Lin, 1999, 2001). The roles of the principal fall primarily within two areas, including administrative management and cultural leadership. The specific roles of the principal consisted of supervisor, coordinator, planner, disseminator of information, gatekeeper, representative, heroes developer, actor, encourager, story teller, and ritual host. His research suggested that more efforts to study the practice of the principalship must be encouraged.

Schools in Taiwan are now undergoing many educational reforms, such as school-based management, Grade 1-9 curriculum policy, and standard testing (Ministry of Education, 2004a). With so many ideas and demanding tasks ahead, school principals have been expected to bear the responsibilities for implementing change. Anson (1992) stated that,

We are in a time of rapidly changing expectations and assumptions not only in this country but worldwide...as the pace of change increases and the demands on the education system increase, the burden to respond to those demands will fall on the shoulders of our education leaders. (p. 303)

Much attention has been given recently, by those who research and write about the work of school principals, to the increasing pressures and different roles expected of the principalship. Such pressures are often associated with changing expectations of school systems and political pressure for constant improvement. It is clear that the
demands on and expectations of schools and school systems are changing, that school leaders play a vital role in mediating those demands and realizing those expectations, and that structured understanding of the experience of school leaders is needed if we are to develop and support them in their work.

School Principals in Other Countries

Hong Kong

Hong Kong is now a special administrative region of the People’s Republic of China, and has a dynamic East-West culture (Caldwell, Calnin, & Cahill, 2002). Schools are undergoing many educational reforms in Hong Kong, and principals, with so many ideas and demanding tasks ahead, have been expected to bear the responsibility for implementing change (Yu, 2002). Yu (2000) wrote that there is a shift in Hong Kong primary school principals’ leadership conceptions. In 1991, the leadership of principals in Hong Kong was described as dictatorial in a government document, which painted a bleak picture of the leadership being offered by Hong Kong principals at that time. Hong Kong principals, however, now are perceived as transformational leaders by teachers in schools (Yu, 2002). According to Huber and West’s (2002, p. 1077) research, the qualification for school leaders in Hong Kong is described in Table 5.
Table 5

Qualification for school leaders in Hong Kong

<table>
<thead>
<tr>
<th>Induction Course</th>
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<tr>
<td>Provider</td>
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<tr>
<td>Target Group</td>
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<tr>
<td>Aims</td>
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<tr>
<td>Contents</td>
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<tr>
<td>Methods</td>
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<td>Pattern</td>
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<tr>
<td>Status</td>
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<tr>
<td>Costs</td>
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China

A study, titled *Profiles and preparation of urban school principals: a comparative study in the United States and China*, reported that there was more gender equity among the American school administrators when compared with the China school administrators (Su, Adams & Mininberg, 2000). In the traditional Chinese culture, women were always in the submissive roles both at home and in the society. Although there has been much publicity and practice with regard to women's liberation, the majority of administrators in most of the professions in China are still male.

Additionally, in age distribution, the Chinese principals are older than their American counterparts (Su et al., 2000). The Chinese culture places more emphasis on seniority and experiences in selecting and promoting education administrators. An important reason for the age difference between American and Chinese school principals is the fact that the majority of the Chinese school principals were selected by authorities to become administrators based on their seniority and performance as teachers. The majority of American school principals, however became administrators based on their own decision, thus they had the opportunity to become one at a much younger age regardless of their seniority and teaching performance (Su et al., 2000).

There is also a great difference in the academic degree held by Chinese and American school principals (Su et al., 2000). The majority of the Chinese principals (77%) hold bachelor's degrees and only 4% have master's degrees, but nearly all of the American principals in their sample had graduate degrees; 90% hold master's degrees and 9% have doctoral degrees.
Japan

In Japan, the School Education Law says that a school shall have a principal, vice principal and an adequate number of teachers (Mulford, 2003). The principal has the ultimate responsibility and powers for managing the school. The principal administers all affairs related to school management and supervises all staff including the teachers who work at the school (Mulford, 2003).

The general way to become principal or vice principal is for teachers to pass the examination for promotion to an administrative position and have experience working at several schools under regular personnel transfers (Mulford, 2003). The concrete steps for selection and appointment to the principal and vice principal posts are determined by the decision of each prefectural board of education (Mulford, 2003).

New Zealand

Principals in New Zealand are employed on a limited term contract basis. A qualitative study by Harold, Hawksworth, Mansell, and Thrupp (2001) and quantitative study by Wylie (1999) both conducted in New Zealand found an increased administrative workload for school principals due to school reform. Several studies (Cranston, 1999; Harold et al., 2001; Leithwood & Menzies, 1998; Wildy & Dimmock, 1993) have highlighted that one of the tensions facing principals is role ambiguity in terms of the principal as a leader or the principal as a manager.

The findings from the abovementioned studies indicated that the dominant role played by principals was more managerial than oriented towards educational leadership concerns or as participants in a study by Harold et al. (2001) noted, “a shift from professional leadership to managerial roles” (p. 2) for the principal. The role and
workload of principals in New Zealand across the last decade or so have become more complex and diverse. Significantly, the literature points to principals being required to draw on both leadership and management skills and competencies in response to the raft of educational reforms that have lead to enhanced responsibilities and accountabilities for schools (Harold et al., 2001). For principals, it has meant a greater need to consult with their communities regarding decisions affecting their schools and an almost pragmatic imperative to delegate and empower others in the school to share leadership responsibilities (Harold et al., 2001).

A study by Cranston, Ehrich, and Billot (2003) reported that the vast majority of New Zealand principals indicated their typical week workload was 60 hours or more. In addition, they found that principals were working longer hours and were facing greater pressure now than they did in previous years. Like one New Zealand principal, in their study, stated “the job is at least four times the job it was when I started in 1991” (p. 171). It seems that some of the pressures in New Zealand education system can be attributed to the “rate of change” and the Government who constantly “changes the goal posts” (p. 171). The real concern for many principals in the New Zealand education system was the future repercussions of the heavy workload.

One New Zealand principal articulated, “many potential principals are being put off by senior management” due to the huge demands placed upon principals (Cranston et al., 2003, p. 172). As alluded to previously, some principals in Cranston’s et al. study indicated that one of the major repercussions of an excessive workload was the potential personal cost to their family and home lives (Cranston et al., 2003). Table 6 shows the qualification for school leaders in New Zealand.
Table 6

*Qualification for school leaders in New Zealand*

<table>
<thead>
<tr>
<th>Provider</th>
<th>Educational Leadership Center of the University of Waikato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Group</td>
<td>Educational leaders and individuals holding leading positions in different areas of the educational sector</td>
</tr>
<tr>
<td>Aims</td>
<td>Development of the ability to reflect, interpersonal competence, and basic values as prerequisites for instructional leaders</td>
</tr>
<tr>
<td>Contents</td>
<td>Mandatory: Resource Management and Issues in Educational Administration; Educational Leadership: Issues and Perspectives; Educational Leadership: Organizational Development; Research Methods or Kaupapa Maori Research</td>
</tr>
<tr>
<td>Optional: Educational Assessment; School Leadership and the Community; Educational Leadership for Social Justice; Developing Educational Leadership; Professional Education Leadership</td>
<td></td>
</tr>
<tr>
<td>Methods</td>
<td>Lectures, seminars, workshops, email platforms and international study tours</td>
</tr>
<tr>
<td>Pattern</td>
<td>Curriculum consists of 48 course days plus about 1600 hours of individual study, participation in online platforms and conduction of school projects within 2-4 years</td>
</tr>
<tr>
<td>Timetabling:</td>
<td>8 3-hour seminars, either in the late afternoon or on Saturdays (2 per semester in full-time or 1 per semester in part-time); individual scheduling for part-time students is possible due to the online offer</td>
</tr>
<tr>
<td>Status</td>
<td>Optional; seen as adequate qualification by the employing committee, the board of trustees of the school</td>
</tr>
<tr>
<td>Costs</td>
<td>8952 New Zealand dollars for eight units per participant</td>
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Australia

Principals in New Zealand are employed on a limited term contract basis, while principals in Queensland, Australia have tenure (Cranston et al., 2003). An increasing workload and changing role due to school reform was echoed by principals in Australia. For instance, Boyle (2000) found that principals from the Australian Capital Territory noted an increased workload due to the expanding role principals are now expected to play. Similarly in Knight’s (2000) study, one of the common concerns raised by principals was the stakeholders increased expectations of principals and their increasing workload.

In a 1999 study Holdaway reported that the increased stress and workload associated with the principalship explains in part, at least, the reason for declining applications for the principalship. The principal shortage in Australia is also due to the large numbers of principals who are retiring and expected to retire over the next few years (Richardson, 2002). A study by Cranston et al. (2003) found that 49% of their sample reported a typical workload of 50-59 hours, with 43% reporting 60 hours or more. In addition, over 80% of principals reported the variety and diversity of what they did in their role had increased compared with earlier. Table 7 shows the qualification for school leaders in Australia, according to Huber and West’s (2002, p. 1089) research.
Table 7

Qualification for school leaders in New South Wales, Australia

<table>
<thead>
<tr>
<th>School Leadership Preparation Programme</th>
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<tbody>
<tr>
<td><strong>Provider</strong></td>
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<td><strong>Target Group</strong></td>
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<td><strong>Aims</strong></td>
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<td><strong>Contents</strong></td>
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<td><strong>Methods</strong></td>
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<td><strong>Pattern</strong></td>
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<tr>
<td><strong>Timetabling:</strong></td>
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<td><strong>Status</strong></td>
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<tr>
<td><strong>Costs</strong></td>
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England

By law every school in England has a governing body that is representative of local stakeholders and has responsibility for the allocation of those resources (Male, 2001). Headteachers are responsible for the day-to-day management of the school under the direction of the governing body, yet in reality school governors have neither the time nor the ability to provide more than local accountability for headteachers as all members are part-time, unpaid volunteers (Male, 2001). The headteachers gained the National Professional Qualification for Headship (NPQH), the pre-service certification process based on national standards for headteachers which became mandatory in 2002 (Male, 2001). According to a study by Ross and Hutchings (2003),

In England, applicants for headteacher positions in the maintained sector from 2004 will be expected to have obtained the National Professional Qualification for Headship, or to be working towards it. In Wales, there is currently a consultation exercise on proposals to implement a mandatory NPQH qualification from September 2005. In Scotland, achievement of the Standard for Headship will be mandatory from 2005. (p. 62)

National Professional Qualification for Headship (NPQH) is the first formalized preparation program for aspiring headteachers in England. Available since early 1997, the program is currently undertaken voluntarily although enabling legislation will allow the Secretary of State for Education to make the qualifications compulsory beginning in 2002. Table 8 shows the qualification for school leaders in England and Wales, according to Huber and West’s (2002, p. 1095) research.
Table 8

*Qualification for school leaders in England and Wales, Great Britain*

<table>
<thead>
<tr>
<th>The National Professional Qualification for Headship</th>
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</thead>
<tbody>
<tr>
<td>Provider</td>
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Quality of Life

Definitions

It is apparent from even a cursory glance at the literature that defining quality of life is a complex task (Leonard, 2002). Quality of life, however, has attracted the attention of many different fields. Compton (1997) highlighted this significant complexity describing quality of life as the “slipperiest creature in the conceptual zoo” (p. 120). Baker (2001) stated,

Despite its ubiquity, QOL is a difficult to define and evasive term. Its definitional problems and seeming lack of utility for public policy utility may stem from the interdisciplinary character of the subject. Scholarly endeavors in QOL have been pervasive yet domain protective. Almost every discipline in the social sciences and health fields has a research history relating to QOL. Each field approaches the QOL idea narrowly with the combined outcome appearing much like the proverbial story of blind persons describing an elephant. (p. 30)

Sirgy (1986) provided several examples. An economist construes quality of life in terms of total income, whereas in the field of marketing, quality of life is viewed in terms of satisfaction. In ecology, quality of life is environmentally driven, but in public health it is understood as a needs assessment. In terms of community psychology quality of life is relative to goodness of fit between the individual and the community (Sirgy, 1986). There are some definitions of quality of life from different fields. From the health field, quality of life has been defined by the World Health Organization as the following (Bonomi & Patrick, 1997):
Quality of life is defined as individuals’ perceptions of their position in life in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns. It is a broad ranging concept, incorporating in a complex way the persons’ physical health, psychological state, level of independence, social relations, personal beliefs, and relationship to salient features of the environment. (p. 5)

This definition reflects the view that quality of life refers to a subjective evaluation, which is embedded in a cultural, social and environmental context. As such, quality of life cannot be simply equated with the terms “health status”, “life style”, “life satisfaction”, mental state”, or “well-being”. Rather, it is a multidimensional concept incorporating the individual’s perception of these and other aspects of life (The WHOQOL Group, 1995). Likewise, The University of Toronto Centre for Health Promotion defined their conceptualization of quality of life as “the degree to which a person enjoys important possibilities of his/her life. Enjoyment encompasses two meanings: experience of subjective satisfaction and the possession or achievement of some characteristic or state” (Raphael, Steinmetz, & Renwick, 1998, p. 12).

Stephen Covey (1990), in the business leadership field, identified the following five dimensions to quality of life:

(a) Acceptance and Love: people have a need to belong and be accepted, to join with others in common enterprises, to engage in win-win relationships, and to give and receive love; (b) Challenge and Growth: people also have a need to experience challenge and opposition, to grow and develop, to be well utilized, to be informed, and to be creative. Leaders must identify, develop, use and recognize
talent; otherwise people will go elsewhere, physically or mentally, to find their satisfaction and their sense of growth; (c) Purpose and Meaning: people also have a need for purpose and meaning, for making a contribution to that which is meaningful. If a person’s work is not intrinsically satisfying or if the outcome does not contribute constructively to society, they won’t be motivated in the highest and deepest sense despite satisfying salaries, growth experiences, and relationships; (d) Fairness and Opportunity: the basic principles in the field of human motivation emphasize fairness regarding economic rewards and opportunity regarding intrinsic rewards. When people become dissatisfied, when their higher level needs are not met, they fight the organization in one way or another in order to give their lives cohesion and meaning. This is why a person’s economic well-being and quality of life are closely interrelated; (f) Life Balance: cultivate the habit of “sharpening the saw” physically, mentally, emotionally, and spiritually every day. “Sharpening the saw” is the unique endowment of continuous improvement of self-renewal. (pp. 297-298)

Each of these dimensions is highly interrelated. To neglect any one dimension negatively impacts the growth and effectiveness of the other dimensions.

Leonard (2003), studying the quality of school life of students in Australia, defined quality of life as encompassing a broad range of variables including relationship, social interaction, and positive and negative affect such as stress and satisfaction. Burt, Wiley, Minor, and Murray (1978) articulated a model of quality of life that distinguished between positive experiences, negative experiences, and other feelings related to specific life domains. More specifically, quality of life has been defined as the sum of perceived
stress, or lack of stress, and perceived satisfaction, or dissatisfaction (Pelsma, Richard, Harrington, & Burry, 1989). Even more recently, it has been argued that these positive and negative experiences were unique to each individual and had a positive impact on psychological states, such as well-being and satisfaction, and negative psychological states, such as ill being and stress (Hart & Conn, 1996).

**Theoretical Perspectives**

*Needs Theory*

Abraham Maslow (1954) developed a classical framework for understanding human motivation. The model was derived primarily from Maslow’s experience as a clinical psychologist and not from systematic research (Campbell & Pritchard, 1976; Hoy & Miskel, 1996; Steers & Porter, 1983).

His premise was that there exists a hierarchy of needs that motivate humans to act, in the following order: physiological needs, safety, belonging and love, esteem, self-actualization. Physiological needs, at the first level of the hierarchy, consist of such fundamental biological functions as hunger, water and sleep. At the second level are safety and security needs, which derive from the desire for a comfortable and regulated environment, for instance, a peaceful society. Belonging and love needs are on the third level, after safety needs are satisfied, individual desires relationships with friends and acceptance as a member of a group. Social relationship needs are important in the society as well. At the fourth level are esteem needs, which reflect the desire to be highly regarded by others. Achievement, competence, status, and recognition satisfy esteem needs (Hoy & Miskel, 1996).
The highest level is self-actualization needs which are on the fifth level. After acquisition of self-esteem and confidence in one's ability to be successful in the eyes of others, now the motivation becomes to act and achieve according to one's own standards. A simple definition of self-actualization is that it is the need to be what an individual wants to be, to achieve fulfillment of life goals, and to realize the potential of his or her personality (Campbell & Pritchard, 1976). According to Maslow's (1954) needs hierarchy theory the relationships between work and quality of life are based upon those human needs. In other words, the basic need of the relationship between work and quality of life would be physiological needs, such as salary for buying food. The higher need of the relationship between work and quality of life would be safety, such as working environments that initiate possible dangerous situations so that less injuries to workers result. The third need would be belonging, for instance, to make friends in the work place so that friendly working conditions are possible. The fourth need level would be esteem, such as respects from the colleague. The final need of the relationship between work and quality of life would be achievement, for instance, to achieve fulfillment of life goals through performing well on the job.

Job Satisfaction

Hoppcock, who today might be considered the father of the investigation of job satisfaction, published his famous work *Job Satisfaction* in 1935 (Harvey, 2002). This work formed the foundation for most of the subsequent research in this area. Hoppcock provided the assumption that if the presence of a variable in the work situation leads to satisfaction, then its absence will lead to dissatisfaction. This assumption held up until
Herzberg and his colleagues developed in 1959 the motivation-hygiene theory nearly 25 years later (Harvey, 2002).

Frederick Herzberg and his colleagues (Herzberg, Mausner, & Snyderman, 1959) developed the motivation-hygiene theory which has been used to explain individual’s job satisfaction and dissatisfaction. They were originally concerned with what business and service employees perceived as positive (or satisfaction) and negative (dissatisfaction) about their jobs. They cited the following negative factors: organizational policy and administration, technical supervision, salary, working conditions, status, job security, effects on personal life, and interpersonal relations. On the other hand, positive or satisfaction factors cited were work itself, achievement, possibility of growth, responsibility, and advancement (Glickman, Gordon & Ross-Gordon, 2001). According to Herzberg’s et al. (1959) study, motivation-hygiene theory provided important concepts that could offer solutions for leaders to increase employee’s job satisfaction and decrease employee’s job dissatisfaction.

Their work borrowed heavily from Maslow’s famous Needs Hierarchy Theory as well. Both of Herzberg’s and Maslow’s works have since been cited often and both bodies of work have become important benchmarks in the field of motivation and job satisfaction (Harvey, 2002).

Challenges

Stress. Hans Selye, a recognized authority and pioneer researcher on stress defined it as the “rate of wear and tear on the body or nonspecific response of the body to any demands made upon it” (1976, p. 1). Selye noted that anything that disrupts the physiological and psychological balance will activate the stress response. It is the
mobilization of the body’s defenses that allow human beings to adapt to hostile or threatening events. The number of terms used synonymously with stress including tension, burnout, conflict, pressures, exhaustion, strain, upset, nervousness, unhappiness, powerlessness, anxiety, frustration, and unease, may also be contributing features (Powers & Kutash, 1980; Rainham, 1997).

Wojcik (1999) argued that while the frequency of pure stress compensation claims by workers (including educators) has decreased, many other compensation claims are complicated by stress created by the organizational problems. Furthermore stress was described as being responsible, to some extent, for reduced productivity, 40% of employee turnover, and 75% to 90% of primary care physician visits. The financial and social cost of stress is evident in estimates from the American Institute of Stress and National Safety council cited by Wojcik that indicated the cost of stress to American business was between $200 and $300 billion a year in reduced productivity, turnover, health and workers compensation claims, with as many as one million employees absent each day.

All occupations induce stress, but those positions which tend to induce higher levels of stress are positions that involve human interaction responsibilities (Selye, 1976). Research studies into the nature of job stress have generally acknowledged, the position of a school principal as being highly stressful (Muthalib, 2003).

Whatzker (1994) cited numerous researchers in claiming that the role of public school principal is among the most stressful in education. The literature suggests that school principals experiencing the symptoms and consequences of high levels of burnout have lower levels of job satisfaction (and vice versa).
Work-Life Balance

The relationship between work and nonwork life inspired such early writers as Adam Smith, Karl Marx, and Max Weber (Keller, 1987). In recent years, the connection between work and nonwork life has been investigated by numerous researchers (Towajj, 1999). Some researchers focused on the quality of work life because they asserted that quality of work life is beyond job satisfaction. For instance, Sirgy, Efraty, Siegel and Lee (2001) stated,

Although there is no formal definition of quality of working life (QWL), industrial psychologists and management scholars agree in general that QWL is a construct that deals with the well being of employees, and that QWL differs from job satisfaction...QWL differs from job satisfaction in that job satisfaction is constructed as one of many outcomes of QWL. QWL does not only affect job satisfaction but also satisfaction in other life domains such as family life, leisure life, social life, financial life, and so on. Therefore, the focus of QWL is beyond job satisfaction. It involves the effect of the workplace on satisfaction with the job, satisfaction in non-work life domains, and satisfaction with overall life, personal happiness, and subjective well being. (p. 241-242)

The 1970s saw increased attention to the connection between work and the quality of life (Loscocco & Roschelle, 1991). The spillover, compensation, and segmentation models of the connection between work and nonwork lives have received the most explicit articulation in studies of the linkages between job satisfaction and life satisfaction (Loscocco & Roschelle, 1991; Sirgy et al., 2001; Towajj, 1999; Wilensky, 1960).
The spillover model posited that satisfaction in one area of a person’s life that extends into other areas. Accordingly, workers’ experiences on the job carry over and influence their personal lives (Schmitt & Bedeian, 1982; Schmitt & Mellon, 1980; Staines, 1980). Dissatisfied workers are likely to experience unhappiness in nonwork activities, whereas satisfied workers will also be happy off the job. Thus, a positive association between work and life satisfaction is consistent with this perspective (George & Brief, 1990).

The compensation model asserted that individuals who are dissatisfied with work compensate by seeking challenging nonwork experiences. Compensation referred to the balance of affect between/among the life domains. Individuals in routine or boring job that do not fulfill their socioemotional needs will compensate by engaging in stimulating activities after work (Schmitt & Beheian, 1982; Schmitt & Mellon, 1980; Staines, 1980). Essentially, work and nonwork experiences are antithetical to one another (Staines, 1980).

In a somewhat different vein, it has been suggested that employees’ work commitment is determined partly on the basis of how the quality of their work roles compared to the quality of their nonwork roles (Loscocco, 1989). Specifically, people will disengage from an unrewarding work role to the extent that they can compensate with a satisfying nonwork role. In other words, if a person is dissatisfied in one life domain, she or he may choose to overcome this dissatisfaction by engaging in enjoyable activities in another life domain, thus ensuring satisfaction. Therefore, the satisfaction in one domain “compensates” for the dissatisfaction in another (Sirgy et al., 2001). For example, if a person is highly dissatisfied with his or her job, he or she may choose to become more
involved in church activities and derive pleasure from those activities. Doing so overcomes the deficiency in satisfaction experienced in the work domain.

The segmentation approach holds that work and nonwork lives are not connected. Individuals have the capacity to keep the various facets of their lives completely separate. Therefore, activities and feelings in one sphere do not necessarily affect activities and feelings in the other sphere (Schmitt & Bedeian, 1982). In contrast to the spillover and compensation perspectives, the segmentation approach postulates no relationship between work and nonwork domains (George & Brief, 1990). Segmentation is the opposite of spillover. That is, the individual chooses to block any spillover, thus segmenting any effect in that life domain (Sirgy et al., 2001). For instance, if a person feels dissatisfied with his job, he may segment his negative feelings within the job domain, thus preventing these feelings from affecting other aspects of his personal life.

Regardless the relationship between work and nonwork life, since the 1990s, has received more attention from the researchers in the business field, in human resources development fields, in public policy research fields, and in health development research fields (Covey, 1990; Duxbury & Higgins, 2001). A 10 year longitudinal study conducted by Duxbury and Higgins (2001), which focused on the work-life balance in the new millennium in Canada, found that people all have a number of roles that they hold throughout life. Work-life conflict occurs when time and energy demands imposed by their many roles become incompatible with one another; participation in one role is made increasingly difficult by participation in another (Duxbury & Higgins, 2001).

As school leaders, maintaining a balance between work and personal life is critical (Ferrandino, 2004). Vandiver’s (2002) dissertation, an investigation into
understanding how work requirements of principals affect their quality of life, was to discover an understanding of women school leaders and the challenges they face to maintain success while restructuring their lifestyle for balance. This was a case study of five women principals in the Piedmont area of North Carolina. Vandiver used a qualitative methodology and found multiple roles in school leadership. In this study she found that the participants struggled to maintain perspective and a healthy balance among the career, family, social, and spiritual dimensional of their school principals’ lives. Furthermore, she concluded that quality of life for those five women principals was directly affected by their struggle to restructure their lifestyles for balance.

Studies of Quality of Life in Taiwan

There were no studies which focused on the K-12 school principals’ quality of life in Taiwan found by the researcher from the review of the relevant literatures for this research. There were no studies that explored the issues directly related to the quality of life for the K-12 school principals in Taiwan. However, several studies emphasized school principals’ motivation (Feng, 2001), principals’ job satisfaction (Hsiao, 2002; Lin, 2000), and principals’ stress (Chien, 2003; Lin, 2000; Liu, 2003). Generally reviewing the literature, there were a few studies in Taiwan that emphasized the relationship among teachers’ quality of work life (Lee, 2002), teachers’ motivation (Liao, 2002), teachers’ job satisfaction (Hwang, 2003), and teachers’ stress (Chen, 2003; Hwang, 2001) in the K-12 school levels. Reviewing those relevant studies provided a conclusion that the definition of quality of life for school principals need to emphasize their perceptions of seven major domains, including health, economics, relationships, self-actualization, job satisfaction, challenges, and work-life balance.
Summary

This chapter reviewed the theories of leadership, history of the principalship, the roles and responsibilities for the principals, current principals in different countries, and the issues of quality of life. Since this chapter presented the review of the relevant literature for this research, this chapter provided more information and better understanding in issues related to school principals' workload and their quality of life. In addition, this review also offered important knowledge which served as suggestions to design the methodology for this study in the next chapter.
CHAPTER THREE

METHODOLOGY

Introduction

This chapter described the procedures utilized in order to address the research question of whether the workload of principals in Taiwan is such that there is a correlation between workload and quality of life. The factors that were utilized in this research as indicators of workload as well as quality of life were evinced from the Review of the Literature.

Research Design

This study employed a correlational research design. The purpose of a correlational research design is to determine if there is a naturally occurring association or predictability between dependent and independent variables. The researcher did not manipulate independent and dependent variables but collected the data as found, thus providing for a correlational design. More specifically, based upon the review of the literature, the research design focused on the relationship between a dependent variable, that was, the quality of school principals’ life, and predictor variables such as the workload and various demographic factors.

For the purpose of this study, school principals were given a survey instrument or questionnaire. The completed questionnaires were used to identify school principals’ workload and their quality of life based upon their self-reported perceptions. A pilot study was conducted for this research.
Population and Sample

Population

This study was conducted in Taiwan. The population for this study consisted of all K-12 school principals in Taiwan for the research. In Taiwan, according to the Ministry of Education's website at http://www.edu.tw, there were 3,666 principals of elementary, junior high, and senior high schools during the 2003-2004 school year (Ministry of Education, 2004c).

Sample

From this population, a sample for this study consisted of 350 Taiwanese school principals. These sample sizes were consistent with normally accepted statistical practices for their respective populations (Krejcie & Morgan, 1970). All 350 participants in this sample were randomly selected from the appropriate population.

Selection Procedures

In Taiwan, the population information was available online at the Ministry of Education’s website in the Directory of Schools (各級學校名錄) for 2003-2004. The Directory of Schools, which included elementary, junior high, and senior high school principals’ names and addresses, were printed and all school principals were given a number. From this listing of all K-12 school principals, a sample of 350 Taiwanese school principals were selected randomly from the population of this study. All 350 participants in this sample were randomly selected from the appropriate population by using a table of random numbers.
Instrumentation

For the purpose of this study, the instrument for this study investigated the relationship between school principals' workload and their quality of life. No appropriate instruments for this study were found by reviewing relevant literatures, therefore, the instrument was developed as part of this research.

The foundation of the development of the survey instrument in this study was established from review of the relevant literature as well as consulting with the dissertation chairperson. The instrument was a self-reported, self-administered questionnaire. The complete instrument, which is located in Appendix B, included three sections: (a) The Demographic Information, (b) The Workload of Principals, and (c) The Positive and Challenging Quality of Life.

Demographic Information

The first part of the survey instrument was the demographic information gathered from 12 questions. Those 12 questions consisted of demographic variables such as age, years of education, years of experience, and school size.

Workload of Principals (WoP)

The second part of the survey instrument gathered information from the principals regarding their workloads. These questions were based upon the major factors identified in the review of the literature as relevant and expected workplace duties of principals. Principals' workloads were characterized by their view of how their actual time is spent and contrasted with how principals believe that time should be spent. Furthermore, school principals identified the nature of various components of their workload as (a) essential (absolutely necessary), (b) important (something that should be done but can be skipped
occasionally without substantial harm to the workplace), or (c) trivial (work that is required but could and probably should be omitted from the work day).

The data gathered by the Workload of Principals (WoP) survey consisted of seven duties as being determined by the school principals in the pilot study, these seven duties were meetings, governmental requirements, communications, instructional leadership, public relationships, meeting visitors, and in-school activities. These duties were characterized by the degree to which the principals believe they are fundamental to their workload as an educational leader and the amount of time each duty requires. In addition, each respondent recorded the amount of time, in his or her opinion, that should be ideally expended in performing the duty throughout the week.

This survey provided composite data for the total number of hours required weekly in order to fulfill the responsibilities of a school principal. Data were also obtained that provided information on the ideal amount of time that should be used to fulfill various duties. These data and calculations from these data such as the time differences between ideal and real workloads were used as a means of predicting quality of life. Duties were sorted and combined by degree of importance and further analysis conducted from these data.

Positive and Challenging Quality of Life (PCQL)

The final section of the survey instrument was the quality of life questionnaire, which was comprised of 31 questions based upon factors identified in the review of the literature. Questions 1 to 4 documented health issues; questions 5 to 9 investigated economic concerns; questions 10 to 13 dealt with relationships; questions 14 to 17 sought information on actualization; questions 18 to 21 dealt with job satisfaction; questions 22
to 25 examined challenges; and questions 26 to 29 were concerned with work-life
balance. Questions 30 and 31 were two open-ended questions which were categorized
and reported appropriately in the following chapter. The responses to the quality of life
questions were scored as described below and converted to a dichotomous variable in
which a school principal’s quality of life was characterized as either as a **Positive** Quality
of Life (PQL) or as a **Challenging** Quality of Life (CQL). If 29 questions, seven
domains, result in 19 or more positive responses than negative responses, a Positive
Quality of Life (PQL) was identified. If 29 questions, seven domains, result in 18 and
fewer positive responses than negative responses, a Challenging Quality of Life (CQL)
was identified.

*Validity and Reliability of Instrumentation*

The questionnaires were reviewed by three educational professors who teach
educational leadership in Taiwan, in order to check for content validity. This review
resulted in changes in the wording and/or content of the questions. In addition, a pilot
study for this research was conducted in Taiwan based upon the suggestion from the
committee members. The reliability was reported using the analysis of internal items
consistency of the questionnaire.

*Variables and Levels of Data*

The dependent variable was the quality of life of a school principal. The responses
to the quality of life questionnaire were determined by school principals’ perceptions of
their quality of life and were converted to a dichotomous variable in which a school
principal’s quality of life was referred to as Positive Quality of Life (PQL) or
Challenging Quality of Life (CQL). The level of data for the quality of life variable was
nominal and dichotomous. The predictor variables were workload factors and various
demographic variables such as age, years of education, years of experience, school size.
These data were ratio level data.

Data Collection

Data Collection Procedure and Survey Process

Each randomly selected principal was sent a survey packet consisting of (a) a
cover letter describing the purpose of this study, selection procedures, the importance of
her/his involvement, and a solicitation for her/his participation, (b) a copy of the survey
questionnaire, and (c) a pre-addressed return envelope with postage.

The complete survey packet, along with a cover letter, a survey questionnaire, and
a pre-addressed return envelope with postage were mailed to each member of the sample.
Each return envelope was coded in the lower right corner with a random number to be
used to identify each school. From a master list of school names used in the research,
each school was checked off as the surveys were returned. As soon as a returning school
had been checked off, the number on the survey identifying the school was removed from
the questionnaire and destroyed before recording data. From that point in the research, all
data that had been collected were anonymous with no way to identify a school or
respondent from the data submitted. All members of the sample who may desire a
summary of the results were provided with a web site address where they can access the
results.

One week later a post card reminder was sent to all respondents and served both
as a thank you to those who had responded and as a friendly and courteous reminder for
those who had not. Two weeks later another letter and replacement survey were sent to non-respondents.

All data collected were anonymous immediately after receiving the survey and destroying the code in the bottom right hand corner. The results of this study were reported as aggregate data, and therefore it was not be possible to identify any individual principals or their schools. It was assumed that school principals gave their consent and volunteer for this research by completing and returning the survey to the researcher. Prior to the initiation of data collection for this study, The University of Montana’s Institutional Review Board (IRB) approval was secured.

Null Hypothesis

There will be no experimentally important or experimentally consistent predictability of school principals’ quality of life using workload and various demographic indicators such as age, years of education, years of experience, and school size as predictor variables.

A Priori Definition

An experimental importance was defined as 70% correct predictability of quality of life. An experimental consistency was defined at an $\alpha = .05$ level.

Statistics

For this analysis, a Discriminate Functional Analysis was conducted. Discriminate Function Analysis (DFA) is a statistical procedure originally developed “to classify subjects into one of two clearly defined groups” (Mertler & Vannatta, 2002, p. 281). More recently, DFA has been utilized as a kind of post hoc procedure for MANOVA analyses. This research employed DFA in its original use whereby
interval/ratio level variables are utilized as predictor variables analogous to multiple regression with the distinction that the criterion variable in DFA is nominal and dichotomous rather than interval/ratio as in multiple regression. By using a dichotomous variable, a nominal variable may be considered equal interval as a result of the identity property in which a single interval between the two levels of that variable is equal to itself (Sarle, 1996).

**Threats to Validity**

*External Validity*

This study had generalizability to the populations from which the samples were randomly selected. That was, external validity was controlled by randomly selecting an appropriate sample of K-12 school principals from the population of K-12 school principals in Taiwan.

*Internal Validity*

The threats to internal validity of history, maturation, testing, instrumentation, statistical regression, and mortality were controlled by the research design of this study. However, the threat to internal validity of selection was not controlled in this research due to the utilization of intact groups without the ability to manipulate groups or variables as in a true research design.

**Limitations of the Study**

The survey instrument for this study was translated from English to a Chinese version. This study, however, cannot control for the cultural difference between the English and Chinese languages.

**Delimitations of the Study**
This study was conducted using K-12 schools in Taiwan. Therefore, findings were not generalizable beyond present Taiwanese principals. In addition, this study utilized intact groups thereby limiting internal validity. Further, this study was delimited to the definition of quality of life developed for and used by this study.

Summary

This chapter addressed the quantitative methodology that was used in this research. The population for this study was consist of all K-12 school principals in Taiwan. A sample of 350 school principals was randomly selected from the population of this study. For the purpose of this study, each randomly selected principal was sent a survey packet consisting of (a) a cover letter describing the purpose of this study, selection procedures, the importance of her/his involvement, and a solicitation for her/his participation; (b) a copy of the survey questionnaire; and (c) a pre-addressed return envelope with postage.

The null hypothesis of this study was to determine that there will be no experimentally important and experimentally consistent predictability of school principals’ quality of life using workload and various demographic indicators such as age, years of education, years of experience, and school size as predictor variables. The experimental importance in this research was defined as 70% correct predictability of quality of life and the experimental consistency was defined at an $\alpha = .05$ level for this research. Therefore, a Discriminate Functional Analysis was conducted to analyze the data collecting from the survey.
CHAPTER FOUR

RESULTS

Introduction

The research question for this study was to determine what relationship, if any, exists between school principals' workload and their quality of life in Taiwan. The hypothesis of this study was to examine the existence of any experimentally important and experimentally consistent correct predictability of school principals' quality of life using workload and various demographic indicators such as age, years of education, years of experience, and school size as predictor variables. The results from the survey are described in this chapter, including content validity, pilot study, reliability of the instrumentation, return rate and data analysis. In this study, all data analyses were calculated by using Microsoft Excel and the GB-STAT program.

Content Validity and Pilot Study

A panel of three English speaking Taiwanese professors, who teach educational leadership in Taiwan, reviewed the instrument for content validity after the survey instrument was translated from English to a Chinese version by the researcher. The professors were asked to examine the following regarding the questions on the survey: (a) whether the directions were understandable and easy to follow, (b) whether questions needed to be omitted or added, (c) other improvements they felt would be beneficial for this study, and (d) whether the translation from English to a Chinese version of the questionnaire was appropriate.

A pilot study was conducted with a group of 15 school principals in Taiwan. Each principal was given the complete survey packet to be used in the research, along
with a cover letter, a dissertation chair letter, and a survey questionnaire. The pilot study resulted in adding seven primary duties, such as meetings, government requirements, communications, instructional leadership, public relationships, meeting visitors, and in-school activities to the Workload of Principals (WoP) survey instrument as well as minor changes in the wording and content of the questions in order to facilitate ease of reading in Chinese as well as completing the survey.

Reliability of Instrument and Return Rate

After the content validity and the pilot studies were completed, the survey packets were mailed to the 350 Taiwanese school principals who were randomly selected from the total population of K-12 school principals (3,666) in Taiwan. One week later, post card reminders were sent to all participants. Two weeks later, a total of 168 responses were received providing a 48% return rate. Another letter and replacement survey were sent to those 182 non-respondents. An addition of 65 principals responded after the second mailing providing a total return rate of 67%.

The reliability of the instrumentation was examined using the Cronbach $\alpha$ test. The result of the Cronbach $\alpha$ value was 90% of consistency and indicated that the questionnaire for this study reached internal item consistency.

Survey Results

Demographic Information

Of the 233 respondents, 71% (165) were male principals and 29% (68) were female principals. Figure 1 presents the frequency distribution of school principals’ gender for this study.
The average age of the respondents was 50 years old with an age range of 36 years to 64 years. Table 9 and Figure 2 addresses the frequency distribution of school principals’ age for this research. Explain bar graphs were used to visualize results of various findings. Accompanying most bar graphs was a table showing the source of the data in the bar graphs.

Table 9

*Frequency Distribution of School Principals’ Age*

<table>
<thead>
<tr>
<th>Age</th>
<th>Statistics</th>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>36</td>
<td>Less than 40</td>
<td>10</td>
<td>4%</td>
</tr>
<tr>
<td>Maximum</td>
<td>64</td>
<td>41 ~ 50</td>
<td>116</td>
<td>50%</td>
</tr>
<tr>
<td>Average</td>
<td>50</td>
<td>51 ~ 60</td>
<td>94</td>
<td>40%</td>
</tr>
<tr>
<td>Stdev</td>
<td>5.7</td>
<td>Greater than 61</td>
<td>13</td>
<td>6%</td>
</tr>
<tr>
<td>Total</td>
<td>233</td>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
The respondents had an average of four years of experience as principals in their current school with a range of one year to 12 years. Table 10 and Figure 3 reports the frequency distribution of years of experience of school principals serving in their current schools of this research.

Table 10

*Frequency Distribution of Years of Experience of School Principals Serving in Their Current Schools*

<table>
<thead>
<tr>
<th>Experience in Current School (Statistics)</th>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>1 ~ 4</td>
<td>165</td>
<td>71%</td>
</tr>
<tr>
<td>Maximum</td>
<td>5 ~ 8</td>
<td>157</td>
<td>24%</td>
</tr>
<tr>
<td>Average</td>
<td>Greater than 9</td>
<td>11</td>
<td>5%</td>
</tr>
<tr>
<td>Stdev</td>
<td>Total</td>
<td>233</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure 3  Frequency Distribution of Years of Experience of School Principals Serving in Their Current Schools

The total number of years the respondents have served as a school principal was an average of eight years with a range of one year to 25 years. Table 11 and Figure 4 describes the frequency distribution of school principals’ total years of experience.

Table 11

*Frequency Distribution of School Principals’ Total Years of Experience*

<table>
<thead>
<tr>
<th>Total Years of Experience (Statistics)</th>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>1</td>
<td>1~5</td>
<td>100</td>
</tr>
<tr>
<td>Maximum</td>
<td>25</td>
<td>6~10</td>
<td>59</td>
</tr>
<tr>
<td>Average</td>
<td>8</td>
<td>11~15</td>
<td>49</td>
</tr>
<tr>
<td>Stdev</td>
<td>5.3</td>
<td>Greater than 16</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>233</td>
</tr>
</tbody>
</table>
From Table 12, the frequency distribution of types of schools are described. Table 12 shows that of the 233 respondents, 76% (178) was from elementary school principals, 15% (34) was from junior high school principals, and 9% (21) was from senior high school principals. The majority (95%/222) of the 233 respondents were represented by public school principals, and a minority (5%/11) of the respondents were private school principals. Besides, there was 52% (121) of the 195 respondents’ schools located in urban area, 29% (68) schools located in suburban area, and 19% (44) schools located in rural area.
Table 12

*Frequency Distributions of Types of Schools*

<table>
<thead>
<tr>
<th></th>
<th>Elementary</th>
<th>Junior High</th>
<th>Senior High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Public</td>
<td>93</td>
<td>40%</td>
<td>12</td>
<td>5%</td>
</tr>
<tr>
<td>Urban</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>1</td>
<td>0%</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Public</td>
<td>50</td>
<td>21%</td>
<td>14</td>
<td>6%</td>
</tr>
<tr>
<td>Suburban</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Public</td>
<td>33</td>
<td>14%</td>
<td>7</td>
<td>3%</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>1</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>178</td>
<td>76%</td>
<td>34</td>
<td>15%</td>
</tr>
</tbody>
</table>

*Figure 5* Frequency Distributions of Types of Schools

The frequency distribution of the school enrollment of students, student/teacher ratio, and dropout rate of respondents' school are addressed in Table 13. The
respondents’ schools had an average of 1,762 students enrolled with the smallest enrollment of 40 students and the largest enrollment of 5,000 students. The average student/teacher ratio of the 233 schools was 19 with a range of five student/teacher to 26 student/teacher in this study. In addition, the average of students’ dropout rate of the 233 schools was 0.11% with a range of 0% to 2.4% in this study.

Table 13

*Frequency Distribution of Schools’ Enrollment of Students, Student/Teacher Ratio, and Dropout Rate*

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>Student/Teacher</th>
<th>Dropout Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>Maximum</td>
<td>5,000</td>
<td>26</td>
</tr>
<tr>
<td>Average</td>
<td>1,762</td>
<td>19</td>
</tr>
<tr>
<td>Stdev</td>
<td>1,158</td>
<td>3.8</td>
</tr>
</tbody>
</table>

According to Table 14 and Figure 6, school principals in this study were planning to retire in an average of seven years with a range of one year to 25 years. There were 42% (97) of the 231 school principals who were planning to retire in less than five years based upon the calculation of this research. Within ten years, 88% (203) of the school principals in this research were planning to retire from their work.
Table 14

*Frequency Distribution of Years in Which School Principals Plan to Retire*

<table>
<thead>
<tr>
<th>Years until Retirement (Statistics)</th>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>1 ~ 5</td>
<td>97</td>
<td>42%</td>
</tr>
<tr>
<td>Maximum</td>
<td>6 ~ 10</td>
<td>106</td>
<td>46%</td>
</tr>
<tr>
<td>Average</td>
<td>11 ~ 15</td>
<td>20</td>
<td>9%</td>
</tr>
<tr>
<td>Stdev</td>
<td>Greater than 16</td>
<td>8</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>231</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Figure 6* Frequency Distribution of Years in Which School Principals Plan to Retire

The 233 respondents identified an average of 59 hours they spent on all school-related activities for current school within a typical full week. The minimum working hours of the 233 school principals was 43 hours, and the maximum was 90 hours. Seventy-seven percent (180) of the respondents indicated they spent over 51 hours in a
week working related school activities. Table 15 and Figure 7 shows the frequency distribution of school principals' working hours in a week.

Table 15

*Frequency Distribution of School Principals' Working Hours in A Week*

<table>
<thead>
<tr>
<th>Working Hours in A Week (Statistics)</th>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>Fewer than 50</td>
<td>53</td>
<td>23%</td>
</tr>
<tr>
<td>Maximum</td>
<td>51 ~ 60</td>
<td>92</td>
<td>39%</td>
</tr>
<tr>
<td>Average</td>
<td>61 ~ 70</td>
<td>67</td>
<td>29%</td>
</tr>
<tr>
<td>Stdev</td>
<td>Greater than 71</td>
<td>21</td>
<td>9%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>233</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Figure 7 Frequency Distribution of School Principals' Working Hours in A Week*

Next, the survey found that 8% (18) of the 233 school principals presented that they have a full-time secretary; on the other hand, 92% (215) of the respondents do not
have a full-time secretary. Figure 8 presents the frequency distribution of school principals with secretaries.

Figure 8  Frequency Distribution of School Principals’ Full-Time Secretary

According to Table 16, the 226 respondents addressed that they had been certified in an average of 10 years with a range of one year to 29 years. There were 28% (63) of the school principals certified for less than five years, and 44% (99) of them have been certified for over 11 years.

Table 16

Frequency Distribution of School Principals Were Years Certified

<table>
<thead>
<tr>
<th>Years Certified (Statistics)</th>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>1</td>
<td>1-5</td>
<td>63</td>
</tr>
<tr>
<td>Maximum</td>
<td>29</td>
<td>6-10</td>
<td>64</td>
</tr>
<tr>
<td>Average</td>
<td>10</td>
<td>11-15</td>
<td>61</td>
</tr>
<tr>
<td>Stdev</td>
<td>5.6</td>
<td>Greater than 16</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>226</td>
</tr>
</tbody>
</table>
School principals’ workload was characterized by how their actual time was spent and contrasted with how principals believe that time should be spent. Furthermore, school principals identified the nature of various components of their workload as (a) essential (absolutely necessary), (b) important (something that should be done but can be skipped occasionally without substantial harm to be the workplace), or (c) trivial (work that is required but could and probably should be omitted from the work day). According to the pilot study, seven primary duties of school principals’ workload were identified and those seven primary duties included meetings, government requirements, communications, instructional leadership, public relationships, meeting visitors, and in-school activities.

*Hours Per-Week Spent at Meetings*

According to Table 17 and Figure 9, the majority of school principals (75%/168) reported that participation in meetings was an essential duty of their jobs. Of the 225 respondents, 24% (54) of the respondents thought attending meetings was important, while only three school principals (1%) identified attending meetings as trivial. This survey also found that school principals spent an average of six hours in a week of their actual time at meetings, and believed that they should spend an average of four hours in a week at meetings. There was two hours difference between how the school principals’ actual time was spent and how they believed their time should be spent for weekly at meetings.
Table 17

Frequency of Distribution of Time Spent at Meetings

<table>
<thead>
<tr>
<th>Hours Per-Week Spent at Meetings</th>
<th>Nature of the Duty</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal 1, Actual 1, Difference 0</td>
<td>Essential</td>
<td>168</td>
<td>75%</td>
</tr>
<tr>
<td>Max 10, 15, 5</td>
<td>Important</td>
<td>54</td>
<td>24%</td>
</tr>
<tr>
<td>Average 4, 6, 2</td>
<td>Trivial</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>Stdev 2.0, 2.8</td>
<td>Total</td>
<td>225</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 9 Frequency Distribution of Meetings as Essential, Important, or Trivial

Important 24%

Essential 75%

Trivial 1%

Hours Per-Week Spent at Government Requirements

The school principals spent an average of nine hours in a week of their actual time at completing government requirements, and believed that they should spend an average of six hours in a week at this duty. There was three hours difference between how the school principals’ actual time was spent and how they believed their time should be spent weekly for completing government requirements. According to Table 18 and Figure 10, the majority of school principals (89% / 199) reported that principals’ work on government requirements were an essential part of their jobs. Of the 224 respondents, 10% (23) of the...
respondents thought completing government requirements was important, and only 1% or
two of the school principals identified these duties as trivial.

Table 18

Frequency Distribution of Government Requirements as Principals' Workload

<table>
<thead>
<tr>
<th>Hours Per-Week Spent at Government Requirements</th>
<th>Nature of the Duty</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal Actual Difference</td>
<td>Essential</td>
<td>199</td>
<td>89%</td>
</tr>
<tr>
<td>Min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max</td>
<td>Important</td>
<td>23</td>
<td>10%</td>
</tr>
<tr>
<td>Average</td>
<td>Trivial</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Stdev</td>
<td>Total</td>
<td>224</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 10 Frequency Distribution of Government Requirements as Essential, Important, or Trivial

Hours Per-Week Spent at Communications

Based upon Table 19 and Figure 11, there were 36% (81) school principals who
identified that principals' communication was an essential duty of their jobs. Of the 227
respondents, 46% (105) thought their workload of communications was important, and
18% (41) of school principals addressed the duty of communications as trivial. Analyses
of the surveys showed that school principals spent an average of five hours in a week of their actual time at communications, and believed that they should spend an average of three hours a week at communications. There was two hours difference between how the school principals’ actual time was spent and how they believed time should be spent weekly at this duty.

Table 19

*Frequency Distribution of Communications as Principals’ Workload*

<table>
<thead>
<tr>
<th>Hours Per-Week Spent at Communications</th>
<th>Nature of the Duty</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal</td>
<td>Actual</td>
<td>Difference</td>
<td>Essential</td>
</tr>
<tr>
<td>Min</td>
<td>0.5</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Max</td>
<td>10</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Average</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Stdev</td>
<td>2.0</td>
<td>3.4</td>
<td>Total</td>
</tr>
</tbody>
</table>

*Figure 11* Frequency Distribution of Communications as Essential, Important, or Trivial

![Diagram showing the distribution of communications as Essential, Important, or Trivial.]

**Hours Per-Week Spent at Instructional Leadership**

The 226 respondents indicated that they spent an average of seven hours in a week of their actual time to work on instructional leadership, and believed that they...
should spend an average of six hours a week at increasing or helping with instruction. These results specified a one hour difference between how the school principals' actual time was spent and how they believed time should be spent weekly participating in instructional leadership. According to Table 20 and Figure 12, the majority of school principals (65%/148) reported instructional leadership was an essential duty for school principals. In addition, 35% (78) of the respondents stated that instructional leadership was an important duty in their opinions, and 0% (0) of school principals identified this duty as trivial.

Table 20

*Frequency Distribution of Instructional Leadership as Principals' Workload*

<table>
<thead>
<tr>
<th>Hours Per-Week Spent at Instructional Leadership</th>
<th>Nature of the Duty</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal</td>
<td>Actual</td>
<td>Difference</td>
<td>Essential</td>
</tr>
<tr>
<td>Min</td>
<td>1</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Max</td>
<td>20</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>Average</td>
<td>6</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Stddev</td>
<td>3.3</td>
<td>4.0</td>
<td>Total</td>
</tr>
</tbody>
</table>

*Figure 12* Frequency Distribution of Instructional Leadership as Essential, Important, or Trivial

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The school principals spent an average of five hours in a week of their actual time at improving public relationships and believed that they should be spending an average of three hours a week at this duty. This resulted in a two hours difference between how the school principals’ actual time was spent and how they believed time should be spent weekly at improving their public relationships.

The school principals (55% of 124) affirmed that a relationship with the public was important for the school principals. The results of these surveys also reported that 33% (75) of the respondents viewed public relationships as essential, and 11% (25) of school principals identified this duty as trivial.

Table 21 and Figure 13 presents that the majority of school principals (55%/124) affirmed that a relationship with the public was important for the school principals. The results of these surveys also reported that 33% (75) of the respondents viewed public relationships as essential, and 11% (25) of school principals identified this duty as trivial. The school principals spent an average of five hours in a week of their actual time at improving public relationships and believed that they should be spending an average of three hours a week at this duty. This resulted in a two hours difference between how the school principals’ actual time was spent and how they believed time should be spent weekly at improving their public relationships.

**Table 21**

*Frequency Distribution of Public Relationships as Principals’ Workload*

<table>
<thead>
<tr>
<th>Hours Per-Week Spent at Public Relationships</th>
<th>Nature of the Duty</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal</td>
<td>Actual</td>
<td>Difference</td>
<td>Essential</td>
</tr>
<tr>
<td>Min</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Max</td>
<td>15</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Average</td>
<td>3</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Stdev</td>
<td>2.0</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>
Figure 13  Frequency Distribution of Public Relationships as Essential, Important, or Trivial

![Pie chart showing 11% Trivial, 56% Important, and 33% Essential]

**Hours Per-Week Spent at Meeting Visitors**

The 209 respondents indicated that they spent an average of six hours in a week of their actual time meeting visitors to their schools, and believed that they should spend an average of three hours in a week to complete this duty which was a two hours difference. According to Table 22 and Figure 14, the 30% (62) of school principals said that meeting visitors in their schools was essential. There were 43% (89) of the respondents thought the duty of meeting visitors for school principals as important, and 28% (58) of school principals reported this duty as trivial.

Table 22

**Frequency Distribution of Meeting Visitors as Principals' Workload**

<table>
<thead>
<tr>
<th>Hours Per-Week Spent at Meeting Visitors</th>
<th>Nature of the Duty</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal</td>
<td>Actual</td>
<td>Difference</td>
<td>Essential</td>
</tr>
<tr>
<td>Min</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Max</td>
<td>15</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Average</td>
<td>3</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Stdev</td>
<td>2.0</td>
<td>3.4</td>
<td></td>
</tr>
</tbody>
</table>

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Table 23 and Figure 15 shows that there were 47% (105) of school principals reported participation in activities in their schools was an essential duty of their jobs. Based upon the calculations of the surveys, 45% (100) of the respondents reported that attending activities in their schools was important, and 8% (19) of school principals identified attending in-school activities as trivial. Of the 224 respondents, school principals spent an average of nine hours in a week of their actual time at in-school activities, and believed that they should spend an average of six hours a week for participating in activities in their schools. These results were a three hours difference between how the school principals’ actual time was spent and how they believed their time should be spent at in-school activities per week.
Table 23

Frequency Distribution of In-School Activities as Principals' Workload

<table>
<thead>
<tr>
<th>Hours Per-Week Spent at In-School Activities</th>
<th>Nature of the Duty</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal</td>
<td>Actual</td>
<td>Difference</td>
<td>Essential</td>
</tr>
<tr>
<td>Min</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Max</td>
<td>15</td>
<td>28</td>
<td>13</td>
</tr>
<tr>
<td>Average</td>
<td>6</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Stdev</td>
<td>3.1</td>
<td>4.9</td>
<td>Total</td>
</tr>
</tbody>
</table>

Figure 15 Frequency Distribution of In-School Activities as Essential, Important, or Trivial

Compared and Discussion of School Principals' Workload

Table 24 summarizes the frequency distribution of seven primary components workload of school principals were identified by the respondents as essential, important, or trivial, and the seven primary workload included meetings, government requirements, communications, instructional leadership, public relationships, meeting visitors, and in-school activities. These seven primary components of workload of school principals (meetings, government requirements, communications, instructional leadership, public
relationships, meeting visitors, and in-school activities) were identified by the pilot study of this research.

Table 24

**Frequency Distribution of School Principals’ Primary Workload**

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Essential</td>
<td>Important</td>
<td>Trivial</td>
</tr>
<tr>
<td>Meetings</td>
<td>168</td>
<td>54</td>
<td>3</td>
</tr>
<tr>
<td>Gov Require</td>
<td>199</td>
<td>23</td>
<td>2</td>
</tr>
<tr>
<td>Communications</td>
<td>81</td>
<td>105</td>
<td>41</td>
</tr>
<tr>
<td>Instruction Lead</td>
<td>148</td>
<td>78</td>
<td>0</td>
</tr>
<tr>
<td>Public Relations</td>
<td>75</td>
<td>124</td>
<td>25</td>
</tr>
<tr>
<td>Meet Visitors</td>
<td>62</td>
<td>89</td>
<td>58</td>
</tr>
<tr>
<td>In-School Activ</td>
<td>105</td>
<td>100</td>
<td>19</td>
</tr>
</tbody>
</table>

The frequency calculations of the percentage of essential, important, or trivial workload of school principals are described in Table 25. According to the results of this research, these seven primary components of workload for school principals were ranked by their percentage from the highest to the lowest percentage. School principals components of workload identified by respondents as essential, from the highest to the lowest percentage, by the respondents were: government requirements, meetings, instructional leadership, in-school activities, communications, public relationships, and meeting visitors. The percentage of the respondents who identified school principals workload as important, from the highest to the lowest percentage, were: public
relationships, communications, in-school activities, meeting visitors, instructional leadership, meetings, and government requirement. The percentage of the respondents who identified school principals workload as trivial, from the highest to the lowest percentage, were: meeting visitors, communications, public relationships, in-school activities, meetings, government requirement, and instructional leadership.

Table 25

*Rank by the Nature of the Duty*

<table>
<thead>
<tr>
<th></th>
<th>Essential</th>
<th>Important</th>
<th>Trivial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage</td>
<td>Rank</td>
<td>Percentage</td>
</tr>
<tr>
<td>Government Requirements</td>
<td>89%</td>
<td>1</td>
<td>24%</td>
</tr>
<tr>
<td>Meetings</td>
<td>75%</td>
<td>2</td>
<td>24%</td>
</tr>
<tr>
<td>Instructional Leadership</td>
<td>65%</td>
<td>3</td>
<td>35%</td>
</tr>
<tr>
<td>In-School Activities</td>
<td>47%</td>
<td>4</td>
<td>45%</td>
</tr>
<tr>
<td>Communications</td>
<td>36%</td>
<td>5</td>
<td>46%</td>
</tr>
<tr>
<td>Public Relationships</td>
<td>33%</td>
<td>6</td>
<td>55%</td>
</tr>
<tr>
<td>Meeting Visitors</td>
<td>30%</td>
<td>7</td>
<td>43%</td>
</tr>
</tbody>
</table>

Next, Table 26 summarizes how the respondents spent their actual time in a week to work on these seven primary components of workload, and how many hours the respondents believed should be spent in a week in order to complete these seven primary workload functions. Further, the difference between how the principals' actual time was spent and how they believed time should be spent was calculated by the researcher. The percentage of the difference between actual hours and ideal hours was calculated and

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then was ranked by a number from the highest to the lowest percentage according to Table 26. From the highest to the lowest percentage of the difference between actual hours per-week spent and ideal hours per-week should be spent were: meeting visitors, government requirements, meetings, in-school activities, communications, public relationships, and instructional leadership.

Table 26

*Differences Between Actual Hours Per-Week Spent and Ideal Hours Per-Week Spent*

<table>
<thead>
<tr>
<th>Hours Per-Week Spent</th>
<th>(Actual-Ideal) / Ideal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ideal</td>
</tr>
<tr>
<td>Meetings</td>
<td>4</td>
</tr>
<tr>
<td>Government Requirements</td>
<td>6</td>
</tr>
<tr>
<td>Communications</td>
<td>3</td>
</tr>
<tr>
<td>Instructional Leadership</td>
<td>6</td>
</tr>
<tr>
<td>Public Relationships</td>
<td>3</td>
</tr>
<tr>
<td>Meeting Visitors</td>
<td>3</td>
</tr>
<tr>
<td>In-School Activities</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
</tr>
</tbody>
</table>
The quality of life questionnaire was used to acquire the data for this research and was comprised of 31 questions that included 29 Yes/No questions and two open-ended questions. When 29 Yes/No questions resulted in 19 or more positive than negative responses, the school principal's quality of life was identified as a Positive Quality of Life (PQL). On the other hand, when 29 questions resulted in 18 or fewer positive responses, the school principal's quality of life was identified as a Challenging Quality of Life (CQL). According to this study, the responses to the PCQL questions were scored and converted to a dichotomous variable in which a school principal's quality of life was characterized as either as a Positive Quality of Life (PQL) or as a Challenging Quality of Life (CQL).

The Positive and Challenging Quality of Life (PCQL) questionnaire contained 29 close-ended questions. Before calculating the results of school principals' Positive and Challenging Quality of Life, there were original data of seven questions which needed to be reversed; that is, original data of Questions 1, 2, 3, 4, 19, 23, and 25 were reversed. The original data of Question 20 were found to have ambiguous results when recording the information. This question ultimately did not allow for determination of Positive Quality of Life and Challenging Quality of Life. Therefore, Question 20 was not included when calculating the information from the Positive and Challenging Quality of Life (PCQL) questionnaire.

Of the 28 questions (excluding question 20), the average number of positive responses in which the school principals presented was 19; on the other hand, nine was the average number of non-positive responses in which the 233 school principals
identified. According to the calculation, eight was the minimum number of positive responses that three school principals identified, and 28 was the maximum number of positive responses that one school principal specified. Table 27 shows the frequency distribution of the number of positive responses in school principals' Positive and Challenging Quality of Life (PCQL) questionnaire by the number of represented school principals. Figure 16 shows the frequency distribution of this result. The frequency distribution of the numbers of positive responses in the Positive and Challenging Quality of Life questionnaire by the number of represented principals resulted in a bell curve. In other words, the result of the questionnaire was a normal distribution.

Table 27

<table>
<thead>
<tr>
<th>Numbers of Positive Response in PCQL Questions (Question)</th>
<th>Numbers of Respondent (Person)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>3</td>
<td>1.3%</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>1.3%</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>0.9%</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>13</td>
<td>6</td>
<td>2.6%</td>
</tr>
<tr>
<td>14</td>
<td>8</td>
<td>3.4%</td>
</tr>
<tr>
<td>15</td>
<td>19</td>
<td>8.2%</td>
</tr>
<tr>
<td>16</td>
<td>18</td>
<td>7.7%</td>
</tr>
<tr>
<td>17</td>
<td>27</td>
<td>11.6%</td>
</tr>
<tr>
<td>18</td>
<td>20</td>
<td>8.6%</td>
</tr>
</tbody>
</table>

Total: 233 100%
Table 28 presents the summary of frequency distributions of the 29 Yes/No questions in the Positive and Challenging Quality of Life (PCQL) questionnaire.
Table 28  
*Summary of PCQL Questionnaire by 29 Questions*

<table>
<thead>
<tr>
<th>Quality of Life Questions</th>
<th>Yes</th>
<th>No</th>
<th>Missing or Alternate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I believe my work as a school principal has negative impact on my health.</td>
<td>66%</td>
<td>34%</td>
<td>0%</td>
</tr>
<tr>
<td>2. I believe my job negatively impacts my personal life. (i.e., if you skip meals frequently because of your work, or have sleep disruptions, or forego recreation, etc., answer in the affirmative)</td>
<td>73%</td>
<td>27%</td>
<td>0%</td>
</tr>
<tr>
<td>3. My job as a school principal causes me to experience more feelings of anxiety, anger or depression than I believe are healthy.</td>
<td>46%</td>
<td>54%</td>
<td>0%</td>
</tr>
<tr>
<td>4. I believe my work as a school principal increases the risks to having a long and healthy life.</td>
<td>75%</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I am satisfied with what I am getting paid (my salary) for my work as a school principal.</td>
<td>71%</td>
<td>29%</td>
<td>0%</td>
</tr>
<tr>
<td>6. My work as a school principal provides enough compensation so that I can enjoy my out of school time.</td>
<td>59%</td>
<td>41%</td>
<td>0%</td>
</tr>
<tr>
<td>7. My work as a school principal provides good health benefits.</td>
<td>24%</td>
<td>75%</td>
<td>1%</td>
</tr>
<tr>
<td>8. My work as a school principal provides good social status.</td>
<td>91%</td>
<td>9%</td>
<td>0%</td>
</tr>
<tr>
<td>9. My work as a school principal provides good retirements.</td>
<td>29%</td>
<td>71%</td>
<td>0%</td>
</tr>
<tr>
<td>Quality of Life Questions</td>
<td>Yes</td>
<td>No</td>
<td>Missing or Alternate</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------------</td>
<td>------</td>
<td>-----</td>
<td>----------------------</td>
</tr>
<tr>
<td><strong>Relationships</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I have good friends in my work place.</td>
<td>86%</td>
<td>14%</td>
<td>0%</td>
</tr>
<tr>
<td>11. I feel that in general the climate of my work place is warm and friendly.</td>
<td>95%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>12. My work as a school principal is supported by others.</td>
<td>86%</td>
<td>14%</td>
<td>0%</td>
</tr>
<tr>
<td>13. I find it rewarding to work with the people in my capacity as a school principal.</td>
<td>52%</td>
<td>48%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Actualization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I appreciate the opportunity to be a school principal.</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>15. What I do every day as a school principal is what I have been educated and prepared to do.</td>
<td>78%</td>
<td>21%</td>
<td>0%</td>
</tr>
<tr>
<td>16. I am always learning new knowledge that helps me do my work better.</td>
<td>97%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>17. My work as a school principal is meaningful in a positive way.</td>
<td>99%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Job satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Serving as a school principal allows me to accomplish my professional goals.</td>
<td>92%</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>19. I feel frustrated with my work.</td>
<td>6%</td>
<td>94%</td>
<td>0%</td>
</tr>
<tr>
<td>20. I have plans to improve my working environment in the future.</td>
<td>72%</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>21. I am happy because I have accomplished many worthwhile things in my work.</td>
<td>98%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Quality of Life Questions</td>
<td>Yes</td>
<td>No</td>
<td>Missing or Alternate</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>----------------------</td>
</tr>
<tr>
<td><strong>Challenge</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. At the end of the workday, I still have sufficient energy to enjoy free time.</td>
<td>49%</td>
<td>51%</td>
<td>0%</td>
</tr>
<tr>
<td>23. I am difficult to get along with by the end of day.</td>
<td>6%</td>
<td>94%</td>
<td>0%</td>
</tr>
<tr>
<td>24. I enjoy beginning my workday thinking about the work I have to do as a school principal.</td>
<td>68%</td>
<td>32%</td>
<td>0%</td>
</tr>
<tr>
<td>25. My present circumstances cause me to consider leaving my work as a school principal.</td>
<td>12%</td>
<td>88%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Work-life balance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. I enjoy life while serving as a school principal.</td>
<td>58%</td>
<td>42%</td>
<td>0%</td>
</tr>
<tr>
<td>27. My work as a school principal is an important part of my life.</td>
<td>95%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>28. I have enough time away from my work to enjoy other things in my life.</td>
<td>33%</td>
<td>67%</td>
<td>0%</td>
</tr>
<tr>
<td>29. My work as a school principal helps me to enjoy myself outside of school.</td>
<td>51%</td>
<td>49%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 29 shows the results of the frequency distribution of school principals’ Positive and Challenging Quality of Life (PCQL). There were 54% (126) of the 233 respondents’ quality of life identified having a Positive Quality of Life (PQL), and there were 46% (107) of the 233 respondents’ quality of life indicated having a Challenging Quality of Life (CQL). The Positive Quality of Life principals were 8% (19) more than the Challenging Quality of Life principals.
Table 29  

Frequency Distribution of Principals' Positive and Challenging Quality of Life  

<table>
<thead>
<tr>
<th>Positive and Challenging Quality of Life (PCQL)</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Quality of Life (PQL)</td>
<td>126</td>
<td>54%</td>
</tr>
<tr>
<td>Challenging Quality of Life (CQL)</td>
<td>107</td>
<td>46%</td>
</tr>
<tr>
<td>Total</td>
<td>233</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 17 Frequency Distribution of School Principals’ Positive and Challenging Quality of Life (PCQL)

Open-ended Questions

Question 30 of the Positive and Challenging Quality of Life questionnaire asked the participations whether they were considering another type of work in order to improve their quality of life. According to the results of the survey, there were 12% (28) of the 233 respondents who indicated that they wanted to quit their jobs as a school principal. The majority of the school principals (88%/205) stated they did not want to quit their jobs.

Twenty-eight principals who wanted to quit their jobs presented their thoughts on this issue. Sixteen principals wanted to retire, three wanted to work as counselors, two respondents wanted to teach, and the other respondents did not provide their opinions.
Another open-ended question was to find what single factor at the school principals’ work place makes the most important contribution to the quality of their life. The top three responses were completing self-achievement, implementing their philosophy of education, and helping with the future of their students. Based upon the results of this survey, the majority of the respondents (55%/128) indicated self-achievement was the most important contribution to their quality of life. There were 8% (18) of the principals who reported that implementing their philosophy of education was the most important contribution to their quality of life. There were some respondents (6%/15) who addressed helping the future of the students as the most important contribution to their quality of life.

Results of the Analyses

*The Discriminate Functional Analysis*

For this study, the Discriminate Functional Analysis was conducted to examine the experimentally important and experimentally consistent predictability of school principals’ quality of life using workload and various demographic indicators such as age, years of education, years of experience, and school size as predictor variables. The results of these analyses found that there was a 76% correct predictability of school principals’ quality of life using school principals’ working hours as a predictor variable.

Specifically, the overall predictability (76%) of school principals’ Positive and Challenging Quality of Life (PCQL) using school principals’ working hours as a predictor variable is uniformly divided between the correct predictability of school principals’ Positive Quality of Life (75%) and the correct predictability of school principals’ Challenging Quality of Life at 75%. The *F*-value for this analysis was 61.4
and the \( p \)-value was less than .0001. Table 30 presents the summary of the results of this Discriminate Functional Analysis.

Table 30

*The Discriminate Functional Analysis by School Principals' Working Hours*

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Number of Cases</th>
<th>Predicted Group</th>
<th>PQL</th>
<th>CQL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Quality of Life (PQL)</td>
<td>126</td>
<td></td>
<td>95</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>75.4%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Challenging Quality of Life (CQL)</td>
<td>107</td>
<td></td>
<td>26</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24.3%</td>
<td>75.7%</td>
</tr>
</tbody>
</table>

Percent of Cases Correctly Classified: 75.54%

\[ F \text{ Ratio} = 61.4 \quad \text{Prob} < .0001 \]

Next, there was an 86% correct predictability of school principals' Challenging Quality of Life (CQL) using students' drop out rate in their schools as a predictor variable. The \( F \)-value was 6.5 and the \( p \)-value was .01 for this calculation. Table 31 reports the results of this Discriminate Functional Analyses.
Table 31

The Discriminate Functional Analysis by Students' Dropout Rate

Fisher's Linear Discriminate Function Analysis

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Number of Cases</th>
<th>Predicted Group</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Quality of Life (PQL)</td>
<td>126</td>
<td>PQL</td>
<td>29</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>23.0%</td>
<td>77.0%</td>
</tr>
<tr>
<td>Challenging Quality of Life (CQL)</td>
<td>107</td>
<td>CQL</td>
<td>15</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14.0%</td>
<td>86.0%</td>
</tr>
</tbody>
</table>

Percent of Cases Correctly Classified: **51.93%**

F Ratio = 6.5    Prob = .01

In addition, there was a 71% correct predictability of school principals' Positive Quality of Life (PQL) using school principals' workload of primary duties (meetings, government requirements, communications, instructional leadership, public relationships, meeting visitors, and in-school activities) as a predictor variable. The F-value was 7.0 and the p-value was .01 of this finding. Table 32 reports the results of the Discriminate Functional Analyses.

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Table 32

The Discriminate Functional Analysis by School Principals' Workload of Primary Duties

Fisher's Linear Discriminate Function Analysis

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Number of Cases</th>
<th>PQL</th>
<th>CQL</th>
<th>Predicted Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Quality of Life (PQL)</td>
<td>126</td>
<td>89</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70.6%</td>
</tr>
<tr>
<td>Challenging Quality of Life (CQL)</td>
<td>107</td>
<td>53</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>49.5%</td>
</tr>
</tbody>
</table>

Percent of Cases Correctly Classified: **61.37%**

F Ratio = 7.0    Prob = .01

Related Analyses

For this research, a related analysis using a pooled t-test was calculated by the GB-STAT program to examine the experimentally important and experimentally consistent difference of the average working hours in a week for the school principals between the Positive Quality of Life and Challenging Quality of Life. The results of the pooled t-test are summarized in Table 33. The average working hours in a week for the school principals who were identified having a Positive Quality of Life (PQL) was 55 hours, on the other hand, the average working hours in a week for school principals who were identified having a Challenging Quality of Life (CQL) was 64 hours. The mean difference of school principals’ working hours in a week between Positive Quality of Life principals and Challenging Quality of Life principals was nine hours. The homogeneity
of variance of this $t$-test resulted in an $F$-value of 1.14 and the $p$-value of .49; therefore, a pooled $t$-test was conducted for this analysis. According to Table 33, this result of the $t$-test calculated the $t$-value of 8.02 and the $p$-value at less than .0001 level. The Challenging Quality of Life principals worked nine hours longer than the Positive Quality of Life principals in a week.

Table 33

*The Result of the Pooled $t$-Test of Principals’ Working Hours in A Week*

<table>
<thead>
<tr>
<th>Size</th>
<th>Mean</th>
<th>SD</th>
<th>Mean Diff</th>
<th>$F$-Ratio</th>
<th>$t$-Value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>PQL</td>
<td>126</td>
<td>55</td>
<td>7.8</td>
<td>8.5</td>
<td>1.14 ($p= .49$)</td>
<td>8.02</td>
</tr>
<tr>
<td>CQL</td>
<td>107</td>
<td>64</td>
<td>8.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition, a pooled $t$-test was conducted to determine the experimentally important and experimentally consistent difference of the average actual hours per-week spent for the principals between the Positive Quality of Life and Challenging Quality of Life. Table 34 describes the results of this calculation. The school principals who were identified having Positive Quality of Life reported that they spent an average of actual 44 hours per-week. On the other hand, the principals who were indicated having Challenging Quality of Life presented that they spent an average of actual 49 hours per-week to complete their primary workload. The mean difference of school principals’ actual hours spent per-week between Positive Quality of Life principals and Challenging Quality of Life principals was five hours. The homogeneity of variance of this $t$-test resulted in an $F$-value of 1.35 and the $p$-value of .11, therefore, a pooled $t$-test was conducted for this analysis. According to Table 34, the result of this $t$-test calculated the $t$-value of 2.64 and...
the \( p \)-value at a .01 level. The Challenging Quality of Life principals spent five actual
hours per-week to complete their primary workload longer than Positive Quality of Life
principals did.

Table 34

*The Result of the Pooled \( t \)-Test of Principals’ Primary Workload*

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Mean</th>
<th>SD</th>
<th>Mean Diff</th>
<th>( F )-Ratio</th>
<th>( t )-Value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>PQL</td>
<td>126</td>
<td>44</td>
<td>13.8</td>
<td>5.2</td>
<td>1.35 (( p = .11 ))</td>
<td>2.64</td>
<td>.01</td>
</tr>
<tr>
<td>CQL</td>
<td>107</td>
<td>49</td>
<td>16.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Another pooled \( t \)-test was conducted to determine the experimentally important
and experimentally consistent difference of the average students’ dropout rate in the
schools for the principals between the Positive Quality of Life and Challenging Quality
of Life. Table 35 shows the result of this calculation. The school principals who were
identified having Positive Quality of Life reported that the average students’ dropout rate
was 0.06% in their schools, on the other hand, the principals who were indicated having
Challenging Quality of Life presented that the average students’ dropout rate was 0.15%
in their schools. The mean difference of the students’ dropout rate in the schools between
Positive Quality of Life principals and Challenging Quality of Life principals was 0.09%.
The homogeneity of variance of this \( t \)-test resulted the \( F \)-value of 5.74 and the \( p \)-value of
less than .0001, therefore, a separated \( t \)-test was conducted for this analysis. According to
Table 35, the result of this \( t \)-test calculated the \( t \)-value of 2.55 and the \( p \)-value at a .01
level. The average students’ dropout rate in the Challenging Quality of Life principals’
schools was 0.09% higher than the Positive Quality of Life principals’ schools.
Table 35

*The Result of the Separated t-Test of the Students' Dropout Rate*

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Mean</th>
<th>SD</th>
<th>Mean Diff</th>
<th>F-Ratio</th>
<th>t-Value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>PQL</td>
<td>126</td>
<td>0.06%</td>
<td>0.00</td>
<td>0.09%</td>
<td>5.74</td>
<td>(p&lt; .0001)</td>
<td>2.55</td>
</tr>
<tr>
<td>CQL</td>
<td>107</td>
<td>0.15%</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional Analyses

For this study, an analysis of the Chi-Square test of Measures of Association was calculated to see if the percentage of the school principals having a Positive Quality of Life and the percentage of the school principals having a Challenging Quality of Life were different by Gender. Table 36 reports that 15% more female school principals experienced a Positive Quality of Life (PQL) than male principals. Thus, 15% more male school principals experienced a Challenging Quality of Life (CQL) than did female principals. This calculation resulted in the Chi-Square of 18.96 and the *p*-value at a less than .0001.

Table 36

*The Result of the Chi-Square by Gender*

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Diff</th>
<th>Chi-Square</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PQL</td>
<td>82</td>
<td>50%</td>
<td>44</td>
<td>65%</td>
<td>-15%</td>
</tr>
<tr>
<td>CQL</td>
<td>83</td>
<td>50%</td>
<td>24</td>
<td>35%</td>
<td>15%</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>100%</td>
<td>68</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

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For this study, an additional analysis of the Chi-Square test of Measures of Association was calculated to determine the percentage of the school principals having a Positive Quality of Life and the percentage of the school principals having a Challenging Quality of Life were different according to their responses to leave or stay their jobs. Table 37 shows that 54% more school principals who wanted to stay in their jobs had the Positive Quality of Life than the principals who wanted to quit their jobs. For the Challenging Quality of Life, the respondents who wanted to quit their jobs were 54% more than the principals who wanted to stay. This calculation resulted in the Chi-Square of 28.23 and the $p$-value was at a less than .0001.
Table 37

The Result of the Chi-Square by School Principals Turnover

<table>
<thead>
<tr>
<th></th>
<th>Stay</th>
<th></th>
<th>Quit</th>
<th></th>
<th>Diff</th>
<th></th>
<th>Chi-Square</th>
<th></th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>124</td>
<td>61%</td>
<td>2</td>
<td>7%</td>
<td>54%</td>
<td></td>
<td>28.23</td>
<td></td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>PQL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>205</td>
<td>100%</td>
<td>28</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 19 The Percentage of the PQL and the CQL by Turnover

For this study, the analyses of the Chi-Square tests of Measures of Association were calculated to determine that the percentage of the school principals who had a full-time secretary and the percentage of the school principals who did not have a full-time secretary were different by the 29 questions for the Positive and Challenging Quality of Life (PCQL) questionnaire. According to the results of the Chi-Square tests, Question 4 and 22 showed an experimentally important and consistent difference between the school
principals who had a full-time secretary and those who did not have a full-time secretary. Questions 4 of the Positive and Challenging Quality of Life questionnaire was to ask the school principals: I believe my work as a school principal increases the risks to having a long and healthy life. Table 38 presents that 27% more school principals who did not have a full-time secretary reported that they believed their work increases the risks to having a long and healthy life than the principals who had a full-time secretary. On the other hand, 27% more school principals who had a full-time secretary responded no in this question than the principals who did not have a full-time secretary. This calculation resulted in the Chi-Square of 6.58 and the p-value at .02.

Table 38

The Result of the Chi-Square by Risks to Healthy Life

<table>
<thead>
<tr>
<th></th>
<th>Secretary</th>
<th>No Secretary</th>
<th>Diff</th>
<th>Chi-Square</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Yes (Risks)</td>
<td>9</td>
<td>50%</td>
<td>166</td>
<td>77%</td>
<td>-27%</td>
</tr>
<tr>
<td>No (Risks)</td>
<td>9</td>
<td>50%</td>
<td>49</td>
<td>23%</td>
<td>27%</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>100%</td>
<td>215</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

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Based upon another results of the Chi-Square tests of Measures of Association, Questions 22 of the Positive and Challenging Quality of Life questionnaire was to ask the school principals: At the end of the workday, I still have sufficient energy to enjoy free time. Table 39 addresses that 32% more school principals who had a full-time secretary indicated that they still have sufficient energy to enjoy free time at the end of their workday than the principals who did not have a full-time secretary. Thirty-two percent more school principals who did not have a full-time secretary responded no to this question than the principals who had a full-time secretary. This calculation resulted in the Chi-Square of 6.50 and the $p$-value at .01.
Table 39

The Result of the Chi-Square by Energy to Enjoy Free Time

<table>
<thead>
<tr>
<th></th>
<th>Secretary</th>
<th>No Secretary</th>
<th>Diff</th>
<th>Chi-Square</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>14</td>
<td>100</td>
<td></td>
<td>32%</td>
<td>6.50</td>
</tr>
<tr>
<td>%</td>
<td>78%</td>
<td>46%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Energy)</td>
<td>14</td>
<td>100</td>
<td></td>
<td>32%</td>
<td>6.50</td>
</tr>
<tr>
<td>No (Energy)</td>
<td>4</td>
<td>115</td>
<td></td>
<td>-32%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>215</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 21 The Percentage of the Secretary and Energy to Enjoy Free Time

A Discriminate Functional Analysis was calculated to examine the experimentally important and experimentally consistent correct predictability of school principals’ turnover using the Positive and Challenging Quality of Life (PCQL) questionnaire. The results of this analysis found that there was an 82% correct predictability of school principals’ turnover using the Positive and Challenging Quality of Life (PCQL) questionnaire.
In other words, the overall predictability (82%) of school principals' turnover using the Positive and Challenging Quality of Life (PCQL) questionnaire as a predictor variable is uniformly divided between the correct predictability of school principals who wanted to stay in their jobs, 82%, and the correct predictability of school principals who wanted to quit their jobs at 82%. The $F$-value for this analysis was 67.8 and the $p$-value was less than .0001. Table 40 reports the summary of the results of this Discriminate Functional Analysis.

Table 40

*The Discriminate Functional Analysis of the PCQL Questionnaire*

<table>
<thead>
<tr>
<th>Fisher's Linear Discriminate Function Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Group</td>
</tr>
<tr>
<td>Actual Group</td>
</tr>
<tr>
<td>School Principals Stay</td>
</tr>
<tr>
<td>82.0%</td>
</tr>
<tr>
<td>School Principals Quit</td>
</tr>
<tr>
<td>17.9%</td>
</tr>
</tbody>
</table>

Percent of Cases Correctly Classified: **81.97%**

F Ratio = 67.77  Prob < .0001

An additional analysis using the pooled $t$-test was calculated for this research in order to examine the experimentally important and experimentally consistent difference of the average positive answers of the Positive and Challenging Quality of Life (PCQL) questionnaire between the respondents who reported to stay in their jobs and those who
wanted to quit their jobs. The results of the pooled $t$-test analysis are presented in Table 41. The average number of positive answers of the Positive and Challenging Quality of Life questionnaire for school principals who wanted to stay was 20 positive responses, while, the average number of positive answers for the principals who wanted to quit their jobs was 14 positive responses. The mean difference of the number of school principals’ positive answers of the Positive and Challenging Quality of Life questionnaire between staying principals and leaving principals was six positive responses. The homogeneity of variance for this $t$-test reported the $F$-value of 1.32 and the $p$-value of .29; therefore, a pooled $t$-test was conducted for this analysis. According to Table 41, the result of this $t$-Test found the $t$-value of 8.23 and the $p$-value less than .0001 for this research.

Table 41

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Mean</th>
<th>SD</th>
<th>Mean Diff</th>
<th>F-Ratio</th>
<th>$t$-Value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay</td>
<td>205</td>
<td>20</td>
<td>3.8</td>
<td>6</td>
<td>1.32 ($p=.29$)</td>
<td>8.23</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Quit</td>
<td>28</td>
<td>14</td>
<td>3.4</td>
<td></td>
<td>1.32 ($p=.29$)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other Analyses

For this study, the Discriminate Functional Analysis was conducted to examine the experimentally important and experimentally consistent predictability of school principals’ quality of life using workload and various demographic indicators as predictor variables. The results of the analyses found that there was a lower than 70% correct predictability of school principals’ quality of life using school principals’ various demographic indicators such as age, years of experience in their current schools, total
years of experience, school enrollment, student/teacher ratio, years until retirement, and years certified as predictor variables.

The results of the t-test analyses found that the mean differences of school principals’ various demographic variables, such as age, years of experience in current schools, total years of experience, school enrollment, student/teacher ratio, years until retirement, and years certified, were not experimentally important. There were slight mean differences of the various demographic indicators for the school principals between the Positive Quality of Life and the Challenging Quality of Life.

Another results of the Discriminate Functional Analysis found that the overall predictability (67%) of the school principals’ turnover using the principals’ working hours in a week as a predictor variable. This overall predictability consisted of the correct predictability of the staying school principals at 66% and the quitting principals at 68%. The F-value for this analysis was 31.6 and the p-value was less than .0001. Table 42 provided the summary of the results of these analyses.
Table 42

*The Discriminate Functional Analysis of Turnover by School Principals' Working Hours*

Fisher's Linear Discriminate Function Analysis

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Number of Cases</th>
<th>Stay</th>
<th>Quit</th>
<th>Predicted Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Principals Stay</td>
<td>205</td>
<td>136</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>66.3%</td>
<td></td>
</tr>
<tr>
<td>School Principals Quit</td>
<td>28</td>
<td>9</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>32.1%</td>
<td></td>
</tr>
</tbody>
</table>

Percent of Cases Correctly Classified: 66.5%

F Ratio = 31.56  Prob < .0001

A pooled *t*-test was conducted to see if there was an experimentally important and experimentally consistent difference of the average working hours in a week between the school principals who wanted to stay in their jobs and principals who wanted to quit their jobs. The results of the pooled *t*-test are reported in Table 43. The average working hours a week for school principals who desired to stay were 58 hours; on the other hand, the average working hours a week for school principals who desired to quit their jobs were 68 hours. The mean difference of school principals’ working hours in a week between principals who wanted to stay and principals who wanted to quit were 10 hours. The homogeneity of variance for this *t*-test resulted the *F*-value of 1.38 and the *p*-value was at a .22 level; therefore, a pooled *t*-test was conducted for this analysis. According to Table 43, this *t*-test analysis reported the *t*-value of 5.62 and the *p*-value was at a less than
The quitting school principals worked 10 hours longer in a week than the staying principals.

Table 43

| The Result of Pooled t-Test of School Principals Turnover by Working Hours in A Week |
|---|---|---|---|---|---|---|
| Size | Mean | SD | Mean Diff | F-Ratio | t-Value | Prob |
| Stay | 205 | 58 | 8.3 | 10 | 1.38 (p = .22) | 5.62 | < .0001 |
| Quit | 28 | 68 | 9.8 |

An analysis of the Clustering Method using the K-means Method was conducted and determined that the 233 school principals converged to two assemblages according to the number of positive responses they identified for the Positive and Challenging Quality of Life (PCQL) questionnaire. The results of the Clustering Method analysis are presented in Table 44. Based upon their responses for the Positive and Challenging Quality of Life questionnaire, the 233 school principals were divided into two clusters, Cluster A and Cluster B. Cluster A consisted 126 school principals and Cluster B included 107 principals. The F-value was 411.3 and the p-value was less than .0001 of this finding. The final cluster centers for the Cluster A was 22 positive responses and for the Cluster B was 16 positive responses.

Table 44

| The Result of the Clustering Method Analysis |
|---|---|---|---|
| Number of Respondents | Cluster Center | F-Value | Prob |
| Cluster A | 126 | 22 | 411.35 | < .0001 |
| Cluster B | 107 | 16 |
These two assemblages, Cluster A and Cluster B school principals, were compared with the Positive Quality of Life principals and Challenging Quality of Life principals using the Chi-Square Goodness of Fit analysis. Table 45 shows the result of this analysis for this study. The result of this comparison indicated that the 126 school principals in the Cluster A were exactly who were identified as having the Positive Quality of Life. Another 107 school principals in the Cluster B were also exactly who were indicated as the Challenging Quality of Life.

Table 45

*The Result of the Chi-Square Test of Goodness of Fit Analysis*

<table>
<thead>
<tr>
<th></th>
<th>Cluster A</th>
<th>Cluster B</th>
<th>Chi-Square</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>PQL</td>
<td>Correct</td>
<td>126</td>
<td>0</td>
<td>233</td>
</tr>
<tr>
<td>Miss</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CQL</td>
<td>Correct</td>
<td>0</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>Miss</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summary**

A random sample of 350 Taiwanese school principals representing the 3,666 members of the elementary, junior high, and senior high school principals in Taiwan, was studied to examine what relationship, if any, exists between school principals’ workload and their quality of life in Taiwan.

The content validity of the survey instrument and the pilot study for this research were completed in Taiwan before the 350 survey packages were sent to the participants.
for this study. A total return rate of 67% was reached in two mailings. For this study, all data analyses were calculated by using Microsoft Excel and the GB-STAT program.

The results of the demographic information for school principals found that the majority of respondents (71%) were male principals. The average age was 50 years old for the school principals. The respondents had an average of four years of experience as principals in their present school. The total number of years of the principals’ experience was eight years. The respondents included 76% elementary school principals, 15% junior high school principals, and 9% senior high school principals. The majority of the respondents (95%) were represented by public school principals. In this study, the school principals were planning to retire in an average of seven years. The average number working hours for the school principals in this study was 59 hours spent on all school related activities for current school within a typical week. There were 92% of the school principals who did not have a full-time secretary. The principals responded that they had been certified as a principal for an average of 10 years.

The results of the Workload of Principals (WoP) survey indicated that of the average 59 working hours, the principals actually spent 46 hours (78%) of their time working on primary principal duties. The primary principal duties were meetings, government requirements, communications, instructional leadership, public relationships, meeting visitors, and in-school activities. According to the results of the survey, the ideal time in a week the respondents spent at the primary workload were 31 hours. The difference between how the school principals’ actual time was spent and how they believed time should be spent at the primary workload resulted in the average of an additional 15 hours of work per week. The average 59 working hours minus the
additional 15 hours was 44 hours, and the result of the 44 working hours was among the 40 to 44 working hours of the governmental regulation in Taiwan for the school principals. In addition, the frequency calculations of the percentage of essential, important, and trivial workload for school principals were identified. Beginning with the highest rank, the principals identified government requirements, meetings, instructional leadership, in-school activities, communications, public relationships, and meeting visitors as the seven essential duties. Beginning with the highest rank, the principals indicated public relationships, communications, in-school activities, meeting visitors, instructional leadership, meetings, and government requirements as the seven important duties. Beginning with the highest rank, the principals addressed meeting visitors, communications, public relationships, in-school activities, meetings, government requirements, and instructional leadership as the seven trivial duties.

The results of this research indicated that 54% of the respondents were identified as having a Positive Quality of Life (PQL), and 46% of the respondents were reported having a Challenging Quality of Life (CQL). The distributions of the responses of the Positive and Challenging Quality of Life for the school principals resulted in a bell curve which indicated the respondents' quality of life responses were normally distributed. In addition, there were 12% of the respondents who desired to quit their jobs and 88% who desired to stay in their jobs.

According to the results of the Discriminate Functional Analysis, there was an 86% predictability of school principals' Challenging Quality of Life (CQL) using students' dropout rate, a 71% predictability of principals' Positive Quality of Life (PQL) using actual hours the school principals spent at the primary workload, and a 76%
predictability of both Positive and Challenging Quality of Life using the school
principals' weekly working hours as a predictor variable.

The data and analysis thereof strongly suggests that a high percentage of
principals in Taiwan are experiencing a challenging quality of life. While, in general, it
was difficult to find predictor variables strongly associated with the predictability of
principal’s quality of life, nevertheless, these principals indicated many profession related
reasons, though mixed, that offer insight into possible remedies that will be explored in
Chapter Five.
CHAPTER FIVE

CONCLUSIONS

Introduction

The purpose of this study was to find out what relationship, if any, exists between school principals' workload and their quality of life in Taiwan. This chapter provides the conclusions appropriate to the problem statement and the research question based upon the results of the data analyses. This chapter contains the findings of this study, recommendations, and implications for further research.

Primary Findings

Quality of Life and Dropout Rate

Results

This study found that there was an experimentally important and experimentally consistent correct predictability of 86% for the school principals' Challenging Quality of Life (CQL) using students' dropout rate as a predictor variable. This predictability met the required level of importance set a priori of 70% correct predictability of quality of life. The experimental consistency was calculated at the .01 level, which met the required level of consistency, set a priori at .05.

Interpretations

The school principals' Challenging Quality of Life (CQL) could be predicted using the students' dropout rate as a predictor. Therefore, Taiwanese K-12 school principals' Challenging Quality of Life (CQL) could be predicted when the students' dropout rate was known. As the students' dropout rate increased, the tendency was to predict a more Challenging Quality of Life (CQL) for principals.
Quality of Life and Actual Hours Spent at Primary Workload

Results

In addition, this study found that there was an experimentally important and consistent correct predictability of the school principals’ Positive Quality of Life (PQL) using actual hours the school principals spent on primary workload as a predictor variable. This predictability of 71% met the required level of importance set \textit{a priori} of 70% correct predictability of quality of life. The experimental consistency was calculated at the .01 level, which met the required level of consistency set \textit{a priori} at .05.

Interpretations

The actual hours the school principal spent on primary workload served as an experimentally important and consistent predictor of principals who had a Positive Quality of Life (PQL). In other words, Taiwanese K-12 school principals who had a Positive Quality of Life could be predicted when their actual hours spent at primary workload was known. A Positive Quality of Life (PQL) is predictable based upon diminishing the actual number of hours school principals spent on the primary workload.

Quality of Life and Working Hours

Results

This study also found that there was an experimentally important and experimentally consistent correct predictability of the school principals’ quality of life using their working hours in a week as a predictor variable. This predictability of 76% met the required level of importance set \textit{a priori} of 70% correct predictability of quality of life. The experimental consistency was calculated less than .0001, which met the required level of consistency set \textit{a priori} at .05.
Interpretations

According to the results of this study, the school principals’ quality of life was predicted by using a predictor as the principals’ weekly working hours. When Taiwanese K-12 school principals’ weekly working hours were known, their quality of life could be predicted correctly either having a Positive Quality of Life (PQL) or Challenging Quality of Life (CQL). As the principals’ weekly working hours increased, the tendency was to predict a more Challenging Quality of Life (CQL) for principals. On the other hand, as the principals’ weekly working hours decreased, the tendency was to predict a more Positive Quality of Life (PQL) for principals. The quality of life for the K-12 school principals in Taiwan related to how many hours the principals worked in a week.

This finding clearly suggests that principals have a limit to how many hours they may devote per week to their professions without sacrificing time away from the remaining portions of their lives in order to have balance in their lives. The high percentage of school principals having a Challenging Quality Life indicates that many Taiwanese principals are pushed beyond the limit of the number of hours they are able to devote to their profession.

The Null Hypothesis

In brief, there was an experimentally important and consistent predictability of the Challenging Quality of Life (CQL) using the students’ dropout rate, an experimentally important and consistent predictability of the Positive Quality of Life (PQL) using actual hours the principals spent at primary workload, and an experimentally important and consistent predictability of both the Positive and the Challenging Quality of Life using...
the school principals' weekly working hours as a predictor variable. Therefore, the null hypothesis was rejected in this study.

Related Findings

Working Hours

Results

This study reported that the mean difference of nine hours of the average working hours between school principals who were indicated having Positive Quality of Life and principals who were having Challenging Quality of Life was experimentally consistent at less than .0001. Specifically, the average working hours in a week for school principals who were identified as having a Positive Quality of Life (PQL) was 55 hours. The school principals who were reported having a Challenging Quality of Life (CQL) worked for an average of 64 hours in a week. The average working hours for the Challenging Quality of Life school principals was nine hours more than the Positive Quality of Life principals. Although the weekly working hours for both of the Positive Quality of Life principals and the Challenging Quality of Life principals were over the governmental regulations of 40-44 hours in Taiwan, the weekly working hours for the Challenging Quality of Life principals was 116% of the weekly working hours for the Positive Quality of Life principals.

Interpretations

The Challenging Quality of Life K-12 school principals in Taiwan spent longer working hours on their jobs than the Positive Quality of Life principals did. If Taiwanese K-12 school principals who had a Challenging Quality of Life (CQL) could complete
their responsibilities by spending less hours working, they may be able to improve their quality of life as a Positive Quality of Life (PQL).

Actual Hours Spent at Primary Workload

Results

This study found that there was an experimental importance and experimental consistence of the mean difference of school principals’ actual hours spent per-week at primary workload (meetings, government requirements, communications, instructional leadership, public relationships, meeting visitors, and in-school activities) between Positive Quality of Life principals and Challenging Quality of Life principals. Comparing the actual hours spent at primary workload in a week for the Positive Quality of Life principals with the working hours in a week for the Positive Quality of Life principals resulted in the difference of 11 hours. The difference of 15 hours resulted by comparing the actual hours spent at primary workload in a week for the Challenging Quality of Life principals with the working hours in a week for Challenging Quality of Life principals. The results provided an indication that the working hours for the Challenging Quality of Life principals increased 136% of the working hours for the Positive Quality of Life principals when the principals’ working hours were increased.

Interpretations

The Challenging Quality of Life principals spent more actual hours at their primary workload than the Positive Quality of Life principals did. The Taiwanese K-12 school principals may be able to improve their quality of life when the actual hours they spend on primary workload is decreased. Comparing the actual hours spent at primary workload per week for both the Positive and the Challenging Quality of Life principals
suggests that the Challenging Quality of Life principals spend more time than the Positive Quality of Life principals do on the same duties. These data inferred that Challenging Quality of Life principals might have difficulty with time management. Although the data that were collected for this research did not seek a reason why the Positive Quality of Life principals managed their time more efficiently than the Challenging Quality of Life principals. This result suggests that some K-12 principals in Taiwan may benefit from time-management training.

Students' Dropout Rate

Results

This study found that there was an experimentally important and experimentally consistent difference of the students' dropout rate for the school principals between Positive Quality of Life and Challenging Quality of Life. Though perhaps considered low for all schools regardless of the Positive Quality of Life or the Challenging Quality Life principals, the dropout rate for the schools having the Challenging Quality Life principals was 250% of the dropout rate for schools having principals experiencing a Positive Quality of Life.

Interpretations

The predictability of the Challenging Quality of Life using dropout rate as the predictor variable offered insight into the purpose of this research that was not available using other predictor variables. The dropout rate is a variable that is a composite of many factors within a school district. An increasing dropout rate as an experimentally important and consistent predictor of a decreasing quality of life points to the realization by a school principal that perhaps too many things are in disrepair within the school district to
allow for a timely solution to the problem. An increasing dropout rate may be the single most encompassing variable that sums up, to the principal, the failure to meet professional expectations. Improving dropout rate may require district wide planning and improvement, and improvement is not likely to be immediately obvious.

Additional Findings

Quality of Life and Gender

Results

The results of the Chi-Square test of Measures of Association found that the difference of the percentage of the Positive Quality of Life principals and the Challenging Quality of Life principals between the male principals and female principals was experimentally consistent at a level less than .0001. Female principals were 15% disproportionately represented as having Positive Quality of Life (PQL) than male principals. While, male principals were 15% more disproportionately represented as having Challenging Quality of Life (CQL) than female principals.

Interpretations

Female principals were more likely to have a Positive Quality of Life (PQL) than male principals were regardless of common workplace factors. This research did not gather data to be able to interpret this finding more fully. The data that were gathered do not suggest a reason for why females experienced a more Positive Quality of Life than their male counterparts but clearly this finding is important and should be the subject of future research.
Quality of Life and Turnover

Results

Another findings indicated that the difference of the percentage of school principals’ Positive Quality of Life and Challenging of Life between principals who desired to stay and who desired to quit their jobs resulted in experimental consistency of less than .0001. In other words, the school principals who reported wanting to remain in their jobs were 54% more disproportionately represented having Positive Quality of Life (PQL) than the principals who desired to leave their jobs.

Interpretations

The school principals who desired to leave their positions were more likely to have a Challenging Quality of Life than the principals who desired to stay in their jobs regardless of common workplace factors. This finding was consistent with the predictability of the Challenging Quality of Life principals based upon increasing dropout rate. Principals who perceive their schools are not meeting expectations, as an increasing dropout rate might suggest, may not be willing to face the long term task of turning a number of poor or failing practices around in the school district in order to make widespread improvement. These principals may have lost their desire to remain in their jobs but while still in their place of employment, experience a challenging quality of life, possibly adding to a declining quality of education.

Quality of Life and Secretary

Results

A Chi-Square test of Measures of Association indicated that the difference of the percentage of the responses of yes and no for Question 4 between the school principals
who had a full-time secretary and the principals who did not have a full-time secretary
was experimentally consistent at $p$-value of .02. Question 4 for the Positive and
Challenging Quality of Life emphasized the risks to principals’ healthy lives. School
principals who did not have a full-time secretary were 27% more disproportionately
represented having risks to healthy lives than the principals who had full-time secretaries
representing an experimentally important difference.

Interpretations

The school principals who had full-time secretaries were more likely to indicate
their jobs did not pose risks to healthy life than the principals who did not have full-time
secretaries. The principals who did not have full-time secretaries were 54% more likely to
acknowledge risks to healthy lives than the principals who had full-time secretaries. This
finding is very important as it clearly points to a reduction in a Positive Quality of Life
when the secretarial workload is placed upon those who are educated and hired to serve
in leadership positions. This finding underscores the importance of leaders serving as
leaders and to require managerial and secretarial level of work from them not only
frustrates the purpose for which these leaders have prepared themselves but is strongly
associated with a diminished quality of life for school principals.

Results

Another result of the Chi-Square tests of Measures of Association presented that
the difference of the percentage of the responses of yes and no for Question 22 between
the school principals who had full-time secretaries and the principals who did not have
full-time secretaries was experimentally important and consistent at .01. Question 22
focused on whether the principals have sufficient energy to enjoy free time for the
Positive and Challenging Quality of Life (PCQL) questionnaire. School principals who had full-time secretaries were 32% more disproportionately represented having sufficient energy to enjoy free time than the principals who did not have full-time secretaries.

Interpretations

The school principals who had full-time secretaries were more likely to indicate having the energy to enjoy free time than the principals who did not have full-time secretaries regardless of common workplace factors. The principals who had full-time secretaries were 70% more likely to experience having sufficient energy to enjoy free time than the principals who did not have full-time secretaries. Providing an additional administrative assistant at the level of principals would address the issue of insufficient energy and time to enjoy free time thus reducing a risk to a healthy life.

Turnover and Positive and Challenging Quality of Life (PCQL) Questionnaire

Results

An additional finding of the Discriminate Functional Analysis for this study found there was an experimentally important and experimentally consistent correct predictability of school principals’ turnover using the Positive and Challenging Quality of Life (PCQL) questionnaire as a predictor variable. The Positive and Challenging Quality of Life questionnaire correctly predicted 82% of school principals desired to stay in their jobs, and correctly predicted 82% of principals who desired to quit their jobs.

Interpretations

The school principals’ turnover was predicted using a predictor of the Positive and Challenging Quality of Life (PCQL) questionnaire. The quality of life for the Taiwanese K-12 school principals related to their turnover. As the number of positive
responses of the Positive and Challenging Quality of Life (PCQL) questionnaire for the school principals increased, the tendency was to predict their Positive Quality of Life (PQL). On the other hand, as the number of positive responses of the Positive and Challenging Quality of Life (PCQL) questionnaire decreased, the tendency was to predict their Challenging Quality of Life (CQL). This finding provided important information regarding the limit as to how many negative factors school principals can experience in their professions before they will seek to quit their jobs.

Results

Following this finding, the result of a pooled t-test also indicated that the mean difference of the numbers of the positive answers for the Positive and Challenging Quality of Life (PCQL) questionnaire between school principals who desired to stay in their jobs and principals who desired to quit their jobs was experimental consistence of $p$-value at a less than .0001 level. School principals who desired to quit their jobs resulted in six fewer positive answers for the Positive and Challenging Quality of Life (PCQL) questionnaire than the staying principals did for the questionnaire representing an experimentally important difference. The staying school principals who responded for the Positive and Challenging Quality of Life (PCQL) questionnaire had 143% more positive answers than the principals who desired to quit their jobs.

Interpretations

When comparing this finding with the results that there was a correct predictability of school principals’ quality of life using working hours as a predictor, this finding was consistent with the summary in the previous chapter, statement of the problem, that indicated an association between principals’ quality of life and their
turnover rate. School principals’ working hours as well as their quality of life served as important variables which had associations with principals’ turnover.

Other Findings

Demographic Variables

Results

This study found that there was not an experimentally important correct predictability of the school principals’ quality of life using various demographic indicators such as age, years of experience in their current schools, total years of experience, school enrollment, student/teacher ratio, years until retirement, and years certified as predictor variables. These predictabilities did not meet the required level of importance set \textit{a priori} of 70% correct predictability of quality of life.

Interpretations

The school principals various demographic indicators, such as age, years of experience in current schools, total years of experience, school enrollment, student/teacher ratio, years until retirement, and years certified did not serve as a strong predictor of their quality of life. The Taiwanese K-12 principals’ quality of life could not be predicted correctly when their various demographic indicators were known.

Results

This study indicated that there were not experimentally important mean differences of various demographic variables such as age, years of experience in current schools, total years of experience, school enrollment, student/teacher ratio, years until retirement, and years certified for the school principals between the Positive Quality of Life and the Challenging Quality of Life.
Interpretations

The various demographic indicators, age, years of experience in current schools, total years of experience, school enrollment, student/teacher ratio, years until retirement, and years certified, of the Positive Quality of Life principals differed only slightly from the Challenging Quality of Life principals’ various demographic indicators. For instance, a Taiwanese K-12 principal who identified as having a Positive Quality of Life may not tend to be an experienced principal. On the other hand, a principal who identified as having a Challenging Quality of Life may not tend to be a novice principal.

School Principals’ Turnover and Working Hours

Results

This study also found that there was not an experimentally important correct predictability of the school principals’ turnover using their working hours in a week as a predictor variable. The school principals’ weekly working hours predicted 66% correct of school principals who desired to stay in their jobs, and predicted 68% correct of the principals who desired to quit their jobs.

Interpretations

The school principals’ turnover was not strongly predicted using their working hours as a predictor. By comparing this finding with the results that emphasized an experimentally important and consistent predictability of principals’ turnover using the Positive and Challenging Quality of Life questionnaire, this finding provided an important perception for the principals. That is principals perceived their professional future based more upon a composite of factors comprising their quality of life rather than a single factor such as working hours.
Results

The results of another pooled t-test had an indication that the mean difference of 10 hours of principals’ working hours in a week between the staying school principals and leaving principals was experimentally consistent at a less than .0001 level. Therefore, school principals who desired to quit their jobs worked 10 hours in a week more than the principals who desired to stay in their jobs.

Interpretations

The principals who did not work extra long hours were more likely to have or perceive they had a Positive Quality of Life and wished to remain on their jobs. When comparing this finding with the results of the working hours of Positive Quality of Life principals and Challenging Quality of Life principals, this study again indicated that principals have a limit to how many working hours they may devote per week to their jobs before sacrificing their quality of life.

Clustering Method Analysis

Results

The results of the Clustering Method analysis identified that the two clusters, Cluster A principals and Cluster B principals, that were converged from the school principals based upon their responses for the Positive and Challenging Quality of Life questionnaire was experimentally consistent with a p-value at a less than .0001 level. The cluster center of Cluster A at 22 positive responses was higher than the cluster center of Cluster B at 16 positive responses representing an experimentally important difference.
Interpretations

When the school principals' responses for the Positive and Challenging Quality of Life questionnaire were known, the principals were converged to two assemblages, either Cluster A or Cluster B. As the number of positive responses of the Positive and Challenging Quality of Life questionnaire increased for the school principals, the tendency for the principals was divided into Cluster A. As the number of positive responses of the Positive and Challenging Quality of Life questionnaire decreased, the tendency for the principals was divided into Cluster B.

Clustering Results and Positive and Challenging Quality of Life Results

Results

The results of the Chi-Square test of Goodness of Fit analysis found that the difference of the members among Cluster A principals, Cluster B principals, the Positive Quality of Life principals, and the Challenging Quality of Life principals was experimental consistency of $p$-value at a less than the .0001 level. All of the principals in the Cluster A were identified as having the Positive Quality of Life. On the other hand, all of the principals in the Cluster B were identified as having the Challenging Quality of Life.

Interpretations

According to \textit{a priori} definition of the school principals' quality of life for this research, the principals were identified as having a Positive Quality of Life (PQL) if 19 or more questions out of 29 were answered positively; on the other hand, if fewer than 19 questions were answered positively, the school principals were identified as having a Challenging Quality of Life (CQL). According to the number of positive responses for
the Positive and Challenging Quality of Life questionnaire, the school principals were
divided into either Cluster A or Cluster B. The finding showed that a priori definition of
the school principals’ quality of life used in this research was consistent with the
statistical analysis.

Summary

The Discriminate Functional Analysis was conducted and the finding thereof resulted in rejecting the null hypothesis of this study, that is, there was an experimentally important and experimentally consistent predictability of school principals’ quality of life using their workload and various demographic indicators as predictor variables. The findings of this research are generalizable to the K-12 school principals in Taiwan insofar as the principals were randomly selected throughout Taiwan with a sufficient sample size and return rate.

Primary Findings

The finding clearly suggested that principals have a limit to how many hours they may devote per week to their professions without sacrificing time away from the remaining portions of their lives in order to maintain a balanced life. The high percentage of school principals having a Challenging Quality of Life indicates that many Taiwanese principals are pushed to and beyond the limit of the number of hours they are able to devote to their professions before their quality of life deteriorates.

Related Findings

The Challenging Quality of Life K-12 school principals in Taiwan spent longer working hours on their jobs than did the Positive Quality of Life principals. If Taiwanese K-12 school principals who had a Challenging Quality of Life (CQL) could complete
their responsibilities by spending less hours working, they may be able to improve their quality of life as a Positive Quality of Life (PQL).

The finding apparently suggested that the Challenging Quality of Life principals experienced more difficulties in managing their time than the Positive Quality of Life principals. Although the data that were collected for this research did not emphasize a reason why the Positive Quality of Life principals managed their time better than the Challenging Quality of Life principals. This result found that perhaps some K-12 principals in Taiwan need to improve their time-management abilities.

An increasing dropout rate as an experimentally important and consistent predictor of a decreasing quality of life points to the realization by a school principal that perhaps too many things are in disrepair within the school district to allow for a timely solution to the problem. Improving the dropout rate may require district wide planning and improvement, and improvement is not likely to be immediately obvious.

*Additional Findings*

Female principals were more likely to have a Positive Quality of Life (PQL) than male principals regardless of common workplace factors, although this research did not gather reasons for this finding. Additional findings were consistent with the predictability of the Challenging Quality of Life principals based upon increasing dropout rate. Principals who perceive that their schools were not meeting expectations, as an increasing dropout rate might suggest, may not be willing to face the long term task of turning a number of poor or failing practices around in the school district in order to make widespread improvement. These principals often lose the desire to remain in their
jobs but while still in their place of employment, experience a challenging quality of life, possibly adding to a declining quality of education.

Another finding is very important as it clearly points to a reduction in a Positive Quality of Life when the secretarial workload is placed upon those who are educated and hired to serve in leadership positions. This finding underscores the importance of leaders serving as leaders and to require managerial and secretarial level of work from them not only frustrates the purpose for which these leaders have prepared themselves but is strongly associated with a diminished quality of life for school principals. Providing additional administrative assistance for principals can help to address this issue.

**Other Findings**

According to a priori definition of the school principals' quality of life for this research, the principals were identified as having a Positive Quality of Life (PQL) if 19 or more questions out of 29 were answered positively; on the other hand, if fewer than 19 questions were answered positively, the school principals were identified as having a Challenging Quality of Life (CQL). According to the number of positive responses for the Positive and Challenging Quality of Life questionnaire, the school principals were divided into either Cluster A or Cluster B. The finding showed that a priori definition of the school principals' quality of life using in this research was consistent with the statistical analysis.

**Research Question**

The research question for this study was: What is the relationship, if any, between school principals' workload and their quality of life in Taiwan? According to the findings of this research, there is a relationship between the principals’ workload and their quality
of life. More specifically, the number of hours worked per week has a negative relationship to positive quality of life.

Recommendations

The school principal is the essential leader in the improvement of education for all students. The principalship is vital to the quality of education for teaching and learning. It has been known for many years that principals play an important role in providing effectiveness, success, excellence, or improvement of education. Twenty-five years ago, Edmonds (1979) pointed out that the school principals have a critical impact on effective schools, and further described that "one of the most tangible and indispensable characteristics of effective schools is strong administrative leadership, without which the disparate elements of good schooling can neither be brought together nor kept together" (p. 32).

The problems or difficulties evidenced by overworked school principals will have a crucial impact on the quality of education. School principals who endure long working hours are at risk to quit the position, take an early retirement, leave education for another profession or return to classroom teaching. Consequently, these recommendations address the dilemma of how the principals might possibly complete their professional obligations without sacrificing their quality of life. Further, this research identifies the greatest challenge the principals face to their quality of life is an overly burdensome time requirement for each week. The following recommendations are a result of this research.

Organizational Structural Changes

This overburden of time requirement for the principal as found in this research suggest organizational structural changes. The first recommendation of this study is that
the Ministry of Education in Taiwan consider creating a position of assistant principal in the K-12 schools. This study found that as the school principals’ weekly working hours decreased, there was a tendency toward a more positive quality of life for principals. Therefore, the K-12 Taiwanese school principals may receive benefits from providing the support of the assistant principal. Additionally, assistant principals’ positions may offer the practical experiences for school principals’ candidates and for novice school principals to gain valuable experience. Such organizational change would make Taiwan K-12 leadership structure more consistent with western norms as evidenced in Chapter Two, page 46.

Second, this study recommends that the Ministry of Education in Taiwan consider a full-time secretary to assist school principals in the K-12 levels. According to the findings of this study, the percentage (92%) of school principals who indicated having no full-time secretary was very high. This study determined that school principals who had a full-time secretary reported that, at the end of the workday, still having sufficient energy to enjoy free time and believed that their work as a school principal does not increase the risks to having a long and healthy life. Consequently, providing secretarial support may make contributions to improving the quality of life as well as diminishing the working hours for the K-12 school principals in Taiwan resulting in a stronger education system.

The Passion and Dedication of the School Principal

This study recommends that current and prospective K-12 school principals in Taiwan, who do not perceive their quality of life as positive and who are over their threshold of working hours, maintain a positive attitude regarding their circumstances. This study provided a indication that a high percentage (46%) of the school principals
were identified as having a Challenging Quality of Life; so school principals should be aware that they do not each face a special individual problem and that principals should address the difficulties of long working hours in a way that retains a positive attitude toward their most important profession while seeking additional support to reasonably reduce their working hours. While the Challenging Quality of Life principals suggest numerous job related reasons for experiencing a challenging quality of life, the Positive Quality of Life principals indicate job related reasons for having a positive quality of life.

*School Principals’ Professional Development*

This study suggests that the Ministry of Education in Taiwan consider developing in-service training programs for the current and prospective school principals in K-12 levels. These in-service training programs may involve: (a) time-management strategies, (b) acquisition of technology skills and knowledge, and (c) an increased participatory management/leadership. Since the results of this study proposed that the K-12 school principals’ working hours in a week (59 hours) was over the legal governmental regulations (40-44 hours) in Taiwan, the Ministry of Education may need to provide more contributions, such as professional development for the principals, to assist principals to help them complete their workload in a more efficient and effective way.

*Educational Policy*

This research recommends that the Ministry of Education in Taiwan consider either diminishing the school principals’ workload for meeting visitors, public relationships, and communications or providing training programs related to these three duties for the K-12 school principals in Taiwan. Based upon the findings for this research, the school principals’ primary duties they ranked as trivial were ranked from the
highest to the lowest percentage and the top three duties were meeting visitors, public relationships, and communications. Hence, the educational authorities in Taiwan, the Ministry of Education, may want to reorganize principals’ duties, such as meeting visitors, or offer more opportunities of the professional development for the K-12 school principals in Taiwan in order to improve the ability to manage their time spent completing duties such as meeting visitors, public relationships, and communications.

Implications for Further Research

A study that employs qualitative research methodology should be conducted that will focus on a select group of subjects, such as a single study for gender principals. Qualitative studies could effectively uncover the existence of other variables affecting quality of life, and in addition, could increase the understanding of what (and how) personal and contextual factors relate to school principals’ quality of life.

More in-depth studies could be done to examine the relationship between school principals’ time-management skills and their quality of life. An impact study on the effect of a selected group of time-management approaches used by those principals indicative of Challenging Quality of Life principals who also indicated longer working hours in a week to see if there is an association with specific time management approaches and less effective use of time.

Reflections on the Study

The school principal directly influences the essential quality of education for the student. Problems or difficulties, such as high turnover rate and overwork, are associated with dissatisfied principals and impact the schools’ educational opportunities. What
relationship, if any, existed between school principals’ workload and their quality of life in Taiwan?

This study found that 54% of school principals were identified as having a Positive Quality of Life (PQL) while 46% of principals were indicated as having a Challenging Quality of Life (CQL). The findings of this study determined that there was an experimentally important and consistent predictability of a Challenging Quality of Life (CQL) using the students’ dropout rate as the predictor variable. There was an experimentally important and consistent predictability of a Positive Quality of Life (PQL) using actual hours school principals spent on their primary duties. An experimentally important and consistent predictability of both a Positive and a Challenging Quality of Life were found using the school principals’ weekly working hours as the predictor variable.

Considering the above, this study recommends the Ministry of Education in Taiwan consider (a) creating a position of assistant principal; (b) providing a full-time secretary to assist each school principal; (c) developing in-service training programs, such as time-management strategies, technology skills and knowledge, and participatory management/leadership; and (d) minimizing overly burdensome requirements in areas such as paperwork, regulations, and red tape. Because of the larger percentage of Challenging Quality of Life principals, the Ministry of Education in Taiwan would benefit K-12 education by providing additional recognition of the difficult job performed by school principals and encouraging them to maintain a positive attitude while the Ministry of Education seeks to address this issue.
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Appendix A

Cover Letter for School Principals
Dear Principal (Name),

I am writing to ask your help with a leadership study I am doing in fulfillment of my doctoral degree at The University of Montana. There is a serious concern regarding increasing workload of principals in Taiwan and the impact that may have upon the quality of their lives both in and apart from the workplace. This study is intended to contribute information to the understanding of principals’ workload and their quality of life in Taiwan. This will be a study of school principals’ perception of the relationship of their workloads with their quality of life.

You are one of 350 Taiwanese K-12 school principals selected at random for this study from the Directory of Schools (各級學校名錄) for 2003-2004, published by the Ministry of Education in Taiwan. As a participant, neither your identity nor that of your school will be reported. However, the return envelope has a code on it so that a reminder letter may be sent to schools that have not responded. Once your return envelope has been received, your school will be checked off with the others and the envelope will be destroyed so that your data will not be identified either by yourself or by the school you serve. The researcher and her dissertation chair will be the only persons with access to this code, which will be kept locked in a filing cabinet until data are entered. At the conclusion of data collection, the code will be destroyed. You may choose at any time to drop out of the study if you think it is appropriate to do so.

This demographic data will be used for descriptive purposes only; no names or schools will be mentioned and only group results will be reported. All identifying information will be destroyed immediately after the questionnaire has been received by the researcher.

Your participation is entirely voluntary. It will take approximately 20 minutes for you to complete this survey. Please use the self-addressed stamped envelope to return the questionnaire. Please do not write your name or the name of your school anywhere on the questionnaire or the return envelope.

Attached is a letter of support for this study from Dr. Merle J. Farrier, Department of Educational Leadership Faculty and the Chairperson of my Doctoral Dissertation Committee at The University of Montana.
Please return the completed materials before August 31, 2004. Approximately 10 days later a post card will be sent to you and serve as a thank you or possibly a reminder if you have not yet returned the questionnaire. If you have any questions or concerns please feel free to contact me. I thank you in advance for your valuable participation and thoughtful responses.

Respectfully requested,

Hui-Tzu Wu  
Doctoral Student  
Department of Educational Leadership  
School of Education, The University of Montana  
(406) 251-1255  
Email: huitzuwu@msn.com; hui-tzu.wu@umontana.edu

Dr. Merle J. Farrier  
Dissertation Chairperson
Appendix B

Chairperson Letter
July 21, 2004

Dear School Principal:

I have had the pleasure and honor of working with a number of Taiwanese doctorate students for the past four years. I am presently the chair of Ms Wu’s dissertation committee. Ms Wu has completed the defense of her dissertation proposal successfully before a committee of five professors all of whom found her research to be very important and interesting.

Ms Wu has selected researching the quality of life for school principals for her dissertation. This is a difficult topic to research; however, Ms Wu is very interested in improving the quality of education in Taiwan and she and her committee believe that her research into school principals’ quality of life may provide important information for assisting educational leaders to meet the challenges of educating Taiwan’s youth.

I hope that you will find time to participate in this study. Neither you nor your school will be identified in this research. Your school is coded on the return envelop in order to provide Ms Wu the opportunity to contact principals who may have forgotten to return the questionnaire or perhaps have mislaid it and would like another one.

On behalf of Ms Wu and the rest of her dissertation, I would like to thank you for your consideration in assisting her with this research. I am available to answer any further questions you may have regarding this research and your possible role therein at merle.farrier@mso.umt.edu.

Respectfully,

Merle J. Farrier, Ed.D.
The University of Montana
Missoula, MT 59812
Appendix C

Survey Instrument
Survey Instrument
Demographic Information

Please complete the following items in order to provide necessary information for conducting this research.

1. I am: □ Male □ Female

2. The year I was born: 19___

3. Number of years of higher education past bachelor's degree: ______ years

4. The number of years I have been a principal in this school? ______ years

5. The total number of years I have been a school principal? ______ years

6. Type of my school:
   □ Elementary school □ Public □ Urban
   □ Middle school □ Private □ Suburban
   □ High school □ Rural

7. My school size (enrollment of students): ___________

8. Ratio of students to teachers in my school: ___________

9. Dropout rate in my school: ________%

10. I am planning to retire in: ________ years

11. How many total hours within a typical full week do I spend on all school-related activities for current school? ________ hours

12. I have a full-time secretary? □ Yes □ No

13. I received my principal preparation program in the year of: ___ ___ ___
School Principal’s Workload
Please list the workload related to fulfill the responsibility as a school principal. Please list these duties, the time that ideally should be spent on that duty as well as actual time spent. Furthermore, please identify the nature of these duties as essential, important, or trivial work. Essential means absolutely necessary; important means something that should be done but can be skipped occasionally; trivial means that is required but could and probably be omitted. Please see an example provided at below.

An Example:

<table>
<thead>
<tr>
<th>Duty</th>
<th>Hours Per-Week Spend</th>
<th>Nature of the Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ideal</td>
<td>Actual</td>
</tr>
<tr>
<td>1. Student Discipline</td>
<td>1</td>
<td>12</td>
</tr>
</tbody>
</table>

Duty

<table>
<thead>
<tr>
<th>Hours Per-Week Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal</td>
</tr>
<tr>
<td>Meetings</td>
</tr>
<tr>
<td>Government Requirements</td>
</tr>
<tr>
<td>Communications</td>
</tr>
<tr>
<td>Instructional Leadership</td>
</tr>
<tr>
<td>Public Relationship</td>
</tr>
<tr>
<td>Meeting Visitors</td>
</tr>
<tr>
<td>In-School Activities</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

Note: The pilot study for this research identified that school principals’ primary duties that were italicized included meetings, government requirements, communications, instructional leadership, public relationships, meeting visitors, and in-school activities.
Quality of Life
Directions: For any items to which you wish to respond, please circle the response that best represents your experience. A space is provided beneath each item if you wish to elaborate on your response.

Health
1. I believe my work as a school principal has negative impact on my health. YES NO

2. I believe my job negatively impacts my personal life. (i.e., if you skip meals frequently because of your work, or have sleep disruptions, or forego recreation, etc., answer in the affirmative) YES NO

3. My job as a school principal causes me to experience more feelings of anxiety, anger or depression than I believe are healthy. YES NO

4. I believe my work as a school principal increases the risks to having a long and healthy life. YES NO

Economic
5. I am satisfied with what I am getting paid (my salary) for my work as a school principal. YES NO

6. My work as a school principal provides enough compensation so that I can enjoy my out of school time. YES NO

7. My work as a school principal provides good health benefits. YES NO

8. My work as a school principal provides good social status. YES NO

9. My work as a school principal provides good retirements. YES NO

Relationships
10. I have good friends in my work place. YES NO
11. I feel that in general the climate of my work place is warm and friendly.  

YES  NO

12. My work as a school principal is supported by others (please circle all who apply):

Family, Staff, Students, Teachers, Parents, Community members,

The Director of the Bureau of Education, Other

13. I find it rewarding to work with the following people in my capacity as a school principal (please circle all who apply):

Other employees, Community, Children, Other (Please List)

Actualization

14. I appreciate the opportunity to be a school principal.  

YES  NO

15. What I do every day as a school principal is what I have been educated and prepared to do.  

YES  NO

16. I am always learning new knowledge that helps me do my work better.  

YES  NO

17. My work as a school principal is meaningful in a positive way.  

YES  NO

Job satisfaction

18. Serving as a school principal allows me to accomplish my professional goals.  

YES  NO

19. I feel frustrated with my work.  

YES  NO

20. I have plans to improve my working environment in the future.  

YES  NO  Not Necessary

21. I am happy because I have accomplished many worthwhile things in my work.  

YES  NO
### Challenge

22. At the end of the workday, I still have sufficient energy to enjoy free time.  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

23. I am difficult to get along with by the end of day.  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

24. I enjoy beginning my workday thinking about the work I have to do as a school principal.  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

25. My present circumstances cause me to consider leaving my work as a school principal.  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

### Work-life balance

26. I enjoy life while serving as a school principal.  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

27. My work as a school principal is an important part of my life.  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

28. I have enough time away from my work to enjoy other things in my life.  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

29. My work as a school principal helps me to enjoy myself outside of school.  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

30. I am considering another type of work in order to improve the quality of my life.  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

   If yes, please respond to the following:

   Type of work

   When do I plan to change job?

   Why am I changing jobs?

31. What single factor at my work place makes the most important contribution to the quality of my life?

   ____________________________________________________________
Appendix D

Survey Instrument (Chinese)
調查問卷

基本資料
請回答下列的問題以利提供此研究一些重要的資訊

1. 我的性別： □男 □女

2. 我的出生年： 1 9 _ _

3. 我獲得大學（大專）文憑之後，又接受幾年的高等教育（研究所）： _____年

4. 我擔任現職校長有： _____年

5. 我擔任校長的經歷總共有： _____年

6. 我目前服務的學校是： □國小 □公立 □市區
   □國中 □私立 □城鄉地區
   □高中 □偏遠地區

7. 我目前服務的學校總共有： _______ 學生

8. 我目前服務的學校學生與老師的比率是： _______

9. 我目前服務的學校輟學率是： _______%

10. 我計劃幾年內要退休： _______年

11. 我每週工作時數平均是多少小時？ _______時

12. 我有否全職的秘書協助校長的工作： □是 □否

13. 我的校長培訓是在哪一年： _______年
學校校長的工作負荷

請列出有關學校校長的責任與工作。請列出各項工作職責理想上應該使用的時間與實際上所使用的時間。並請確認所列的項目之工作類型本質是“不可缺的”、“重要的”或是“瑣碎的”。不可缺的工作本質代表某事絕對要去做；重要的工作本質代表某事必須去做但可隨時可以省略不去做；瑣碎的工作本質代表某事被要求去做，但是也許能夠被省略不用做。請看下述舉例說明。

<table>
<thead>
<tr>
<th>工作職責項目</th>
<th>每週所花時間（小時）</th>
<th>工作的類型</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>理想上</td>
<td>實際上</td>
</tr>
<tr>
<td>處理學校公文</td>
<td>3</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>工作職責項目</th>
<th>每週所花時間（小時）</th>
<th>工作的類型</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 主持會議</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. 處理公文</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. 電話往來</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. 教室巡堂</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. 對外聯繫</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. 接待外賓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. 參與校內外活動</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. 其他</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. 其他</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. 其他</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
生活品質

填寫說明：您在填寫下列問題時，請選擇最能代表您的想法與經驗的選項。假如您想提供更多的資訊，請在每一題所提供的空白處填寫。

健康因素

1. 我擔任學校校長的職務，會對我的健康造成負面影響。
   □是   □否

2. 我相信我擔任學校校長的職務，會對我的個人生活造成負面影響。（舉例：假如您經常因工作因素而沒時間吃飯，或是因工作因素您睡眠狀況不佳，或是因工作因素您放棄休閒與恢復精神的時間，或其他。請肯定回答。）
   □是   □否

3. 我擔任學校校長的職務，會使我造成較多的緊張、易怒，或是沮喪的感覺，並且我相信這些負面的感覺已經超過我認為是健康者所能接受的範圍。
   □是   □否

4. 我相信我擔任學校校長的職務，會增加對長壽與健康生活產生較多的風險。
   □是   □否

經濟因素

5. 我滿意目前我擔任學校校長的工作所領取的薪水。
   □是   □否

6. 我擔任學校校長的職務，所得的報酬使得我能夠享受下班後的生活。
   □是   □否

7. 我擔任學校校長的職務，比擔任其它教育人員的職務，提供我較好的健康福利制度。
   □是   □否

8. 我擔任學校校長的職務，比擔任其它教育人員的職務，提供我較好的社會地位。
   □是   □否

9. 我擔任學校校長的職務，比擔任其它教育人員的職務，提供我較好的退休制度。
   □是   □否
關係因素
10. 在我的工作環境中，我能夠結交到好的朋友。 □是 □否

11. 一般而言，我覺得我工作場所的氣氛是溫馨與友善的。 □是 □否

12. 我擔任學校校長的職務是受到下述人員的支持（請圈選支持我的對象，可複選）。
□ 我的家庭成員 □ 學生 □ 老師
□ 學校行政人員 □ 家長 □ 學校社區的成員
□ 我的上級機關（例如：教育局） □ 其他____________

13. 做為一個學校校長，我發現與下述人員一起工作是有價值的。
□ 學校工作成員 □ 學校社區成員 □ 學生
□ 其他____________

成就因素
14. 我感謝我有此機會能擔任學校校長。 □是 □否

15. 我擔任學校校長每天所做的事情，正是我一直以來所被教育與培訓要做的事情。
□是 □否

16. 我總是持續學習新的知識，以便幫助我將我的工作做的更好。
□是 □否

17. 我擔任學校校長的職務，對我而言是具有正面價值意義的。
□是 □否

工作滿意因素
18. 能夠成爲學校校長，讓我完成了我個人的目標。 □是 □否

19. 對於我的學校校長工作我覺得很挫敗。 □是 □否
20. 我有計劃在未來要改進我的工作環境。

□是  □否  □不需要

21. 我覺得高興，因爲在工作中我完成了很多有意義的事情。

□是  □否

挑戰性因素
22. 一天工作下來，我仍然有足夠的精力去享受空閒的時間。

□是  □否

23. 一天工作下來，使我變得難和同事和睦共處。

□是  □否

24. 當每天工作開始時，想到身為學校校長該做的那些事情，會讓我覺得是一種享受。

□是  □否

25. 我目前擔任學校校長的工作狀況，會使我有想要換工作的想法。

□是  □否

工作與生活平衡的因素
26. 當我的角色是擔任學校校長時，讓我覺得是一種生活享受。

□是  □否

27. 我擔任學校校長的職務，是我生活中很重要的一部份。

□是  □否

28. 我有足夠的下班時間去享受我生活中的其他事情。

□是  □否

29. 我擔任學校校長的職務，能幫助我去享受工作以外的部分。

□是  □否

30. 爲了增進我的生活品質，我有考慮要換工作。

□是  □否

假如圈選“是”，請回答下列問題：
想換什麼工作？
計劃什麼時候要換工作？

為什麼要換工作？

31. 在我的工作環境中，哪一項原因對我的生活品質提供最重要的貢獻。 (例如：個人成就，
校長的薪資等等)