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Spiritual Leadership, School Climate, and Teacher Collective Efficacy in Asian International Schools

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Concordia University–Portland

College of Education

Doctorate of Education Program

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Spiritual Leadership, School Climate, and Teacher Collective Efficacy
in Asian International Schools

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Concordia University Portland

College of Education

Dissertation submitted to the Faculty of the College of Education

in partial fulfillment of the requirements for the degree of

Doctor of Education in Educational Administration

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Abstract

This research explored whether spiritual leadership could predict teacher collective efficacy and school climate in Asian international schools. Fifteen international schools from nine countries elected to participate and 104 teachers completed an online survey. Linear regression and multiple regression were used to discover a prediction equation linking spiritual leadership to the outcomes of teacher collective efficacy and school climate. Findings from this study indicated that spiritual leadership significantly predicted teacher collective efficacy accounting for 28.3% of the variation, a small effect according to Cohen (1988). Further, spiritual leadership significantly predicted school climate accounting for 44.1.3% of the variation, a medium effect according to Cohen (1988). Using multiple regression, it was found that four of the six components of spiritual leadership added significantly to the prediction of teacher collective efficacy, $p < .05$ while all six components of spiritual leadership added significantly to the prediction of school climate, $p < .05$. It is recommended that more research is needed to examine this spiritual leadership theory in schools and in international schools, specifically research with larger samples.

Keywords: spiritual leadership, teacher collective efficacy, school climate, international school

Dedication

This educational journey is dedicated to my wife
who has given me inspiration and support.

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Chapter 1: Introduction

The relatively new focus on spiritual leadership in management literature and the limited research in the field of spiritual leadership in education prompted this study. This research aimed to explore the relationship of spiritual leadership with two established constructs for quality schools: school climate and teacher collective efficacy (Adams & Forsyth, 2006; Bandura, 1997; Goddard and Skrla, 2006; Haynes, Emmons & Ben-Avie, 1997; Hoy, 2012; Welsh, 2000). The results of this study will add to the growing body of knowledge in spiritual leadership applied to schools as well as contribute to the field of research specific to international schools and international education.

School leadership has been studied through many lenses and spiritual leadership is a promising field of study relatively new to educational research. The concept of spiritual leadership is not new. However, spiritual leadership has received more attention from scholars and others in recent years. One pioneer researcher of spiritual leadership is Jodi Fry. Fry and his colleagues have developed a spiritual leadership framework to enhance organizational development for many diverse organizations including schools (Fry, 2003;; Fry & Matherly, 2006; Fry, Matherly, Whittington & Winston, 2007; Fry & Nisiewicz, 2013; Fry, Vitucci & Cedillo, 2005).

School leadership is second only to teacher instruction among school-related factors which contribute to student learning and is a key factor in accounting for differences in student achievement (Leithwood, Louis, Anderson & Walhstrom, 2004). However, there is limited research which supports the direct effects of school leadership on student achievement (Silva, White, & Yoshida, 2011), but a substantial amount of research supports an indirect yet significant effect on student achievement (Hallinger, 2011; Leithwood, Patten, & Jantzi, 2010).

School leaders influence student achievement indirectly through factors which emphasize teaching and learning such as managing and supporting instructional programs, articulating clear curricular goals, motivating staff, building capacity, providing staff development, and creating a positive school environment (Louis, Leithwood, Wahlstrom & Anderson, 2010; Sebastian & Allensworth, 2012; Valentine & Prater, 2011).

The role of leadership in shaping a school culture is also addressed by Peterson and Deal (2011). School leaders communicate core values in their everyday work and teachers in turn reinforce these values in their actions and words. (Peterson & Deal, 2011) Peterson and Deal contend the role of school leaders is pervasive: their words, their actions and their accomplishments all contribute toward creating a school culture. At schools, teachers have the most contact with students; thus, their role in shaping the culture of a school is crucial. To make it more challenging, teachers and students in international schools have the daunting task of working and learning in a foreign country. Cross-cultural differences, language barriers, and multiple educational agendas and philosophies need to be negotiated for a school to be successful. All these factors combine into what becomes the culture of the school.

To complicate matters, Mizzi, and O'Brien-Klewchuk (2016) argue that most international schools and teacher preparation programs in colleges do not adequately prepare teachers for the challenges in moving abroad and working in an international environment. International schools need leaders who can help their teachers successfully make this transition. These leaders also have the added complication of attending to the business side of private education. MacDonald (2006) argues successful international school leaders need to address two bottom lines: the educational bottom line and the business bottom line as the vast majority of international schools are independent, non-profit, or for-profit entities. It is not coincidental that

school heads average less than four years in their position (Benson, 2011). Spiritual leadership may be a promising leadership framework for international school heads if it can be shown to improve important school constructs such as teacher collective efficacy and school climate in international schools.

Background and Context

The Association of American Residents Overseas (AARO) estimated there were nearly two million Americans living across Asia in 2011 (AARO, 2017). Throughout Asia the number of international schools has consistently grown (Brummitt & Keeling, 2013). Many of these international schools were founded to meet the needs of expatriate families so their children could be accepted into reputable universities in their home countries (Dunne & Edwards, 2010). An ever-increasing number of for-profit schools are also joining the legions of schools as large markets can often lead to profitable education business. International schools typically choose a national or global curriculum to follow such as the International Baccalaureate program, Common Core, or International Primary Curriculum. Furthermore, to help guide school development, schools seek accreditation by one or more national or international accreditation bodies such as the Council of International Schools (CIS), Western Association of Schools and Colleges (WASC), or Association of Christian Schools International (ACSI). In pursuit of initial accreditation and to maintain accredited status, schools must adhere to a school improvement cycle where schools continuously study their processes and products, plan and monitor improvements, reevaluate, and start again (WASC, 2017).

International schools are unique educational institutions with a variety of criteria that separate these organizations from other schools around the world, such as curricular focus, student and teacher demographics, and multilingual environments (Walker, 2016). These

schools, by nature, are generally complex cultural settings with schools often serving students and families from many different nations, linguistic backgrounds, and cultures (Bunnell, 2016). Therefore, to better understand school leadership within this realm it is vital for further studies to be conducted with this specific population. In addition to the need for further research related to school leadership within international schools, there is very limited information in terms of spiritual leadership and very limited research on school climate and teacher collective efficacy in this environment.

The popularity of international schools continues to increase throughout the world. The estimated number of international schools worldwide was 1700 in April 2000, 3,800 in July 2006, 6,700 in 2012 and 7,000 in 2014 (Brummitt, 2007; Brummitt & Keeling, 2013). By 2022 Brummitt and Keeling (2013) estimate there will be over 11,000 international schools worldwide. Finding quality teachers willing to work overseas is becoming increasingly difficult. According to the most recent data from the Schools and Staffing Survey published by the National Center of Education Statistics (2009), 16.2% of public and private school teachers leave their school each year. For international schools the figure is slightly higher at 17% (Mancuso, Roberts, White, Yoshida & Weston, 2011).

International schools often experience rapid turnover of students as well as staff which can cause disruption in the self-organization, connectivity and interdependence of the teaching faculty (Bunnell, Fertig & James, 2016). Recruiting new teachers for overseas service requires a significant cost and the high turnover rate negatively influences a school's reputation, productivity and staff morale (Holmyard, 2016). Holding on to highly effective teachers enriches the culture of schools. In addition to the transferring of history, experience and best practices to new staff members, veteran teachers convey confidence and steadfastness to parents

and students (Heck & Mahoe, 2010; Looney, 2011). Often international schools choose to report the average years of teaching experience as well as advanced degrees the teaching staff possess in order to strengthen the standing of the school.

With the increasingly competitive recruitment market, international school leaders need access to the best leadership strategies to ensure they empower and retain their teachers. A spiritual leadership model as proposed by Fry (2003, 2013) or aspects of it may offer additional tools and a new perspective for international school leaders. However, much more research needs to be undertaken to examine the strengths and limitations of applying spiritual leadership principals in a school setting.

Conceptual Framework

Fry's (2003, 2013) spiritual leadership model suggests organizations which foster spiritual wellbeing through modeling altruistic love, vision, and hope/faith will create a sense of membership and calling in the employees which will raise organizational commitment, life satisfaction, and productivity. In a school setting, one aspect of productivity can be thought of as student achievement and wellbeing. However, linking leadership behavior to student performance in a large geographical area with schools using very different curriculums and teaching significantly different student populations is very problematic at best. However, irrespective of student demographics and curriculum used, all international schools have school leaders and international teachers. Therefore, as a proxy for student achievement and productivity, this quantitative study examined teachers' perceptions of spiritual leadership, school climate and teacher collective efficacy.

School climate has been often cited as a powerful force within schools with many effects and influencing student achievement, teacher morale and improved motivation (Cohen, McCabe,

Michelli, & Pickeral, 2009; Thapa, Cohen, Guffey & Higgins-D'Alessandro, 2013). School climate has also been widely reported to be an important influence for school development and initiatives (Daly, 2008; Sailes, 2008). For the purposes of this study, school climate is defined as the relations between teachers and administrators, teachers and students, the school and the community, and the school with the students (Hoy, Smith, & Sweetland, 2003).

Teacher collective efficacy, which describes the attitudes and perceptions of colleagues' ability to help all students succeed, is another concept which has been shown to be linked to student achievement, healthy school climates, and student and teacher wellbeing (Goddard, Hoy, & Hoy, 2000; Klassen, 2010; Lim & Eo, 2014; Tschannen-Moran & Barr, 2004; Tschannen-Moran & Hoy, 2000). Embedded in Bandura's (1997) Social Cognitive Theory, collective efficacy is determined by mastery experiences, physical and affective states, vicarious experiences, and social persuasion.

Schools which score highly in spiritual leadership should have a strong, unifying vision, demonstrate altruistic love and respect for all members of the school community, and a faith and hope that the school team can accomplish its vision (Malone & Fry, 2003). In this atmosphere it was predicted that teacher collective efficacy would be high and the school climate would be very conducive for student learning. Figure 1 illustrates the revised model of spiritual leadership.

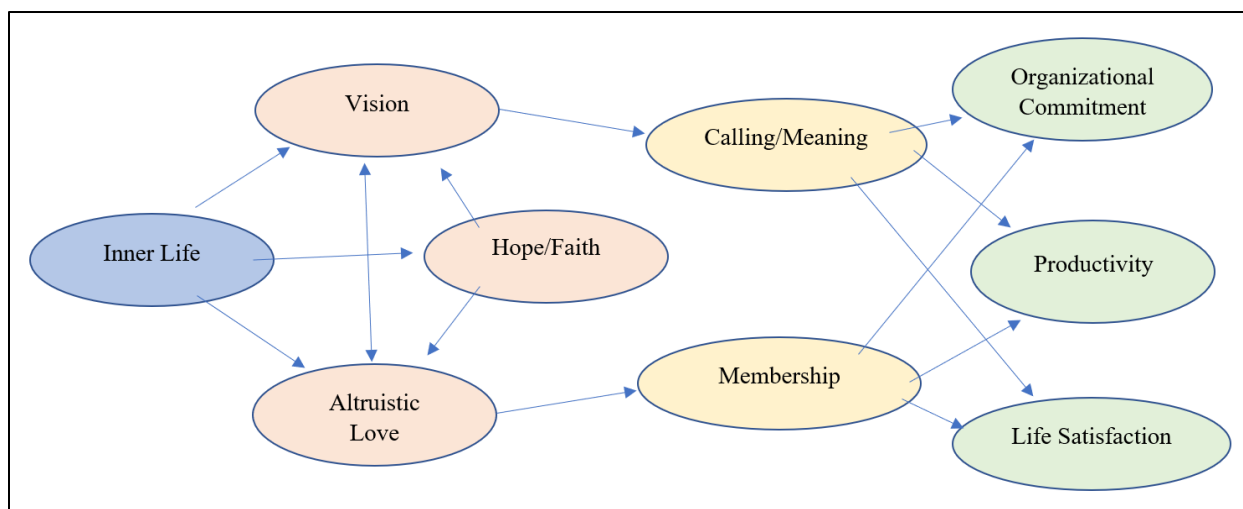


Figure 1. Spiritual Leadership Model.

Adapted from the revised model of spiritual leadership (Fry & Slocum, 2008).

Statement of the Problem

Research results vary between different school contexts based on the distinctive and dynamic nature of school communities, but there is stability among research results which indicates that individual teachers have a significant impact upon student achievement outcomes (Harris & Sass, 2011; Stronge, Ward, & Grant, 2011). Therefore, there is a natural need to better understand and support practices and factors that increase the efficacy of individual teachers. School leadership has been found to be a key factor for teacher satisfaction and effectiveness in overseas schools (Josanov-Vrgovic & Pavlovic, 2014; Mancuso et al., 2011; Odland & Ruzicka, 2009). Research of spiritual leadership in diverse settings from corporations, army units, healthcare and non-profits have led some educators and researchers to examine this framework in school settings (Abdizadeh & Khiabani, 2014; Chen and Yang, 2012; Chen, Yang & Li, 2012; Fry, 2003; Fry, Lantham, Clinebell, & Krahnke, 2016; Fry & Slocum, 2008). International schools are similar to national public and private schools but have unique challenges for teachers and school leaders. However, spiritual leadership has not been explored in this context.

Purpose of the Study

The aim of this study was to further our understanding of spiritual leadership in international schools by examining the relationship between spiritual leadership and two constructs known to be highly correlated to student learning and healthy schools: school climate and teacher collective efficacy (Adams & Forsyth, 2006; Bandura, 1997; Goddard and Skrla, 2006; Haynes et al., 1997; Hoy, 2012; Welsh, 2000). It is the purpose of this study to discover how spiritual leadership and its subcomponents might be associated with these constructs.

Research Questions

The following research questions will guide this study:

1. What is the predictive relationship between spiritual leadership and teacher collective efficacy?
2. What is the predictive relationship between spiritual leadership and school climate?
3. How do the components of spiritual leadership contribute to the prediction of teacher collective efficacy?
4. How do the components of spiritual leadership contribute to the prediction school climate?

The first two research questions lay the foundation of this research in an attempt to show that spiritual leadership can predict teacher collective efficacy and school climate. The second two research questions expand and elaborate the first two by parsing out the individual components of spiritual leadership to see which components of spiritual leadership contribute to the prediction of teacher collective efficacy and school climate.

Significance of the Study

The outcomes of the study may help teachers, who have a significant impact upon student achievement outcomes (Harris & Sass, 2011; Stronge, Ward, & Grant, 2011), identify support practices and factors that increase the efficacy of individual teachers. A study in Turkey, using the same spiritual leadership survey instrument as this study, examined how spiritual leadership is related to teachers' organizational leadership behaviors (Bozkurt & Toremeh, 2015). By continuing in this exploration of spiritual leadership this study may extend teacher support in this specialized but growing environment of international schools.

Definition of Terms

The following definitions are provided to clarify key terms and concepts which are used in this study.

Altruistic love. As an essential component to the spiritual leadership model, altruistic love is the care, concern, and appreciation for both self and others producing a sense of wholeness, harmony and wellbeing (Fry, 2003).

Calling. Having a deep inner conviction to doing something worthwhile and supported by an organization with a shared vision/mission and altruistic and loving leaders who demonstrate faith and hope in the organization and its people (Fry & Nisiewicz, 2013).

Hope/Faith. Hope and faith are components of the spiritual leadership model (Fry, 2003, 2013). Together they bring about a belief a future state will take place, even with limited evidence (Fry & Nisiewicz, 2013).

Inner Life. A state of inner peace and strength developed through spiritual activities such as prayer, yoga, and meditation (Fry and Nisiewicz, 2013).

Institutional vulnerability. A subscale in the organizational climate index, institutional vulnerability represents the extent to which a few vocal parents or minority groups have political influence which can disrupt the school. More vulnerability suggests both teachers and principals may be unprotected and react in a defensive manner (Hoy, Smith & Sweetland, 2003).

International school. Any school whose dominant language of instruction is English, and provides a curriculum from outside the host country (International School Consultancy, 2016).

Leadership. Engaging others to work towards shared goals (Fertig & James, 2016).

Life satisfaction. Personal experiences where life has purpose or where life is perceived as richer with higher quality (Fry et al., 2016).

Meaning/calling. Refers to how someone can make an impact through service to others which augments meaning and purpose in life (Fry & Nisiewicz, 2013).

Membership: The feeling of connection and being understood and appreciated for the contributions to the organization and its vision/mission (Fry, 2003).

Organizational commitment. A feeling of attachment and loyalty towards an organization (Fry & Nisiewicz, 2013).

Productivity. Work based on an optimal use of available resources that continues to improve through innovation (Sadeghifar, Bahadori, Baldacchino, Raadabadi, & Jafari, 2014).

School climate. The relations between teachers and administrators, teachers and students, the school and the community, and the school with the students (Hoy, Smith & Sweetland, 2003).

Spiritual Leadership. The process of “intrinsically motivating and inspiring workers through hope/faith in a vision or service to key stakeholders and a corporate culture based on altruistic love” (Fry & Nisiewicz, Kindle loc. 206, 2013).

Spiritual wellbeing. Two primary mechanisms that include: a) a sense of wholeness, calling or being called vocationally and b) a need for social connection or membership. Spiritual wellbeing may also be perceived as a universal need for human interconnection (Fry et al., 2011; Fry & Nisiewicz, 2013) .

Spirituality. Reflects the presence of a relationship with a higher power or being and a feeling of interconnectedness that affects the way in which one operates in the world. (Fry et al., 2016; Kriger & Seng, 2005).

Teacher collective efficacy. Teacher collective efficacy is represented by instructional strategies and student discipline. Instructional strategies refer to the perception that one's colleagues use highly effective strategies to engage students in the classroom. Student discipline refers to a perception of fellow colleagues' ability to manage student behavior to ensure learning is facilitated in the school (Tschannen-Moran & Barr, 2004).

Vision. Defining the destination and journey that reflects high ideals, encourages hope /faith, and establishes a standard of excellence by describing a picture of the future with some implicit or explicit commentary on why people should strive to create that future (Fry & Nisiewicz, 2013).

Workplace spirituality. An organizational framework based on a culture that promotes employees' experience of transcendence through operational protocols, development of connections, provisions of compassion, and experiences of joy (Giacalone & Jurkiewicz, 2003).

Assumptions

For this research, assumptions are that teachers cooperated from their own free will and provided answers that accurately revealed their personal opinions rather than an expected response. Other assumptions include participants are who they claim to be and acted in good

faith. Members participating in this survey are assumed to have responded to the survey questions truthfully. Only individuals employed in an international school in Asia at time of the study were invited to participate to ensure the data collected accurately reflected current work conditions. Finally, the research strived to reveal the relationship between spiritual leadership and outcome measures using the revised Spiritual Leadership Survey (Fry, 2015), the short form of the collective teacher efficacy instrument (Goddard, 2002) and the organizational climate index (Hoy, Smith & Sweetland, 2003).

Limitations

This study was conducted with teachers from international schools from across Asia. The schools selected consist of fifteen international schools spread across nine countries. The willingness of schools to participate in the study limited the number of schools in the study. The results of the small sample may limit the transferability of results to the general international school population. This study focused solely on the relationship between spiritual leadership, teacher collective efficacy and school climate. There are multiple factors that play a critical role in teacher collective efficacy and school climate as well as interaction effects. However, there is a limit to the ability to control every factor in order to isolate spiritual leadership as the only variable when measuring teacher collective efficacy and school climate.

A further limitation is the fact that a pilot was not used for the survey instrument. The survey instrument combined three established surveys which were found to be valid and reliable individually, but had not been used collectively in one combined instrument.

Delimitations

This study was delimited to surveying teaching professionals currently employed within an Asian international school setting. The sample included kindergarten, primary, middle school

and high school teachers. The survey instrument combined three previously published surveys into one composite survey: the revised Spiritual Leadership Survey that included 40 questions (Fry, 2015), all 12 questions from the short form of the teacher collective efficacy instrument (Goddard, 2002) and all 30 questions from the organizational climate index (Hoy, Smith & Sweetland, 2003). These can be found in the appendices.

Summary

Chapter one of this study examined the background and current state of spiritual leadership and the context of international schools. The problem of limited research studies and a burgeoning interest in spiritual leadership prompted this research which seeks to add to the growing body of studies and begin a special focus on spiritual leadership in an international school context. School climate and teacher collective efficacy are described and shown to be valuable components of a healthy school. By examining the relationships between spiritual leadership, teacher collective efficacy and school climate this research will help to illuminate aspects of spiritual leadership in an international school setting. The first chapter finished by defining key terminology and how they will be used in this study.

Chapter 2: Literature Review

Introduction to the Literature Review

This chapter reviews research covering the context of this study and the three primary constructs of this study: school climate, collective teacher efficacy and spiritual leadership. As will be reviewed below, a positive school climate and collective teacher efficacy have both been shown to affect many school outcomes, such as the study conducted by Lim and Eo (2014) which found both teacher collective efficacy and a positive school climate were associated with low rates of reported teacher burn out in Korean schools. However, the construct of spiritual leadership is relatively new to educational research and has yet to be studied together with collective teacher efficacy and school climate. This chapter will describe the conceptual framework of the study, examine the nature of an international school, give a background of the three constructs, review pertinent literature and the methodological literature, and finally address methodological issues.

Conceptual Framework

Fry (2003) has been instrumental in developing spiritual leadership theory (SLT) to be used in many endeavors including businesses, the armed services and educational institutions. The original spiritual leadership model places productivity and unit or group productivity as a product of spiritual leadership. Later, Fry (2008) added life satisfaction as another output of spiritual leadership and inner life as a source of spiritual leadership. This study will use Fry's (2008) revised model of spiritual leadership and examine if and where there are relationships between the components of spiritual leadership with school climate and collective teacher efficacy. What follows is a closer look at these concepts guiding the study.

Spiritual leadership. Spiritual leadership theory was largely developed by Jodi Fry. His spiritual leadership theory is built upon his research and research in the fields of business management, organization development, leadership studies, and spirituality. Spiritual leadership theory is grounded in altruistic love and explains how faith, hope, vision and cultural values combine into a motivating force which also satisfies basic needs for spirituality (Fry, 2003; Fry & Nisiewicz, 2013). Fry (2003) suggested that spiritual leadership is required for an organization to transform into and sustain a learning organization. Fry and Nisiewicz (2013) posit spiritual leadership can lead toward organizational transformation to create a learning organization with increased intrinsic motivation. A learning organization empowers its people to constantly engage in behaviors and attitude's which further the mission and strategy of the organization by committing to innovation, creativity, experimenting and creating new leaders (Senge, 2006).

To help support teachers in their many challenges they face, some schools have formally pursued spirituality (Malone & Fry, 2003). Also, to achieve organizational success and wellbeing, leaders in many industries have turned toward spirituality (Fry & Matherly, 2006). Researchers have explored spirituality in settings as diverse as manufacturing companies, service companies, the health industries and the army (Ashmos & Duchon, 2000; Fry & Matherly, 2006). Ashmos and Duchon (2000) suggested that more and more researchers and work leaders find workplace spirituality a necessity to build powerful interactions between organizations and their manpower, and even between organizations and the larger societal context. Spiritual leadership theory, although still being developed and explored, holds promise to aid school leaders as they guide their communities toward an uncertain future.

Collective teacher efficacy. Human behavior, according to Bandura (1994), is motivated by two expectations: self-efficacy and outcome expectancy. Outcome expectancy includes judgements about the consequences a particular performance would cause. Teacher self-efficacy studies have mostly been conceptualized within Bandura's (1994) self-efficacy framework. Bandura (1994) describes teacher self-efficacy as how confident teachers are in their ability to support student achievement. To put it another way, a teacher may believe a particular behavior would elicit a desired result (outcome expectancy) but not believe they have the skills to perform the behavior effectively (self-efficacy). Bandura (1986, 1997) described four sources of information about efficacy: mastery experience, physiological arousal, vicarious experience and verbal persuasion. According to social cognitive theory, teachers' analysis and interpretation of the four source of information are the major influence on efficacy beliefs (Bandura, 1986, 1997).

Teacher self-efficacy is a powerful construct which impacts students and the school community. Bandura (1997) also argued the integrated community system also develops collective efficacy, which is the overriding belief in a group's capability to attain goals and accomplish tasks. He further states it is in the nature of the relationships and interdependencies among teachers and leaders which contribute to collective teacher efficacy and impact teacher self-efficacy. Goddard and Skrla (2006) found three categories which influences collective teacher efficacy: teacher factors (ethnicity, gender, and experience), student factors (ethnicity, gender, socio-economic status, and prior achievement), and school factors (experience, tenure, and diversity of teachers). Furthermore, Adams and Forsyth (2006) found three variables which impact collective teacher efficacy: socioeconomic status, school level, and school structure.

Creating an environment which promotes a collective teacher efficacy can be a critical component of a school culture. Spiritual leadership may be an effective means to promote

teachers' self-efficacy through commitment to excellence and creating a learning organization which promotes caring and teamwork. The literature review will be limited to teacher collective efficacy studies in international school settings or comparing with school climate. This is the first study to explore teacher collective efficacy and spiritual leadership.

School climate. Much research has been done on school climate and Haynes et al. (1997) stated research on school climate was of central importance to query into factors associated with student success and learning. They additionally stated that further factors, such as school setting and the quality of relationships among school members, are potential factors in student engagement and achievement. Hoy (2012) has stated that school climate is affected by multiple factors such as the physical dimensions of a school, the demographical and cultural backgrounds of school community members, the quality of relationships among school community members and shared norms, values and beliefs prevailing in schools that overall impact student engagement and achievement. Furthermore, damaging school climates have been described by routine workloads, minimal job engagement and satisfaction, and principals' lack of leadership skills (Hoy, 2012). Welsh (2000) noted an unhealthy school climate limits the creativity of all school community members and results in teachers' and administrators' low job satisfaction, isolation, and aggression.

Review of Research and Methodological Literature

Research in spiritual leadership, school climate and teacher collective efficacy provides insight into the inner workings of a school and how faculty and school leaders interact to form a dynamic web of relationships. This portion of the literature review will explore research findings and expand upon some of the constructs embedded within the terminology. It is divided

into four parts: international schools, spiritual leadership, collective teacher efficacy, and school climate.

International schools. The body of literature directly related to international school education continues to expand and it is evident that this area of research is considered to be of value to the field. Despite the growing number of studies in international schools, there are significant gaps in the literature that require further research. In consideration of the fact that there are over 8,000 international schools worldwide serving more than 4 million students, it is essential to investigate leadership within this distinct population instead of relying upon generalizations from the general education field (ICEF Monitor, 2016).

International schools are mostly private, therefore exclusive. Most admissions departments of these schools have restrictive policies. International schools are often inconsistent, in that they seek contact with the global society, yet are insular; celebrate diversity, but are often mono-cultural; based on experiential learning, but strive for global certification; and promote community service action while building competitive advantage (Waterson, 2016). International schools, by nature, are generally complex cultural settings, with schools often serving students and families from many different nations, linguistic backgrounds, and cultures (Halicioglu, 2016). Some international schools may look and feel very similar to national, independent schools. Many of these international schools, particularly those linked to embassies, strive to recreate a national school experience. The presence of international schools is so expansive as to require an Office of Overseas Schools (O.S.S.) embedded in the U.S. Department of State.

International schools function completely outside the oversight of any local, regional, or national school system. They are often immune from many national laws that strive for balance

and access to educational, economic, and political resources. There is no external accountability or laws, like government departments of education, which govern international schools, other than accreditation agencies that make recommendations towards school development (Waterson, 2016). Accountability is left to the ethics of those who write and enact school policies. The exceptionality resulting from admissions screening and high tuition costs contributes to shielding the international school environment from self-reflexive monitoring and action (Tate, 2016). Administrators and faculty answer only to the local governing board or school owner. The only tie to national education systems is through accreditation from national or international organizations that confirm the academic rigor of an international school's program as satisfactory for students to move from them into national school or university programs (Fertig & James, 2016).

Multi-national corporations are increasingly becoming more diverse culturally and ethnically as specialists are hired from around the globe. Accredited international schools provide expatriate families with viable educational opportunities whilst overseas and are an important commodity to support this global trend (Waterson, 2016). Increasingly, multi-national corporations are investing in international schools. Two decades ago most international schools were non-profit entities started by expatriate parents but by 2014 two-thirds of international schools were for-profit entities (Waterson, 2016).

International schools and complexity theory. Complexity can be better understood by comparing the words *complicated* and *complex*. Something is complicated if it can be readily explained by its component parts. Rather, something is complex when the interactions among its various parts are such that it cannot be fully understood simply by describing its components. Building on this concept of complexity Fertig and James (2016) examine schools

from the perspective of complex, evolving, loosely linking systems or CELLS. Thinking of schools as complex is not difficult to imagine but Holland (2014) characterizes a human complex system in which the system self-organizes and patterns are created; adaptive interactions between agents act to modify strategies in multiple ways as their experience grows; and agents interact and respond to what is happening to the system, leading to adaptation and evolution.

In loosely linking systems, Hawkins and James (2017) describe schools as complex systems of interacting systems and subsystems influencing one another. These systems are interconnected and interact, yet remain distinct with a separate identity. Because of the many interactions and connections sometimes small actions may have large effects in complex human systems. However, their tendency is to underreact. Nevertheless, due to their non-linear relationships there is always the potential for small actions to have large effects (Hawkins & James, 2017).

Applying CELLS to schools draws attention to the difficulty of characterizing aspects of a school, such as school culture or climate (Cohen et al., 2009). A school comprises very diverse systems, each with very different characteristics. These systems, potentially, each have their own cultures and climates, which are subject to influence by interactions with individuals in the other systems and are continually evolving. In international schools the complexity is exacerbated due to the turn-over of students and staff and the wide range of expectations, behavioral norms and worldviews inherent in international schools (Fertig & James, 2016).

International school leadership. The literature indicates there is little variance between school leaders in international schools and other national schools regarding qualities of effective school leaders. Although international school leaders may face different challenges unique to an international school setting findings from studies indicate that effective leadership in

international schools generally requires the same set of core practices(Keller, 2014; Lee, Hallinger, & Walker, 2012),. Spradling, (2009), who worked as a teacher and an administrator in African and European international schools, states the fundamentals of a successful international school is the same as any successful school, whether public or private.

In a qualitative study, Machin (2014) examined 15 principals working with for-profit Asian international schools. He discovered that although the principals recognized and acknowledged the business aspect of their roles and duties, principals described themselves as primarily educators. Although faced with strains and challenges characteristic in running a business, Machin's study discovered that principals sustained their commitment to their students and staff.

Roberts and Mancuso (2014) conducted a study across six continents examining the talents and character international school boards want in an international school leader. Five leadership styles including Managerial, Instructional, Collaborative/Distributive, Child-Centered, and Transformational Leadership were identified. They reported that school boards mostly desired managerial, instructional, and collaborative/distributive leaders with superior communication skills and were inspirational motivators

Primary international school leaders in Walker and Cheng's (2009) study reported that, compared to their home country schools, international school parents had higher expectations regarding academic achievement of students (Walker & Cheng, 2009). Hence, meeting the high academic expectations of parents whilst maintaining a holistic view of education can be a particular challenge to education leaders in international schools and serve as further motivation to influence successful learning and teaching for both students and teachers.

Lee, Hallinger, and Walker (2012), examined leadership challenges in International Baccalaureate (IB) schools in the Asia-Pacific region. The IB program offers an international curriculum for primary and middle school years as well as a college preparatory diploma program for 16-18 year olds (Hayden & Thompson, 2008). The study outlined five main challenges faced by international school leaders: achieving coherence and consistency across the K-12 programs; ongoing professional development of teachers; dealing with the parents' many different pedagogical understandings of the academic program; although not all of the schools were large they were quite complex socioculturally and structurally in terms of language, culture, and building units for the different age groups; and finally, dealing with the incongruence of philosophy and practice between school divisions by university requirements imposed on the high school program. The study found that these challenges provided a means to develop distributed leadership in the schools.

Teacher wellbeing. Some researchers describe wellbeing in terms of psychological health consisting of subjective wellbeing, healthy relationships, engagement, purpose in life, mastery, autonomy and optimism (Deci & Ryan, 2008; Su, Tay, & Diener, 2014), while others have used the term to indicate quality of life (Davis, 2014). These descriptions of wellbeing hinge on key theories. Self-determination theory suggested by Deci and Ryan (2008) describes the human need for autonomy, belonging and competence to live well. As such, having trusted relationships, self-efficacy and control over one's destiny contribute significantly to wellbeing (Su et al., 2014). According to Deci and Ryan (2008), wellbeing is a complex array of social, emotional, and mental health facets which can be arranged into two categories: hedonistic and eudaimonic. Hedonistic wellbeing is described as a state of being or feeling happy and satisfied with life and can be referred to as "hedonia" or "subjective wellbeing." It is typically

operationalized by lessened negative feelings, or high positive feelings but also denotes reasoned judgments about personal life satisfaction (Deci & Ryan, 2008).

In a classroom setting a teacher's hedonistic wellbeing may consist of finding gratifying moments in teaching students. For instance, emotional states such as feeling confident, safe, excited or happy may induce a sense of wellbeing when entering a classroom. Some teachers find happiness from interactions with students while for others these interactions may induce stress. Having an awareness of their own emotional state of mind, positive emotions, and positive relationships both within the classroom and more broadly at school are important strategies for the regulation of emotion for teachers (Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010).

The second state contributing to wellbeing is the eudaimonic state, concerned with having a purpose in life and encompassing the process of reaching one's potential (Deci & Ryan, 2008). A literal translation from Greek is "good spirit". This eudaimonic state assesses the ideas of discovering a sense of meaning in life, personal potential, a calling, and having meaningful connections with others (Davis, 2014).

Buskist, Benson, & Sikorski (2005) found that for some teachers, a profound sense of teaching, a calling to teach, is experienced ardently. Furthermore, deep positive emotions can derive from a passion for the subject matter or the inspiration one can give to students that contributes to the teacher's meaning in life. For example, when instructors find that their teaching influences students' lives, this encourages teacher efficacy (Buskist et al., 2005).

Correspondingly, Skaalvik and Skaalvik (2015) reported that when teachers in Norway witnessed students mature and grow, their job satisfaction was augmented.

According to Spilt, Koomen and Thijs (2011), teacher wellbeing is a construct which includes teachers' mental models of the value of their personal, professional and relational selves. Teachers may have reduced wellbeing in one or more of these three areas, accompanying low levels of physical or mental health. The research on teacher wellbeing and teacher performance also encompasses challenges in curtailing high rates of teacher attrition, especially for new teachers and especially for teachers working in challenging schools and circumstances with little perceived support to help preserve their resilience and commitment to the teaching profession (Borman & Dowling, 2008; Brunetti, 2006; Tait, 2008). Teachers' resilience and their commitment to the profession also positively influence student achievement. Day (2008) found that students of resilient, committed teachers are more likely to attain positive outcomes than students whose teachers are less resilient and committed. In a review of the wellbeing literature, Mansfield, Beltman, Broadley, and Weatherby-Fell (2016) reported that teachers who were armed with personal resources (motivation, efficacy), contextual resources (trusting relationships with leaders, fellow teachers and students) and strategies (problem solving, self-care, a work-life balance and mindfulness) had more resilience and therefore more likely to experience wellbeing in their teaching profession.

Spiritual leadership. The study of spirituality across disciplines as varied as business leadership, psychoanalysis, and educational leadership has increased over the past twenty-five years (Dent, Higgins & Wharff, 2005; Fry & Nisiewicz, 2013; Pargament, 2007). Researchers have examined spiritual leadership in various settings and have found positive relationships with organizational commitment, job satisfaction, altruism, conscientiousness, self-career management, sales growth, job involvement, identification, retention, organizational citizenship behavior, attachment, loyalty, and work unit productivity and negatively related to interrole

conflict, frustration, earning manipulation, and instrument commitment (Benefel, Fry, & Geigle 2014; Bodia & Ali 2012; Chen & Yang 2012; Chen, Yang, & Li 2012; Duchon & Plowman 2005; Fry & Slocum 2008; Fry, Vitucci, & Cedillo 2005; Hall et al. 2012; Javanmard 2012; Kolodinsky, Giacalone, & Jurkiewicz 2008; Milliman, Czaplewski, & Ferguson 2003; Ming-Chia 2012; Pawar 2009; Petchsawang & Duchon 2012; Rego, Cunha, & Souto 2008).

Researchers tend to agree on one commonality: spirituality is very hard to define. While there is a scarcity of occurrences of the term “spirituality” in scholarly literature on management, it is often alluded to through concepts such as emotional intelligence, values-oriented leadership, transformative leadership, servant leadership, and leadership traits such as humility, caring, and concern for others (Avolio, Walumbwa, & Weber, 2009; Day, 2001; Hernez-Broome & Hughes, 2004).

Spirituality at work. Mitroff and Denton (1999) conducted one of the earliest studies examining the practices and beliefs of executives regarding workplace spirituality. Their “spiritual audit” of corporate America resulted in a surprisingly similar definition of spirituality. With hundreds of respondents and over 90 in-depth interviews, the participants described spirituality as a desire to find an ultimate meaning and purpose in life and to live with integrity. Furthermore, findings indicated executives perceived their organizations more positively and felt their work mattered if they were in organizations with a stronger spiritual emphasis.

Measuring spirituality. The measurement and development of spirituality while seemingly elusive may result in better health and in lives lived with more meaning and purpose (Hill & Pargament, 2003). However, one criticism which has been levied against spiritual surveys is they often use language sympathetic to Protestants or Judeo-Christian traditions and biased against other cultures and traditions (Hill & Pargament, 2003). MacDonald (2011)

acknowledges the importance of self-report measurements to operationalize observable and quantifiable behavior. However, Steingard and Dufresne (2013) cautions that no measurement tool can capture the entire breadth or depth of spirituality but rather it will take a range of research methodologies to develop our understanding of this elusive phenomenon.

Spiritual leadership theory. Today's leaders cannot rely on bureaucratic structures when organizations require the brightest minds working collaboratively (Blanchard, 2010). Motivating and retaining such desirable talent is necessary for innovative thinking required of modern organizations. Blanchard (2010) suggests leaders should seek to unleash the power and potential of each individual. Spiritual leadership theory provides the framework for leaders in all industries to accomplish these needs (Fry, Matherly, Whittington, & Winston, 2007).

Fry's (2003) SLT can be conceived from within workplace spirituality and subsumes transformational leadership along with elements of ethics or values based leadership theories, servant leadership and principal-centered leadership. Fry and Nisiewicz (2013) advocate the need to continue research in order to develop and refine this relatively new theory: specifically, examining the relationship between SLT "variables and other leadership theories...whether these theories are perhaps mutually reinforcing or serve to moderate the effects of one another" (line 197-201). The purpose of spiritual leadership is to meet the fundamental needs of personal wellbeing for leader and followers through calling and membership, a well-articulated vision, and to provide an environment conducive to value congruence throughout the organization (Fry & Nisiewicz, 2013). They further suggested when an employee's wellbeing is assured, high levels of commitment, performance, and social responsibility will result. Fullan (2011) held that skillful leaders hold in balance the needs of the business and the employee in order to adjust for change which activates others to participate in the realization of shared goals. The main

components of SLT will be reviewed in the next section: inner life; vision; hope/faith; altruistic love; spiritual wellbeing; and calling and membership.

Inner life. According to the Mayo Clinic (2013) nurturing the inner-self through spirituality is an important way to reduce stress and enhance the prospects of better health. In SLT, one's inner life is a source of spiritual leadership. Fry and Nisiewicz (2013) identified inner life as "a type of personal spiritual practice that can range from spending time in nature to prayer, meditation, reading inspirational literature, yoga, observing religious traditions, or writing in a journal" (Chapter 2, section 10, para. 1). It is in this intersection between inner life and leadership which provides wisdom for challenging and often stressful decision making (Levy, 2000).

Vision/Mission. Of vital importance in spiritual leadership is to provide a clear vision of an anticipated future as well as why the organization should work toward that future (Fry & Nisiewicz, 2013). In a study by Kouzes and Posner (1987, 2002 as cited in Northouse, 2013) over 1300 managers were interviewed. Inspiring a shared vision to guide behavior was one of five practices identified to maximize outcomes. Bass (1990) reiterates this finding when he stated the greatest organizational performance "occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group" (p. 20).

Hope/faith. Hope is a desire for a future goal or object with a certain expectation that the object of our desire will be fulfilled. Faith enhances and gives certainty to our hope. Together, hope and faith bring about a belief a future state will take place, even with limited evidence (Fry & Nisiewicz, 2013). Hope and faith provides motivation and is a source of strength necessary to

face opposition, suffer, and endure hardships in order to achieve a goal or vision. People demonstrate this by effort, action or work.

Altruistic love. Fry (2003) defined altruistic love as the care, concern, and appreciation for both self and others producing a sense of wholeness, harmony and wellbeing. Fry and Nisiewicz (2013) distinguish between care and concern for others from need. Need is the essence of giving and serving other unconditionally. Fundamental to this definition of love are the principles of integrity, patience, kindness, forgiveness, humility, selflessness, trust, loyalty, and truthfulness (Fry & Nisiewicz, 2013).

Calling and membership. Calling refers to having a deep inner conviction to doing something worthwhile. A calling is the utilizing of one's gifts and talents to contribute to one's identity and toward finding meaning and purpose in life. Having a sense of calling can be found in any line of work as the fruits of the labor are irrespective of status, power, or security but rather integrated into a sense of self and one's role in the fulfillment of a beautiful world order (Fry and Nisiewicz, 2013).

Membership is the social fabric which combines the need for belonging, being appreciated and being understood. Work can help people belong to a caring community where they feel appreciated and valued for their contributions. Membership helps us feel a deep communion with our colleagues and joins us to something larger than ourselves. However, not all work environments are equal. A culture based on the values of altruistic love is necessary. A community of caring and support as well as being part of a larger community based on shared approval and trust (Fry & Nisiewicz, 2013).

Spiritual wellbeing. Yusof and Mohamad (2014) described spiritual wellbeing as the degree to which one feels a sense of purpose and direction. Danoda (2013) suggests that

spiritual wellbeing is concerned with Maslow's hierarchy of needs, specifically, belongingness and love, esteem and self-actualization needs. Spiritual wellbeing involves transcendence of self in service to others (Fry, Vitucci & Cedillo, 2005) Joy, peace and serenity in abundance are key ingredients for spiritual wellbeing according to Fry and Nisiewicz (2013). Spiritual leadership contains the values, attitudes, and behaviors necessary to intrinsically motivate one's self and others to have a sense of spiritual wellbeing through calling and membership (Fry and Matherly, 2006). Leaders and workers experience meaning in their lives and work, have a sense of making an impact, and feel understood and valued for their contribution and personhood.

School climate. More than 100 years ago Perry (1908, as cited by Thapa et al., 2013) recognized the importance of school climate. Halpin and Croft (1962) extended the concept of organizational climate, developed by social scientists in the 1950s, to elementary schools. They found the climate in the schools varied greatly and the term "morale" did not quite capture the atmosphere of school life. They maintained that school climate is the personality of the school, conveying the collective perception of teachers and of school routine, thus influencing the attitudes and behaviors of students and faculty. Their definition was based on the measure of a school's openness and presumed six standards of school climate on a continuum stretching from *open to closed*.

In an open school climate, teachers are enthusiastic, accepting and mutually respectful of their colleagues (Hoy, 2003). The teachers know each other well and are often close friends who give encouragement to one another. A supportive principal has concern for teachers, listening to them, and being open to teacher suggestions. A principal supportive of an open school climate encourages uninhibited and professional dialog among the teaching faculty. The principal assists the faculty to feel comfortable about themselves and their peers, as well as their school. They

create a working environment where teachers enjoy school pride and working with their colleagues.

Health is another metaphor used to examine school climate (Hoy & Hannum, 1997). School climate is defined in terms of healthy interpersonal dynamics. A healthy school establishes harmony among the technical, managerial, and institutional aspects of school life and organization and successfully manages external factors while continuing to be goal oriented. In healthy schools, the students, teachers, administrative staff, and community work together positively. This school climate perspective encompasses the relationships between the school and community, principal leadership, relationships among teachers, and relationships between teachers and students (Hoy, 2003).

Benefits of a positive school climate. While the literature reveals a variety of definitions of school climate, researchers agree school climate is a powerful force within schools (Cohen, McCabe, Michelli, & Pickeral, 2009; Thapa, et al., 2013). School climate is integral in initiating and maintaining educational improvement (Cohen et al., 2009). Kraft and Papay (2014) found teachers with perceptions of positive school climates improved more than teachers with negative perceptions of their school climate. Deemer (2004) found schools with a positive school climate have norms, attitudes, behaviors, values and organizational structure which encourage both teachers and students toward successful teaching, learning, and achievement. Positive school climates are generally agreed to be environments in which the whole school community prospers (Bryk & Driscoll, 1988; Cohen et al. 2009).

Positive school climates have been shown to improve student motivation (Eccles et al. 1993; Goodenow & Grady, 1993), promote cooperative learning, respect and mutual trust (Finnan, Schepel, & Anderson, 2003; Kerr, Ireland, Lopes, Craig, & Cleaver, 2004), and

improve student academic achievement (Finn, Schnepel, & Anderson, 2003; McNeely, Nonemaker, & Bloom, 2002; Sherblom, Marshall, & Sherblom, 2006; Whitlock, 2006).

Principals and school climate. Schools as institutions are often resistant to change, valuing control, stability and solidity often to the detriment of innovation and creativity (Bunnell et al., 2016; Jepperson, 1991). As the school leader, the principal is of paramount importance in establishing a positive school climate. Much research has reported that school climate directly impacts improved instructional quality, community relationships and student growth, which are all directly linked to the work of the school principal (Clifford, Menon, Gangi, Condon, & Hornung, 2012; Gulsen & Gulenay, 2014; Halawah, 2005; Price, 2012). School climate is not limited to the classroom but is also a product of the professional teacher-principal relationship which is an indicator of organizational health (Durham, Bettencourt, & Connolly, 2014; Halawah, 2005; Rafferty, 2003). Open communication between teachers and administrators leads to shared goals, values, and beliefs, which are all aspects of a positive school climate (Edgeron, Kritsonis, & Herrington, 2006; Halawah, 2005). The principal contributes to teacher's perceptions of school climate by building open trust and communication (Gulsen & Gulenay, 2014; Halawah, 2005). Stronge and Jones (1991) state that a full range of principal's educational leadership behavior influences the climate of the school; however, two key ingredients to success are communicating common goals and fostering a spirit of collaboration.

Price (2012) found that principals' relationships with their teachers affect both principals' and teachers' satisfaction, cohesion, and commitment levels. Substantial variation among the teachers was explained by the relationship mechanism of principals sharing expectations with their teachers. Price found the principal – teacher relationships strongly and directly affected teachers' attitudes, which helped to define their perception of school climate.

Efficacy theory. Self-efficacy is a very broad construct which has been applied to self-perception across a variety of tasks and settings (Bandura, 1997). Bandura (1977) describes self-efficacy as the self-perceptions people have about their capabilities. He makes a key distinction between actual and perceived skills or abilities. These self-perceptions help to determine choices of activities and persistence in reaching a goal. A person's expectations help determine how much effort one gives and how long they will persist in the face of adversity (Bandura, 1977). A high sense of self-efficacy lowers stress when approaching difficult tasks and activities, whereas someone with low self-efficacy for performing an activity appeared to believe the task was more difficult than it really was, leading to tension, stress, and aversion sooner (Bandura, 1997). These perceptions about one's abilities help determine what people do with the knowledge and skills they have (Pajares & Schunk, 2002).

Teacher self-efficacy is an application of Bandura's self-efficacy theory. Armor et al. (1976) first used this application when describing the beliefs a teacher holds about their abilities to help their students learn. Ashton (1984) described two dimensions of teacher self-efficacy: general efficacy and personal efficacy. General efficacy is the extent which teachers believe the students have the capacity to learn and personal efficacy is the extent which teachers believe the student can learn under their instruction. Protheroe (2008) suggests these constructs are independent of one another.

Teacher's sense of efficacy has been shown to be related to a wide variety of student outcomes including student achievement (Armor et al., 1976; Mojavezi & Tamiz, 2012; Ross, 1992), motivation (Midgley, Feldlaufer, & Eccles, 1989; Mojavezi & Tamiz, 2012) and students' own sense of efficacy (Schunk, 1984). Furthermore, teachers with higher levels of efficacy tended to be more open to experimentation and try new methods to reach challenging students

(Berman, McLaughlin, Bass, Pauly & Zellman, 1977; Guskey, 1988) and worked longer with a student who struggled to understand (Gibson & Dembo, 1984). Zee and Koomen (2016) discovered that teacher self-efficacy indirectly effects student achievement through the forms of teacher behavior which create a supportive classroom atmosphere highlighted by positive student-teacher relationships, concern for student views, and sensitivity to student needs.

Teacher collective efficacy. Many studies have found schools with strong collective teacher efficacy beliefs nurture a healthy school climate for students, allowing them to succeed both socially and academically (Lent, Brown & Larking, 1986; Zimmerman, Bandura, & Martinez-Pons, 1992). The influence of collective teacher efficacy is widespread in the school. Schools with strong levels of collective teacher efficacy were more resilient in efforts to improve student achievement (Tschannen-Moran & Barr, 2004), used more student-centered instructional strategies (Goddard, Hoy, & Hoy, 2000), decreased teacher stress while increasing job satisfaction and performance (Lim & Eo, 2014; Klassen, 2010) and involved the parents and community within the school culture more (Tschannen-Moran & Hoy, 2000).

Leaders can play a pivotal role in fostering a positive climate for collective teacher efficacy to grow. Brinson and Steiner (2007) assert strong, effective principals find a way to help their teachers to collaborate, thereby building collaborative teacher efficacy. When principals maintain a strong focus on student academic achievement and simultaneously create a school climate which is supportive of teachers, collective teacher efficacy increased (Hoy & Hoy, 1993). Goddard, Hoy and Hoy (2000) also discovered collective teacher efficacy is rather stable, so once it is established in a school, it is difficult to change. While there is a lack of research exploring the relationship between spiritual leadership and collective teacher efficacy, other researchers have found that a relationship exists between transformational leadership and

collective teacher efficacy and that transformational leadership practices influence and contribute to collective teacher efficacy (Dussault, Payette, & Leroux, 2008; Reddick, 2014; Ross & Gray, 2006; and Türker et al., 2012).

Only one study was found exploring teacher collective efficacy and school climate. Peer reviewed studies exploring spiritual leadership and school climate could not be found. Further, peer reviewed school climate studies conducted in international schools could not be found. Malinen and Savolainen (2016) conducted a longitudinal study exploring how perceived school climate affects teachers' job satisfaction and burnout and whether teacher self-efficacy and teacher collective efficacy (behavior management), mediate the effect. The study surveyed 642 Finnish middle school teachers three times during the school year and used a structural equation model to reveal that school climate had a positive effect on job satisfaction, partly mediated by self-efficacy. However, collective teacher efficacy did not add significantly to the model. Teacher collective efficacy and self-efficacy were moderately correlated and the authors suggested that these constructs shared elements of student management and discipline which resulted in collective efficacy unable to add any additional explanatory power to the model after accounting for the effect of school climate and self-efficacy. Neither teacher collective efficacy nor school climate had a significant effect on teacher burnout.

Methodological literature. The criteria used to select literature to review methodologies included peer reviewed studies from journals conducted in 2003 or later as well as research conducted in a school setting and involving spiritual leadership. Using ProQuest, OneFile (GALE) and ABI/FORM databases, the first search used the terms *spiritual leadership* and *international school* and yielded no results for K-12 schools. A second search used the terms *spiritual leadership* and *collective efficacy* and *school climate* which yielded no results. A third

search used the terms *spiritual leadership* and *school* and *collective efficacy* which yielded no results. A fourth search used the terms *spiritual leadership* and *school climate* which yielded three results, none of which met the above criteria. Finally, a search for *spiritual leadership* and *school* resulted in 42 articles and seven articles met the criteria above.

From the seven peer-reviewed studies of spirituality in schools since 2003, four did not use Fry's Spiritual Leadership Survey and none of the studies used an international school context. The majority of the studies utilized quantitative research methods with only one quasi-experimental study and one mixed methods study. None of the seven school studies examined the relationship between spiritual leadership and school climate and teacher collective efficacy. This study aims to establish whether there is a relationship between these variables; therefore, a correlational design best captures this type of research.

Review of Methodological Issues

This portion of the literature review will examine methodological issues concerning studies which explored spiritual leadership in schools. In the only quasi-experimental study, Malone and Fry (2003) conducted a 1-year longitudinal study conducted at two elementary schools. In this study an organizational development program was conducted in one school while the other, nearby school, was left as a control. A team of organizational development professionals conducted the intervention with the school by first assessing a baseline of the spiritual condition of the school. The treatment involved multiple interventions involving school visioning, self-assessments, and involvement of all stakeholders in a re-visioning of the school and its mission. Upon completion of the program the team conducted the survey again and compared it to the control school. This kind of study is rare in this emerging field of inquiry. Schools are large and complex entities so finding a control school is very problematic as these

researchers discovered. The control school in this study went through organizational distress during the intervention year and had dramatic downward scores across all spiritual leadership factors thus nullifying its use as a control.

In a mixed methods study Woods (2007) conducted a survey of 244 primary, middle, and high school English head teachers (roughly equivalent to American school principals) and conducted follow-up interviews with seven of the head teachers. The questionnaire sought to discover whether head teachers had spiritual experiences, whether their spirituality contributed to their leadership, and how they perceived the role of their spirituality in fortifying their inner resources. Following the survey seven head teachers were interviewed to seek further elaboration and insights with regard to their answers on the questionnaire. The interviewees were selected by theoretical sampling with the intention of elaborating their self-reported spirituality. Mixed methods research is very challenging for a novice researcher (Creswell & Clark, 2013). Researchers must be skillful in both qualitative research and quantitative research. Furthermore, researchers must draw on more resources such as time, man-power, and money to conduct a multiphase study. In the Woods (2007) study the researcher is part of a team from the Religious Experience Research Center at the University of Aberdeen. Results from the study supported that the spirituality of head teachers largely influenced their leadership, were widespread, varied in intensity and frequency, not confined to religious believers, and had practical application.

Quantitative survey research examining various aspects spirituality in schools through correlational analysis is the most common research method for studying spirituality in schools. Survey instruments measuring spirituality or aspects of spirituality were somewhat varied. Most used a version developed by Lois Fry and his team at the International Institute for Spiritual

Leadership. Ghasemizad and Bagheri (2012) used the 2005 version of the Spiritual Leadership Questionnaire while Bozkurt and Toremén (2015) and Ahmet Kaya (2015) used a later version of the Spiritual Leadership Scale (Fry, 2007). Wellman, Perkins and Wellman (2009) utilized an inventory on spirituality developed by Rayburn and Richmond (1996, 2003) to survey Texan school principals while Asgari, Ahmadi and Jamali (2015) used a workplace spirituality inventory developed by Milliman, Czaplewski, and Ferguson (2003) to evaluate spirituality in schools in Tehran.

These correlational studies also differed in the methods of analysis. A Pearson correlation between dependent and independent variables was the most common method of analysis (Ahmet Kaya, 2015; Bozkurt & Toremén, 2015; Ghasemizad, Zadeh & Bagheri, 2012; Wellman, Perkins & Wellman, 2009). The Pearson correlation allows the researcher to investigate naturally occurring variables that maybe unethical or impractical to test experimentally. However, correlation cannot be taken to imply causation. Furthermore, correlation does not allow the researcher to go beyond the collected data.

While the Pearson correlation can be used to establish whether a relationship exists between two variables a regression analysis can be used for prediction or to establish causation if basic assumptions are met and there is strong theoretical support (Jeon, 2015). In social sciences collinearity is often a hindrance as independent variables are often highly correlated, for example teacher morale, teacher self-efficacy, and teacher collective efficacy but this issue can seriously reduce the ability to detect significant effects. Ahmet Kaya (2015), Ghasemizad, Zadeh and Bagheri (2012) and Bozkurt and Toremén (2015) all used regression analysis. Ghasemizad, Zadeh and Bagheri applied a multiple regression to determine the effect size of the independent variables on the dependent variable and discovered that Spiritual Leadership did not significantly

predict teacher and principal productivity. Bozkurt and Toremeh used a multiple linear regression analysis to determine the effects of independent variables on dependent variables and discovered that spiritual leadership was a significant predictor of organizational citizenship behaviors. Ahmet Kaya (2015) used a step-wise multiple regression to examine Spiritual Leadership and Organizational Citizenship Behavior (OCB) and reported that Spiritual Leadership significantly predicts all four subcomponents of OCB: Altruism, Civic Virtue, Conscientiousness, and Sportsmanship. A step-wise multiple regression is used to find the best combination of independent variables to predict the dependent variable and not all predictor variables may be represented in the final prediction equation (Jeon, 2015).

Two studies used Structural Equation Modelling (SEM) to analyze the data gathered through survey research: Asgari, Ahmadi and Jamali (2015) and Malone and Fry(2003). Structural Equation Modelling and its many variants are primarily used for construct validation, scale refinement and to confirm the tenability of a theoretical causal model (Byrne,2016). Malone and Fry (2003) examined the Spiritual Leadership Theory in the context of four schools in Texas and used SEM to confirm the efficacy of the causal theory. The standardized path coefficients were all positive. The model explained variances of 0.80 for organizational commitment and 0.29 for productivity, two outcome constructs of spiritual leadership theory. Asgari, Ahmadi and Jamali (2015) also used SEM to examine their conceptual model involving workplace spirituality and organizational health. They surveyed 156 high school teachers in Tehran. The researchers found that the three dimensions of workplace spirituality, inner spirituality, outer spirituality, and integral spirituality were all significant predictors of school organizational health as measured by the organizational health questionnaire by Hoy and

Fieldman (1990) and the tendency toward spirituality questionnaire by Milliman, Czaplewski, and Ferguson (2003).

Synthesis of Research Findings

Fullan (2002) has said that, “Spiritual leadership in education is an alluring but complex phenomenon” (p. 14). Very few academic researchers have tried to tackle this phenomenon and although there is very limited research studying spiritual leadership in schools, findings from the research suggest there are associations between spiritual leadership and positive attributes of schools such as constructive organizational citizenship (Bozkurt & Toremén, 2015; Kaya, 2015), organizational health (Asgari, Ahmadi & Jamali, 2015), productivity (Ghasemizad, Zadeh & Bagheri, 2012; Malone & Fry, 2003), quality of work life (Ghasemizad, Zadeh & Bagheri, 2012), and organizational commitment (Malone & Fry, 2003). With the exception of Wellman, Perkins and Wellman (2009) and Woods (2007) the studies focused on teachers or teachers and principals in public or public and private schools. Though the studies did not use the same theoretical framework with regards to spirituality (Wellman, Perkins and Wellman, 2009), spiritual leadership (Bozkurt & Toremén, 2015; Ghasemizad, Zadeh & Bagheri, 2012; Malone and Fry, 2003), spiritual experience (Woods, 2007), or work place spirituality (Asgari, Ahmadid & Jamli, 2015), all of the studies confirmed there appear to be positive outcomes when teachers and their leaders are in a state of spiritual health.

Critique of previous research

As mentioned earlier in this paper, spirituality does not have a universally agreed definition. Previous research studies dealing with spirituality in schools use different definitions and measurement scales. Lacking standardization has produced confusion and has delayed advances in the field (Contreras, 2016; Dent, Higgins, & Wharrf, 2005). Fry’s (2003, 2008)

attempt to operationalize the spirituality into specific attitudes, behaviors and results is promising but much more work needs to be done in schools. As spiritual leadership is a relatively new field in the study of leadership there is a growing body of research but little has been conducted in schools. The lack of any published studies examining the relationship between spiritual leadership and either teacher collective efficacy and school climate is a very large gap in the understanding of spiritual leadership. Another gap in the body of research is the lack of research on spiritual leadership in international schools. Although the seven studies reviewed were conducted in multiple countries, Iran (2), United States of American (2), England (1), and Turkey (2), the research was conducted in national schools.

Woods (2007) conducted a mixed methods study of English head teachers to discover if or how spiritual experience enables school leaders to be more effective in their work. The researcher concluded that spiritual experiences and their meaning were difficult to describe for the participants but despite the struggle the participants related a variety of experiences which 64% reported that their spiritual experiences assisted them with their work. The mixed method design study added another dimension to the survey research but the author did not discuss in the methods section how the interviews were coded and analyzed to arrive at the author's conclusions. Furthermore, the author only interviewed seven head teachers from the participants limiting the variety of responses from the school leaders. By the researcher's admission the criteria for selecting the group of candidates for follow up interviews were their potential to elucidate how their spirituality helps them in their leadership duties.

Malone and Fry (2003) conducted research as part of an organization development program, the only quasi-experimental study. The study was unable to use the control school as a control for the study as that school went through a leadership crises during the year-long

organization development program at the experimental school. Therefore, the study was lacking a control. Nevertheless, the faculty at the experimental school, still took a pretest and posttest using the survey instrument showing significant growth in organizational commitment (mean scores rose from 3.5 to 4.3 on a 5 factor scale, $\alpha < 0.05$) which has been shown to reinforce motivation and reduce turnover.

The five remaining quantitative survey research studies of spirituality in schools use differently nuanced definitions of spirituality and survey instruments and are therefore difficult to compare. Further, due to the lack of congruence, the studies do not necessarily validate nor repudiate one another. As more and more researchers are adopting Fry's model of spiritual leadership in general leadership studies, it would be helpful for if more research in education also use this model so they can cross-validate the studies.

Summary

Spirituality at work is a promising field of research despite the limitations of multiple definitions and theoretical challenges. Workers are beginning to redefine the meaning and purpose of work and expanding their awareness of the potential benefits of calling, meaning and purpose. Alternative leadership models such as spiritual leadership can help workers who seek inspiration, meaning and significance in their work. In a school setting, spiritual leadership might have a direct impact on school climate and collective teacher efficacy.

Is Fry's (2003) model of spiritual leadership and its subcomponents a useful way of understanding or developing school leadership? Examining the literature we can see the beginnings of credible research which demonstrate associations and relationships between spiritual leadership and indicators of organizational health, productivity, leader resilience, and good leadership practices. This study aims to add to the growing body of research and

understanding of spiritual leadership through examining the relationships between spiritual leadership and two important constructs found to be closely associated with student achievement: school climate and teacher collective efficacy. Based on this review of literatures examining spiritual leadership, teacher collective efficacy and school climate, there is sufficient reason for thinking that an investigation examining the relationships between these variables would garner significant findings and add to the body of knowledge.

Chapter 3: Methodology

Introduction

Fry's (2003, 2013) spiritual leadership theory has been slowly attracting more attention in educational research. However, research directly linking Fry's version of spiritual leadership with student achievement has not been published. Given the wide variety of curricula, contexts and student demographics in international schools, this study was not able to directly measure and compare student outcomes. Rather, this study's aim was to discover if spiritual leadership could predict teacher collective efficacy and school climate: two variables which have been shown to positively influence student achievement (Cybulski, Hoy, and Sweetland, 2005; Finnan, Schnepel, & Anderson, 2003; Goddard, Hoy, & Hoy, 2000; Goddard, LoGerfo and Hoy, 2004; McNeely et al., 2002; Sherblom, Marshall, & Sherblom, 2006; Tschannen-Moran & Barr, 2004; Whitlock, 2006).

This study seeks to explore the relationship of variables across a diverse population which is dispersed over the world. Hammersley (2007) cautions researchers to be aware of the methodological assumptions inherent in a methodological perspective but they also need to be pragmatic about working assumptions regarding a particular phenomenon being examined. This study is grounded in a post-positivism framework, acknowledging limitations to quantitative research. Concern over validity and reliability as well as the pragmatics of conducting a study covering a large geographical space and many participants prompted the motivation for a quantitative methodology and to use survey research and a correlational design. Correlational research typically rests within positivism or a post-positivism philosophy (Creswell, 2013). Given the nature of the research focus and population, adhering to a quantitative methodology best serves this study.

The quantitative approach to research uses theory as a way to define relationships between factors (Creswell, 2013). This study was conducted to establish and define the relationships between the constructs. This chapter has been organized for clarity into the following sections: purpose of the study; research questions; hypotheses; research design; target population; sampling method (power) and related procedures; instrumentation; data collection; operationalization of variables; data analysis procedures; limitations and delimitations of the research design; internal and external validity; expected findings; ethical issues in the study; and summary.

Purpose of the Study

This study aims to further our understanding of spiritual leadership in international schools by examining the relationship between spiritual leadership and two constructs known to be highly correlated to student learning and healthy schools: school climate and teacher collective efficacy (Adams & Forsyth, 2006; Bandura, 1997; Goddard & Skrla, 2006; Haynes et al., 1997; Hoy, 2012; Welsh, 2000;). It was the purpose of this study to discover how spiritual leadership and its subcomponents might be associated with these constructs and if they could predict school climate and collective teacher efficacy for international schools in the Asia-Pacific region.

Research Questions and Hypotheses

The guiding research questions to inform this study follows.

1. What is the predictive relationship between spiritual leadership and teacher collective efficacy?
2. What is the predictive relationship between spiritual leadership and school climate?

3. How do the components of spiritual leadership contribute to the prediction of teacher collective efficacy?
4. How do the components of spiritual leadership contribute to the prediction of school climate?

H₀₁

There is no predictive relationship between spiritual leadership as measured by the mean score on the revised spiritual leadership questionnaire and teachers' perception of school climate as measured by the mean score on the organizational climate index.

H_{a1}

There is a predictive relationship between spiritual leadership as measured by the mean score on the revised spiritual leadership questionnaire and teachers' perception of school climate as measured by the mean score on the organizational climate index.

H₀₂

There is no predictive relationship between spiritual leadership as measured by the mean scores on the revised spiritual leadership questionnaire and teachers' perception of teacher collective efficacy as measured by the mean scores on the teacher collective efficacy scale.

H_{a2}

There is a predictive relationship between spiritual leadership as measured by the mean scores on the revised spiritual leadership questionnaire and teachers' perception of teacher collective efficacy as measured by the mean scores on the teacher collective efficacy scale.

H₀₃

There are no relationships between the individual components of spiritual leadership as measured on the revised spiritual leadership questionnaire and teachers' perception of school climate.

H_{a3}

There are relationships between the individual components of spiritual leadership as measured on the revised spiritual leadership questionnaire and teachers' perception of school climate.

H₀₄

There are no relationships between the individual components of spiritual leadership as measured by the mean scores on the revised spiritual leadership questionnaire and teachers' perception of teacher collective efficacy as measured by the mean scores on the teacher collective efficacy scale.

H_{a4}

There are relationships between the individual components of spiritual leadership as measured by the mean scores on the revised spiritual leadership questionnaire and teachers' perception of teacher collective efficacy as measured by the mean scores on the teacher collective efficacy scale.

Research Design

The researcher employed a correlational research design using a survey to collect data from fifteen international schools in the Asia-Pacific region. In a correlational design hypotheses testing is used to consider whether relationships between variables are significantly different from what would be expected from chance alone (Adams & Lawrence, 2015). The correlational

design was chosen due to the difficulty of controlling dynamic variables found in schools. Furthermore, as the study is taking a snapshot of attitudes and perceptions of teachers without undue controls, the correlational design gives greater generalizability and thus has greater external validity (Adams & Lawrence, 2015).

Target Population, Sampling Method (power) and Related Procedures

International schools come in many sizes and use a variety of curriculums from national based schools such as the Canadian International School of Beijing to a more global school employing a range of nationalities and using a more global curriculum such as the International Baccalaureate used at Aboa-Japan International School. While there is no agreed upon definition of an international school, international schools use a curriculum that is different than their host country. Teachers and students at international schools are typically much more transient than in national schools given the nature of transnational employment.

The target population for this study is teachers working in international schools in the Asia Pacific region which use English as the language of instruction. According to International Schools Consultancy there are more than 3,000 such schools in the Asia-Pacific region (International School Consultancy, 2016). To generate a random sample size which provided enough power to avoid a Type II error, over 300 schools would need to be selected (Adams & Lawrence, 2015). Due to a high anticipated non-response rate, an inability to generate a definitive list of Asia-Pacific international schools, and a research focus on describing relationships between variables, non-random sampling is an acceptable alternative (Adams & Lawrence, 2015).

A quota sampling method was initially used to approximate a representative sample of the population. Quota sampling allows the researcher to sample representative groups from the

population and is especially useful when a smaller sample is used (Gay, Mills & Airasian, 2011). Since there is not a definitive list of international schools in the Asia-Pacific region, random sampling was not possible. The categories for fulfilling quotas were location, student population, date of establishment, faith, accreditation agency, and tuition. These ratios were taken from the database of International School Consultancy (International School Consultancy, 2016). Unfortunately the response rate from school leaders was much lower than expected and this research finally used a convenience sample. A detailed description of the sample is provided later in chapter 4.

Instrumentation

A questionnaire was created to collect data from the international school teachers. The questionnaire combined three previously published questionnaires and included a demographics section. Teachers were asked to complete the following questionnaires online: Fry's (2005/2015) revised spiritual leadership questionnaire, Hoy, Smith and Sweetland's (2003) Organizational Climate Index, and Tschannen-Moran and Barr's (2004) Teacher Collective Efficacy Scale. These instruments have been shown to be reliable and valid as demonstrated below.

Revised spiritual leadership questionnaire. The original model of spiritual leadership (Fry, 2003) was developed within an intrinsic motivation framework which included spiritual leadership (i.e., vision, hope/faith, and altruistic love) and spiritual wellbeing (i.e., calling and membership) and well as the outcomes of organizational commitment and productivity. Fry's spiritual leadership model finds its roots in charismatic leadership, authentic leadership, transformative leadership, organizational development, learning organizations and workplace spirituality (Fry, 2003, 2013). This relatively new model of leadership and organizational development has started to see an increase in the number of empirical studies to elaborate,

substantiate and validate its efficacy. Interestingly, many researchers outside of the United States have been publishing research regarding this model and using Fry's spiritual leadership survey in areas as diverse as business leadership in China and Taiwan (Chen et al., 2012; Chen and Yang, 2012), high school teachers and principals in Iran (Ghasemizad et al., 2012), spiritual leadership with job satisfaction in business environments in Malaysia (Yusof and Mohamad, 2014),

Fry (2008) further revised the spiritual leadership model to include inner life and life satisfaction. Fry maintains that one's inner life, or spiritual practice, influences development of hope in a transcendent idea of service to stakeholders and development of the values of altruistic love. Inner life affects perceptions about who they are, what they are doing, and what they are contributing (Duchon and Plowman 2005; Vail, 1998). Inner life includes individual and organizational practices to assist people to become more self-aware in the moment and to draw strength from their faith (Fry & Kriger, 2009; Fry & Nisiewicz, 2013). These two new constructs to the spiritual leadership model were developed and adapted to the Spiritual Leadership Survey: Inner Life ($\alpha = 0.82$) and Life Satisfaction ($\alpha = 0.75$) were added to the established questionnaire and tested for construct validity (Dayler & Fry, 2012; Fry, 2008).

The questionnaire was provided by Jody Fry through personal correspondence who granted permission to use the instrument. The questionnaire contains forty Likert scale items and is included in Appendix C. The Likert scale assists researchers to collect opinions and perceptions of participants using a 5 to 10 point scale ranging from strongly disagree to strongly agree (Joshi, Kale, Chandel, & Pal, 2015). The Spiritual Leadership Survey uses a five-point Likert scale ranging as follows: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, and 5-strongly agree. The full-score revised Spiritual Leadership Survey was used for this study. The responses from the survey questions were used to examine to what extent spiritual leadership

positively influences teacher collective efficacy and school climate. The validity and reliability of the spiritual leadership construct has been confirmed in studies in the military, for-profit organizations, and government, with sample sizes which ranged from 10 to more than 1000 respondents (Fry, et al., 2007, 2010; 2011).

Organizational climate index. The organizational climate index measures four facets of school climate: institutional vulnerability, collegial leadership, professional teacher behavior and achievement press. Institutional vulnerability describes to what extent the school is influenced by a minority of vocal parents and community groups with high scores suggesting that both teachers and administrators are unprotected and often put in a defensive position. Collegial leadership describes how the principal meets the social needs of the teachers whilst still maintaining high standards. Professional teacher behavior is identified by commitment to students, autonomous judgement and mutual cooperation and support of colleagues. Achievement press describes high but achievable expectations for students by parents teachers and administrators and the grit demonstrated by the students to press for academic success. Hoy, Smith, & Sweetland (2003) found relatively high reliability scores for each facet of the survey: Collegial Principal Behavior (0.94), Achievement Press (0.92), Professional Teacher Behavior (0.88), Academic Press (0.92) and Institutional Vulnerability (0.87). The construct validity supports the concept of school climate (Hoy, Smith & Sweetland, 2003).

Teacher collective efficacy scale. The Teacher Collective Efficacy Scale (Tschannen-Moran & Barr, 2004) is a 12-item survey which measured teachers' views of their colleagues' proficiencies to impact student learning and is represented by two features—collective efficacy for instructional strategies, and collective efficacy for student discipline. The sample of items consisted of the following: “How much can school personnel in your school do to control

disruptive behavior?” (student discipline) and “How much can teachers in your school do to promote deep understanding of academic concepts?” (instructional strategies). Construct validity of the Collective Teacher Efficacy Scale was established through factor analysis (Tschannen-Moran & Barr, 2004). Participants responded using a 9-point Likert-type scale ranging from 1 (*Nothing*) to 9 (*A great deal*). Higher scores showed higher levels of perceived efficacy. Cronbach’s alpha values attained were .91 for both instructional strategies and student discipline, respectively, and .95 for the combined scale.

Data Collection

The data collection process began shortly after IRB approval using Qualtrics®. The Qualtrics® program was secure and was available for data collection 24 hours each day. A list of international schools in the region and their contact information was developed based on the school characteristics. Schools were contacted and asked to participate in the research study. Once institutional approval was granted an email explaining the study was sent to the head of school with an embedded link to the online survey. The head of school was then asked to forward the email to the school teachers. Participants using the Qualtrics® survey program were given full disclosure about the study. To ensure confidentiality, limited personal information was collected. Any time during the survey, participants could discontinue participation. An opening statement in the survey provided pertinent information along with the purpose, the risks associated with the study, the research timeframe, confidentiality commitments, and consent. Qualtrics® was an acceptable tool for this study because it observes the Internal Review Board’s procedural guidelines.

Operationalization of Variables

The main variables of this study were spiritual leadership, school climate and teacher collective efficacy. Each of these constructs can be broken down into various components and measured individually as well as collectively. The revised Spiritual Leadership Survey (Fry, 2015) breaks down spiritual leadership into the following six components: inner life, hope/faith, altruistic love, vision/mission, calling and membership and three output components: organizational commitment, productivity and life satisfaction. Collectively, a high score represents a higher degree of spiritual leadership while deficits in particular components within spiritual leadership would indicate areas in need of improvement.

This study adopts Hoy, Smith & Sweetland's (2003) definition of school climate and includes the following constructs: collegial leadership, professional teacher behavior, achievement press and institutional vulnerability. Collegial Leadership refers to the attitudes and behaviors of the principal with respect to meeting the faculty needs and achieving the school vision and mission. Professional Teacher Behavior refers to the level of respect given to colleagues, commitment to students, cooperation and support, and autonomous judgement. Achievement Press describes a school which sets high academic standards and goals, which exerts pressure for high standards and school improvement and which has students who work hard at achieving academic success and are recognized for their accomplishments by teachers and students alike. Institutional Vulnerability "is the extent to which the school is susceptible to a few vocal parents and citizen groups" which leads to defensive teachers and school leaders (Hoy, Smith & Sweetland, 2003, p. 42).

Finally, teacher collective efficacy is represented by two constructs: instructional strategies and student discipline. Instructional strategies refer to the perception that one's

colleagues use highly effective strategies to engage students in the classroom. Student discipline refers to a perception of fellow colleagues' ability to manage student behavior to ensure learning is facilitated in the school (Tschannen-Moran & Barr, 2004).

Data Analysis Procedures

This study employed a range of procedures to answer the research questions. Data was collected from teachers using survey scores and demographic information. Originally, this study was going to use structural equation modeling to analyze the collected data; however, due to the limited response rate, a linear regression and multiple linear regression were substituted to analyze the data. The analyses below were used to investigate correlations and predictions.

Correlation. Correlation matrices are provided, including all variables and their sub-constructs as well as demographic items. Positive relationships are indicated along with the 2-tailed significance level. It was hypothesized that spiritual leadership will be positively correlated with both teacher collective efficacy and school climate. Tables and analyses are provided in chapter four.

Linear regression. Linear regression was used to discover predictive relationships between spiritual leadership and teacher collective efficacy and school climate to answer the first two research questions. Regression procedures can analyze quasi-experimental or observational data in which adjustment for confounding variables is used to infer what a hypothetically controlled experiment would yield as a result which leads to the distinction between correlation and causation (Adams & Lawrence, 2015). The mean score for each participant was calculated for spiritual leadership, teacher collective and school climate. An IBM SPSS software package was used to perform the linear regressions. Although causality cannot be determined through correlational studies, linear regression provides predictive capabilities and creates a structure

which can be used to determine cause-effect relationships provided there is strong theoretical support (Gefen, Straub & Boudreau, 2000). As a rule of thumb, at least thirty participants should be sampled for each independent variable (Adams & Lawrence, 2015). Using the G*Power calculator from the University of Dusseldorf it was found that at least 72 participants would be needed to achieve a power greater than .95 with an alpha of .05 and a medium effect size ($f = .15$). The actual sample size for this study was 104 participants.

Multiple linear regression. Ordinary Least Squares (OLS) Multiple Regression was used to answer the study's last two research questions. A preliminary power analysis was used to determine whether the sample size was sufficient for the analysis. Generally, desired sample sizes for multilevel regression should have a minimum of 5 observations per parameter included in the model, but 10 observations per parameter is recommended (VanVoorhis & Morgan, 2007). With the six constructs of the independent variable, spiritual leadership and the dependent variable of either teacher collective efficacy or school climate, a sample size of 70 is needed. Using the G*Power statistical package with six predictors, an alpha of .05, power of .95, and medium effect size ($f = .15$) it was determined that a minimum sample size of 72 would be required for the analysis. The current sample of 104 participants exceeds this threshold, and is sufficient power for multiple regression with six predictors.

Limitations and Delimitations of the Research Design

Correlational research is limited to describing relationships between variables but cannot establish a cause and effect pattern. Survey research involving self-report is susceptible to social desirability bias when participants respond how they think they should rather than what they actually do or think (Adams & Lawrence, 2015). Surveys also do not allow for follow-up

information and lacks the depth of information which can be obtained from an interview and direct observation.

To date, relationships between the variables have not been empirically established in peer reviewed journals. Another limitation is external validity. This is determined by the sampling method and refers to the ability to generalize the findings to the general population (Adams & Lawrence, 2015). This study tried to mediate the effects of using a purposeful sampling method by employing grouping techniques but due to limited participation a convenience sample was used. Finally, establishing a reliability of the measures is crucial in a correlational design using survey methods. It is for these reasons this study combined three established survey instruments in their entirety into one survey, each of which have been shown to be valid and reliable in previously published research for the three variables under examination (Fry et al., 2016; Hoy, Smith, & Sweetland, 2003; Tschannen-Moran, & Barr, 2004).

The sample size and composition also provides further limitations to the study. School selection followed a maximum variation sampling method to reach a representative sample with a smaller sample size but few schools agreed to participate. The sample size is relatively small with respect to the population due to time and budget restrictions and the low response rate; therefore, confidence levels will be difficult to reach and confidence intervals will be larger than those obtained with a larger sample size.

This study is delimited to examining only schools which use an international English curriculum while there are a number of international schools which offer instruction in a language other than English. Furthermore, due to time constraints and survey length, only teachers will evaluate school climate, collective efficacy, and spiritual leadership.

Validity

At the study level, internal validity concerns causal relationships and the manipulation of the independent variable (Adams & Lawrence, 2015). However, at the instrument level internal validity is of primary importance. This study utilizes three instruments for measurement which have been shown to be reliable and valid as noted in the section on instrumentation.

External validity describes the confidence the results of a study generalizes to the larger population (Adams & Lawrence, 2015). This is largely done through the sampling procedure for correlational studies and through analyzing different groups within the study (Adams & Lawrence, 2015). By using a stratified sampling method as outlined above, external validity is increased through careful sampling of various school characteristics. The following chapter describes in detail the nature of the participating schools and teachers.

Ethical Issues in the Study

This study was submitted to the Institutional Review Board (IRB) committee at Concordia University, Portland and approved. Participants were given informed consent documents which clearly outlined the goals of the study, how the data would be collected and how the data would be studied. Schools granted permission and were fully informed of the collection and analysis procedures. Identities of participants were not recorded. All participants and school officials received copies of the results of the study upon request.

Summary

This study used a quantitative design to explore the relationships between spiritual leadership, school climate and teacher collaborative efficacy. Data was collected from international schools across Asia using a convenience sampling technique. The data was

analyzed using a correlation matrix, simple linear regression, and multiple regression using the SPSS software package. Chapter 4 will present the results of the data analysis.

Chapter 4: Findings

Introduction

Spiritual leadership has been shown to be effective in increasing productivity and organizational commitment in many settings, typically business, governmental, and military settings. Because international schools are quite different entities, this study examines the relationship of spiritual leadership with two critical elements of international schools: teacher collective efficacy and school climate. One-hundred four teachers from 15 schools in nine countries across Asia were surveyed. The survey instrument incorporated Fry's revised Spiritual Leadership Survey (2015), the short form of the collective teacher efficacy instrument (Goddard, 2002) and the organizational climate index (Hoy, Smith & Sweetland, 2003). All these instruments have been shown to be valid and reliable in previous studies. Linear regressions were used to find prediction equations for both teacher collective efficacy and school climate. Multiple regressions were used to discover which individual components of spiritual leadership contributed to the prediction.

Description of the Sample

The responses from 104 volunteer teacher participants from 15 Asian international schools were used to answer both research questions. Due to the limited response from international school heads, a convenience sample was used rather than a stratified sample. Of the 57 schools requested, only 15 chose to participate or 26%. One hundred eighteen teachers from the 15 schools took the survey but fourteen surveys had to be removed as less than 80% of the survey was completed. The rate of response was 118 out of 550 possible teachers or 21%. Demographic data for the teachers are included in Table 1.

Table 1

Summary of Survey Respondants' Demographics

School Location		
Thailand	5	33.3%
Philippines	2	13.3%
China	2	13.3%
Malaysia	1	6.7%
Vietnam	1	6.7%
Japan	1	6.7%
Turkey	1	6.7%
India	1	6.7%
Mongolia	1	6.7%
School Type		
Christian	8	53.3%
Secular	7	46.7%
Teacher Nationality		
American	46	44.2%
Australian	2	1.9%
British	10	9.6%
Canadian	7	6.7%
Chinese	1	1.0%
Filipino	13	12.5%
German	1	1.0%
Indian	8	7.7%
Irish	1	1.0%
Jamaican	1	1.0%
Korean	1	1.0%
Mexican	1	1.0%
Mongolian	3	2.9%
New Zealand	1	1.0%
South American	1	1.0%
Thai	2	1.9%
Turkish	3	2.9%
Unknown	2	1.9%
Gender		
Male	44	
Female	60	

Table 1.

Total Teaching Experience (years)		
<1	5	4.8%
1-2	12	11.5%
3-5	17	16.3%
6-10	21	20.2%
11-15	19	18.3%
16-20	19	18.3%
>20	11	10.6%
Years at Present School		
<1	18	17.3%
1-2	32	30.8%
3-5	31	29.8%
6-10	13	12.5%
11-15	8	7.7%
16-20	1	1.0%
>20	1	1.0%
Teaching Assignment (Some teachers selected more than one)		
Preschool/Kindergarten	8	
Primary	32	
Middle School	28	
High School	56	

Summary of the Results

A linear regression was used to answer the first research question. It was found that spiritual leadership statistically significantly predicted teacher collective efficacy, $F(1, 102) = 40.259, p < .0005$, accounting for 28.3% of the variation in teacher collective efficacy with adjusted $R^2 = 27.6\%$, a small size effect according to Cohen (1988). Again using linear regression for the second research question, it was found that spiritual leadership statistically significantly predicted school climate, $F(1, 102) = 71.228, p < .0005$, accounting for 44.1% of the variation in school climate with adjusted $R^2 = 40.5\%$, a medium size effect according to Cohen (1988).

To answer the third research question a multiple linear regression was run to predict teacher collective efficacy from the first six components of spiritual leadership: Inner Life (IL),

Hope/Faith(HF), Vision(V), Altruistic Love(AL), Membership (M), and Meaning/Calling (MC). The three output components of Productivity, Organizational Commitment and Life Satisfaction were omitted. There was linearity as assessed by inspection of the partial regression plots and a plot of studentized residuals against the predicted values. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.333. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity after standardizing the independent variables and performing a varimax rotation. There were no studentized deleted residuals greater than ± 3 standard deviations, no leverage values greater than 0.2, and values for Cook's distance above 1. The assumption of normality was met, as assessed by inspection of a P-P Plot. The multiple regression model statistically significantly predicted teacher collective efficacy, $F(6, 97) = 7.084$, $p < .0005$, $R^2 = 0.305$. Four of the six independent variables added statistically significantly to the prediction, $p < .05$. Regression coefficients and standard errors can be found in Table 3 (below).

To answer the fourth research question, a multiple linear regression was run to predict school climate from the first six components of spiritual leadership: Inner Life (IL), Hope/Faith(HF), Vision(V), Altruistic Love(AL), Membership (M), and Meaning/Calling (MC). There was linearity as assessed by inspection of the partial regression plots and a plot of studentized residuals against the predicted values. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.171. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity after standardizing the independent variables and performing a varimax rotation. There were no studentized deleted residuals greater than ± 3

standard deviations, three leverage values greater than 0.2 were found but were kept, and no values for Cook's distance were above 1. The assumption of normality was met, as assessed by inspection of a P-P Plot. The multiple regression model statistically significantly predicted school climate, $F(6, 97) = 13.456, p < .0005, R^2 = .454$. All six variables added statistically significantly to the prediction, $p < .05$. Regression coefficients and standard errors can be found in the tables below.

Detailed Analysis

To answer the first research question a linear regression was used to examine the relationship between spiritual leadership and teacher collective efficacy and a second regression was used for spiritual leadership and school climate. A mean composite score was calculated for each variable, therefore the first two assumptions of linear regression was met: one dependent continuous variable and one independent continuous variable.

Research question 1. What is the predictive relationship between spiritual leadership and teacher collective efficacy?

A linear regression analysis was conducted to evaluate the prediction of teacher collective efficacy based on the spiritual leadership of school administrators. The scatterplot for the two variables, as shown in Figure 2, indicates that the two variables are linearly related such that as spiritual leadership increases the teacher collective efficacy increases. The regression equation for predicting collective teacher efficacy was found to be

$$\text{Predicted Teacher Collective Efficacy} = 3.31(\text{extent of Spiritual Leadership}) + .91.$$

The 95% confidence interval for the slope, .63 to 1.20 does not contain the value zero, and therefore teacher collective efficacy is significantly related to the extent of spiritual leadership. Accuracy in predicting teacher collective efficacy was moderate. The correlation between

teacher collective efficacy and the extent of spiritual leadership was .53. Approximately 28% of the variance of teacher collective efficacy was accounted for by its linear relationship with the extent of spiritual leadership.

To answer this question the mean score for both variables were computed and a scatterplot of spiritual leadership against teacher collective efficacy was plotted (Figure 2). Visual inspection of this scatterplot indicated a linear relationship between the variables meeting the third assumption of linear regression. To test for independence of observations a Durbin-Watson statistic was calculated (Table 3). There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.860 confirming the assumption of independence. To check for outliers a visual inspection of the scatter plot revealed three possible cases. Running a case-wise diagnostics in the linear regression revealed no outliers with a standardized residual greater than three standard deviations from the mean (Table 2). Running the statistic again with a threshold of 2.5 standard deviations from the mean revealed two potential influencers: -2.981 and -2.869. Upon visual inspection of the records it was decided to keep the unusual records as they showed reasonable variability in their answers, i.e. not a string of 1's, to show good faith in their responses.

Table 2

Spiritual Leadership and Teacher Collective Efficacy Casewise Diagnostics^a

Case Number	Std. Residual	TCEmean	Predicted Value	Residual
33	-2.981	3.30769	5.7679363	-2.46024395
82	-2.869	3.92308	6.2915870	-2.36851005

a. Dependent Variable: TCEmean

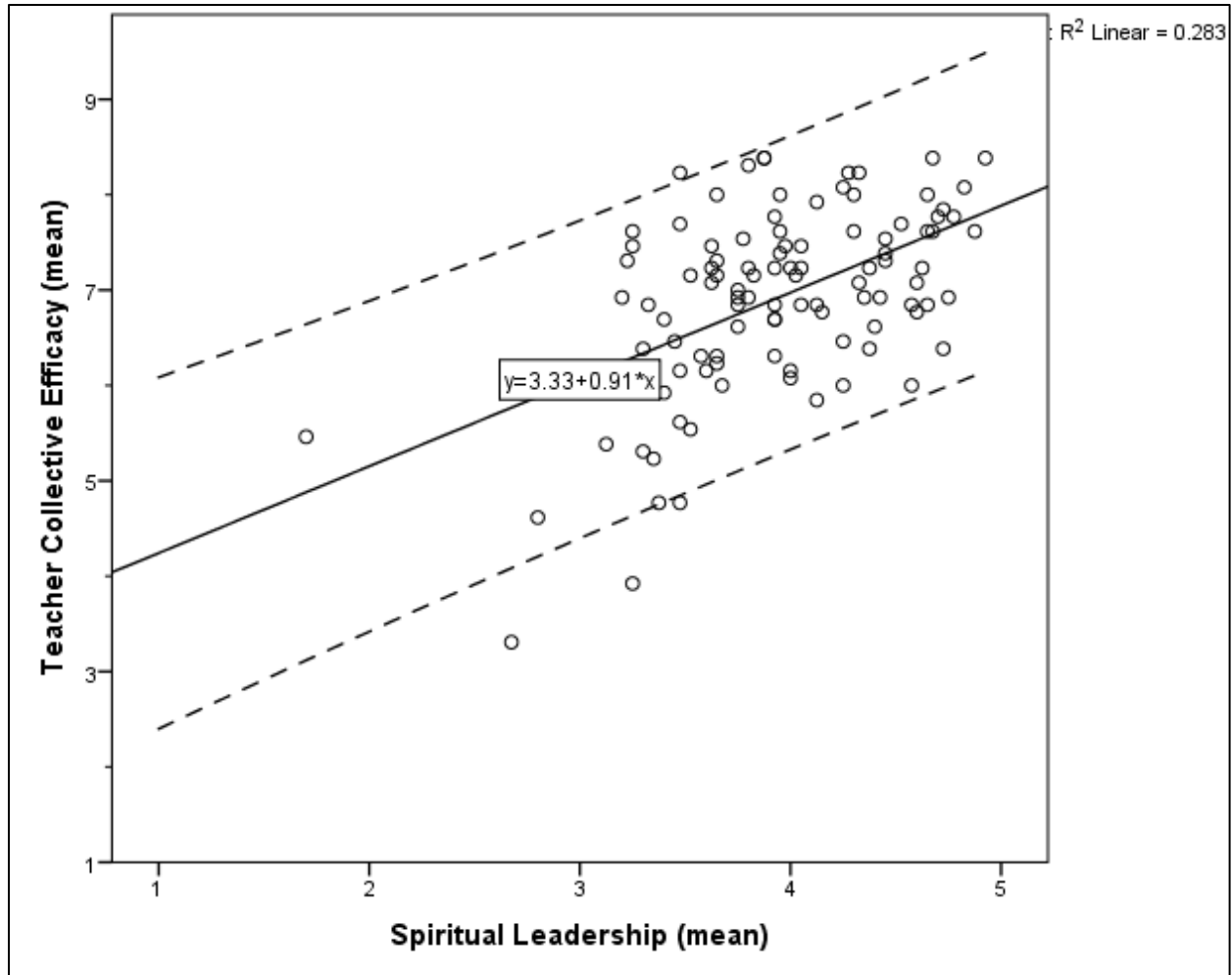


Figure 2. Spiritual Leadership and Teacher Collective Efficacy Scatter Plot

The assumption of homoscedasticity is an important assumption of linear regression and indicates that the variance of the errors is constant across all the values of the independent variable. Due to the manner in which the residuals act as the errors (Kutner, Nachtsheim, Neter, & Li, 2005), this assumption of equal error variances can be checked by inspection of a histogram and normal distribution or a plot of the unstandardized or standardized residuals against the predicted values or standardized predicted values. Homoscedasticity was established by visual inspection of a plot histogram with a normal distribution overlay as provided by the SPSS program (Figure 3).

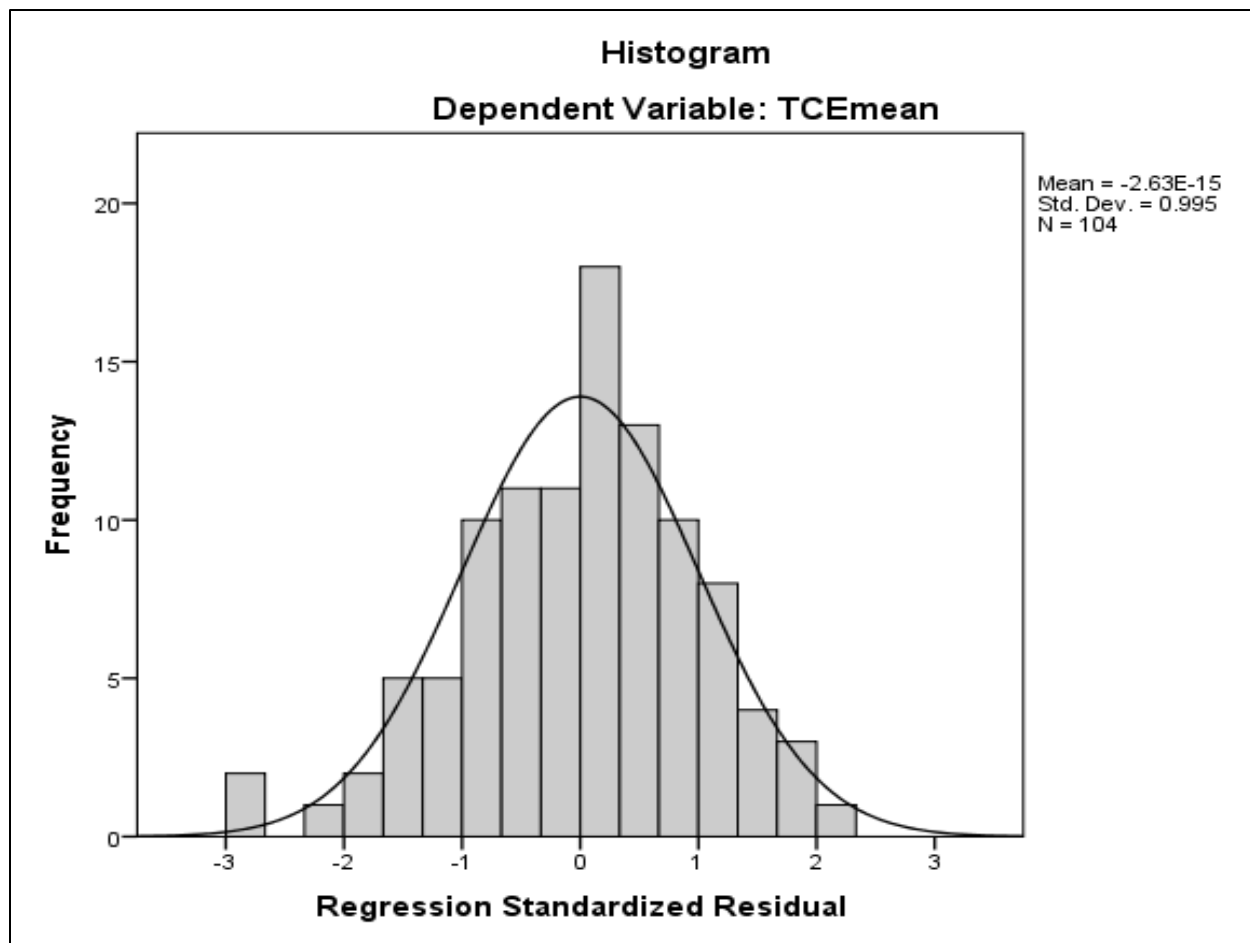


Figure 3. Spiritual Leadership and Teacher Collective Efficacy Test for Homoscedasticity

The final assumption that the residuals (errors) of the regression line are approximately normally distributed was checked by looking for skewness and kurtosis in a normal P-P plot of regression standardized residual. Residuals were normally distributed as assessed by visual inspection.

Spiritual leadership statistically significantly predicted teacher collective efficacy, $F(1, 102) = 40.259, p < .0005$, accounting for 28.3% of the variation in teacher collective efficacy with adjusted $R^2 = 27.6\%$, a small size effect according to Cohen (1988). A one point increase in spiritual leadership leads to a 0.91 (95% CI, 0.626 to 1.195) point increase teacher collective efficacy. The data are presented in the tables below.

Table 3

Spiritual Leadership and Teacher Collective Efficacy Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.532 ^a	.283	.276	.82542947	1.860

a. Predictors: (Constant), SL_mean

b. Dependent Variable: TCEmean

Table 4

Spiritual Leadership and Teacher Collective Efficacy ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.430	1	27.430	40.259	.000 ^b
	Residual	69.496	102	.681		
	Total	96.926	103			

a. Dependent Variable: TCEmean

b. Predictors: (Constant), SL_mean

Table 5

Spiritual Leadership and Teacher Collective Efficacy Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	
1	(Constant)	3.332	.569		5.860	.000	2.204 4.459
	SL_mean	.911	.144	.532	6.345	.000	.626 1.195

a. Dependent Variable: TCEmean

Research question 2. What is the predictive relationship between spiritual leadership and school climate?

A linear regression analysis was again used to evaluate the prediction of school climate based on the spiritual leadership of school administrators. The scatterplot for the two variables , as shown in Figure 4, indicates that the two variables are linearly related such that as spiritual leadership increases the school climate increases. The regression equation for predicting school climate was found to be,

$$\text{Predicted School Climate} = 0.45(\text{extent of Spiritual Leadership}) + 1.13.$$

The 95% confidence interval for the slope, .342 to .553 does not contain the value zero, and therefore school climate is significantly related to the extent of spiritual leadership. Accuracy in predicting school climate was moderate. The correlation between school climate and the extent of spiritual leadership was .64. Approximately 41% of the variance of teacher collective efficacy was accounted for by its linear relationship with the extent of spiritual leadership.

Again, to answer this question the mean score for both surveys were computed and a scatterplot of spiritual leadership against school climate was plotted (Figure 4). Visual inspection of this scatterplot indicated a linear relationship between the variables meeting the third assumption of linear regression. To test for independence of observations a Durbin-Watson statistic was calculated. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.670 confirming the assumption of independence (Table 6). To check for outliers a visual inspection of the scatter plot did not reveal any cases. Running a case-wise diagnostics in the linear regression confirmed there were no influencers with a standardized residual greater than 2.5 standard deviations from the mean.

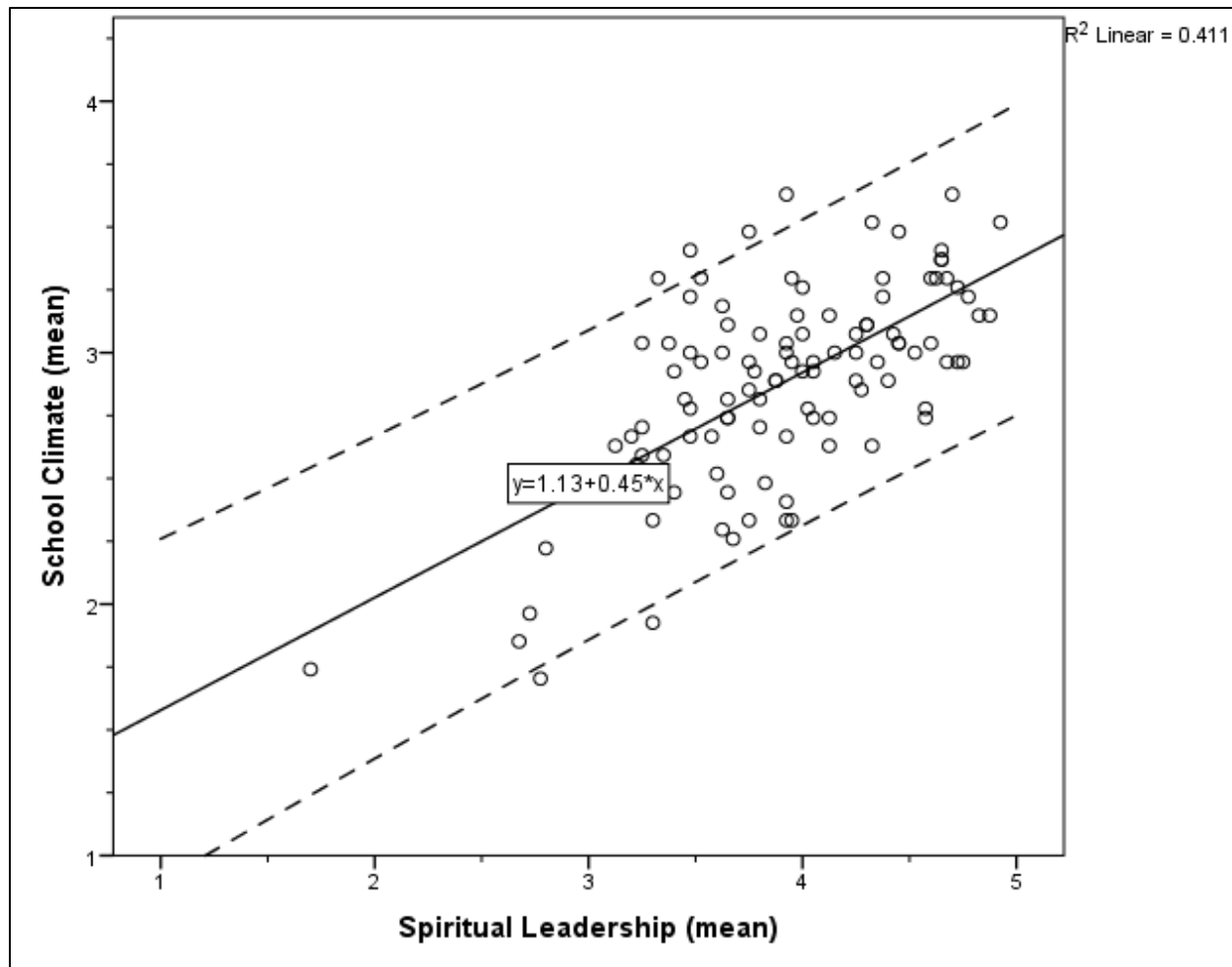


Figure 4. Spiritual Leadership and School Climate Scatter Plot

The assumption of homoscedasticity is an important assumption of linear regression and indicates that the variance of the errors is constant across all the values of the independent variable (Kutner et al., 2005). Due to the manner in which the residuals act as the errors this assumption of equal error variances can be checked by inspection of a histogram of the residuals with a normal curve overlay or a plot of the unstandardized or standardized residuals against the predicted values or standardized predicted values. Homoscedasticity was established by visual inspection of a plot histogram with a normal distribution overlay as provided by the SPSS program (Figure 5).

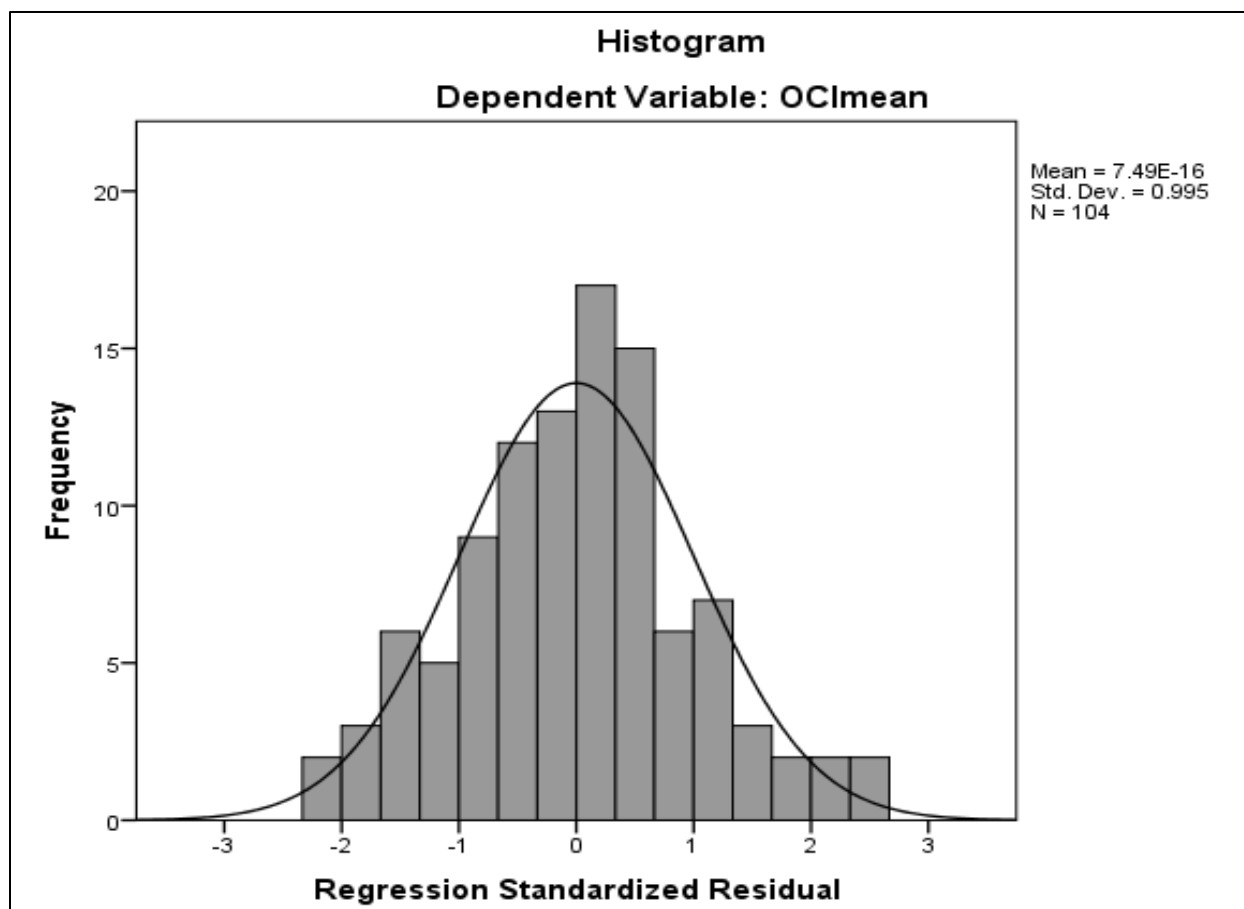


Figure 5. Spiritual Leadership and School Climate Test for Homoscedasticity

The final assumption that the residuals (errors) of the regression line are approximately normally distributed was checked by looking for skewness and kurtosis in a normal P-P plot of regression standardized residual. Residuals were normally distributed as assessed by visual inspection.

Spiritual leadership statistically significantly predicted school climate, $F(1, 102) = 71.228$, $p < .0005$, accounting for 41.1% of the variation in school climate with adjusted $R^2 = 40.5\%$, a medium size effect according to Cohen (1988). A one point increase in spiritual leadership leads to a 0.45 (95% CI, 0.342 to 0.553) point increase school climate. The data are presented in the tables below.

Table 6

Spiritual Leadership and School Climate Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.641 ^a	.411	.405	.30505432	1.607

a. Predictors: (Constant), SL_mean

b. Dependent Variable: OCImean

Table 7

Spiritual Leadership and School Climate ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.628	1	6.628	71.228	.000 ^b
	Residual	9.492	102	.093		
	Total	16.120	103			

a. Dependent Variable: OCImean

b. Predictors: (Constant), SL_mean

Table 8

Spiritual Leadership and School Climate Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Lower Bound	Upper Bound
1	(Constant)	1.131	.210		5.382	.714	1.548
	SL_mean	.448	.053	.641	8.440	.342	.553

a. Dependent Variable: OCImean

Research question 3: How do the components of spiritual leadership contribute to the prediction of teacher collective efficacy? A multiple regression was used to explore the relationship of six components of spiritual leadership and teacher collective efficacy. Table 9 presents the bivariate correlations, mean, and standard deviation for each of the six independent variables and the independent variable, teacher collective efficacy. All variables showed

statistically significant correlations with one another ($p < 0.01$) from weak, 0.260, to strong, 0.823, indicating that multicollinearity could be a problem.

Table 9

Components of Spiritual Leadership and Teacher Collective Efficacy Description and Bivariate Correlations (N = 104)

	1	2	3	4	5	6	\bar{x}	Std
1 TCEmean	1.000						6.90	0.970
2 SL_ILmean	.260**						4.20	0.524
3 SL_ALmean	.496**	.473**					3.68	0.859
4 SL_HFmean	.471**	.599**	.659**				4.05	0.675
5 SL_Vmean	.466**	.638**	.694**	.823**			3.88	0.738
6 SL_Mmean	.487**	.413**	.821**	.604**	.615**		3.79	0.901
7 SL_MCmean	.334**	.540**	.450**	.648**	.610**	.464**	4.44	0.540

**. Correlation is significant at the 0.01 level (1-tailed).

To test for linearity between the components of spiritual leadership and teacher collective efficacy scatter plots were constructed and visually inspected revealing all six components having a linear relationship with teacher collective efficacy. A multiple regression was carried out but multicollinearity issues were found as predicted earlier, especially between Vision and Hope/Faith ($r = 0.823$), Membership and Altruistic Love ($r = 0.821$), and Vision and Altruistic Love (0.694). Although the multiple regression model statistically significantly predicted teacher collective efficacy, $F(6, 97) = 7.084$, $p < .0005$, $R^2 = 0.305$, none of the six independent variables added statistically significantly to the prediction, $p < .05$.

The collinearity diagnostics confirmed there were serious problems with multicollinearity (Table 10). Several eigenvalues were close to 0, indicating that the predictors were highly inter-correlated and small changes in the data values may lead to large changes in the estimates of the coefficients. Therefore, the independent variables were converted to z-scores. However, while the z-score transformation improved the collinearity diagnostic, it did not improve the variance inflation. The z-scores were then used to create a set of independent variables that were

uncorrelated and fit the dependent variable as well as the original independent variables using a factor analysis extraction with a Varimax Rotation.

Table 10

Components of Spiritual Leadership and Teacher Collective Efficacy Collinearity Diagnostics^a before Transformation

Model	Dimension	Eigenvalue	Condition Index
1	1	6.913	1.000
	2	.044	12.490
	3	.017	20.273
	4	.009	27.379
	5	.007	31.917
	6	.005	35.822
	7	.005	37.552

a. Dependent Variable: TCEmean

A new regression was calculated using the transformed independent variables. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.333 (Table 11). There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. The data was checked for outliers, leverage points and influential points. There were no studentized deleted residuals greater than ± 3 standard deviations. There were still three leverage values greater than 0.2. After examining the three cases it was decided to let them remain. The three cases represented teachers who had low scores on most of the variables but the responses appeared to be given in good faith and should be considered valid. All values for Cook's distance were less than one. The assumption of normality was met, as assessed by inspection of a P-P Plot. The multiple regression model statistically still significantly predicted teacher collective efficacy, $F(6, 97) = 7.084$, $p < .0005$, $R^2 = 0.305$ but now inner life, vision, meaning and calling, and membership added statistically significantly to the prediction, $p < .05$. Data tables are provided below.

Table 11

Components of Spiritual Leadership and Teacher Collective Efficacy Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.552 ^a	.305	.262	.83354748	2.333

a. Predictors: (Constant), REGR factor score Inner Life, REGR factor score Altruistic Love, REGR factor score Hope/Faith, REGR factor score Vision, REGR factor score Membership, REGR factor score Meaning/Calling

b. Dependent Variable: TCEmean

Table 12

Components of Spiritual Leadership and Teacher Collective Efficacy Model ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.530	6	4.922	7.084	.000 ^b
	Residual	67.396	97	.695		
	Total	96.926	103			

a. Dependent Variable: TCEmean

b. Predictors: (Constant), REGR factor score Inner Life, REGR factor score Altruistic Love, REGR factor score Hope/Faith, REGR factor score Vision, REGR factor score Membership, REGR factor score Meaning/Calling

Table 13

Components of Spiritual Leadership and Teacher Collective Efficacy Model Coefficients^a

	Unstandardized		Standardized			95.0% Confidence				
	Coefficients		Coefficients			Interval for B		Correlations		
		Std.				Lower	Upper	Zero-		
	B	Error	Beta	t	Sig.	Bound	Bound	order	Partial	Part
(Constant)	6.902	.082		4.447	.000	.740	.065			
REGR factor										
Inner Life	.340	.082	0.351	.141	.000	.177	.503	.351	.388	.351
REGR factor										
Altruistic Love	.059	.082	0.061	.724	.471	0.104	.222	.061	.073	.061
REGR factor										
Hope/Faith	.152	.082	0.156	.846	.068	0.011	.315	.156	.184	.156
REGR factor										
Vision	.245	.082	0.252	.981	.004	.082	.408	.252	.290	.252
REGR factor										
Membership	.212	.082	0.219	.582	.011	.049	.375	.219	.254	.219
REGR factor										
Meaning/Calling	.199	.082	0.205	.422	.017	.036	.362	.205	.239	.205

a. Dependent Variable: TCEmean

Research question 4. How do the components of spiritual leadership contribute to the prediction of school climate? Another multiple regression was used to explore the relationship of six components of spiritual leadership and school climate. Table 14 presents the bivariate correlations, mean, standard deviation and sample size for each of the six independent variables and the independent variable, teacher collective efficacy. All variables showed significant correlations with one another from moderate, 0.393, to strong, 0.823.

Table 14

Components of Spiritual Leadership and School Climate Description and Bivariate Correlations (N = 104)

	1	2	3	4	5	6	\bar{x}	Std
1 OCImean	1.000						2.8860	0.3956
2 SL_ILmean	.395**	1.000					4.2009	0.5240
3 SL_ALmean	.648**	.473**	1.000				3.6846	0.8588
4 SL_HFmean	.563**	.599**	.659**	1.000			4.0528	0.6752
5 SL_Vmean	.545**	.638**	.694**	0.823**	1.000		3.8822	0.7381
6 SL_Mmean	.531**	.413**	.821**	0.604**	.615**	1.000	3.7860	0.9013
7 SL_MCmean	.393**	.540**	.450**	0.648**	.610**	.464**	4.4351	0.5408

**. Correlation is significant at the 0.01 level (1-tailed).

For the second multiple regression the factored standardized scores for the independent variables were used due to the confirmed multicollinearity issues mentioned previously. Before using the standardized scores a multiple regression was carried out using the raw scores and multicollinearity issues were found as predicted earlier, especially between Vision and Hope/Faith ($r = 0.823$), Membership and Altruistic Love ($r = 0.821$), and Vision and Altruistic Love (0.694). Although the multiple regression model statistically significantly predicted teacher collective efficacy, $F(6, 97) = 7.084$, $p < .0005$, $R^2 = 0.305$, once again, none of the six independent variables added statistically significantly to the prediction, $p < .05$.

The independent variables were converted to z-scores and then used to create a set of independent variables that were uncorrelated and fit the dependent variable as well as the original independent variables using a factor analysis extraction with a Varimax Rotation. A new regression was calculated using the transformed independent variables. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.333 (Table 15). There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. The data was checked for outliers, leverage points and influential points. There were no studentized deleted residuals greater than ± 3 standard

deviations. There were still three leverage values greater than 0.2. Once again, the three cases were kept. All values for Cook's distance were less than one. The assumption of normality was met, as assessed by inspection of a P-P Plot. The multiple regression model statistically significantly predicted teacher collective efficacy, $F(6, 97) = 7.084, p < .0005, R^2 = 0.305$ but now all independent variables added statistically significantly to the prediction, $p < .05$ (Table 17). Data tables are provided below.

Table 15

Components of Spiritual Leadership and School Climate Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.674 ^a	.454	.420	.30116110	2.171

a. Predictors: (Constant), REGR factor score Inner Life, REGR factor score Altruistic Love, REGR factor score Hope/Faith, REGR factor score Vision, REGR factor score Membership, REGR factor score Meaning/Calling

b. Dependent Variable: OCImean

Table 16

Components of Spiritual Leadership and School Climate ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.323	6	1.220	13.456	.000 ^b
	Residual	8.798	97	.021		
	Total	16.120	103			

a. Dependent Variable: OCImean

b. Predictors: (Constant), REGR factor score Inner Life, REGR factor score Altruistic Love 1, REGR factor score Hope/Faith, REGR factor score Vision, REGR factor score Membership, REGR factor score Meaning/Calling

Table 17

Components of Spiritual Leadership and School Climate Coefficients^a

						95.0%				
	Unstandardized		Standardized		Sig.	Confidence		Correlations		
	Coefficients		Coefficients			Interval for B				
	B	Std. Error	Beta	t		Lower Bound	Upper Bound	Zero-order	Partial	Part
(Constant)	2.886	.030		97.729	.000	2.827	2.945			
REGR factor										
Inner Life	.130	.030	0.330	4.396	.000	.072	.189	.330	.408	.330
REGR factor										
Altruistic Love	.071	.030	0.180	2.395	.019	.012	.130	.180	.236	.180
REGR factor										
Hope/Faith	.067	.030	0.169	2.250	.027	.008	.126	.169	.223	.169
REGR factor										
Vision	.115	.030	0.290	3.868	.000	.056	.174	.290	.366	.290
REGR factor										
Membership	.081	.030	0.204	2.717	.008	.022	.140	.204	.266	.204
REGR factor										
Meaning/Calling	.158	.030	0.399	5.317	.000	.099	.217	.399	.475	.399

a. Dependent Variable: OCImean

Summary

This study was designed to determine if there was a causal relationship between spiritual leadership and two important variables in schools: teacher collective efficacy and school climate. Furthermore, if a causal relationship existed this study aimed to explore the effect sizes of the six base components of spiritual leadership: Inner Life, Altruistic Love, Hope/Faith, Vision, Membership, and Meaning/Calling. A convenience sample of 104 teachers in 15 Asian international schools were surveyed using a composite of three existing surveys. Most teachers scored above average when compared to results from previous studies.

To answer the first two research questions a linear regression was used. In the first research question the mean spiritual leadership score was the independent variable and the mean

teacher collective efficacy score was the dependent variable. The linear regression revealed that spiritual leadership significantly predicted teacher collective efficacy, $F(1, 102) = 40.259, p < .0005$, accounting for 28.3% of the variation in teacher collective efficacy.

For the second research question, the mean score of spiritual leadership was the independent variable and the mean score of school climate was used as the dependent variable. The linear regression once again demonstrated that spiritual leadership significantly predicted school climate, $F(1, 102) = 71.228, p < .0005$, accounting for 41.1% of the variation in school climate.

To answer the third and fourth research questions a multiple regression was employed, dividing spiritual leadership into six domains to evaluate if and to what extent each domain contributed to teacher collective efficacy and school climate. Because of multicollinearity issues the mean scores of the independent variables had to be standardized and factored through a Varimax rotation.

For teacher collective efficacy, the multiple regression showed four of the six components of spiritual leadership were statistically significant predictors of teacher collective efficacy: inner life ($\beta = 0.351, p < 0.0005$), Vision ($\beta = 0.252, p < 0.005$), Membership ($\beta = 0.219, p < 0.05$), and Meaning/Calling ($\beta = 0.205, p < 0.05$). Two components of spiritual leadership were not shown to be significant: Altruistic Love ($\beta = 0.061, ns$) and Hope/Faith ($\beta = 0.156, ns$). For school climate, the multiple regression found all six components of spiritual leadership were statistically significant predictors of school climate: Inner Life ($\beta = 0.330, p < 0.0005$), Altruistic Love ($\beta = 0.180, p < 0.05$), Hope/Faith ($\beta = 0.169, p < 0.05$), Vision ($\beta = 0.290, p < 0.0005$), Membership ($\beta = 0.204, p < 0.01$), and Meaning/Calling ($\beta = 0.399, p < 0.0005$).

Chapter 5: Discussion and Conclusions

Introduction

Spiritual leadership in schools is slowly gaining the attention of educators as many advancements have been made in the fields of spiritual leadership and work place spirituality in business and leadership. This research study intended to examine relevant school leadership outcomes by assessing teachers' perceptions of school climate and teacher collective efficacy. The purpose of this quantitative prediction research study was to examine the extent spiritual leadership positively influences teacher collective efficacy and school climate as perceived by teachers in international schools across Asia using linear regression and multiple linear regression methods of analysis.

An general literature review in chapter two was achieved, assessing pertinent information on the subjects of international schools, teacher collective efficacy and school climate.. In addition, an survey of workplace spirituality and spiritual leadership theory reinforced the idea that leadership plays an important role in the outcomes at work. In earlier studies, workplace outcomes of spiritual leadership explored consisted of organizational commitment, productivity, life satisfaction etc. Grounded on a review of spiritual leadership studies from 2003 to 2017, the integration of school climate and teacher collective efficacy as potential predicted outcomes in a school setting was unique to this study.

Chapter three entailed of a detailed presentation of the research design, methodology, and data collection. Also included with chapter three was the explanation of the sample selection, data collection process, and methods for data analysis. Chapter four presented a detailed

inspection of the data results and provided a description of demographic data, research questions, and the regression analyses.

Chapter 5 includes the explanations of the data and the prediction equations as well as a thorough discussion of the results. Also included is a discussion of the study results in relation to the literature, limitations, implications, suggestions for future directions in spiritual leadership in schools, and conclusions. Theoretical and practical observations based on the findings might encourage education leaders to learn more how spiritual leadership practices might benefit schools.

Summary of the Results

This study was designed to determine the relationship between spiritual leadership and two important variables in schools: teacher collective efficacy and school climate. Furthermore, if a causal relationship existed, this study aimed to explore the effect sizes of the six base components of spiritual leadership: Inner Life, Altruistic Love, Hope/Faith, Vision, Membership, and Meaning/Calling. A convenience sample of 104 teachers in 15 Asian international schools were surveyed using a composite of three existing surveys. Most teachers scored above average when compared to results from previous studies.

For the first research question, the mean spiritual leadership score was the independent variable and the mean teacher collective efficacy score was the dependent variable. The linear regression revealed that spiritual leadership significantly predicted teacher collective efficacy, accounting for 28.3% of the variation in teacher collective efficacy. For the second research question, the mean spiritual leadership score was the independent variable and the mean school climate score was the dependent variable. The linear regression once again showed that spiritual

leadership significantly predicted school climate, accounting for 41.1% of the variation in school climate.

To answer the third and fourth research questions a multiple regression was employed, using six domains of spiritual leadership to test how each domain effected teacher collective efficacy and school climate. For teacher collective efficacy, the multiple regression showed four of the six components of spiritual leadership were statistically significant predictors of teacher collective efficacy: inner life, Vision, Membership, and Meaning/Calling. Two components of spiritual leadership were not shown to be significant: Altruistic Love and Hope/Faith. For school climate, the multiple regression found all six components of spiritual leadership were statistically significant predictors of school climate.

Discussion of the Results

Results from this study are encouraging as they show school climate and teacher collective efficacy may be positively impacted through spiritual leadership. This section will discuss the two dependent variables of school climate and teacher collective efficacy and their relationship to spiritual leadership in international schools.

Teacher collective efficacy. Teacher collective efficacy could be predicted by spiritual leadership scores but only 28.8% of the variation is explained. The limited explained variance can be accounted for by the fact that teacher collective efficacy is essentially the perception of the school policies and support of colleagues' ability to teach effectively and manage student behavior. Whilst spiritual leadership has been shown to cause increases in inner spiritual life, organizational commitment, and productivity, increases in the perception of the efficacy of peers appears to be somewhat limited although statistically significant. Within the components of spiritual leadership, inner life had the strongest contribution to the regression equation for

teacher collective efficacy with a standardized coefficient of 0.351, followed by vision, membership, and meaning/calling. Inner life is one's spiritual core providing strength and wisdom which can affect perceptions of who we are and how we perceive our environment (Duchon & Plowman 2005).

School climate. Spiritual leadership predicted school climate and explained 44.1% of the variation of school climate scores. Within the components of spiritual leadership meaning/calling had the highest contribution to the regression equation for school climate with a standardized coefficient of 0.399, followed by inner life, vision, membership, altruistic love and hope/faith.

Discussion of the Results in Relation to the Literature

Spiritual leadership. Fry's spiritual leadership model begins with inner life practices which influences the three primary components of spiritual leadership: altruistic love, vision, and hope/faith. When these components of spiritual leadership are present it leads to increases in feelings of membership and a sense of calling/meaning in the work in which the employees are engaged. This model has three primary outcomes: productivity, organizational commitment and life satisfaction. Using the foundation of Fry's spiritual leadership model, this study examined whether outputs particular to schools and of concern to school leaders could be augmented by spiritual leadership. The results of this study indicate that spiritual leadership can influence school climate and teacher collective efficacy.

Inner life. Inner life seems to be a good predictor of teacher's perceptions of teacher collective efficacy as well as school climate. Inner life was the most influential component of the regression equation for teacher collective efficacy and the second most influential component of school climate. Cultivating inner life practices and encouraging teachers to engage in these

practices could be time well spent by principals and school leaders. Maintaining a spiritually healthy faculty and leadership team could become a priority for school leaders. Certainly, in the many Christian schools I have worked there has been an encouragement in daily devotionals for teachers as well as an active prayer life and corporate worship. However, in secular schools or schools where there is a more heterogenous representation of faiths, encouraging spiritual practice and maintaining a healthy spiritual life would require more delicacy.

Vision. Vision is a key component of spiritual leadership where leaders create and communicate a shared vision of the future which incorporates high ideals and gives purpose to stakeholders. When an organization's vision is compelling and internalized by employees, they are more willing to think of the group first and accomplishing the mission can take priority over self-interests (Bass, 2000). Vision was the second most influential component of the teacher collective efficacy regression equation and the third strongest contributor for school climate. Creating and communicating a vision and mission for organizations is not new to spiritual leadership. It should be no surprise that it significantly predicted a portion of both teacher collective efficacy and school climate.

Meaning/calling. Within the spiritual leadership framework, teachers' sense of calling to the education profession refers to how they can make an impact through service to others which augments meaning and purpose in their lives (Fry & Nisiewicz, 2013). Meaning/calling was the fourth most influential component of the teacher collective efficacy regression equation and the strongest contributor for school climate. Having a school full of teachers who are committed to the education profession, are motivated to serve others and ready to impact lives is highly predictive of having a positive school climate.

Membership. Membership denotes the feeling of connection and being understood and appreciated for the contributions to the organization and its vision and mission (Fry, 2003). This sense of membership was the third most influential component of the teacher collective efficacy regression equation and the fourth most influential contributor for school climate. Having teachers who are actively engaged in the social fabric of the school and feel valued and appreciated by the school leadership will bring positive gains in teacher collective efficacy and school climate.

Altruistic love. As an essential component to the spiritual leadership model, altruistic love is the care, concern, and appreciation for both self and others producing a sense of wholeness, harmony and wellbeing (Fry, 2003). Although altruistic love was not a significantly contributing factor for teacher collective efficacy, it did significantly contribute toward school climate. Teachers' judgements regarding the efficacy of fellow teachers' and the school leaders' ability to teach effectively and maintain student discipline does not appear to be a directly impacted by the perception of the school leaders' ability to demonstrate love. However, teachers' perceptions of school climate are augmented when they also feel that their organization is caring and honorable toward themselves.

Hope/faith. Hope and faith together bring about a belief a future state will take place, even with limited evidence (Fry & Nisiewicz, 2013). This belief in the organization's future did not significantly predict teacher collective efficacy and was the least predictor of the spiritual leadership components to significantly contribute to the regression equation for school climate. Hope and faith refers to a future state while both measures of teacher collective efficacy and school climate address teachers' perceptions of the current state of schools. While hope and faith

might have an effect through an intermediary such as membership and meaning/calling it has little direct contribution to teacher collective efficacy and school climate.

Teacher collective efficacy. Brinson and Steiner (2007) found that school leaders can play an import and role in fostering a positive climate for collective teacher efficacy to grow. They asserted that effective principals find a way to help their teachers to collaborate, thereby building collective teacher efficacy. When school leaders maintain a strong focus on student academic achievement and simultaneously create a school climate which is supportive of teachers, collective teacher efficacy increased (Hoy & Hoy, 1993). Goddard, Hoy, and Hoy (2000) also discovered collective teacher efficacy is rather stable, so once it is established in a school, it is difficult to change. This study revealed that spiritual leadership through fostering both an internal teacher climate (inner love, meaning/calling) and strengthening relationships (vision, membership) could also increase collective teacher efficacy, complementing previous research.

School climate. Research has found that as the school leader, the principal is of paramount importance in establishing a positive school climate. School climate is not limited to classroom interactions but is also a product of the professional teacher-principal relationship which is an indicator of organizational health (Connolly, 2014; Durham, Bettencourt, & Rafferty, 2003; Halawah, 2005). Open communication between teachers and administrators leads to shared goals, values, and beliefs, which are all aspects of a positive school climate (Edgeron, Kritsonis, & Herrington, 2006; Halawah, 2005).

The principal contributes to teacher's perceptions of school climate by building open trust and communication (Gulsen & Gulenay, 2014; Halawah, 2005). Stronge and Jones (1991) state that a full range of principal's educational leadership behavior influences the climate of the

school; however, two key ingredients to success are communicating common goals and fostering a spirit of collaboration. Price (2012) found that principals' relationships with their teachers affect both principals' and teachers' satisfaction, cohesion, and commitment levels. Price found that principal – teacher relationships strongly and directly affected teachers' attitudes, which helped to define their perception of school climate.

This study reaffirms previous findings as vision and membership are components of spiritual leadership which contribute significantly to the prediction equation for school climate. However, it is the internal components of inner love and meaning/calling which contributed more to the prediction of school climate and are new constructs to be associated with school climate.

Limitations

This study included schools across Asia. The schools selected consist of fifteen international schools spread across nine countries. The willingness of schools to participate in the study limited the number of schools in the study. The results of the small sample limit the transferability of results to a general international school population. This study focused solely on the relationship between spiritual leadership, teacher collective efficacy and school climate. There are multiple factors that play a critical role in teacher collective efficacy and school climate as well as interaction effects. However, there is a limit to the ability to control every factor to isolate spiritual leadership as the independent variable when measuring teacher collective efficacy and school climate.

Correlational research is limited to describing relationships between variables but cannot establish a cause and effect pattern. Survey research involving self-report is susceptible to social desirability bias when participants respond how they think they should rather than what they

actually do or think (Adams & Lawrence, 2015). Surveys also do not allow for follow-up information and lacks the depth of information which can be obtained from an interview and direct observation.

The sample size and composition also provide further limitations to the study. School selection followed a maximum variation sampling method to reach a representative sample with a smaller sample size but few schools agreed to participate. The sample size is relatively small with respect to the population due to time and budget restrictions and the low response rate; therefore, confidence intervals will be larger than those obtained with a larger sample size. Owing to sample limitations, measures of alternative leadership theories as control measures were not available for in this research.

Biases brought into this study included my own philosophical position, spiritual beliefs, choice of methodology, and personal values. Furthermore, the difficulty of clarity in understanding the construct of spirituality could be both a strength and weakness. Researchers and practitioners should not avoid this human phenomenon and how it can add to a deeper, richer understanding of how spirituality can be embedded in the practice of exemplary school leadership.

This study was delimited to surveying teaching professionals currently employed within an Asian international school setting. The sample included kindergarten, primary, middle school and high school teachers. The instruments used in this survey were the revised Spiritual Leadership Survey that includes 40 questions (Fry, 2015), 12 questions from the short form of the teacher collective efficacy instrument (Goddard, 2002) and 30 questions from the organizational climate index (Hoy, Smith & Sweetland, 2003). Another limitation of this study is the sensitivity of the information collected coinciding with the demographics information.

Although the researcher guaranteed anonymity, respondents may have provided less than accurate responses for concern these answers could be traced back to the individual. Therefore, in the data analysis chapter, careful consideration was given to ensure the presentation of demographic information did not potentially expose respondents.

This study was also delimited to examining only schools which use an international English curriculum; however, there are many international schools which offer instruction in a language other than English. Furthermore, due to time constraints and survey length, school climate, collective teacher efficacy, and spiritual leadership were only evaluated from the perspective of teachers.

Implications for Practice, Policy and Theory

So often effective leadership in international schools is defined in fiscal or managerial terms. Leadership from a mechanistic perspective gives a narrowed point of view of leadership which encourages a technical practice to teaching and learning rather than an organic, humanistic one that links leadership and learning (Slater, 2013). Effective school leaders must be called upon to exude faith and inspiration, to practice service leadership, and to promote wellbeing in school communities. Leadership in schools must encourage the values of honor, integrity and commitment in all members of an educational community.

The literature implies there is an important dimension to leadership that is often overlooked. Educational leaders need to incorporate this added dimension to their leadership abilities which is spirituality. School leaders must call upon this added spirituality in their daily practice to effectively deal with challenges in schools. School leaders should be led by their spiritual principles in order to touch the mind, hearts, and souls of stakeholders to strengthen commitment towards organizational goals and objectives. Furthermore, today's school leaders

must inculcate a sense of purpose and energy in their activities. Thus, the spiritual dimension to leadership is an essential aspect for the transformation and success of any learning organization. Spiritual leadership should be incorporated into the definition of effective leadership in education.

Findings from research indicate spiritual leadership values, norms, and abilities do have a positive impact on organizational success and performance. Furthermore, this spiritual aspect to leadership also creates an environment which is meaningful to followers and leaders, develops faculty and staff who are committed towards organizational vision and goals, and generates employee commitment, satisfaction, and productivity. Hence, it is vital for educational leaders to apply this spiritual aspect of leadership to ultimately create a high-functioning learning organization. Additionally, research indicates a spiritual aspect of leadership can augment leaders' and followers' vitality and help to create meaning in their lives.

One of the challenges facing international school leaders is finding ways to encourage each staff member to mobilize their potential given the great diversity of the faculty. Developing the spiritual leadership capacity in schools and paying special attention to the spiritual health of its constituents is a good start. The findings of this study suggest that a spiritual dimension to educational leadership promotes a positive school climate and is linked to teacher collective efficacy. Suggestions to implement for practice include the following:

1. Professional development opportunities for administration and faculty focused on spiritual leadership development;
2. Spiritual leadership mentor programs;
3. Develop and nurture spiritual values and norms in the organization through collaboration and monitoring;

4. Encourage stakeholders to develop and nurture spiritual principles;
5. Monitor and promote spiritual wellbeing of leaders and faculty.

This study highlights the need to expand our current thinking about school leadership to promote school leaders who have a strong spiritual sense. Avolio et al. (2009) have suggested that spiritual leadership are needed to raise schools to higher levels of motivation, achievement and ethics where purpose is bonded with an emphasis on helping people find meaning and commitment in their work. Talented school leadership with a commitment to spiritual wellbeing can act as a catalyst for tapping the potential capacities that are already within the school setting.

Effective educators appreciate the need for change and balance change efforts by the protection of the human side of the learning community (Ellis, 2013). Leadership that is founded on the principles of faith, hope and altruistic love, is motivated by the main purpose of caring for the wellbeing of people (Ylimaki & Jacobson 2013). Leaders and staff are motivated by work that gives them a feeling of interconnectedness and a feeling of meaning and purpose (Duchon & Ashmos-Plowman, 2005). Consequentially, team members are intrinsically motivated to endure and persevere through obstacles and to overcome the discomfort of change and concentrate their energy on achieving meaningful results (Fullan, 2011).

According to Ellis (2013) leaders often disregard their own wellbeing in the consideration of others and need to understand when they disregard their wellbeing, they are not as effective in pursuit of their school's organizational goals. More attention must be given to caring for school leaders. To produce and sustain high levels of performance, leaders need to be nurtured and developed (Jacobsen et al., 2005).

Schools have become very complex and too often there is a simple, one-dimensional focus on outcomes which has become common to the definition of effective schools (Leithwood

et al., 2010). There is a need for balance between the drive to achieve results and the wellbeing of people. Skillful spiritual leaders know how to balance the needs of both the organization and its stakeholders. Furthermore, they know how to adapt to the kind of change that mobilizes everyone to engage in a struggle with shared aspirations, a critical component of the school improvement process (Fry & Nisiewicz, 2013; Fullan, 2011).

Given the independent nature of most international schools, the variety of teacher backgrounds and relatively small size, international schools are especially well-suited to innovate and explore new methods of teaching and school leadership. Spiritual leadership is a very promising field of leadership and international schools may be excellent incubators, able to generate data on spiritual leadership practices.

A holistic framework for school leadership should include traditional competencies but should also include the embodiment of spirituality which is the center of effective leadership practices which flow from a spiritual core of inner peace, altruistic love, hope and faith giving purpose, stability and meaning to the pursuit of shared goals. By modelling patience, integrity and altruistic love that is balanced with a firm commitment to high standards and excellence, the wellbeing of all is ensured and results are achieved.

Recommendations for Future Research

This study gives a preliminary insight into a topic and population which has not been empirically investigated. The findings of this research offer a basis for future exploration of spiritual leadership in international schools. The findings from this study suggest that schools which have high levels of spiritual leadership will be more likely to have a positive school climate and teacher collective efficacy. More research is required to confirm these findings. Altruistic love and Hope/Faith were the only variables of spiritual leadership which were not

shown to be significant predictors of teacher collective efficacy. Further research exploring the mediating effects of variables such as these on teacher collective efficacy is recommended.

Research on several aspects of spiritual leadership is necessary to establish the validity of the spiritual leadership model in schools and specifically, international schools. Longitudinal studies across a variety of sample types are needed to test for changes in variables over time, principally as they relate to a broader range of school specific performance indicators such as school climate and teacher collective efficacy. Future research is needed to explore the efficacy of the spiritual leadership model in different geographic regions to see if international schools in other regions have similar results.

It is suggested that more research into strategies and developing resources to help school leaders deal with the stress of leadership by intentionally teaching them how to maintain balance in their personal and professional lives. Spiritual wellness components in school leadership preparation programs could be added to include the importance of school leaders to develop and maintain healthier life habits. The education and training programs of school administrators should address the identification and mentoring of potential leaders who can emulate the key components identified in this investigation. While the duties and challenges of school leaders have changed dramatically, the way we prepare these school leaders has changed only marginally. This type of course could provide leaders with the opportunity to reflect on the essence and evolution of their own leadership development in light of the developments of spiritual leadership theory.

A qualitative inquiry of school leaders themselves may generate new variables relative to effectiveness and spirituality in school leadership efforts. Because the respondents in this study represented certain distinct demographic strata, future investigations should explore a more

variable representation of school personnel beyond the teaching faculty. Because this study was not gender or age specific, it might be fruitful to investigate these factors.

Other research recommendations include the following:

1. Interview school administrators to discover how spirituality impacts organizational leadership success.
2. Interview educational stakeholders to gain a perspective of the necessary support to be a successful learning community.
3. Hold focus groups to investigate ways that spirituality is promoted within a school.
4. Interview successful school leaders and their constituents to gain understanding on the leadership skills which emanate from being a spiritual leader.
5. Repeat this study with additional schools across Asia.
6. Conduct a longitudinal study of schools led by spiritual leaders to provide information on the success of spiritual leaders over a longer period of time.
7. Conduct a study to determine if the key characteristics of spiritual leadership can be learned or enhanced through a graduate program.
8. Compare and contrast how educational leaders from different religious backgrounds apply spirituality professionally.
9. Research the spirituality in the experiences of school board members;
10. Research how teachers in their classrooms involve spirituality in their professional lives as they guide children in their formative years;
11. Research parental attitudes regarding spirituality in schools;
12. Research potential negative consequences of spiritual leadership through a qualitative study in which new variables may emerge;

Hopefully, this research can serve as a catalyst for further studies into spiritual leadership in schools and the educational impact of international school leaders who exercise spiritual leadership.

Conclusion

The problem of limited research and a growing interest in spiritual leadership prompted this study. This study adds to the body of knowledge surrounding spiritual leadership and begins a special focus on spiritual leadership in an international school context. Positive school climates and strong teacher collective efficacy have been shown to be valuable components of a healthy school and this research indicates that spiritual leadership predicts both constructs in Asian international schools. Furthermore, four out of six components of spiritual leadership contributed to a prediction equation for teacher collective efficacy and all six of the components contributed to the prediction of school climate. By examining the relationships between spiritual leadership, teacher collective efficacy and school climate this research helps to illuminate aspects and outcomes of spiritual leadership in an international school setting.

Challenges found in international school settings call for extraordinary leadership. School leaders who confidently incorporate hope, faith and altruistic love may bring much-needed balance to school life. During times of adversity, people look to their leaders for guidance and direction. School leaders who lead with a spiritual foundation are grounded by integrity and are able to provide clarity and stability during times when change is inevitable. In no way does this study underplay the importance of the technical, external aspect of school leadership that is principal to the success of any effectively-run school. The findings from the study, however, suggest there is more to leadership than just administration and achieving results.

There is a need to include a more holistic definition of success for school leadership that includes the nurturing and development of the human spirit. Leadership that is spiritually-centered may not solve all the problems facing schools today. It does promise to offer faith, hope and love by providing a context in which men and women can build the moral resiliency and resolve to continue in their calling to be educational practitioners and school leaders.

References

- Abdizadeh, M., & Khiabani, M. (2014). Implementing the spiritual leadership model in the healthcare industry in Iran. *International Journal of Business and Management*, 9(11). doi:10.5539/ijbm.v9n11p92
- Adams, C. M., & Forsyth, P. B. (2006). Proximate sources of collective teacher efficacy. *Journal of Educational Administration*, 44(6), 625–642.
<http://doi.org/http://dx.doi.org.cupdx.idm.oclc.org/10.1108/09578230610704828>
- Adams, K. A., & Lawrence, E. K. (2015). *Research methods, statistics, and applications*. Thousand Oaks, CA: Sage.
- Armor, D., Conroy-Oseguera, P., Cox, M., King, N., McDonnell, L., Pascal, A., Zellman, G. (1976). Analysis of the school preferred reading program in selected Los Angeles minority schools. Rand Corporation (ERIC Document Reproduction Service No. 130 243). Retrieved from <http://eric.ed.gov/?id=ED130243>
- Ashmos, D. P., & Duchon, D. (2000). Spirituality at work: A conceptualization and measure. *Journal of Management Inquiry*, 9(2), 134–145. Retrieved from <http://search.proquest.com.cupdx.idm.oclc.org/docview/203322435/abstract>
- Ashton, P. (1984). Teacher Efficacy: A Motivational Paradigm for Effective Teacher Education. *Journal of Teacher Education*, 35(5), 28–32.
- Asgari, M., Ahmadi, F., & Jamali, M. A. (2015). An Examination of the Relationship between the Tendency towards Spirituality and Organizational Health (Teachers of Second High School Grade in the Department of Education of Tehran's Second Region). Retrieved from <http://jems.science->

line.com/attachments/article/28/J.%20Educ.%20Manage.%20Stud.,%205(1)%2052-60,%202015.pdf

Association of Americans Residents Overseas. (2017, November 12). 8.7 million Americans (excluding military) live in 160-plus countries [Web log post]. Retrieved from <https://www.aaro.org/about-aaro/8m-americans-abroad>

Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current Theories, Research, and Future Directions. *Annual Review of Psychology*, 60(1), 421–449.
<http://doi.org/10.1146/annurev.psych.60.110707.163621>

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: PrenticeHall.

Bandura, A. (1994). *Self-efficacy*. John Wiley & Sons, Inc.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. York: W. H. Freeman and Company.

Bass, B. M. (1990). From transactional to transformative leadership: Learning to share the vision. *Organizational Dynamics*, 18(3), 19–32.

Bass, B. M. (2000). The future of leadership in learning organizations. *Journal of Leadership Studies*, 3, 18-41.

Benefiel, M., Fry, L. & Geigle D. (2014). Spirituality and Religion in the Workplace: History, Theory, and Research. *Psychology of Religion and Spirituality* 6 (3): 175–187.

Benson, J. (2011). An investigation of chief administrator turnover in international schools. *Journal of Research in International Education*, 10(1), 87-103.

Berman, P., McLaughlin, M., Bass, G., Pauly, E., & Zellman, G. (1977). *Federal programs supporting educational change. Vol. VII: Factors affecting implementation and*

- continuation (Report No. R-1589/7-HEW)*. Santa Monica, CA: The Rand Corporation
- Retrieved from <http://files.eric.ed.gov/fulltext/ED140432.pdf>
- Blanchard, K. H. (2010). *Leading at a higher level: Executive Summary*. Upper Saddle River, N.J: Pearson/Prentice Hall. Retrieved from <http://www.kenblanchard.com/>
- Bodia, M. A., & Ali. H. (2012). Workplace Spirituality: A Spiritual Audit of Banking Executives in Pakistan. *African Journal of Business Management* 6 (11): 3888–3897.
- Borman, G. D., & Dowling, N. M. (2008). Teacher attrition and retention: A meta-analytic and narrative review of the research. *Review of Educational Research*, 78(3), 367-409
- Bozkurt, B. (2015). An Investigation of the Effect of School Principals' Spiritual Leadership Competencies on Teachers' Organizational Citizenship Behaviors. *Electronic International Journal of Education, Arts, and Science (EIJEAS)*, 1(2). Retrieved from <http://www.eijeas.com/index.php/EIJEAS/article/view/29>
- Brackett, M., Palomera, R., Mojsa-Kaja, J., Reyes, M., & Salovey, P. (2010). Emotion regulation ability, burnout, and job satisfaction among British secondary-school teachers. *Psychology in the Schools*, 47, 406-417. <http://dx.doi.org/10.1002/pits.20478>.
- Brinson, D., & Steiner, L. (2007). Building collective efficacy: How leaders inspire teachers to achieve. The Center for Comprehensive School Reform and Improvement. Retrieved from <http://files.eric.ed.gov/fulltext/ED499254.pdf>
- Brunetti, G. J. (2006). Resilience under fire: Perspectives on the work of experienced, inner city high school teachers in the United States. *Teaching and Teacher Education*, 22(7), 812-825.
- Bryk, A. S., & Driscoll, M. E. (1988). The High School as Community: Contextual Influences and Consequences for Students and Teachers. *National Center on Effective Secondary*

- Schools*, Madison, WI. Retrieved from <http://eric.ed.gov/?q=The+High+School+as+Community%3a+Contextual+Influences+and+Consequences+for+Students+and+Teachers.&id=ED302539>
- Bunnell, T. (2016). International Schooling: implications of the changing growth pattern. In Hayden and Thompson (Eds.) *International Schools: Current Issues and Future Prospects: Oxford Studies in Comparative Education*. 215–235. Symposium books.
- Brummitt, N. (2007). International Schools: Exponential growth and future implications. *International Schools Journal* . 27(2) 35-40.
- Brummitt, N. & Keeling, A. (2013). Charting the growth of International Schools, in Pearce (Ed.) *International Education and Schools: Moving Beyond the First 40 Years* Bloomsbury Academic, London, pp.25-36.
- Bunnell, T., Fertig, M., & James, C. (2016). Bringing institutionalisation to the fore in educational organisational theory: Analysing International Schools as institutions. In *American Educational Research Association Annual Meeting*. University of Bath. Retrieved from <http://opus.bath.ac.uk/>
- Buskist, W., Benson, T. & Sikorski, J. F. (2005). The call to teach. *Journal of Social and Clinical Psychology* 24(1) 111–122.
- Byrne, M. B. (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge: New York, NY. [Kindle Edition]
- Chen, C.-Y., & Yang, C.-F. (2012). The Impact of Spiritual Leadership on Organizational Citizenship Behavior: A Multi-Sample Analysis. *Journal of Business Ethics*, 105(1), 107–114. <http://doi.org/10.1007/s10551-011-0953-3>

- Chen, C.-Y., Yang, C.-Y., & Li, C.-I. (2012). Spiritual Leadership, Follower Mediators, and Organizational Outcomes: Evidence From Three Industries Across Two Major Chinese Societies1: SPIRITUAL LEADERSHIP IN CHINESE INDUSTRIES. *Journal of Applied Social Psychology*, 42(4), 890–938. <http://doi.org/10.1111/j.1559-1816.2011.00834.x>
- Clifford, M., Menon, R., Gangi, T., Condon, C., & Hornung, K. (2012). *Measuring School Climate for Gauging Principal Performance: A Review of the Validity and Reliability of Publicly Accessible Measures. A Quality School Leadership Issue Brief*. American Institutes for Research. Retrieved from <http://eric.ed.gov/?id=ED531401>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New York: NY: Psychology Press.
- Cohen, J., McCabe, L., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *The Teachers College Record*, 111(1), 180–213.
- Connolly, M., James, C. & Beales, B. (2011) Contrasting perspectives on organizational culture change in schools. *Journal of Educational Change*, 12 (4). pp. 421-439. ISSN 1389-2843 Retrieved from http://opus.bath.ac.uk/26677/1/Connolly_James_and_Beales_2011_published_version.pdf
- Contreras, F. (2016). Servant and Spiritual Leadership Theories: Are They Two Different Notions?. *Journal of Human Values*, 22(3), 202-208. Retrieved from <http://journals.sagepub.com.cupdx.idm.oclc.org/doi/full/10.1177/0971685816650578>
- Creswell, J. W. & Clark, V. L. (2011). *Designing and conducting mixed methods research*. [Kindle edition] Sage.
- Cybulski, T. G., Hoy, W. K., & Sweetland, S. R. (2005). The roles of collective efficacy of teachers and fiscal efficiency in student achievement. *Journal of Educational*

- Administration*, 43(4/5), 439–461. Retrieved from
http://search.proquest.com.cupdx.idm.oclc.org/docview/220434467?rfr_id=info%3Axri%2Fsid%3Aprimo
- Daly, T. (2008). School culture and values-related change: Towards a critically pragmatic conceptualisation, *Irish Educational Studies*, 27(1), 5-27,
 DOI:10.1080/03323310701837822
- Davis, S. C. (2014). *Annual report of the Chief Medical Officer 2013: Public mental health priorities - investing in the evidence*. London: Department of Health. Retrieved from
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/413196/CMO_web_doc.pdf
- Day, D. V. (2001). Leadership development: *The Leadership Quarterly*, 11(4), 581–613.
[http://doi.org/10.1016/S1048-9843\(00\)00061-8](http://doi.org/10.1016/S1048-9843(00)00061-8)
- Day, C. (2008). Committed for life? Variations in teachers' work, lives and effectiveness. *Journal of Educational Change*, 9, 243-260.
- Dayler, L. & Fry, L. (2012). *Impact of spiritual leadership on Catholic organizational identity*. Academy Of Management. Boston, Mass. Retrieved from <http://iispiritualleadership.com/>
- Deci, E., & Ryan, L. (2008). Hedonia, eudaimonia, and wellbeing: An introduction. *Journal of Happiness Studies*, 9(1), 1-11.
- Deemer, S. (2004). Classroom goal orientation in high school classrooms: revealing links between teacher beliefs and classroom environments, *Educational Research*, 46(1), 73-90. DOI: 10.1080/0013188042000178836

- Dent, E.B., Higgins, M.E., & Wharff, D.M. (2005). Spirituality and leadership: An empirical review of definitions, distinctions, and embedded assumptions. *Leadership Quarterly*, 16(5), 625–653.
- Duchon, D., & Plowman, D.A. (2005). Nurturing the Spirit at Work: Impact on Work Unit Performance. *The Leadership Quarterly* 16: 807–833
- Dunne, S., & Edwards, J. (2010). International schools as sites of social change. *Journal of Research in International Education*, 9(1), 24–29. doi: 10.1177/1475240909356716
- Durham, R.E., Bettencourt, A., & Connolly, F. (2014). *Measuring School Climate: Using Existing Data Tools on Climate and Effectiveness to Inform School Organizational Health*. Baltimore Education Research Consortium. Retrieved from <http://eric.ed.gov/?q=%09+Organizational+Climate%2c+School+Health%2c+and+Effe ctiveness%3a+A+Comparative+Analysis.+&id=ED553169>
- Dussault, M., Payette, D., & Leroux, M. (2008). Principals' transformational leadership and teachers' collective efficacy. *Psychological Reports*, 102(2), 401–410. <http://doi.org/10.2466/pr0.102.2.401-410>
- Eccles, J.S., Wigfield, A., Midgley, C., Reuman, D., Iver, D. M., & Feldlaufer, H.. (1993). Negative Effects of Traditional Middle Schools on Students' Motivation. *The Elementary School Journal*, 93(5), 553–574. Retrieved from <http://www.jstor.org.cupdx.idm.oclc.org/stable/1001828>
- Edgerson, D.E., Kritsonis, W. A., & Herrington, D. (2006). *The Critical Role of the Teacher-Principal Relationship in the Improvement of Student Achievement in Public Schools of the United States* (Vol. 3). Retrieved from <http://eric.ed.gov/?id=ED491985>

- Ellis, L. (2013). Understanding Your Leadership Balance. *The Journal for Quality and Participation*, 35(4), 4-7. Retrieved from <http://cupdx.idm.oclc.org/login?url=https://search-proquest-com.cupdx.idm.oclc.org/docview/1287956551?accountid=10248>
- Fertig, M & James, C.R. (2016). Leadership and management of international schools: very complex matters. In Hayden and Thompson (Eds.) *International Schools: Current Issues and Future Prospects: Oxford Studies in Comparative Education*. (pp. 105-127). Symposium books.
- Finnan, C., Schnepel, K.C., & Anderson, L. W. (2003). Powerful Learning Environments: The Critical Link Between School and Classroom Cultures. *Journal of Education for Students Placed at Risk (JESPAR)*, 8(4), 391–418. http://doi.org/10.1207/S15327671ESPR0804_2
- Fry, L.W. (2003). Toward a theory of spiritual leadership. *The Leadership Quarterly*, 14(6), 693–727. <http://doi.org/10.1016/j.leaqua.2003.09.001>
- Fry, L.W. (2008). Spiritual leadership: state-of-the art and future directions for theory, research, and practice. In: J. Biberman and L. Tischler, (Eds.), *Spirituality in business*. New York: Palgrave Macmillan, 106–124.
- Fry, L. W. (2013). Spiritual Leadership and Faith and Spirituality in the Workplace. In J. Neal (Ed.), *Handbook of Faith and Spirituality in the Workplace* (pp. 697–704). New York, NY: Springer New York. Retrieved from http://link.springer.com/10.1007/978-1-4614-5233-1_38
- Fry, L. W. (2015). *Spiritual Leadership Survey, 6th revision*. International Institute for Spiritual Leadership. <http://iispiritualleadership.com/> [Retrieved from private communication with author.]

- Fry, Louis, Kriger, & Mark. (2009). Towards a theory of being-centered leadership: Multiple levels of being as context for effective leadership. *Human Relations*, 62(11), 1667-1696. Retrieved from <https://doi-org.cupdx.idm.oclc.org/10.1177%2F0018726709346380>
- Fry, L.W., Lantham, J., Clinebell, S., Krahnke, K. (2016). Spiritual leadership as a model for performance excellence: a study of Baldrige award recipients. *Journal of Management, Spirituality & Religion*, 13(2). doi: 10.1080/14766086.2016.1202130
- Fry, L. W., & Matherly, L. L. (2006). Spiritual leadership and organizational performance: An exploratory study. *Tarleton State University—Central Texas*. Retrieved from <http://iispiritualleadership.com/wp-content/uploads/docs/SLTOrgPerfAOM2006.pdf>
- Fry, L. W., Matherly, L. L., Whittington, J. L., & Winston, B. E. (2007). Spiritual leadership as an integrating paradigm for servant leadership. *Integrating Spirituality and Organizational Leadership*, 70–82. Retrieved from https://www.researchgate.net/profile/JLee_Whittington/publication/228665610_Spiritual_leadership_as_an_integrating_paradigm_for_servant_leadership/links/00b7d521ba28eca46e000000.pdf
- Fry, L., & Nisiewicz, M. (2013). *Maximizing the Triple Bottom Line Through Spiritual Leadership*. [Kindle Version]. Retrieved from Amazon.com.
- Fry, L. W. & Slocum Jr., J. W. (2008). Maximizing the Triple Bottom Line through Spiritual Leadership. *Organizational Dynamics* 37 (1): 86–96.
- Fry, L. W., Vitucci, S., & Cedillo, M. (2005). Spiritual leadership and army transformation: Theory, measurement, and establishing a baseline. *The Leadership Quarterly*, 16(5), 835–862. <http://doi.org/10.1016/j.leaqua.2005.07.012>

- Fry, L. W., Latham, J.R., Clinebell, S.K. & Krahne, K. (2016). *Spiritual leadership as a model for performance excellence: a study of Balridge award recipients*. Journal of Management, Spirituality & Religion. DOI:10.1080/14766086.2016.1202130
- Fullan, M. (2002). Moral purpose writ large. *School Administrator* 59(8), p. 14. Retrieved from <http://www.michaelfullan.ca/wp-content/uploads/2016/06/13396048660.pdf>
- Fullan, M. (2011). *Change Leader: Learning to Do What Matters Most*. John Wiley & Sons.
- Gay, L. R., Mills, G. E., & Airasian, P. W. (2011). *Educational research: Competencies for analysis and applications*. Pearson Higher Ed.
- Gerbing, D. W. and J. C. Anderson (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research* (25) May, pp. 186-192.
- Gefen, D., Straub, D., & Boudreau, M.C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, 4(1), 7. Retrieved from <http://uicphdmis.pbworks.com>
- Ghasemizad, A., Zadeh, M., & Bagheri, S. (2012). A Study of the Relationship between Teachers and Principals' Spiritual Leadership, Quality of Work Life, Job Satisfaction and Productivity. *American Journal of Scientific Research*, (49), 11–20.
- Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76, 569–582.
doi:<http://dx.doi.org.cupdx.idm.oclc.org/10.1037/0022-0663.76.4.569>
- Goddard, R. D. (2002). A theoretical and empirical analysis of the measurement of collective efficacy: The development of a short form. *Educational and Psychological Measurement*, 62(1), 97-110.

- Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective Teacher Efficacy: Its Meaning, Measure, and Impact on Student Achievement. *American Educational Research Journal*, 37(2), 479. <http://doi.org/10.2307/1163531>
- Goddard, R. D., LoGerfo, L., & Hoy, W. K. (2004). High School Accountability: The Role of Perceived Collective Efficacy. *Educational Policy*, 18(3), 403–425. <http://doi.org/10.1177/0895904804265066>
- Goddard, R. D., & Skrla, L. (2006). The Influence of School Social Composition on Teachers' Collective Efficacy Beliefs. *Educational Administration Quarterly*, 42(2), 216–235. <http://doi.org/10.1177/0013161X05285984>
- Goodenow, C., & Grady, K. E.. (1993). The Relationship of School Belonging and Friends' Values to Academic Motivation among Urban Adolescent Students. *The Journal of Experimental Education*, 62(1), 60–71. Retrieved from <http://www.jstor.org.cupdx.idm.oclc.org/stable/20152398>
- Gülse, C., & Gülenay, G. B. (2014). The Principal and Healthy School Climate. *Social Behavior and Personality*, 42, 93–100. Retrieved from http://search.proquest.com.cupdx.idm.oclc.org/docview/1523923627?rfr_id=info%3Axri%2Fsid%3Aprim
- Guskey, T. R. (1988). Teacher efficacy, self-concept, and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education*, 63–69. <http://files.eric.ed.gov/fulltext/ED281838.pdf>
- Halawah, I. (2005). The Relationship Between Effective Communication of High School Principal and School Climate. *Education*, 126(2), 334–345. Retrieved from

http://search.proquest.com.cupdx.idm.oclc.org/docview/231707415?rfr_id=info%3Axri%2Fsid%3Aprimo

Halicioglu, M. (2016). International education: The role of the residential school experience. In Hayden and Thompson (Eds.) *International Schools: Current Issues and Future Prospects: Oxford Studies in Comparative Education*. (pp. 129-149). Symposium books.

Hallinger, P. (2011). Leadership for learning: lessons from 40 years of empirical research. *Journal of Educational Administration*, 49(2), 125–142.
doi:10.1108/09578231111116699

Halpin, A. W., & Croft, D. B. (1962). *The organizational climate of schools*. US Office of Education, Department of Health, Education, and Welfare. Retrieved from <http://hdl.handle.net/2027/mdp.39015004004233>

Hammersley, M. (2007). *Methodological paradigms in educational research: An outline of methodological approaches*. London, UK: TLRP. Retrieved from <http://www.tlrp.org/capacity/rm/wt/hammersley/hammersley4.html>

Harris, & Sass. (2011). Teacher training, teacher quality and student achievement. *Journal of Public Economics*, 95(7), 798-812.

Hawkins, M., & James, C. (2017). Developing a perspective on schools as complex, evolving, loosely linking systems. *Educational Management Administration & Leadership*, DOI: 1741143217711192. Retrieved from https://www.researchgate.net/publication/317293782_Developing_a_perspective_on_schools_as_complex_evolving_loosely_linking_systems

Hayden, M., & Thompson, J. (2008). *International Schools: growth and influence*. Paris: UNESCO:International Institute for Educational Planning. Retrieved from

https://www.researchgate.net/profile/J_Thompson7/publication/44839571_International_schools_growth_and_influence/links/568d324508aef987e565dd86.pdf

Haynes, N. M., Emmons, C., & Ben-Avie, M. (1997). School climate as a factor in student adjustment and achievement. *Journal of Educational and Psychological Consultation*, 8(3), 321–329.

Heck, R. H., & Mahoe, R. (2010). Student course taking and teacher quality: Their effects on achievement and growth. *International Journal of Educational Management*, 24(1), 56-72. doi:10.1108/09513541011013051

Hernez-Broome, G., & Hughes, R. L. (2004). Leadership development: past, present, and future. *Human Resource Planning*, 27(1), 24–32. Retrieved from <http://go.galegroup.com.cupdx.idm.oclc.org/ps/>

Hill, P. C., & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *American Psychologist*, 58(1), 64–74. <http://doi.org/10.1037/0003-066X.58.1.64>

Holland, J. H. (2014) *Complexity: A Very Short Introduction*. New York: Oxford University Press

Holmyard, L. (2016). Teacher retention versus rejuvenation. *International School*, 18(2), 17,19.

Hoy, W. (2012). School characteristics that make a difference for the achievement of all students. *Journal of Educational Administration*, 50(1), 76–97. <http://doi.org/http://dx.doi.org.cupdx.idm.oclc.org/10.1108/09578231211196078>

Hoy, W. (2002). School Climate. In J. W. Guthrie (Ed.), *Encyclopedia of Education* (2nd ed., Vol. 6, pp. 2121-2124). New York: Macmillan Reference USA. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://go.galegroup.com.cupdx.idm.oclc.org/ps/i.do?>

p=GVRL&sw=w&u=conu&v=2.1&id=GALE%7CCX3403200537&it=r&asid=e8330d2
acd046acb71bda99dd8846d2c

Hoy, W., Smith, P. A., & Sweetland, S. R. (2003). The development of the organizational climate index for high schools: Its measure and relationship to faculty trust. *The High School Journal*, 86, 38-49

Hoy, W., & Woolfolk, A. E. (1993). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal*, 93(4), 355–372. Retrieved from <http://www.jstor.org/stable/1002017>

International School Consultancy. (2016). *ISC Research: The Market*. Available at <http://www.isc-r.com/market/> (accessed April 2016).

ICEF Monitor. (2016, October 26). *Strong global growth projected for private K-12, but variable by market*. Retrieved from <http://monitor.icef.com/2016/10/strong-global-growth-projected-private-k-12-variable-market/>

Javanmard, H. (2012). The impact of spirituality on work performance. *Indian Journal of Science and Technology*, 5(1). Retrieved from <http://52.172.159.94/index.php/indjst/article/view/30966>

Jeon, J. (2015). The Strengths and Limitations of the Statistical Modeling of Complex Social Phenomenon: Focusing on SEM, Path Analysis, or Multiple Regression Models. *World Academy of Science, Engineering and Technology, International Science Index, Psychological and Behavioral Sciences*, 2(5), 391.

Josanov-Vrgovic, I., & Pavlovic, N. (2014). Relationship between the school principal leadership style and teachers' job satisfaction in Serbia. *Montenegrin Journal of Economics*, 10(1), 43-57.

- Joshi, A., Kale, S., Chandel, S., & Pal, D.K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, 7(4), 396-403. Retrieved from <http://www.sciencedomain.org/journal/5>
- Klassen, R. M. (2010). Teacher Stress: The Mediating Role of Collective Efficacy Beliefs. *The Journal of Educational Research*, 103(5), 342–350.
<http://search.proquest.com.cupdx.idm.oclc.org/docview/759964530?accountid=10248>
- Kolodinsky, R.W., Giacalone, R.A. & Jurkiewicz, C. L. (2008). Workplace Values and Outcomes: Exploring Personal, Organizational, and Interactive Workplace Spirituality. *Journal of Business Ethics* 81 (2): 465–480.
- Kottkamp, R. (1984). The principal as cultural leader. *Planning and Changing*, 15(3), 152-159.
- Kraft, M. A., & Papay, J. P. (2014). Can Professional Environments in Schools Promote Teacher Development? Explaining Heterogeneity in Returns to Teaching Experience. *Educational Evaluation and Policy Analysis*, 36(4), 476–500.
<http://doi.org/10.3102/0162373713519496>
- Kruger, M. P., & Seng, Y. (2005). Leadership with Inner Meaning: A Contingency Theory of Leadership Based on the Worldviews of Five Religions. *The Leadership Quarterly* 16: 771–806.
- Kutner, M. H., Nachtsheim, C. J., Neter, J., & Li, W. (2005). *Applied linear statistical models* (5th ed.). New York, NY: McGraw-Hill.
- Lee, M., Hallinger, P., & Walker, A. (2012). Leadership challenges in international schools in the Asia Pacific region: evidence from programme implementation of the International Baccalaureate. *International Journal of Leadership in Education*, 15(3), 289–310.
[doi:10.1080/13603124.2011.605475](https://doi.org/10.1080/13603124.2011.605475)

- Leithwood, K., Louis, K. S., Anderson, S., & Walhstrom, K. (2004). *Review of research: How leadership influences student learning*. The Wallace Foundation. Retrived from <https://conservancy.umn.edu/bitstream/handle/11299/2035/CAREI?sequence=1>
- Leithwood, K., Patten, S., & Jantzi, D. (2010). Testing a Conception of How School Leadership Influences Student Learning. *Educational Administration Quarterly*, 46(5), 671–706. doi:10.1177/0013161X10377347
- Levy, R. B. (2000). My experience as participant in the course on spirituality for executive leadership. *Journal of Management Inquiry*, 9(2), 129–131. Retrieved from <http://search.proquest.com.cupdx.idm.oclc.org/docview/203313805/abstract/DDF4EC4857AF4625PQ/1->
- Lim, S., & Eo, S. (2014). The mediating roles of collective teacher efficacy in the relations of teachers' perceptions of school organizational climate to their burnout. *Teaching and Teacher Education*, 44, 138–147. <http://doi.org/10.1016/j.tate.2014.08.007>
- Looney, J. (2011). Developing high-quality teachers: Teacher evaluation for improvement. *European Journal of Education*, 46(4), 440-455. doi:10.1111/j.14653435.2011.01492.x
- Louis, K. S., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E. (2010). *Investigating the Links to Improved Student Learning*. New York: The Wallace Foundation.
- MacDonald, J. (2006). The international school industry: Examining international schools through an economic lens. *Journal of Research in International Education*, 5(2), 191–213. <http://doi.org/10.1177/1475240906065618>
- MacDonald, D. A. (2011). Studying spirituality scientifically: reflections, considerations, recommendations. *Journal of Management, Spirituality & Religion*, 8(3), 195–210. <http://doi.org/10.1080/14766086.2011.599145>

- Machi, L. A., & McEvoy, B. T. (2012). *The literature review: Six steps to success*. Thousand Oaks, CA: Corwin Press.
- Machin, D. (2014). Professional educator or professional manager? The contested role of the for-profit international school principal. *Journal of Research in International Education*, 13(1), 1–11. Retrieved from <http://www.jstor.org.cupdx.idm.oclc.org/stable/pdf/10.1086/605938.pdf?refreqid=excelsior%3A597e0575359c084bf78e9f40cbba50d6>
- Malinen, O. P. & Savolainen, H. (2016). The effect of perceived school climate and teacher efficacy in behavior management on job satisfaction and burnout: A longitudinal study. *Teaching and Teacher Education* 60(2016), 144-152.
<http://dx.doi.org/10.1016/j.tate.2016.08.012>
- Malone, P., & Fry, L. W. (2003). Transforming schools through spiritual leadership: A field experiment. In *Meeting of the Academy of Management, Seattle, WA*. Retrieved from <http://iispiritualleadership.com/wp-content/uploads/docs/SLTAOMPeggy0106.pdf>
- Mancuso, S.V., Roberts, L., White, G.P., Yoshida, R.K., & Weston, D. (2011). *Strategies to improve teacher retention in American overseas schools in the Near East South Asia (NESA) region: A qualitative analysis*. *Journal of School Leadership*, 21(6), 819-844.
- Mayo Clinic. (2013, July). Spirituality and stress relief: Make the connection. Retrieved February 24, 2016, from <http://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress-relief/art-20044464>
- McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the National Longitudinal Study of Adolescent Health. *The Journal of School Health*, 72(4), 138–46. Retrieved from <http://search.proquest.com.cupdx.idm.oclc.org/docview/215674633?accountid=10248>

- Midgley, C., Feldlaufer, H., & Eccles, J. (1989). Change in teacher efficacy and student self- and task-related beliefs in mathematics during the transition to junior high school. *Journal of Educational Psychology*, 81, 247–258. Retrieved from http://search.proquest.com.cupdx.idm.oclc.org/docview/210951254?rfr_id=info%3Axi%2Fsid%3Aprimo
- Milliman, J., Czaplewski, A.J. & Ferguson, J. (2003). Workplace Spirituality and Employee Work Attitudes. *Journal of Organizational Change Management* 16 (4): 426–447.
- Ming-Chia, C. (2012). The Influence of Workplace Spirituality on Motivations for Earnings Management: A Study in Taiwan's Hospitality Industry. *Journal of Hospitality Management and Tourism* 3 (1): 1–11.
- Mitroff, I. I., & Denton, E. A. (1999). A study of spirituality in the workplace. *Sloan Management Review*, 40(4), 83. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://go.galegroup.com/ps/i.do?id=GALE%7CA55487414&v=2.1&u=conu&it=r&p=AONE&sw=w&asid=f66258e0ee831a7e56f741a512b5d575>
- Mizzi, R.C., & O'Brien-Klewchuk, A. (2016). Preparing the transnational teacher: A textual analysis of pre-departure orientation manuals for teaching overseas. *Human Resource Development International*, 19(4), 329-344.
- Mojavezi, A., & Tamiz, M. P. (2012). The Impact of Teacher Self-efficacy on the Students' Motivation and Achievement. *Theory and Practice in Language Studies*, 2(3), 483–491. Retrieved from <http://search.proquest.com.cupdx.idm.oclc.org/docview/1348130503/abstract>

- National Center of Education Statistics (2009). *Schools and Staffing Survey*. Retrieved from <https://nces.ed.gov/surveys/sass/index.asp>
- Northouse, P. (2013). *Leadership : Theory and practice* (6th ed.). Thousand Oaks, CA: Sage.
- Odland, G., & Ruzicka, M. (2009) An investigation into teacher turnover in international schools, *Journal of Research in International Education*, 8(1), 5-29 Retrieved from <http://journals.sagepub.com.cupdx.idm.oclc.org/doi/abs/10.1177/1475240908100679>
- Pajares, F., & Schunk, D. H. (2002). Self and self-belief in psychology and education: A historical perspective. In Aronson (Ed.), *Improving academic achievement: Impact of psychological factors on education* (pp. 3–21). New York, NY: Academic Press. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.474.2543&rep=rep1&type=pdf>
- Pargament, K. (2007). *Spiritually integrated psychotherapy: Understanding and addressing the sacred*. New York, NY: The Guilford Press. Retrieved from <http://simbi.kemenag.go.id/pustaka/images/materibuku/spiritually-integrated-psychotherapy.pdf>
- Pawar, B.S. (2009). Individual spirituality, workplace spirituality and work attitudes: An empirical test of direct and interaction effects. *Leadership & Organization Development Journal* 30 (8): 759–777.
- Petchsawang, P., & D. Duchon. (2012). Workplace Spirituality, Meditation, and Work Performance. *Journal of Management, Spirituality & Religion* 9 (2): 198–208.
- Peterson, K., & Deal, T. (2011). How Leaders Influence the Culture of Schools. *Counterpoints*, 408, 49–52. Retrieved from <http://www.jstor.org.cupdx.idm.oclc.org/stable/42981267>

- Price, H. E. (2012). Principal–Teacher Interactions How Affective Relationships Shape Principal and Teacher Attitudes. *Educational Administration Quarterly*, 48(1), 39–85.
<http://doi.org/10.1177/0013161X11417126>
- Protheroe, N. (2008). Teacher efficacy: What is it and does it matter? *Principal*, 87(5), 42–45.
Retrieved from
http://naesp.org/resources/1/Pdfs/Teacher_Efficacy_What_is_it_and_Does_it_Matter.pdf
- Rafferty, Timothy J. (2003). School Climate and Teacher Attitudes toward Upward Communication in Secondary Schools. *American Secondary Education*, 31(2), 49-70.
Retrieved from <https://search-proquest-com.cupdx.idm.oclc.org/docview/195185353?OpenUrlRefId=info:xri/sid:primo&accountid=10248>
- Reddick, K. M. (2014). *Investigating the relationships among leadership influence, collective teacher efficacy, and socio-economic status as predictors of student achievement* (Psy.D.). Capella University, United States -- Minnesota. Retrieved from
<http://search.proquest.com.cupdx.idm.oclc.org/docview/1625718033/abstract/E9679FCA3E3D4F72PQ/1>
- Rego, A., Cunha, M.P.E., & Souto, S. (2008). Workplace Spirituality, Commitment, and Self-reported Individual Performance: An Empirical Study. *Management Research: The Journal of the Iberoamerican Academy of Management* 5 (3): 163–183.
- Roberts, L, & Mancuso, S. V. (2014). What Kind of International School Leaders Are in Demand around the World? A Test of Differences by Region and Stability over Time. *Journal of Research in International Education*, 13(2), 91-105. Retrieved from
sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1475240914532214

- Ross, J. A. (1992). Teacher efficacy and the effect of coaching on student achievement. *Canadian Journal of Education*, 17(1), 51–65. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.476.1296&rep=rep1&type=pdf#page=53>
- Ross, J. A., & Gray, P. (2006). Transformational leadership and teacher commitment to organizational values: The mediating effects of collective teacher efficacy. *School Effectiveness and School Improvement*, 17(2), 179–199. <http://doi.org/10.1080/09243450600565795>
- Sebastian, J., & Allensworth, E. (2012). The Influence of Principal Leadership on Classroom Instruction and Student Learning: A Study of Mediated Pathways to Learning. *Educational Administration Quarterly*, 48(4), 626–663. doi:10.1177/0013161X11436273
- Sadeghifar, J., Bahadori, M., Baldacchino, D., Raadabadi, M., & Jafari, M. (2014). Relationship between career motivation and perceived spiritual leadership in health professional educators: a correlational study in Iran. *Global Journal of Health Science*, 6(2), 145-154. doi:10.5539/gjhs.v6n2p145
- Sailes, J. (2008). School culture audits: Making a difference in school improvement plans. *Improving Schools*, 11(1), 74-82. <http://doi.org/10.1177/1365480207086756>
- Schunk, D. H. (1984). Self-Efficacy and Classroom Learning. [Paper presented at the Annual Meeting of the American Educational Research Association (68th, New Orleans, LA, April 23-27, 1984)]. Retrieved from <http://eric.ed.gov/?id=ED247254>
- Senge, P. M. (2006). *The Fifth Discipline: The art and practice of the learning organization*. (Kindle Ed.) New York, NY: Crown Business.

- Sherblom, S. A., Marshall, J. C., & Sherblom, J. C. (2006). The relationship between school climate and math and reading achievement. *Journal of Research in Character Education*, 4(1), 19-31. Retrieved from <http://search.proquest.com.cupdx.idm.oclc.org/docview/231707415?accountid=10248>
- Silva, J. P., White, G. P., & Yoshida, R. K. (2011). The Direct Effects of Principal-Student Discussions on Eighth Grade Students' Gains in Reading Achievement: An Experimental Study. *Educational Administration Quarterly*. doi:10.1177/0013161X11404219
- Skaalvik, E. M., & Skaalvik, S. (2015). Job satisfaction, stress and coping strategies in the teaching profession - what do teachers say? *International Education Studies*, 8(3), 181-192.
- Slater, C. L. (2013). Educational Leadership in Mexico, Spain, and the United States: Cross-Cultural Implications. [On line] *REIRE, Revista d'Innovació i Recerca en Educació*, 6(2), 18-27. Retrieved from: <http://www.ub.edu/ice/reire.htm>
- Spilt, J. L., Koomen, H. M., & Thijs, J. T. (2011). Teacher wellbeing: The importance of teacher-student relationships. *Educational Psychology Review*, 23(4), 457-477.
- Spradling, R. (2009). Sleeping Peacefully? *Schools: Studies in Education*, 6(2), 243-250
- Steingard, D. S., & Dufresne, R. L. (2011). Intentional intelligence and the intentional intelligence quotient (IIQ): construct development and scale validation integrating mindfulness, self-agency, and positive thought flow. *Journal of Management, Spirituality & Religion*, 8(1), 3-22. <http://doi.org/10.1080/14766086.2011.552251>
- Stronge, J. H., & Jones, C. W. (1991). Middle school climate: The principal's role in influencing effectiveness. *Middle School Journal*, 22(5), 41-44.

- Stronge, J. H., Ward, T. J., & Grant, L. W. (2011). What makes good teachers good? A cross-case analysis of the connection between teacher effectiveness and student achievement. *Journal of Teacher Education*, 62, 339–355. doi:10.1177/0022487111404241
- Su, R., Tay, L., & Diener, E. (2014). The development and validation of the comprehensive inventory of thriving (CIT) and the brief inventory of thriving (BIT). *Applied Psychology: Health and Wellbeing*, 6(3), 251-279.
- Tait, M. (2008). Resilience as a contributor to novice teacher success, commitment, and retention. *Teacher Education Quarterly*, 35(4), 57-75.
- Tate, N. (2016). What are international schools for?. In Hayden and Thompson (Eds.) *International Schools: Current Issues and Future Prospects: Oxford Studies in Comparative Education*. (pp. 17-36). Symposium books.
- Tschannen-Moran, M. & Barr, M. (2004). Fostering Student Learning: The Relationship of Collective Teacher Efficacy and Student Achievement, *Leadership and Policy in Schools*, 3:3, 189-209, DOI: 10.1080/15700760490503706
- Tschannen-Moran, M., & Hoy, W. (2000). A Multidisciplinary Analysis of the Nature, Meaning, and Measurement of Trust. *Review of Educational Research*, 70(4), 547-593.
- Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A Review of School Climate Research. *Review of Educational Research*, 0034654313483907.
<http://doi.org/10.3102/0034654313483907>
- Vail, P. (1998). *Spirited leading and learning*. San Francisco, CA: Jossey-Bass Publishers.

- Valentine, J. W., & Prater, M. (2011). Instructional, Transformational, and Managerial Leadership and Student Achievement: High School Principals Make a Difference. *NASSP Bulletin*, 95(1), 5–30. doi:10.1177/0192636511404062
- VanVoorhis, C.R.W. & Morgan, B.L. (2007). Understanding Power and Rules of Thumb for Determining Sample Sizes. *Tutorials in Quantitative Methods for Psychology*, 3(2), 43-50. Retrieved from www.tqmp.org/RegularArticles/vol03-2/p043/p043.pdf
- Walker, A., & Cheng, Y. (2009). Leading international primary schools: An agenda for building understanding. *International Studies in Educational Administration*, 37(1), 43–59. Retrieved from <http://www.distributedleadership.org/assets/spillane,-hunt,-healey.pdf#page=49>
- Walker, G. (2016). International Schools and International Curricula. In Hayden and Thompson (Eds.) *International Schools: Current Issues and Future Prospects: Oxford Studies in Comparative Education*. (pp. 215–235). Symposium books.
- Wellman, W., Perkins, G., & Wellman, N. (2009). Educational leadership: The relationship between spirituality and leadership practices. *Academic Leadership: The Online Journal*, 7(1), 1–5.
- Welsh, W. N. (2000). The effects of school climate on school disorder. *The ANNALS of the American Academy of Political and Social Science*, 567, 88–107.
- Western Association of Schools and Colleges, Accrediting Commission for Schools. (2017). *Focus on learning: International edition*. Retrieved from <http://www.acswasc.org/schools/international/>

- Whitlock, J. L. (2006). Youth Perceptions of Life at School: Contextual Correlates of School Connectedness in Adolescence. *Applied Developmental Science, 10*(1), 13–29.
http://doi.org/10.1207/s1532480xads1001_2
- Woods, G. (2007). The bigger feeling: The importance of spiritual experience in e educational leadership. *Educational Management Administration & Leadership, 35*(1), 135–155.
- Ylimaki, R., & Jacobson, S. (2013). School leadership practice and preparation: Comparative perspectives on organizational learning (OL), instructional leadership (IL) and culturally responsive practices (CRP). *Journal of Educational Administration, 51*(1), 6-23. DOI: 10.1108/09578231311291404 Retrieved from www.emeraldinsight.com/0957-8234.htm
- Zee, M., & Koomen, H. M. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher wellbeing: A synthesis of 40 years of research. *Review of Educational Research, 86*(4), 981e1015.
<http://dx.doi.org/10.3102/0034654315626801>
- Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American educational research journal, 29*(3), 663-676. Retrieved from <http://web.stanford.edu/dept/psychology/bandura/pajares/Bandura1992AERJ.pdf>

Appendix A: Teacher Collective Efficacy Inventory

Directions: Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum.

Please respond to each of the questions by considering the *current* ability, resources, and opportunity of the teaching staff in your school to do each of the following.

	None at all		Very Little		Some Degree		Quite A Bit		A Great Deal
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. How much can teachers in your school do to produce meaningful student learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can your school do to get students to believe they can do well in schoolwork?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. To what extent can teachers in your school make expectations clear about appropriate student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. To what extent can school personnel in your school establish rules and procedures that facilitate learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. How much can teachers in your school do to help students master complex content?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can teachers in your school do to promote deep understanding of academic concepts?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How well can teachers in your school respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How much can school personnel in your school do to control disruptive behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. How much can teachers in your school do to help students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. How well can adults in your school get students to follow school rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. How much can your school do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How much can your school do to help students feel safe while they are at school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Appendix B: Organizational Climate Inventory

OCI				
Directions: The following are statements about your school, Please indicate the extent to which each statement characterizes your school from rarely occurs to very frequently occurs .	Rarely Occurs	Sometimes Occurs	Often Occurs	Very Frequently Occurs
1. The principal explores all sides of topics and admits that other opinions exist.	1	2	3	4
2. A few vocal parents can change school policy.	1	2	3	4
3. The principal treats all faculty members as his or her equal.	1	2	3	4
4. The learning environment is orderly and serious.	1	2	3	4
5. The principal is friendly and approachable.	1	2	3	4
6. Select citizens groups are influential with the board.	1	2	3	4
7. The school sets high standards for academic performance.	1	2	3	4
8. Teachers help and support each other.	1	2	3	4
9. The principal responds to pressure from parents.	1	2	3	4
10. The principal lets faculty know what is expected of them.	1	2	3	4
11. Students respect others who get good grades.	1	2	3	4
12. Teachers feel pressure from the community.	1	2	3	4
13. The principal maintains definite standards of performance.	1	2	3	4
14. Teachers in this school believe that their students have the ability to achieve academically.	1	2	3	4
15. Students seek extra work so they can get good grades.	1	2	3	4
16. Parents exert pressure to maintain high standards.	1	2	3	4
17. Students try hard to improve on previous work.	1	2	3	4
18. Teachers accomplish their jobs with enthusiasm.	1	2	3	4
19. Academic achievement is recognized and acknowledged by the school.	1	2	3	4
20. The principal puts suggestions made by the faculty into operation.	1	2	3	4
21. Teachers respect the professional competence of their colleagues.	1	2	3	4
22. Parents press for school improvement.	1	2	3	4
23. The interactions between faculty members are cooperative.	1	2	3	4
24. Students in this school can achieve the goals that have been set for them.	1	2	3	4
25. Teachers in this school exercise professional judgment.	1	2	3	4
26. The school is vulnerable to outside pressures.	1	2	3	4
27. The principal is willing to make changes.	1	2	3	4
28. Teachers "go the extra mile" with their students.	1	2	3	4
29. Teachers provide strong social support for colleagues.	1	2	3	4
30. Teachers are committed to their students.	1	2	3	4

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Appendix C: Revised Spiritual Leadership Questionnaire

Please answer the following questions concerning the people you mostly work with using these responses:

1 = Strongly Disagree 2 = Disagree 3 = Neither Agree nor Disagree 4 = Agree 5 = Strongly Agree

1. The leaders in my organization “walk the walk” as well as “talk the talk.” _____
2. The work I do makes a difference in people’s lives. _____
3. I feel my organization appreciates me and my work. _____
4. I feel like “part of the family” in this organization. _____
5. I know and can describe my purpose and mission in life. _____
6. The conditions of my life are excellent. _____
7. I really feel as if my organization’s problems are my own. _____
8. I have faith in my organization and I am willing to “do whatever it takes” to ensure that it accomplishes its mission. _____
9. I feel my organization demonstrates respect for me, and my work. _____
10. The leaders in my organization are honest and without false pride. _____
11. I would be very happy to spend the rest of my career with this organization. _____
12. My organization is trustworthy and loyal to its employees. _____
13. I seek guidance on how to live a good life from people I respect, great teachers/writings, and/or a Higher Power, Being, or God. _____
14. The work I do is meaningful to me. _____
15. I persevere and exert extra effort to help my organization succeed because I have faith in what it stands for. _____
16. I demonstrate my faith in my organization and its mission by doing everything I can do help us succeed. _____
17. The work I do is very important to me. _____
18. I understand and am committed to my organization’s vision. _____
19. In my department, everyone gives his/her best efforts. _____
20. In my department, work quality is a high priority for all workers. _____
21. I feel I am valued as a person in my job. _____
22. The leaders in my organization have the courage to stand up for their people _____
23. My job activities are personally meaningful to me. _____
24. I am satisfied with my life. _____
25. I maintain an attitude of gratitude even when faced with difficulties. _____
26. My organization has a vision statement that brings out the best in me. _____
27. In most ways my life is ideal. _____
28. My organization’s vision is clear and compelling to me. _____
29. My work group is very productive. _____
30. My organization’s vision inspires my best performance. _____
31. My organization is kind and considerate toward its workers, and when they are suffering, wants to do something about it. _____
32. I feel highly regarded by my leaders. _____
33. My work group is very efficient in getting maximum output from the resources (money, people, equipment, etc.) we have available. _____
34. I maintain an inner life or reflective practice (e.g., spending time in nature, prayer, meditation, reading inspirational literature, yoga, observing religious traditions, writing in a journal). _____
35. If I could live my life over, I would change almost nothing. _____
36. I set challenging goals for my work because I have faith in my organization and want us to succeed. _____
37. I talk up this organization to my friends as a great place to work for. _____
38. I have compassion for the hopes and fears of all people, regardless of how they view the world based on their culture and past experiences. _____
39. I feel a strong sense of belonging to my organization. _____
40. So far, I have gotten the important things I want in life. _____

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Appendix D: Statement of Original Work

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University Portland Academic Integrity Policy during the development and writing of this dissertation.
2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*.

Tobin E. Holden

Digital Signature

Tobin E. Holden

Name (Typed)

December 18, 2017

Date