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Teachers’ Perceptions of the Effect of Leadership on School Climate

By
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This thesis is dedicated to my Dad who left too soon
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Teachers’ Perceptions of the Effect of Leadership on School Climate

Zeina Amal Ibrahim

ABSTRACT

This mixed methods research examines the relationship between principal leadership and school climate. A sample of 63 elementary teachers evaluated their school climate and leadership through the OCDQ-RE and the MLQ-5X and expressed their views on both by responding to open-ended questions. Quantitative analysis for both questionnaires, correlations between the dimensions of the two instruments and qualitative analysis of the open-ended questions were conducted to determine the leadership characteristics and behaviors that impact school climate the most. Both principals scored high on supportive and directive behavior and were “more transformational” and “more transactional than the norm”; teachers scored high on collegial and intimate behavior; school climates were determined to be open. Correlational analysis revealed significant positive relationships between the characteristics of transformational and transactional leadership and both supportive and directive principal behaviors; qualitative results showed that characteristics of transformational leadership and supportive principal behaviors have the most impact on school climate. The results of this study revealed that although the principals were perceived as highly directive, the climates were still open. This calls for further exploration of the impact of principal behaviors on school climate and whether teacher behaviors are more significant determinants of school climate than principal behaviors are.

Keywords: Leadership, School Climate, Teacher Perceptions, Transformational Leadership, Transactional Leadership, Leadership Effects
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Chapter 1

Introduction

School climate has been the focus of extensive research for over a century (Cohen, McCabe, Michelli & Pickeral, 2009; Freiberg, 1999; Thapa, Cohen, Guffey & Higgins-D’Alessandro, 2013; Zullig, Koopman, Patton & Ubbes, 2010). Yet, it wasn’t until the 1950’s that the systematic study of school climate spurred with the development of scientifically valid and reliable measurement instruments (Cohen et al, 2009; Freiberg, 1999; Hoy, Tarter & Kottkamp, 1991).

School climate has been described as the heart and soul (Freiberg & Stein, 1999), of a school. Despite the challenge of reaching a unanimous definition of school climate (Anderson, 1982; Cohen et al, 2009; Rudasill, Snyder, Levinson & Adelson, 2018; Zullig et al., 2010), school climate is viewed as a valuable concept for educational research, school effectiveness and school reform (Malinen & Savolainen, 2016; Ramsey, Spira, Parisi & Rebok, 2016). Providing a positive and supportive climate for faculty and staff improves faculty, staff and student performance (Hoy & Miskel, 2013; Marzano, Waters & McNulty, 2005).

Research has associated school climate with student achievement and developmental health (Cohen et al., 2009; Freiberg, 1999; Haynes, Emmons & Ben-Avie, 1997; Thapa et al., 2013) as well as teacher satisfaction (Aldridge & Fraser, 2016; Balyer & Özcan, 2017; Freiberg, 1999; Ghavifekr & Pillai, 2016; Skaalvik & Skaalvik, 2011; Taylor & Tashakkori, 1995), stress (Stauffer & Mason, 2013), morale (Evans, 2001),
burnout (Skaalvik & Skaalvik, 2009), turnover and retention (Cohen et al., 2009; Ingersoll, 2001; Kraft, Marinell & Yee, 2016).

Although there is no distinct set of dimensions that characterize the quality of school climate (Anderson, 1982; Cohen et al., 2009), a recent study by Rudasill et al. (2018), revealed six themes for its conceptualization. These themes include: shared beliefs and values (Anderson, 1982; Cohen et al., 2009; Hoy et al., 1991; Thapa et al., 2013), relationships and social interactions (Anderson, 1982; Cohen et al., 2009; Creemers & Reezigt, 1999; Hoy et al., 1991; Thapa et al., 2013), safety (Anderson, 1982; Cohen et al., 2009; Creemers & Reezigt, 1999; Thapa et al., 2013), teaching and instruction (Cohen et al., 2009; Creemers & Reezigt, 1999; Thapa et al., 2013), leadership (Anderson, 1982; Cohen et al., 2009; Hoy et al., 1991) and physical environment (Anderson, 1982; Cohen et al., 2009; Creemers & Reezigt, 1999; Thapa et al., 2013). However, this study focuses on the dimensions of leadership, relationships and social interactions and the interrelatedness of these dimensions in creating school climate. The emphasis is on the social and professional teacher-teacher and teacher-principal relationships and how the principal’s leadership style shapes these interactions and in turn affects school climate.

While teachers’ behaviors are more directly related to student performance and achievement, the behavior of a principal is directly related to teacher outcomes such as satisfaction, commitment and working relationships with colleagues (Griffith, 2004). Thus, principals have a direct impact on teachers’ job satisfaction which in turn influences job performance (Griffith, 2004). Therefore, leadership is considered vital to the successful functioning of a school (Marzano et al., 2005).

According to the US Senate Committee Report on Equal Educational Opportunity (US Congress, 1970) “the school principal is the most important and influential individual
in any school…It is the principal’s leadership that sets the tone of the school, the climate for teaching, the level of professionalism and morale of teachers” (p. 56). School leaders are considered responsible for creating a positive school climate where students and teachers are valued (Johnson, Livingston, Schwartz & Slate, 2000). “Education leadership is possibly the most important single determinant of an effective learning environment” (Kelley, Thornton & Daugherty, 2005, p. 17). Therefore, school principals must be aware of the importance of their role in shaping teachers’ perceptions of their work environment and their job satisfaction, to be able to foster and create a positive school climate (Bogler, 2001; Kelley et al., 2005).

Since the emergence of the Transactional and Transformational theories of leadership introduced by Burns in 1978 and further developed by Bass in 1985, transformational leadership not only has been the most researched of all leadership models combined (Judge & Piccolo, 2004), but it has reaped significant literature support (Bass, 1999; Bush, 2017). Transformational leaders inspire and motivate stakeholders to “transcend their own self-interests for the good of the group or organization” (Mooney, 2003, p.18). They aim at restructuring and improving school conditions through interpersonal relations, engaging individuals, building teams and creating high expectations of performance (Griffith, 2004; Leithwood & Jantzi, 1999; Stewart, 2006).

Furthermore, all dimensions of transformational leadership significantly correlate with the factors of supportive principal behavior and engaged teacher behavior necessary for creating an open and positive school climate (Eshbach & Henderson, 2010; McCarley, Peters & Decman, 2016; Mooney, 2003; O’Connor, 2001).
1.1 Research Problem

The idea for this study emerged from my years of experience in several schools in Lebanon and an International Lebanese school abroad. School climates were diverse, principal behaviors ranged from supportive and considerate to authoritative and restrictive while relationships among teachers varied from competitive and disengaged to cooperative and collegial.

Throughout my nine years of experience in teaching, five of which as a coordinator (leader) and teacher, it was apparent that a leader’s attitude and behavior towards stakeholders, is what creates school climate. Leaders that demonstrated supportive, motivating, stimulating and considerate behavior towards teachers, fostered a positive climate where teachers were collegial, engaged, empowered and satisfied. On the other hand, leaders who were highly restrictive, directive, passive, critical and distant, created a negative climate whereby teachers were competitive, disengaged, frustrated, demotivated and dissatisfied.

An increasing body of research suggests that principal leadership behavior influences teachers’ perceptions of their school environment and work conditions, thus affecting rates of attrition or retention (Boyd, Grossman, Ing, Lankford, Loeb, & Wyckoff, 2011; Burkhauser, 2017). Studies have supported the existence of a positive relationship between supportive principal behavior and collegial, committed, and engaged teacher behaviors (Booker, 2003; McCarley et al., 2016; Mooney, 2003; O’Connor, 2001). The principal’s relationships with teachers strongly and directly affect their attitudes and perceptions of their work environment, which as a result define school climate (Price, 2012). Thus, school leaders have the power to impact school climate by anticipating their
teachers’ needs and empowering them to adopt a shared vision, develop trust and collegiality (Kelley et al., 2005; Velasco, Edmonson & Slate, 2012). Although improving school climate is a collective effort involving all stakeholders, it is the primary role of a school leader to model the norms and behaviors consistent with the school vision (Halawah, 2005).

1.2 Research Purpose

For the purpose of this study, school climate is be defined as “the relatively enduring quality of the school environment that is experienced by participants, affects their behavior and is based on their collective perception of behavior in schools” (Hoy, 1990, p. 152). Although school climate is depicted through individual perceptions, it is “more than individual experience, it is a group phenomenon, composed of the norms, goals, values, behavioral norms, interpersonal relationships, learning environments and organizational structures within a school” (Cohen et al., 2009, p. 182). Since school climate is based on teachers’ perceptions of their work environment, “It is influenced by formal and informal relations, personalities of participants and leadership in the organization” (Hoy, 1990, p. 151). In other words, school climate is the set of characteristics of the school environment, that are experienced and influenced by leaders and members of the school and which distinguish one school from another.

The purpose of this mixed method research study is two-fold. The first aim is to examine school climate and leadership as perceived by teachers and to explore whether correlations among the various dimensions of leadership and climate exist. The second
aim is to use those correlations, if any, in order to identify the leadership characteristics and behaviors which impact school climate.

Quantitative research was used to measure teachers’ perceptions of school climate, using the Organizational Climate Description Questionnaire for elementary school (OCDQ-RE) and of leadership style, using the Multi-factor Leadership Questionnaire (MLQ-5X), in an elementary school in Mount Lebanon. While qualitative research, in the form of open-ended questions, were administered to determine which leadership characteristics and behaviors reflect on principal-teacher and teacher-teacher relationships and in turn affect school climate.

1.3 Research Questions

This mixed methods research aims at answering the following research questions:

1. How do elementary school teachers perceive the climate at their school?
2. How do elementary school teachers perceive their principal’s leadership style?
3. What are the leadership characteristics and behaviors that impact school climate as described by the teachers at the school?

1.4 Research Significance

It has become well-grounded in research that principals have a central role in shaping school climate (Marzano et al., 2005; Price, 2012; Shouppe & Pate, 2010). Since, school climate is determined by the quality of relationships, collaboration and support among teachers and between teachers and administrators (Cohen et al., 2009), leadership that fosters shared instructional goals and encourages collaboration creates a positive
school climate and as a result enhance student achievement (Johnson et al., 2000; Taylor & Tashakkori, 1995). Unfortunately, there is limited research on principal leadership and its relation to school climate in the Lebanese context.

Although extensive research on transformational leadership in the North-American context has supported its positive effects on school improvement and effectiveness (Allen, Grigsby, & Peters, 2015; Fullan, 2002; Hallinger, 2003; Leithwood & Jantzi, 1999), there is insufficient knowledge about its impact in our culture (Akkary, 2014; Mattar, 2016). The extent to which school principals in Lebanese schools are aware of the significance of their role as shapers and creators of a positive school climate and the effects of a positive climate in fostering an environment conducive to both teaching and learning is undetermined.

Therefore, the significance of this study extends beyond the mere examination of teachers’ perceptions of climate and principal leadership style in their school. Through the exploration of the constructs of the school’s climate and the dimensions of principal leadership, we gain insight into existing work conditions at the school and elements in need of change, improvement or development.

Furthermore, the assessment and explanation of any existent correlations between leadership behaviors and school climate dimensions, through the social and professional relationships among teachers and the principal, is of significant importance. Thus, as mentioned in the purpose of the study, the aim is to determine the characteristics and behaviors of leadership that impact principal and teacher relationships which reflect on and create school climate.
1.5 Conclusion

The school leader or principal is one of the most important “forces” that shape the quality and character of a school (Cohen et al. 2009, p. 187). The environment in which we work, the peer relationships we develop, the norms, goals and values we follow, the sense of respect and inclusion we feel from others contribute to the development of a positive school climate (Cohen et al., 2009; Thapa et al., 2013), which in turn has a tremendous impact on our success and productivity (Gorton & Alston, 2012; Pepper & Hamilton Thomas, 2002). Thus, the extent of support received by teachers from both the principal and peers significantly contributes to their satisfaction and commitment to the profession (Price, 2012; Singh & Billingsley, 1998). In summary, this study aims at examining the impact of principal leadership style on principal and teacher behaviors and ultimately on school climate, as displayed in the concept map below.

![Concept Map](image-url)

**Figure 1.1** Concept map of this study
Chapter 2

Literature Review

This chapter of the study presents a review of relevant literature on school climate, its definitions, dimensions, theories and models, as well as various models of how leadership affects school and effective leadership models. The theoretical framework of this study is presented in section 2.3 followed by a discussion of research on leadership and its relationship to school climate using the MLQ-5X and different versions of the OCDQ in section 2.4. Since leadership is the catalyst for advocating and reinforcing positive climates conducive to both teaching and learning, section 2.5 emphasizes the implications of leadership and school climate on teachers’ perceptions of school conditions and their impact on teachers’ behaviors.

2.1 School Climate

School climate has been the subject of extensive research for over a century since Arthur Perry (1908) wrote his book “The Management of a City School”. Initially, school climate was described as the milieu, personality, feel or spirit of a school (Freiberg, 1999; Halpin & Croft, 1963; Hoy et al., 1991; Perry, 1908). It wasn’t until the 1950’s that the systematic scientific investigation of school climate was undertaken with the development of organizational climate research (Anderson, 1982; Cohen et al., 2009; Zullig et al., 2010). The study of school climate developed from research on organizational climate in
both business and university contexts and school effectiveness research focusing on the classroom climate (Anderson, 1982; Creemers & Reezigt, 1999).

During the late 1970’s, research on the relationship between school climate and student achievement started to develop (eg. Brookover, Schweitzer, Schneider, Beady, Flood & Wisenbaker, 1978). By the mid 1990’s, researchers started to dig deeper into the implications of school climate on classes and teachers (eg. Hoy & Woolfolk, 1993; Taylor, 1995). Concurrently, principal leadership, and its role in shaping school climate and influencing teachers, was being studied (eg. Hallinger & Heck, 1996; Halpin & Croft, 1963; Leithwood & Jantzi, 1999).

Research on school climate has highlighted its positive impact on student achievement (Hoy et al., 1991; Reynolds, Lee, Turner, Bromhead & Subasic, 2017; Thapa et al. 2013; Wang & Degol, 2016), teacher performance, satisfaction, commitment and morale (Aldridge & Fraser, 2016; Ghavifekr & Pillai, 2016; Thapa et al. 2013). Therefore, school climate is an important aspect to consider for enhancing school performance and effectiveness (McCarley et al., 2016).

2.1.1 Definitions and Dimensions of School Climate

Definitions of school climate vary distinctively depending on the theoretical orientation of the researcher, the environmental dimensions considered significant to the creation of climate, the variables used to describe these dimensions and the process used to measure them (Anderson, 1982; Rudasill et al., 2018).

Early definitions of school climate included intangible descriptions and metaphors of the school environment such as health (Hoy & Tarter, 1992), spirit (Freiberg, 1999) or
personality (Halpin & Croft, 1963). Perry (1908), described it as the esprit de corps (p. 303), spirit of the body (Freiberg & Stein, 1999, p. 18).

This esprit de corps, school atmosphere, pride in the school and thought for its name and honor, is not to be gained in a day. It must become a matter of tradition and, once established, be handed down from one set of pupils to another.

(Perry, 1908, p. 304)

Perry (1908) emphasized the significance of the school environment in supporting the learner. He explained that, teachers who demonstrate values of loyalty, teamwork and sacrifice, students who are given opportunities to develop non-academic talents in music, art or athletics, enthusiastic alumni who provide material support but more importantly moral influence, and principals who reinforce discipline keeping in mind the physical/biological and psychological development of students, are few of the agents involved in the development of the ‘esprit de corps’.

Freiberg (1999) stated that “perhaps the best-known conceptualization and measurement of school climate in educational administration is the pioneering work of Halpin and Croft (1963)” (p.24). Halpin and Croft (1963) defined organizational climate as the patterns of social interactions among individuals, groups and the leader, which characterize an organization. “Personality is to the individual what climate is to the organization” (Halpin, 1966 cited in Hoy et al., 1991, p. 134). Their focus was primarily on teacher-teacher and teacher-principal interactions (Anderson 1982; Hoy et al., 1991). They constructed the Organizational climate Description Questionnaire (OCDQ), which measured six types of school climate in terms of eight dimensions of behavior, four teacher-related dimensions and four principal-related dimensions (Hoy, 1990).
OCDQ-RE (Revised Elementary) version, is discussed in more detail in the research instruments section in chapter 3.

Concurrently, scientific research on the climate of business organizations was well on its way and contributed greatly to the school context (Anderson, 1982). When psychologists and educational researchers were studying the influence of personality on behavior, business researchers focused on the influence of the organizational environment on behavior (Anderson, 1982). In Charles W. Nelson’s (1970) book review of Renato Tagiuri and George H. Litwin’s book “Organizational Climate: Explorations of a Concept” (1968), the authors defined organizational climate as: “A relatively enduring quality of the internal environment of an organization that is experienced by its members, influences their behavior, and can be described in terms of the values of a particular set of characteristics of the organization” (p. 167).

Tagiuri (1968) provided a taxonomy to define the climate and atmosphere of environmental quality which included: ecology (physical aspects), milieu (social aspects), social system (relationships) and culture (beliefs and values) (Anderson, 1982). In the article, “The Search for School Climate: A Review of the Research”, Anderson (1982), used Tagiuri’s taxonomy to organize the findings in the analysis of school climate literature. Anderson (1982) attempted to identify variables perceived as part of climate and are associated with positive outcomes in the effort of answering the question: What does the beast look like? (p. 388).

According to Anderson (1982) these categories and variables provide a “comprehensive assessment of the environment” (p. 404), whereby, a research model encompassing these variables allows both the testing of their impact on climate and the interrelationships and impact of the variables on outcomes as mediated through climate.
Although some features are distinct in their association with climate and outcomes, the exact mechanisms of how individuals and groups interact to create positive climate and outcomes is unclear (Anderson, 1982). Therefore, Anderson (1982) concludes that the focus of conceptual research should be on improving the effects of existent models of school climate rather than adding to the long list of variables and reassuring their relationship to climate and outcomes.

In a more recent article Cohen et al. (2009) refer to school climate as the “the quality and character of school life” (p. 358). They state that the four major dimensions of school climate and their subdimensions are: Safety (Physical and Social-emotional), Teaching and learning (Quality instruction, Social, emotional and ethical learning, Professional development and Leadership), Relationships (Respect for diversity, school community and collaboration and morale and connectedness) and the Environmental-Structural dimension which was renamed Institutional Environment in the article “A Review of School Climate Research”, by Thapa et al. (2013), co-authored by Jonathen Cohen. The Institutional Environment dimension included school connectedness, engagement, physical layout, surrounding and resources as subdimensions. Using these dimensions, Cohen et al. (2009), Thapa et al. (2013) and the National School Climate Center (NSCC), founded by Jonathen Cohen in 1999, stated the following definition:

School climate is based on patterns of people’s experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures.

(Cohen et al., 2009, p. 182; Thapa et al., 2013, p. 358)
2.1.2 Theories and Models of School Climate

Earlier research by developmental psychologist Urie Bronfenbrenner (1979) and his Ecological Systems Theory (EST) also contributed to studies on school climate by providing a theoretical framework for research (Rudasill et al., 2018). In his book “The Ecology of Human Development”, Bronfenbrenner (1979) asserts that “human development is a product of interaction between the growing human organism and its environment” (p. 16). Behavior evolves due to the interplay between the human and the environment as expressed by Kurt Lewin (1935), using a symbolic formula: \( B = f(P, E) \), Behavior is a function of the Person and his Environment (Bronfenbrenner, 1979; Denison, 1996).

Bronfenbrenner (1979) further defined the ecological environment as four interrelated nested contexts. ‘Microsystems’ are comprised of the roles, activities and interpersonal relations experienced in a certain setting such as the home or school. ‘Mesosystems’ are the interrelations across microsystems such as home-school collaborations. ‘Exosystems’ are the contexts which do not directly include but have an indirect effect on the individual such as parents’ work. Finally, ‘macrosystems’ are the overlapping and consistent patterns of the other systems such as the values, beliefs, ideologies or behaviors (Bronfenbrenner, 1979; La Salle, Meyers, Varjas & Roach, 2015; Rudasill et al., 2018).

This ecological theory of human interactions and development influenced the formulation of the “Cultural-Ecological Model of School Climate” CEMSC, which proposes a framework of how characteristics of personality and interactions across systems shape educational experiences and perceptions of school climate (La Salle et al., 2015). The CEMSC can be used to study the characteristics of teachers or school
administrators and the characteristics of the school to examine their implications on the individual’s perceptions of school climate (La Salle et al., 2015).

Because school climate is a complex multifaceted construct with an abundance of definitions, models and dimensions (Anderson, 1982; Cohen et al., 2009; Hoy, 1990; Rudasill et al., 2018; Thapa et al., 2013), Rudasill et al. (2018) proposed the “Systems View of School Climate” SVSC, to better understand how school climate functions. The SVSC is also based on the “Ecological Systems Theory” defined by Bronfenbrenner (1979) and the “Cultural Ecological Model of School Climate” presented by La Salle et al., (2015). In addition to the systems examined in the CEMSC, the SVSC includes ‘nanosystems’; groups within microsystems such as peer groups, and chronosystems; time, maturation, life events and external experiences (Rudasill et al., 2018).

Applied to the school context, the ‘microsystem’ (being the school) is where school climate exists and is constructed through the “combined subjective impressions” (Rudasill et al., 2018, p. 48) of students, teachers, administration and staff members situated amidst a series of nested and interactive contexts working together in support of the student’s school experiences. Interactions between individual students or teachers and different ‘nanosystems’ or ‘microsystems’, and the interactions of school ‘microsystems’ and family or community ‘microsystems’ are constituents of the ‘mesosystem’ and directly influence perceptions of school climate. The ‘exosystem’ and the ‘chronosystem’ on the other hand, are considered more distal, imposing indirect influence on school climate (Rudasill et al., 2018).

The SVSC can be used to give structure to and demonstrate which of the six themes revealed from the examination of literature (shared beliefs and values, relationships and social interactions, safety, teaching and instruction, leadership and physical environment)
are part of school climate and which are indirectly related to it (Rudasill et al., 2018). This theoretical framework based on the SVSC culminated the following definition:

School climate is composed of the affective and cognitive perceptions regarding social interactions, relationships, safety, values, and beliefs held by students, teachers, administrators, and staff within a school.

(Rudasill et al., 2018, p. 46)

In contrast with earlier taxonomies and definitions of school climate given by Cohen et al. (2009), Hoy (1990), Thapa et al. (2013), this definition excludes teaching and instruction, leadership and physical environment as not being part of the SVSC taxonomy (Rudasill et al., 2018). Teaching and instruction are considered observable variables of the ‘microsystem’ not perceptual contexts; leadership may influence school climate and its development in the ‘microsystem’ but is not part of the construct itself and the physical environment and the tangible characteristics it encompasses may shape perceptions of school climate but are considered contextual factors of the ‘microsystem’ rather than part of school climate (Rudasill et al., 2018).

Apparently, it is difficult to reach a single comprehensive definition of school climate. Therefore, as mentioned earlier, for the purpose of this study, school climate is defined as “the relatively enduring quality of the school environment that is experienced by participants, affects their behavior and is based on their collective perception of behavior in schools” (Hoy, 1990, p. 152). “It is influenced by formal and informal relations, personalities of participants and leadership in the organization” (Hoy, 1990, p. 151; Hoy & Tarter, 1992, p. 74). In other words, school climate is the set of characteristics of the school, that are experienced and influenced by leaders and members of the school and which distinguish one school from another. Since this study adopts the conception of
school climate established by Halpin and Croft (1963) and developed by Hoy et al. (1991),
the focus was on the relationships between teachers and leaders and how these
relationships create school climate.

According to Denison (1996) “Climate refers to a situation and its link to thoughts,
feelings and behaviors of organizational members. Thus, it is temporal, subjective and
often subject to direct manipulation by people with power and influence” (p. 644). Since
school leaders possess the power, authority and position, they have significant influence
on school climate (Kelley et al., 2005; Price, 2012; Velasco et al., 2012). Therefore, the
next sections present different models of how leadership affects the school as well as
various models of effective leadership.

2.2 Leadership

Leadership in education is of utmost importance because the outcome is student
learning and achievement (Huguet, 2017). “Education leadership is possibly the most
important single determinant of an effective learning environment” (Kelley et al., 2005, p.
17). “Leadership is considered to be vital to the successful functioning of many aspects
of a school... it is no wonder that an effective principal is thought to be a necessary
precondition for an effective school” (Marzano et al., 2005, p. 5). Thus, it is the
responsibility of the leader to create and maintain an effective organizational climate that
promotes the well-being of all members of the organization (Cohen et al., 2009; Johnson
et al., 2000; Murphy & Louis, 2018).

Ever since research on school effectiveness emerged in the 1970’s, “the
assumption of positive leadership effects in schooling prevailed in research and practice”
School effectiveness research asserted that leadership is an essential component of effective schools (Gorton & Alston, 2012; Murphy & Louis, 2018; Murzano et al., 2005). Models employed in the study of leadership effects on school outcomes are discussed in the upcoming section.

2.2.1 Models of Leadership Effects

In their review and synthesis of empirical literature on the principal’s role in school effectiveness from 1980-1995, Hallinger and Heck (1996,1998) sought to gain a better understanding of the claim that principal leadership impacts school effectiveness. Studies were examined and grouped according to the research model used to explore administrative behavior and its influence on school outcomes. The models included: ‘direct-effects models’, ‘mediated-effects models’ and ‘reciprocal-effects models’.

‘Direct-effects models’ propose a direct link between principal behaviors and school outcomes. Although significant relations to teachers’ performance were evident, direct links to student related outcomes were inconclusive. Thus, ‘direct-effects models’ have “limited utility for investigating the effects of principal leadership” (Hallinger & Heck, 1998, p. 166) and “simply lack the power to shed further light on the nature of the principal’s role in school effectiveness” (Hallinger & Heck, 1996, p. 34).

‘Mediated-effects models’ assume the indirect effect of principal behaviors on school outcomes as mediated through others. These studies revealed consistent and statistically significant indirect effects of leadership through influencing school variables and processes ranging from policies, norms and academic expectations to teacher practices (Hallinger & Heck, 1996, 1998). Thus, they offered “concrete indications of possible means through which leadership may achieve an impact on the school’s outcomes and
effects” (Hallinger & Heck, 1998, p. 167). Although mediated-effects studies present a more conceptually advanced approach compared to 'direct-effects studies, both undermine the possibility, presented by ‘reciprocal-effects models’, that while leadership impacts organizational processes and performance, it is influenced by these changes in a cyclical manner (Hallinger & Heck, 1996; Heck & Hallinger, 2010).

‘Reciprocal-effects models’ posit that relationships between the principal, teachers, school features and environment are interactive, whereby the principal adapts to the organization and implements the required changes in thinking and behavior over time. These models “entertain the possibility that causal relationships may be multi-directional, change over time and even be nonlinear” (Hallinger & Heck, 1998, p. 168). No studies explicitly used ‘reciprocal-effects models’ in Hallinger and Heck’s reviews (1996, 1998) due to their complex suppositions and the immense amounts of data required for such studies. Nevertheless, these approaches “hold promise for future investigations of dynamic models of principal effects” (p. 29) given that longitudinal data is collected, and more appropriate analysis techniques are used (Hallinger & Heck, 1996).

Nevertheless, “recognizing that principals affect school outcomes is very different from specifying how principals affect these outcomes” (Grissom & Loeb, 2011, p. 1093). Therefore, the subsequent sections present several effective leadership models that have dominated the literature and the implications these leadership models have on teachers.

2.2.2 Effects of Leadership Models

In a review of international literature from the field of leadership, Leithwood, Harris and Hopkins (2008) summarize major findings in terms of strong claims about
successful school leadership. Two of these claims, summoned the largest amount of support by empirical evidence.

The first claim is that “School leadership is second only to classroom teaching as an influence on pupil learning” (p. 27). To justify this claim, the authors draw from several sources of evidence including Hallinger and Heck’s (1996, 1998) reviews on leadership effects, discussed in the previous section, and the meta-analysis conducted by Marzano et al. (2005) on the effects of leadership practices on student achievement.

Marzano et al. (2005), identified 21 principal responsibilities and their correlations to student achievement. The average correlation between leadership practices and academic student achievement was estimated to be .25 (p. 10). In other words, if principal ability and average student achievement are at 50%, an increase of principal ability to 84% would predict a rise in student achievement to 60% (Marzano et al., 2005, p. 30). Out of the 21 responsibilities, ‘situational awareness’ had the strongest correlation of .33 (p. 63). ‘Situational awareness’ refers to the leader’s knowledge of the details and underpinnings of running the school and how this knowledge is used to face current and potential problems as well as, the leader’s awareness of informal groups and staff relationships (Marzano et al., 2005; Spillane, 2003). Leithwood et al. (2008) concluded that there is a significant effect of leadership on the quality of school outcomes and student learning and is therefore viewed as a catalyst for promoting the existent potentials and capacities in the school.

As for the second claim, which is that “Almost all successful leaders draw on the same repertoire of basic leadership practices” (p. 27), the underlying assumptions are that the main task of a leader is to enhance employee performance and that employee performance is dependent on their beliefs, values, knowledge and skills, motivation and
work conditions (Leithwood et al., 2008). Therefore, a successful leader must employ certain practices that enhance and nourish these dimensions of performance for teachers since they are key to student learning and school outcomes (Leithwood & Jantzi, 2005; Murphy & Louis, 2018). The four categories of core practices include: ‘building vision and setting directions’, ‘understanding and developing people’, ‘redesigning the organization’ and ‘managing the teaching and learning program’.

‘Building vision and setting directions’ is a category of practices that focus on motivating teachers and staff, to establish a shared purpose, develop a shared vision, foster the acceptance of group goals and demonstrate high performance expectations (Hallinger, 2003; Hallinger & Heck, 1999; Leithwood & Jantzi, 2005).

‘Understanding and developing people’ practices contribute significantly to motivation. The main aim of these practices is to build the skills and knowledge needed by teachers and staff to accomplish organizational goals as well as their commitment and capacity to persevere in applying these skills and knowledge. More specific practices are to provide individualized support and consideration, foster intellectual stimulation, and model appropriate values and behaviors (Hallinger & Heck, 1999; Leithwood, 1994; Leithwood & Jantzi, 2005).

‘Redesigning the organization’ to establish the work conditions necessary for teachers and staff to employ the fullest potential of their capacities, motivations and commitments. The aim of such practices is to build collaborative cultures, restructure the organization and build productive relations (Hallinger & Heck, 1999; Leithwood, 1994; Leithwood & Jantzi, 2005).

‘Managing the teaching and learning program’ to create productive working conditions for teachers. The aim is to foster organizational stability and strengthen the
infrastructure through staffing, providing the necessary support, monitoring school activity and limiting work distractions (Hallinger & Heck, 1999; Leithwood, 1994; Leithwood & Jantzi, 2005).

These core leadership practices and specific behaviors provide a source of guidance and a framework for successful leadership development (Leithwood et al., 2008). Furthermore, these core practices are encompassed in the transformational model of leadership (Bass, 1999; Leithwood & Jantzi, 1999; Leithwood & Jantzi, 2005; Leithwood & Sun, 2012; Northouse, 2019; Stewart, 2006) which was substantially adapted by Leithwood and his colleagues from Bass’ (1985) construct of transformational leadership into the educational context (Hallinger, 2003; Marzano et al., 2005).

Although “leadership models in education are subject to the same faddism that is apparent in other areas of education. Today’s favourite brand is soon replaced by another…it is fortunate that over the past 25 years, scholars have subjected…transformational leadership to extended empirical study” (Hallinger, 2003, p. 330). Transformational leadership, a model conceptualized by Burns (1978) and further developed by Bass (1985), Bass and Avolio (1994) and Leithwood (1994), is “the most widely adopted and tested” leadership model (Leithwood & Sun, 2012, p. 388; Northouse, 2019). A keyword search in publications from 1990 to 2003, revealed more research on transformational leadership than all other leadership models combined (Judge & Piccolo, 2004).

Research on effective leadership traces back to the work of political sociologist James MacGregor Burns (1978), in his book “Leadership”, where he introduced the transforming leadership theory in his study of political leaders (Griffith, 2004). According to Burns (1978) leaders are those who identify and fulfill the motives of their followers in
order to successfully accomplish their own goals and those of their followers as well (Burns, 1978; Northouse, 2019). Thus, to Burns “leadership is quite different than power because it is inseparable from followers’ needs” (Northouse, 2019, p. 164). Furthermore, Burns (1978) states that while “All leaders are actual or potential power holders, but not all power holders are leaders” (p.18).

Burns (1978) identified two types of leadership, transactional and transforming. While transactional leaders incorporate exchange practices with their followers with the focus on maintaining the organization’s efficiency (McCarley, 2012), transforming leaders recognize the needs, demands and motives of their followers and seek to satisfy them (Burns, 1978). Thus, “transforming leadership, while more complex, is more potent. The result of transforming leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents” (Burns, 1978, p. 4).

Although the conceptual model of transformational leadership originated in the study of political and corporal leadership, it became a requisite to school restructuring and effectiveness (Hallinger, 2003; Kirby, Paradise & King, 1992). Bass (1985) expounded on the study of leadership by Burns, changing the term from transforming to transformational leadership (Bass, 1985, Hoy & Miskel, 2013; Stewart, 2006) and placing more attention on the needs of followers than those of the leader (Northouse, 2019). Bass stated that while “transformational leaders uplift the morale, motivation and morals of their followers, transactional leaders cater to their followers’ immediate self-interests” (Bass, 1999, p. 9). Unlike Burns (1978), Bass (1985) viewed transformational and transactional models of leadership as complementary rather than polar constructs, whereby, both are linked to the achievement of desired goals and objectives (Bass et al.,
According to Bass (1985), although “transformational and transactional leadership are separate concepts… the best leaders are both transformational and transactional” (Bass, 1999, p.21; Judge & Piccolo, 2004, p. 755). While transactional leadership does not provide an enough model of effectiveness, transformational leadership augments the effectiveness of a transactional leader but does not substitute it (Bass, 1999; Hoy & Miskel, 2013; Leithwood & Jantzi, 2005). Thus, a transformational leader inspires and motivates others, builds teams, sets high standards of performance and thus encourages development and performance beyond expectations (Avolio & Bass, 2004; Bass, 1999; Hoy & Miskel, 2013; Stewart, 2006). Leaders who are transformational engage with their subordinates creating a connection, attending to their needs and motives, raising their motivation levels in the aim of reaching their highest potentials (Blase & Kirby, 2009; Marzano et al., 2005; Northouse, 2019).

According to Bass (1985) a transformational leader demonstrates five distinctive constructs known as the 5 I’s. These constructs are ‘idealized attributes’, ‘idealized behaviors’ (originally were one construct known as charisma or idealized influence), ‘inspirational motivation’, ‘individualized consideration’ and ‘intellectual stimulation’ (Avolio & Bass, 2004; Bass, 1985, Bass, 1999; Bass & Avolio, 1993; Hoy & Miskel, 2013; Northouse, 2019).

‘Idealized attributes’ are exhibits of charisma, power and confidence as well as the ability to instill pride, go beyond one’s self-interest to fulfill the interests of the group and create a strong sense of belonging that unites members towards a common goal (Antonakis, 2001; Avolio & Bass, 2004; Bass, 1985; McCarley, 2012; Mooney, 2003).
‘Idealized behaviors’ are reflections of a high moral and ethical code, strong sense of mission and purpose. They are also demonstrated by clear communication of the importance of values and beliefs as well as the ethical and moral considerations of any decision to be made (Antonakis, 2001; Avolio & Bass, 2004; Bass, 1985; McCarley, 2012; Mooney, 2003).

‘Inspirational motivation’ is the ability of a leader to elevate the level of enthusiasm and challenge by communicating clear expectations, demonstrating commitment and creating a shared vision and unified goals (Antonakis, Avolio & Sivasubramaniam, 2003; Avolio & Bass, 2004; Hoy & Miskel, 2013; Stewart, 2006).

‘Individualized consideration’ is the personalized awareness of individual concerns, needs and potentials of followers. Leaders demonstrate this by establishing a supportive climate in which individual differences are accepted, valued and respected, and interactions are encouraged (Antonakis et al., 2003; Avolio & Bass, 2004; Hoy & Miskel, 2013; Stewart, 2006).

‘Intellectual stimulation’ is characterized by the active solicitation of new ideas, creative perspectives and alternatives to achieve desired outcomes by stimulating others to be innovative and collaborative (Antonakis et al., 2003; Avolio & Bass, 2004; Hoy & Miskel, 2013; McCarley et al., 2016; Stewart, 2006).

Transformational leaders increase the motivation of members of an organization and build their morale by engaging them individually as well as collectively (Stewart, 2006). They are “proactive, raise the awareness levels of followers about inspirational collective interests, and help followers achieve unusually high-performance outcomes” (Hoy & Miskel, 2013: 449).
In addition to the 5 I’s which reflect transformational leadership, Avolio and Bass (2004), specify two constituents of transactional leadership which are ‘contingent reward’ and ‘management-by-exception’ in its active form (Antonakis et al., 2003; Avolio & Bass, 2004; Avolio, Bass & Jung, 1999; Bass & Avolio, 1993). Whereas, passive/avoidant leadership or the absence of leadership is represented by ‘management-by-exception’ in its passive form and ‘laissez-faire’ dimensions (Avolio & Bass, 2004; McCarley, 2012; Northouse, 2019). These nine dimensions are used in the Multi-Factor Leadership Questionnaire (MLQ-5X) to measure the degree to which a leader is transformational or transactional in accordance with the norm (Avolio & Bass, 2004). The MLQ-5X is discussed in more details in the methodology section of this study.

2.3 Theoretical framework

The framework of this study is based on the theory of school climate developed by Halpin and Croft (1963) and that of transformational leadership introduced by Burns (1978). Halpin and Croft’s theory of school climate was refined and modified by Hoy and Clover (1986) and Hoy et al., (1991), who developed revised versions of the OCDQ. Whereas Burns’ (1978) theory of transformational leadership was further developed by Bass (1985) and Bass and Avolio (1994) who created the MLQ-5X to measure the leadership style of a leader. The following section reviews research on the effect of leadership on school climate using the MLQ-5X and different versions of the OCDQ.
2.4 School Climate and Leadership

Research on school climate and leadership has found that the actions of principals are predictive of school climate (Bulach, Boothe & Pickett 2006; McCarley, 2012; McCarley et al., 2016; Murphy & Louis, 2018), whereby, the school leader is considered one of the most influential factors in the development of the quality and character of a school (Cohen et al., 2009; Marzano et al., 2005). Numerous research findings have supported the belief that transformational leadership significantly contributes to school restructuring and improvement (Leithwood, 1994; Silins, 1994).

In the study “Transformational leadership related to school climate: A multi-level analysis”, McCarley et al. (2016), examined the relationship between teacher perceptions of leadership and school climate in secondary schools. Using the MLQ-5X and the OCDQ-RS, results revealed a significant positive relationship between the five dimensions of transformational leadership and supportive principal behavior as well as engaged teacher behavior. These findings were consistent with similar studies conducted by Eshbach and Henderson (2010), Mooney (2003) and O’Connor (2001) where transformational leadership correlated positively with supportive principal behavior and engaged teacher behavior. The results also coincided with those of a study conducted by Salisbury and McGregor (2002) on successful inclusive schools, which revealed that principals in an open climate were perceived by teachers as supportive, nondirective and nonrestrictive. Salisbury and McGregor (2002) also found that a supportive and engaged climate fostered teachers’ involvement, collegiality and created a strong social support network.
Mooney (2003) studied the relationship between transformational leadership and the school climate of elementary schools using the MLQ-5X and the OCDQ-RE. Results of the study supported the idea that teachers’ perceptions of transformational leadership, were related to school climate. Strong correlations were found between most transformational leadership dimensions and the school climate dimensions of supportive principal behavior and collegial teacher behavior. Findings also indicated that the transformational leadership dimensions of idealized attributes and behaviors, individualized consideration, and intellectual stimulation had the greatest relationship to the openness of school climate.

Booker (2003) examined the relationship between leadership styles and school climate by administering the MLQ-5X and OCDQ-RM. Findings revealed significant relationships between teacher perceptions of transformational leadership and dimensions of school climate. There were positive correlations between principal openness (high supportive, low directive and restrictive behavior) and teacher collegial and committed behavior.

O’Connor (2001) also used the MLQ-5X and OCDQ-RM to study leadership styles and school climate. Results revealed that the more principals are perceived as transformational the more open the climate of the school they lead. More specifically, there were significant positive relations between the transformational leadership factors of idealized behaviors, inspirational motivation, and intellectual stimulation and collegial, committed, engaged and intimate teacher behavior. Thus, it can be concluded that the behaviors of a transformational leader can enhance the intimacy and cohesion of staff members creating a positive climate (O’Connor, 2001).
Eshbach and Henderson (2010) conducted a study on “The symbiotic relationship between new principals and the climate of the schools in which they lead” using the MLQ-5X and the OCDQ-RE. They found strong positive correlations between supportive principal behavior and all the dimensions of transformational leadership, the transactional dimension of contingent reward and the three outcomes of leadership (effectiveness, extra effort and satisfaction). There were significant relationships between idealized attributes, intellectual stimulation and intimate teacher behavior. Intellectual stimulation also strongly correlated with collegial teacher behavior.

Allen et al. (2015) concluded that all five dimensions of transformational leadership have significant positive relationships with dimensions of school climate. Their findings were consistent with prior research which asserts that teachers’ perceptions of school climate are greatly affected by the transformational leadership dimensions (Bird, Wang, Watson & Murray, 2009; Hauserman & Stick, 2013; Leithwood & Jantzi, 2005; Marks & Printy, 2003; Moolenaar, Daly & Sleegers, 2010; Rhodes, Nevill & Allan, 2009; Vos, Van der Westhuizen, Mentz & Ellis, 2012).

Hauserman and Stick (2013) used the MLQ as well as in-depth interviews, to determine which characteristics and behaviors teachers viewed as most desirable in principals. The interpretation of the data indicated that teachers strongly preferred behaviors that aligned with the aspects of transformational leadership. “Transformational leaders are proactive, raise the awareness levels of followers about inspirational collective interests, and help followers achieve unusually high performance outcomes” (Hoy & Miskel, 2013, p. 449). Transformational leaders enhance the satisfaction, motivation and consequently, the performance of their followers (Bass & Riggio, 2006; Northouse, 2019).
A transformational leader implements change through their focus and positive impact on school conditions, whereby, they inspire stakeholders, build collaborative teams and set high expectations of performance (Hoy & Miskel, 2013; Northouse, 2019; Stewart, 2006). A transformational leader “is close to what people have in mind when they describe their ideal leader” (Hoy & Miskel, 2013, p. 453). Although the focus of this study is on teachers’ perceptions of school climate and leadership and the leadership dimensions that they believe have an impact on school climate, it is important to highlight some implications of both leadership and climate on teachers.

2.5 Implications on Teachers

Teachers’ perceptions of their school climate and principal leadership style have significant implications on work related aspects such as satisfaction, commitment, performance, retention and turnover (Bogler, 2001; Griffith, 2004; Leithwood & Jantzi, 1999; Leithwood & Sun, 2012; Northouse, 2019; Price, 2012; Stewart, 2006). Transformational leaders can create positive organizational climates whereby, levels of organizational commitment, motivation and job satisfaction are heightened (Avolio & Bass, 2004; Hallinger, 2003; Leithwood & Jantzi, 1999; Leithwood & Sun, 2012; Eliophotou-Menon, 2014, Eliophotou-Menon & Ioannou, 2016). The following sections present the results of relevant research studies on leadership and school climate and their implications on teachers.
2.5.1 Satisfaction, Commitment and Performance

Kirby et al. (1992) conducted two studies. The first study was quantitative with the purpose of determining the degree to which teachers perceive their leader as transformational using the MLQ. The second study was a follow up to the first. It was qualitative with the purpose of determining which behavioral dimensions of transformational leadership were best associated with follower satisfaction and leader effectiveness. The results of both studies confirmed the significance of intellectual stimulation which had a statistically significant positive correlation with leader effectiveness and teacher satisfaction. Individualized consideration also strongly correlated with leader effectiveness and teacher satisfaction. Kirby et al. (1992), affirm that “Transformational leadership is development oriented for the purpose of change. The leader's focus on the individual development of subordinates enhances their performance which, in turn, leads to organizational growth” (p. 303).

Taylor and Tashakkori (1995) used correlational and regression analyses to examine the effect of decision participation and school climate on teachers’ job satisfaction and sense of efficacy. School climate dimensions were stronger predictors of job satisfaction than the dimensions of decision participation. The results of their study showed that the strongest predictors of job satisfaction were the climate dimensions of lack of obstacles to teaching (low restrictiveness), followed by principal leadership.

In the article, “The Influence of Leadership Style on Teacher Job Satisfaction”, Ronit Bogler (2001) examined the effects of principal leadership style, decision-making strategy and teachers’ occupation perceptions on their job satisfaction. The most significant findings were that teachers’ job satisfaction was most strongly affected by their
perceptions of their occupation and that transformational leadership affected job satisfaction both directly and indirectly through these perceptions.

Griffith (2004) examined the direct effect of transformational leadership on elementary school staff turnover and school performance as well as its indirect effect through staff job satisfaction. Results concluded no direct association between transformational leadership and staff turnover but rather an indirect negative effect through staff job satisfaction (Hallinger & Heck, 1996). Thus, principal leadership behavior and their relationship with staff has a direct effect on job satisfaction and commitment which in turn affect job performance and turnover (Griffith, 2004).

Aydin, Sarier and Uysal (2013), conducted a meta-analysis, based on the effect size model, to determine the effect of principal leadership style on teacher job satisfaction and organizational commitment. The impact of transformational leadership on teacher job satisfaction was calculated as 0.81. Compared to the average effect size calculated as 0.25, transformational leadership presents a significant positive effect on job satisfaction. The effect size of transactional leadership on job satisfaction was calculated as 0.56, which also shows a significant positive effect particularly related to the dimension of contingent reward.

Eliophotou-Menon (2014) examined the link between transformational leadership and teachers’ perceptions of leader effectiveness and job satisfaction using the MLQ-5X and a separate scale to measure satisfaction. The research examined two directions of causality. Results not only revealed that transformational leadership behaviors have a direct impact on the perceptions of leader effectiveness and teacher satisfaction, but that the opposite is also true. Thus, positive perceptions of leader effectiveness and job satisfaction led teachers to identify their leaders as more transformational. Eliophotou-
Menon and Ioannou (2016) also conducted a review of recent studies concerning the link between transformational leadership and teacher related outcomes such as job satisfaction, motivation and organizational commitment, using advanced structural equation modeling. Their review of the literature assured the significant positive impact of transformational leadership on all teacher related outcomes.

Leithwood and Sun (2012) conducted a meta-analysis on 79 unpublished studies to examine the effect of transformational leadership on teachers’ organizational commitment. Compared to recently published research, the studies revealed that transformational leadership practices such as, building relationships, creating a unified vision and staff professional development had a strong impact on teachers’ commitment to their schools.

2.5.2 Turnover and Retention

In the article “Teacher turnover and teacher Shortages: An Organizational Analysis”, Ingersoll (2001) examined four measures reflecting school conditions (salary, administrative support, student discipline and teacher influence over decision making) and their relationship to teacher turnover. Teachers reported that job dissatisfaction due to the lack of support from the school administration and restricted teacher influence in decision making, were the most prominent reasons for turnover. About one-third of teachers indicated that lack of support from the school administration was a cause of dissatisfaction and attrition.

Another study by Boyd et al. (2011) examined the relationship of school contextual factors such as teachers’ influence over school policy, student behavior, staff relations, the effectiveness of school administration, safety and facilities, on teacher retention. The
study combined longitudinal survey data to assess which school contextual factors affected teachers’ decisions for leaving or transferring from their current school. Teachers’ perceptions of the effectiveness of school administration, staff relations, student behavior and facilities influenced their decisions. Furthermore, in follow-up surveys conducted to gain more insight, the administration effectiveness factor had the most significant relation to teachers’ retention decisions. Boyd et al. (2011) concluded that the administration effectiveness factor is the most significant predictor of teacher retention.

A study conducted by Pogodzinski, Youngs, Frank & Belman (2012) used survey data to examine the association between teachers’ perceptions of the administrative climate and their decision to remain at the school. Results revealed that the way teachers perceive administrator-teacher relations, both at the teacher-level and the group-level, not only influences their practices and beliefs but is a strong predictor of their intent to remain at the school. “The findings from this study highlight the fact that it is not just direct individual relationships that a novice teacher has with her administrators that influence her attitudes and behaviors, but perceptions of the overall administrative climate within the school also influence key teacher outcomes” (Pogodzinski et al., 2012, p. 270).

In conclusion, the school leader is the single most important determinant of school effectiveness (Hallinger & Heck, 1996; Hoy et al., 1991) and the creation of optimal working conditions (Blase & Kirby, 2009, Leithwood & Jantzi, 2000). “Just as the teacher establishes the climate for the classroom, the school principal plays the significant role in establishing the climate for the school” (Hall & George, 1999, p. 171). The study of leadership and school climate has strongly supported and clarified the fact that teacher behaviors are greatly determined by the actions and behaviors of their leaders (Bass & Riggio, 2006; Hall & George, 1999).
Chapter 3

Methodology

This Chapter explains the research design used in this study, describes the selected sample, participants and research context and elaborates on the instruments, the data collection procedures and analysis used.

3.1 Research Design

This study was conducted using mixed methods research which combines both qualitative and quantitative methods of data collection and analysis (Fraenkel, Wallen & Hyun, 2012). An advantage of mixed-methods research is the fact that the researcher can gather more data and different types of data which offers deeper insight than using one method (Caruth, 2013; Fraenkel et al., 2012). In the article “Towards a Definition of Mixed Method Research”, Johnson, Onwuegbuzie and Turner (2007), analyzed 19 definitions from 21 highly published mixed methods researchers to conclude the following definition:

Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration.

(p. 123)

The subjective nature of this study, in that it measures the perceptions of teachers regarding school climate and leadership, makes it essential to use mixed methods research. Since quantitative data was collected using two instruments, the OCDQ-RE to measure
school climate and the MLQ-5X for leadership, while qualitative data was collected through open-ended questions, this study is considered quantitatively dominant (Johnson et al., 2007, p.124). The data for this study was collected simultaneously. The open-ended questions were annexed to the quantitative instruments and used to enhance and explain the quantitative findings (Caruth, 2013, p. 114; Creswell & Plano Clark, 2018, p. 234; Fraenkel et al., 2012, p.560). In short, this study is a quantitively dominant concurrent design, denoted as QUAN + qual mixed methods research (Creswell & Plano Clark, 2018, p. 63). Quantitative and qualitative data was analyzed to gain more breadth, depth and corroboration and provide more meaningful and useful answers to the research questions (Johnson et al., 2007, p. 122-123).

3.2 Sampling and Participants

A convenience sample of 63 elementary school teachers, teaching the Lebanese/French and Lebanese/English curricula, were chosen to participate in this study. There were 34 teachers in the Lebanese/English elementary school, and 29 teachers in the Lebanese/French elementary school. All participating teachers were female and come from the same region. Years of experience ranged from 2 to 30 years of teaching at the elementary schools selected for this study. Both quantitative and qualitative data were collected from all participants through the distribution of an envelope containing the two surveys and the open-ended questions which were sealed and returned to the researcher.
3.3 Research Context

The school chosen for this study was established in 1957. There are two elementary departments at the school, each of which has its own principal. Therefore, there are two samples of teachers involved in this study each evaluating their principal and their school climate. In the Lebanese/English elementary school, the number of student enrollment is 479 and there are 34 teachers. In the Lebanese/French elementary school, 228 students are enrolled and there are 29 teachers.

The school was chosen due to the convenience of its location and the fact that the school director and the principals of both elementary schools have granted me permission to conduct my research. Another intention is to contribute any significant results from the study to a school in my community whereby they gain more insight regarding school climate and leadership and the interrelationship of their dimensions. The school director and both principals have expressed interest in the findings of this study. The fact that I haven’t worked there and do not have any pre-acquired knowledge of the school’s climate or leadership considerably reduced any bias that might impact the research results.

3.4 Instrumentation

This study incorporates three instruments for data collection. Quantitative data on teachers’ perceptions of school climate were collected using the Organizational Climate Description Questionnaire for Elementary Schools (OCDQ-RE) (Hoy et al., 1991), while data on their perceptions of leadership were collected using the Multifactor Leadership Questionnaire (MLQ-5X) rater form (Avolio & Bass, 2004). Open-ended questions were added to the instruments in order to gather qualitative data on teachers’ perceptions of
school climate and to highlight what they believe are significant leadership characteristics and behaviors that impact school climate. The open-ended questions were linked to the two surveys and devised to answer the third research question. The following sections present details of the OCDQ-RE, the MLQ-5X and the open-ended questions.

3.4.1 The Organizational Climate Description Questionnaire (OCDQ-RE)

The Organizational Climate Description Questionnaire OCDQ-RE was used to answer the first research question: How do elementary teachers perceive the climate at their school?

The OCDQ-RE, found in Appendix E, is a free survey available online from Dr. Wayne K. Hoy. Permission to use this instrument was requested from Dr. Hoy via email. A copy of the email is available in Appendix D. The instrument contains 42-items with a 4-point Likert scale including: 1 = Rarely occurs, 2 = Sometimes Occurs, 3 = Often Occurs and 4 = Very frequently occurs. The survey needs around 15-20 minutes to complete.

The OCDQ-RE determines school climate by measuring the perceptions of teachers of their interactions with other teachers and their principal, through six dimensions of behavior. The three dimensions of teacher behavior are ‘collegial teacher behavior’, ‘intimate teacher behavior’ and ‘disengaged teacher behavior’ (Hoy et al., 1991). Collegial teacher behavior is measured through items such as “Teachers help and support each other” and “New teachers are readily accepted by colleagues” (Hoy et al., 1991, p. 27). Intimate teacher behavior is measured through items such as “Teachers socialize with each other on a regular basis” and “Teachers have parties for each other” (Hoy et al., 1991, p. 27). Disengaged teacher behavior is measured through items such as
“Faculty meetings are useless” and “There is a minority group of teachers who always oppose the majority” (Hoy et al., 1991, p. 28).

The three dimensions of Principal behavior are ‘supportive principal behavior’, ‘directive principal behavior’ and ‘restrictive principal behavior’ (Hoy et al., 1991, p. 26-28). ‘Supportive principal behavior’ is measured through items such as “The principal uses constructive criticism” and “The principal compliments teachers” (Hoy et al., 1991, p. 27). ‘Directive principal behavior’ is measured through items such as “The principal monitors everything teachers do” and “The principal rules with an iron fist” (Hoy et al., 1991, p. 27). While ‘restrictive principal behavior’ is measured through items such as “Teachers are burdened with busywork” and “Routine duties interfere with the job of teaching” (Hoy et al., 1991, p. 27). These dimensions and the corresponding items on the survey are detailed in Appendix F.

The levels and interactions of these six dimensions determine four types of organizational climates summarized in Table 3.1. An ‘Open Climate’ is a climate of high supportiveness, collegiality and intimacy with low directiveness, restrictiveness and disengagement. An ‘Engaged Climate’ is one with low supportiveness, high directiveness and restrictiveness from the principal, yet teachers demonstrate high collegiality, intimacy and engagement. A ‘Disengaged Climate’ has high supportiveness, low directiveness and restrictiveness yet, teachers demonstrate high disengagement, low collegiality and intimacy. The fourth type of climate is a ‘Closed Climate’ where principal behavior is highly restrictive and directive and low on supportiveness, resulting in low collegiality and intimacy and high disengagement (Hoy et al., 1991, p. 33, 34). Detailed descriptions of the school climate types are available in Appendix F.
Table 3.1 Dimensions of Behaviors and Types of School Climate
(adopted from Figure 2.1 in Hoy et al., 1991)

<table>
<thead>
<tr>
<th>Teacher behavior dimensions</th>
<th>Principal behavior dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Supportive</td>
</tr>
<tr>
<td>Collegial / Intimate</td>
<td>Open Climate</td>
</tr>
<tr>
<td>Disengaged</td>
<td>Disengaged Climate</td>
</tr>
</tbody>
</table>

3.4.2 The Multifactor Leadership Questionnaire (MLQ-5X)

The Multifactor Leadership Questionnaire MLQ-5X rater form, was used to answer the second research question: How do the teachers perceive their principal’s leadership style?

A sample of the MLQ-5X is found in Appendix J, since permission to present the actual instrument is restricted. This instrument was purchased through Mind Garden, Inc., along with a letter of consent permitting its use in the study found in Appendix I. The MLQ-5X rater form is a 45-item instrument with a 5-point Likert scale. The survey needs around 15-20 minutes to complete.

The MLQ-5X determines the leadership style of a principal as being transformational, transactional or passive/avoidant. Transformational leadership is measured through five factors denoted as the 5 I’s. The 5 I’s are ‘Idealized Attributes’, ‘Idealized Behaviors’, ‘Inspirational Motivation’, ‘Intellectual Stimulation’ and ‘Individual Consideration’. Idealized Attributes (IA) are measured through items such as
Instills pride in me for being associated with him/her” and “Goes beyond self-interest for the good of the group” (Avolio & Bass, 2004, p. 103). Idealized Behaviors (IB) are measured through items such as “Talks about his/her most important values and beliefs” and “Emphasizes the importance of having a collective sense of mission” (Avolio & Bass, 2004, p. 103). Inspirational Motivation (IM) is measured through items such as “Talks enthusiastically about what needs to be accomplished” and “Expresses confidence that goals will be achieved” (Avolio & Bass, 2004, p. 103). Intellectual Stimulation (IS) is measured through items such as “Seeks differing perspectives when solving problems” and “Suggests new ways of looking at how to complete assignments” (Avolio & Bass, 2004, p. 104). Individual Consideration (IC) is measured through items such as “Spends time teaching and coaching” and “Considers each individual as having different needs, abilities and aspirations from others” (Avolio & Bass, 2004, p. 104).

Transactional leadership, which is associated with the managerial aspects of leadership, is measured through the two factors of ‘Contingent Reward’ and ‘Management-by-Exception Active’. Contingent Reward (CR), associated with constructive transactions, is measured through items such as “Makes clear what one can expect to receive when performance goals are achieved” and “Expresses satisfaction when others meet expectations” (Avolio & Bass, 2004, p. 104). Management-by-Exception Active (MBEA), associated with corrective transactions, is measured through items such as “Concentrates his/her full attention on dealing with mistakes, complaints, and failures” and “Keeps track of all mistakes” (Avolio & Bass, 2004, p. 105).

Passive-Avoidant leadership which is the absence of leadership, is represented by two factors. ‘Management-by-Exception Passive’ (MBEP) is measured through items such as “Waits for things to go wrong before taking action” and “Fails to interfere until
problems become serious” (Avolio & Bass, 2004, p. 105). ‘Laissez-Faire’ (LF) is measured through items such as “Avoids getting involved when important issues arise” and “Is absent when needed” (Avolio & Bass, 2004, p. 105).

In addition to measuring the leadership style of the principal, the MLQ-5X measures the outcome of leadership through the factors of Extra Effort, Effectiveness and Satisfaction with the Leadership. Detailed descriptions of the leadership dimensions and corresponding items are available in Appendix K.

3.4.3 Open-ended Questions

Open-ended questions were used to answer the third research question: What are the leadership characteristics and behaviors that influence school climate as described by the teachers at the school?

Since this study is concurrent, the quantitative instruments and the open-ended questions were administered simultaneously. The questions addressed teachers’ perceptions of their school climate and leadership. More importantly, the purpose of the open-ended questions was to identify the characteristics and behaviors of leadership teachers believe are significant and have the strongest impact on their behaviors and the climate of the school. Another important aim is to corroborate the outcomes of the quantitative instruments with those from the questions. The open-ended questions are available in appendix M.
3.5 Piloting

The OCDQ-RE and samples of the MLQ-5X rater form were piloted on 15 graduate students at a private university as well as four teachers from the school involved in this study but not included in the participating sample. The aim of piloting was to check the clarity of the language and the comprehensibility of the items in the instruments. The participants were asked to read the items and point out unclear terms.

Several items and terms were pointed out as vague or unclear. On the OCDQ-RE, terms such as vim, vigor, constructive criticism, clerical support, autocratic and non-conforming were unclear. On the MLQ-5X rater form, items such as “Re-examines critical assumptions to question whether they are appropriate” and “Shows that he/she is a firm believer in ‘If it ain’t broke, don’t fix it’” as well as terms such as chronic, compelling vision, aspirations and heightens, were found difficult to comprehend.

Emails were sent to Dr. Wayne Hoy (OCDQ-RE) and Mind Garden Inc. (MLQ-5X), requesting permission to translate the instruments into Arabic in order to ensure valid results on the survey. Permission to translate the OCDQ-RE was granted by Dr. Wayne Hoy in an email found in appendix G. An Arabic version of the MLQ-5X was purchased from Mind Garden Inc., with the English one and license to reproduce. Since Mind Garden Inc. does not guarantee the quality of the translations of the MLQ-5X, my advisor and I compared several translated versions, picked out the best phrased items from each one to come up with the final Arabic version of the instrument. The OCDQ-RE and the MLQ-5X Arabic versions were reviewed by my advisor and four teachers to ensure the accuracy of the translations and the clarity of the items.
3.6 Data Collection

At an early stage of my research, I acquired informal permission from the Elementary school principals to conduct my research at the school, completed the training pertaining to the “Protection of Human Participants in Research” from the National Institutes of Health and received the certificate. After getting approval from the Institutional Review Board (IRB) committee at the Lebanese American University, a formal letter was sent to the school director for official approval of the research at the school. Data for the research was collected during the month of May.

Teachers were asked to read and sign the informed consent forms, found in appendix C, that were attached to the questionnaires. The instruments were administered concurrently. Although it is recommended to administer the instruments during a staff meeting, for this study the instruments were distributed to teachers for completion and return within four days. This procedure was to ensure that teachers take their time to read the items thoroughly and fully comprehend the content. To guarantee the anonymity of the participating teachers, names were not required, and the questionnaires were distributed by the researcher and collected directly by the researcher in sealed envelopes after four days of their distribution.

In sample (N1), the surveys were distributed to 34 teachers, 7 did not return the envelopes, and 1 was incomplete and discarded, leaving a sample of N1=26. As for the open-ended questions, 7 were not returned and 4 were incomplete, leaving a sample of N1=23. In sample (N2), the surveys were distributed to 29 teachers, 3 were incomplete and discarded, leaving a sample of N2=26. As for the open-ended questions, 1 was missing, 9 were unanswered or incomplete, leaving a sample of N2=19.
3.7 Data Analysis

Since this study is a mixed-methods research, both quantitative and qualitative data analysis was involved. The OCDQ-RE was analyzed to determine the degree of openness of the school climate as perceived by teachers. The MLQ-5X rater form was analyzed to determine teachers’ perceptions of their principal’s leadership style. Whereas open-ended questions were used to corroborate the results of the surveys and to identify the leadership characteristics and behaviors that impact school climate.

3.7.1 The Organizational Climate Description Questionnaire (OCDQ-RE)

The OCDQ-RE consists of 42-items which measure school climate through three dimensions of principal behaviors and three dimensions of teacher behaviors, using a 4-point Likert scale. Using Microsoft Excel, the average item scores were calculated by adding the scores, dividing by the number of respondents and rounding to the nearest hundredth. Scores for items 6, 31 and 37 were reverse scored. Then the items were grouped according to the dimension they measure and the average score of each dimension of behavior was calculated. The behavioral dimensions and corresponding items are as follows:

<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>OCDQ-RE</th>
<th>MLQ-5X</th>
<th>Open-Ended Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>N1</td>
<td>26</td>
<td>26</td>
<td>23</td>
</tr>
<tr>
<td>N2</td>
<td>26</td>
<td>26</td>
<td>19</td>
</tr>
</tbody>
</table>

Table 3.2 Number of Participants from both Samples
Supportive Behavior (SP) = 4+9+15+16+22+23+28+29+42
Directive Behavior (DR) = 5+10+17+24+30+34+35+39+41
Restrictive Behavior (RS) = 11+18+25+31+36
Collegial Behavior (CL) = 1+6+12+19+26+32+37+40
Intimate Behavior (IN) = 2+7+13+20+27+33+38
Disengaged Behavior (DE) = 3+8+14+21

After calculating the means and standard deviations for the dimensions of behavior, the scores were standardized. To calculate the standardized scores for each dimension and the openness of the principal, teachers and school climate, the normative means, standard deviations and formulas provided by Dr. Wayne K. Hoy on the web page [www.waynehoy.com/ocdq-re/](http://www.waynehoy.com/ocdq-re/), were used. Table 3.3 contains the details of the data analysis for the dimensions of principal behaviors and principal openness (PO) for both samples.

**Table 3.3 Calculations of Standardized Scores for Principal Behavior Dimensions and Principal Openness Scores**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Formula</th>
<th>Calculation</th>
<th>Standardized Score (SdS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>[ 100 \times \frac{(S - 23.34)}{4.85} + 500 ]</td>
<td>[ 100 \times \frac{(28.42 - 23.34)}{4.85} + 500 = 604.81 ]</td>
<td></td>
</tr>
<tr>
<td>DR</td>
<td>[ 100 \times \frac{(D - 19.34)}{3.20} + 500 ]</td>
<td>[ 100 \times \frac{(26.23 - 19.34)}{3.20} + 500 = 715.34 ]</td>
<td></td>
</tr>
<tr>
<td>RS</td>
<td>[ 100 \times \frac{(R - 12.98)}{1.55} + 500 ]</td>
<td>[ 100 \times \frac{(10.31 - 12.98)}{1.55} + 500 = 327.59 ]</td>
<td></td>
</tr>
<tr>
<td>PO 1</td>
<td>[ \frac{((SdS \text{ for } S) + (1000 - SdS \text{ for } D) + (1000 - SdS \text{ for } R))}{3} ]</td>
<td>[ \frac{(604.81 + (1000 - 715.34) + (1000 - 327.59))}{3} = 520.63 = 521 ]</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.4 contains the details of the calculations of the standardized scores for the dimensions of teacher behaviors and teacher openness (TO) for both samples.

### Table 3.4 Calculation of Standardized Scores for Teacher Behavior Dimensions and Teacher Openness Scores

<table>
<thead>
<tr>
<th>N1</th>
<th>STANDERDIZED SCORES (SdS)</th>
</tr>
</thead>
</table>
| **CL** | $= 100 \times (C - 23.11) / 2.69 + 500$  
$= 100 \times (24.31 - 23.11) / 2.69 + 500 = 544.52 = 545$ |
| **IN** | $= 100 \times (\text{Int} - 17.23) / 2.14 + 500$  
$= 100 \times (18.62 - 17.23) / 2.14 + 500 = 564.74 = 565$ |
| **DE** | $= 100 \times (\text{Dis} - 6.98) / 1.26 + 500$  
$= 100 \times (5.42 - 6.98) / 1.26 + 500 = 376.43 = 376$ |
| **TO 1** | $= ((\text{SdS for C}) + (\text{SdS for Int}) + (1000 - \text{SdS for Dis}))/3$  
$= ((544.52) + (564.74) + (1000 - 376.43))/3 = 577.61 = 578$ |
Once the principal openness scores and the teacher openness scores were calculated their mean represents the climate profile of the school. School climate was calculated as follows,

\[
\text{Climate for N1} = \frac{(PO1 + TO1)}{2} = \frac{521 + 578}{2} = 550
\]
\[
\text{Climate for N2} = \frac{(PO2 + TO2)}{2} = \frac{515 + 577}{2} = 546
\]

### 3.7.2 The Multifactor Leadership Questionnaire (MLQ-5X)

The MLQ-5X is a 45-item survey that measures the leadership style of a principal through five dimensions of transformational leadership, two dimensions of transactional leadership and two dimensions of passive/avoidant leadership, using a 5-point Likert scale. Each dimension is represented by four items on the questionnaire. In addition to measuring the leadership style of the principal, the MLQ-5X measures the outcomes of leadership resulting from the leadership style, in the form of Extra Effort, Effectiveness and Satisfaction.
Using Microsoft Excel, the average item scores were calculated by adding the scores, dividing by the number of respondents and rounding to the nearest hundredth. Then the items were grouped according to the dimension they measure and the average score of each dimension of leadership was calculated. The dimensions of leadership and corresponding items are as follows:

Idealized Attributes (IA) = 10+18+21+25
Idealized Behavior (IB) = 6+14+23+34
Inspirational Motivation (IM) = 9+13+26+36
Intellectual Stimulation (IS) = 2+8+30+32
Individualized Consideration (IC) = 15+19+29+31
Contingent Reward (CR) = 1+11+16+35
Management-by-Exception Active (MBEA) = 4+22+24+27
Management-by-Exception Passive (MBEP) = 3+12+17+20
Laissez-Faire (LF) = 5+7+28+33

The MLQ-5X is a tool that identifies the leader as being ‘more/less transformational than the norm’ or being ‘more/less transactional than the norm’, rather than labeling the principal as strictly transformational, transactional or passive/avoidant (Avolio & Bass, 2004). Respectively, scores of 3 and above (on the 5-point Likert scale) on the dimensions of a certain leadership type, qualify the principal to be considered transformational, transactional or passive/avoidant.
3.7.3 Correlational Analysis

Once the climate of the school and the leadership style of the principal were determined, correlational analysis was conducted. “A major purpose of correlational research is to clarify our understanding of important phenomena by identifying relationships among variables” (Fraenkel et al., 2012, p. 332).

Correlational analysis of the principal behaviors and teacher behaviors from the OCDQ-RE and the leadership characteristics of the MLQ-5X, was conducted using MS Excel, and SPSS to determine any existing relationships.

3.7.4 Open-Ended Questions

Since the questions are formulated in accordance with the instruments, data analysis was in alignment with their content as well as the research questions. Questions represent three categories; perceived school climate, leadership behaviors and characteristics that impact school climate, and the behaviors and characteristics of an effective leader. Responses were coded accordingly and linked to the means and correlations obtained in order to explain any existing relationships.

3.8 Validity and Reliability

The following sections present the validity and reliability of the instruments to be used in this study as reported in past research. According to Fraenkel et al., (2012), “Validity refers to the appropriateness, meaningfulness, correctness, and usefulness of the inferences a researcher makes based on the data they collect” (p. 147). While “Reliability refers to the consistency of scores or answers from one administration of an instrument to
another, and from one set of items to another” (Fraenkel et al., 2012, p. 147-148). The validity of the instruments has been enhanced through piloting and necessary translation to ensure the comprehensibility of their items.

3.8.1 The Organizational Climate Description Questionnaire OCDQ-RE

The OCDQ-RE, the revised version of the OCDQ originally developed by Halpin and Croft in 1962, was used to measure aspects of teacher-teacher and teacher-principal interactions that shape organizational climate (Hoy & Miskel, 2013). The validity and reliability of the instrument have been confirmed through numerous research (Gaines, 2011; Hoy et al., 1991; Hoy & Miskel, 2013; LaRoche, 2014; McCarley, 2012). To assess the stability of the instrument, it was piloted by Hoy et al. (1991) on 70 schools in New Jersey to test its reliability and validity. Reliability scores were high for all scales, much higher than the original OCDQ (Hoy et al., 1991). On the other hand, “The stability of the factor structure also supports the construct validity of the six measures of school climate” (Hoy et al., 1991, p. 30).

The reliability scores for principal and teacher dimensions are: Supportive principal behavior (.94), Directive principal behavior (.88), Restrictive principal behavior (.81), Collegial teacher behavior (.87), Intimate teacher behavior (.83) and Disengaged teacher behavior (.78) (Hoy et al., 1991). Thus, “the most well-known conceptualization and measurement of the organizational climate of schools is the pioneering study of elementary schools by Andrew W. Halpin and Don B. Croft (1962)” (Hoy & Miskel, 2013, p. 210).
3.8.2 The Multifactor Leadership Questionnaire MLQ-5X

A wide range of research results have indicated that the MLQ-5X is a well-established, valid and reliable instrument, used in hundreds of research studies including Master’s theses and PhD dissertations, to determine the degree to which a leader is transformational, transactional or passive/avoidant (Antonakis et al., 2003, Avolio & Bass, 2004; McCarley, 2012; Muenjohn & Armstrong, 2008; Northouse, 2019; Oterkiil & Ertesvåg, 2014). In a meta-analysis of literature using the MLQ-5X for research on transformational leadership, Lowe et al. (1996) concluded that the leadership scales are “reliable and significantly predicted work unit effectiveness across the set of studies examined” (p. 385) and that “The MLQ has acquired a history of research as the primary quantitative instrument to measure the transformational leadership construct” (p. 388).

The reliability scores of the leadership dimensions, by raters at a lower level than the leader, as was the case in the present study are: Idealized Attributes (.77), Idealized Behavior (.70), Inspirational Motivation (.83), Intellectual Stimulation (.75), Individualized Consideration (.80), Contingent Reward (.73), Management-By-Exception Active (.74), Management-By-Exception Passive (.70) and Laissez-Faire (.74) (Avolio & Bass, 2004, p. 78). As for the leadership outcomes, Extra Effort, Effectiveness and Satisfaction reliability scores were (.84) for all three dimensions (Avolio & Bass, 2004, p. 78). Thus, the MLQ-5X is “the most widely used measure of transformational leadership” (Northouse, 2019, p. 189).
This chapter presents the quantitative results derived from the data analysis of the OCDQ-RE and the MLQ-5X rater form, and the qualitative results from the open-ended questions. Since the school chosen for this study has two separate elementary school departments, French and English, there were two participating samples of elementary teachers in this study. Each sample of participants filled out the two surveys which determine how they perceive the climate at the school and their principal’s leadership style. They also answered the open-ended questions used to determine the leadership characteristics and behaviors that they believe impact school climate. The results from all instruments are synthesized and used to address the research questions.

4.1 Teachers’ Perceptions of School Climate

Teachers’ perceptions of their school climate were measured both quantitatively, using the OCDQ-RE, and qualitatively through question 1 of the open-ended questions. The OCDQ-RE is used to determine the climate of a school, depending on the levels and interactions of the 3 dimensions of principal behaviors and the 3 dimensions of teacher behaviors. According to the OCDQ-RE there are four types of climate. An Open Climate is when the principal is supportive, and teachers are collegial and intimate. An Engaged Climate is when the principal is directive and restrictive, yet teachers are collegial, intimate and engaged. A Disengaged Climate is when the principal is supportive, yet
teachers are disengaged. A Closed Climate is when the principal is restrictive and directive and teachers are disengaged (Hoy et al., 1991). On the other hand, qualitative data from question 1 presents teachers’ descriptions of the climate at their school.

The following sections present these results for both samples of the study. Table 4.1 lists the normative scores and rankings, against which my obtained measures were compared to determine the openness of the principal and teachers as well as the prevalent climate profile of the schools.

Table 4.1 Normative scores and rankings ([www.waynehoy.com/ocdq-re/](http://www.waynehoy.com/ocdq-re/))

<table>
<thead>
<tr>
<th>RANK</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY HIGH</td>
<td>Above 600</td>
</tr>
<tr>
<td>HIGH</td>
<td>551-600</td>
</tr>
<tr>
<td>ABOVE AVERAGE</td>
<td>525-550</td>
</tr>
<tr>
<td>SLIGHTLY ABOVE AVERAGE</td>
<td>511-524</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>490-510</td>
</tr>
<tr>
<td>SLIGHTLY BELOW AVERAGE</td>
<td>476-489</td>
</tr>
<tr>
<td>BELOW AVERAGE</td>
<td>450-475</td>
</tr>
<tr>
<td>LOW</td>
<td>400-449</td>
</tr>
<tr>
<td>VERY LOW</td>
<td>Below 400</td>
</tr>
</tbody>
</table>

4.1.1 Principal Behaviors

The OCDQ-RE measures three dimensions of principal behaviors. Supportive (SP) behavior (principal helps teachers and listens to their suggestions), Directive (DR) behavior (principal monitors teachers closely) and Restrictive (RS) behavior (principal
burdens teachers with non-teaching tasks). Table 4.2 presents the means, standard deviations and standardized scores of the principal behavior dimensions for all my participants, as well as the principals’ openness scores.

**Table 4.2** Descriptive statistics for principal behaviors and principal openness

<table>
<thead>
<tr>
<th>OCDQ-RE</th>
<th>PRINCIPAL BEHAVIORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1=26</td>
</tr>
<tr>
<td>BEHAVIOR</td>
<td>Mean</td>
</tr>
<tr>
<td>SP</td>
<td>3.16</td>
</tr>
<tr>
<td>DR</td>
<td>2.91</td>
</tr>
<tr>
<td>RS</td>
<td>2.06</td>
</tr>
<tr>
<td>PO</td>
<td>521</td>
</tr>
</tbody>
</table>

In sample N1 the principal scored a mean of 3.16, with a standard deviation of 0.30 and a standardized score of 605, on supportive (SP) behavior, which ranks very high. Directive (DR) behavior had a mean of 2.91, with a standard deviation of 0.66 and a standardized score of 715, which also ranks very high. Whereas, restrictive (RS) behavior scored a mean of 2.06, with a standard deviation of 0.21 and a standardized score of 328, which ranks very low. Thus, the openness of principal 1 was 521, which ranks as slightly above average according to the normative scores and ranks from Table 4.1. Even though the principal’s openness score was affected by the very high score on directive (DR) behavior, since openness is calculated using the standardized scores of the three principal
behaviors, the principal is more open than the norm which means that he/she is supportive towards teachers.

In this sample, only two teachers related to the principal when describing the school climate in open-ended question 1. They specifically stated that “the principal exerts great effort to support them” and that “the relationship and communication with the principal are very good.”

In sample N2 the principal scored a mean of 3.05, with a standard deviation of 0.24 and a standardized score of 585, on supportive (SP) behavior, which ranks high. The mean for directive (DR) behavior was 2.93, with a standard deviation of 0.71 and a standardized score of 719, which ranks very high. Whereas, restrictive (RS) behavior, scored a mean of 2.05, with a standard deviation of 0.32 and a standardized score of 323, which ranks very low. Thus, the openness of principal 2 was 515, which ranks as slightly above average according to the normative scores and ranks from Table 4.1. Even though the principal’s openness score was affected by the very high score on directive (DR) behavior, since openness is calculated using the standardized scores of the three principal behaviors, the principal is more open than the norm which means that he/she is supportive towards teachers.

In this sample only two teachers mentioned the principal when describing the school climate, in open-ended question 1. One teacher stated that “the principal exerts an effort to support teachers.” Another teacher stated that the climate is “positive with a spirit of professionalism and perseverance. Most of the staff always aspire for the best.” Yet “Sometimes, pleasing parents and students is more important than supporting teachers in specific cases, which is annoying. Teachers need to feel supported and safe.”
4.1.2 Teacher Behaviors

The OCDQ-RE measures three dimensions of teacher behaviors. Collegial (CL) behavior, (teachers help and support each other), Intimate (IN) behavior (teachers socialize and have close relationships with each other) and Disengaged (DE) behavior (teachers are disconnected and dysfunctional as a group). Table 4.3 presents the means, standard deviations and standardized scores of the teacher behavior dimensions for both samples, as well as the teacher openness scores.

<table>
<thead>
<tr>
<th></th>
<th>TEACHER BEHAVIORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1=26</td>
</tr>
<tr>
<td>BEHAVIOR</td>
<td>Mean</td>
</tr>
<tr>
<td>CL</td>
<td>3.04</td>
</tr>
<tr>
<td>IN</td>
<td>2.66</td>
</tr>
<tr>
<td>DE</td>
<td>1.36</td>
</tr>
<tr>
<td>TO</td>
<td>578</td>
</tr>
</tbody>
</table>

In sample N1, teachers scored a mean of 3.04, with a standard deviation of 0.51 and a standardized score of 545 on collegial (CL) behavior, which ranks above average. On intimate (IN) behavior they scored a mean of 2.66, with a standard deviation of 0.40 and a standardized score of 565, which ranks high. Whereas, on disengaged (DE) behavior they scored a mean of 1.36, with a standard deviation of 0.22 and a standardized score of 376, which ranks very low. Thus, the openness of teachers, calculated using the standardized scores, was 578, which ranks as high. This means that teachers in this sample are collaborative, supportive of each other and act as a family.
As for question 1, almost all teachers referred to their relationships with their colleagues when describing school climate. One teacher stated that “The climate is excellent, built on love, respect, collaboration and the strive towards better and better success. It resembles a collaborative family.” Another teacher stated that “the climate is friendly and cooperative.” The terms teachers used to describe their relationships, when describing school climate, were the terms, collegial, collaborative, supportive, family-like, friendly, with a prevalent sense of, love, intimacy, respect, enthusiasm, appreciation, honesty and trust.

In sample N2, teachers scored a mean of 3.00, with a standard deviation of 0.64 and a standardized score of 533 on collegial (CL) behavior, which ranks above average. ON intimate (IN) behavior teachers scored a mean of 2.88, with a standard deviation of 0.29 and a standardized score of 638, which ranks very high. Whereas, on disengaged (DE) behavior, they scored a mean of 1.56, with a standard deviation of 0.27 and a standardized score of 441, which ranks low. Thus, the openness of the teachers, calculated using the standardized scores was 577, which ranks as high. This means that teachers in this sample are collaborative, supportive of each other and act as a family.

As for question 1, responses were like those from the previous sample, whereby teachers referred to their relationships with their colleagues when describing school climate. One teacher stated that “The prevalent climate at my school is more family-like built on intimacy, love and mutual respect. This is the secret to this success.” Another teacher stated that “According to me the school has a distinct climate of intimacy, love, collaboration and the spirit of teamwork – in short the climate is very positive.” The terms teachers used to describe their relationships, when describing school climate, were the
terms, collegial, collaborative, supportive, family-like, friendly, with a prevalent sense of,
love and intimacy, respect, enthusiasm, honesty and trust.

4.1.3 School Climate

The OCDQ-RE determines the climate of a school, depending on the levels and
interactions of the six dimensions of behavior. School climate measures were calculated
as the average score for principal openness and teacher openness for each sample. Thus,
the climate score for N1 was 549 and the climate score for N2 was 546. Since both
measures fall within the 525-550 range, the climates of both schools rank as above
average, which means that both schools have an Open Climate where the principal is
supportive (helps teachers and listens to their suggestions), and teachers are collegial (help
and support each other) and intimate (IN) (teachers socialize and have close relationships
with each other).

![School Climate Diagram]

Figure 4.1 School Climate Types
In sample N1, one teacher used a simile to describe the climate as being “like the climate in Lebanon, unstable” without any elaborations. All the other teachers had more constructive and elaborative answers. One teacher described the climate as “Exemplary” another described it as “excellent”. Table 4.4 presents other descriptions of school climate.

**Table 4.4 Quotations Describing School Climate for sample N1**

<table>
<thead>
<tr>
<th>Quotation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>“We enjoy a good climate at our school, which reflects positively on our everyday school life.”</td>
<td></td>
</tr>
<tr>
<td>“I can describe the school as exemplary whereby, every member feels part of an understanding, loving family and where collaboration for the benefit of the institution prevails. A wonderful climate of love, respect and collaboration prevails.”</td>
<td></td>
</tr>
<tr>
<td>“I can tell that the climate in our school is full of familiarity, understanding and cooperation between the teachers themselves and even between teachers and the administration.”</td>
<td></td>
</tr>
<tr>
<td>“Teachers do their work with drive, enthusiasm and enjoyment. They exert an effort to support each other, and the principal exerts a great effort to support them.”</td>
<td></td>
</tr>
<tr>
<td>“The climate is friendly and warm. I feel like every problem has a solution due to the positive communication.”</td>
<td></td>
</tr>
</tbody>
</table>

In sample N2, many teachers described the climate as positive. One teacher stated that the climate is “lively and active” another described it as “collaborative and loyal.” Other descriptions of school climate are presented in table 4.5.
Table 4.5 Quotations Describing School Climate for sample N2

<table>
<thead>
<tr>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>“It’s a positive school climate. It helps people feel socially and physically safe in school.”</td>
</tr>
<tr>
<td>“Teachers perform their work with enthusiasm, excitement and pleasure and the principal tries hard to support teachers. Teachers are connected by beautiful social relationships and they support one another.”</td>
</tr>
<tr>
<td>“An educational climate with truthful collegial connections.”</td>
</tr>
<tr>
<td>“The prevalent climate at my school is intimate, distinguished by collaboration and shared decision making, which improves the level of performance and respectful relationships among members of the school, and builds a climate of mutual respect.”</td>
</tr>
</tbody>
</table>

4.2 Teachers’ Perceptions of the Principal Leadership Style

Teachers’ perceptions of their principal’s leadership style were measured quantitatively using the MLQ-5X rater form. The MLQ-5X, determines the leadership style of a principal, using a 5-point Likert scale. It is not designed to label a leader as being transformational, transactional or passive/avoidant, but rather as being “more transformational than the norm” or “less transactional than the norm” (Avolio & Bass, 2004, p. 120). Using MS Excel, item scores were grouped by dimension and the mean and standard deviation of each were calculated. The following sections present the results for the dimensions of transformational leadership (leader who inspires and motivates others, builds teams, sets high standards of performance and thus encourages development and performance beyond expectations), transactional leadership (the managerial aspects of leadership, where rewards are exchanged for efforts) and passive-avoidant leadership (the absence of leadership) for the principals from both samples of the study.
4.2.1 Transformational Leadership

The dimension of transformational leadership is measured through five characteristics denoted as the 5 I’s. Idealized Attributes (IA) (principal has a sense of power and confidence, goes beyond his/her self-interest for the benefit of the group and instills pride in others), Idealized Behaviors (IB) (principal explains the importance of values, beliefs and having a strong sense of purpose and a collective mission), Inspirational Motivation (IM) (principal sets a captivating vision of the future, conveys confidence and enthusiasm that goals will be accomplished), Intellectual Stimulation (IS) (principal seeks different perspectives and instructs others to observe situations from multiple angles when faced with conflict) and Individual Consideration (IC) (principal gives individual attention to the needs of others, coaches and helps them develop their strengths). Table 4.6 presents the means and standard deviations of the transformational leadership dimensions for both samples.

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>MLQ-5X</th>
<th>TRANSFORMATIONAL LEADERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1=26</td>
<td>N2=26</td>
</tr>
<tr>
<td>IA</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>3.50</td>
<td>0.33</td>
</tr>
<tr>
<td>IB</td>
<td>3.38</td>
<td>0.29</td>
</tr>
<tr>
<td>IM</td>
<td>3.38</td>
<td>0.17</td>
</tr>
<tr>
<td>IS</td>
<td>3.16</td>
<td>0.13</td>
</tr>
<tr>
<td>IC</td>
<td>2.74</td>
<td>0.47</td>
</tr>
</tbody>
</table>
Using the calculated means for the 5 I’s, the mean score on transformational leadership for principal 1 was calculated to be 3.23, and that for principal 2 was calculated to be 3.16, thus both principals are “more transformational than the norm”. This means that teachers perceive that their principals display the characteristics of a transformational leader (inspirational, intellectually stimulating, challenging and visionary).

4.2.2 Transactional Leadership

Transactional leadership, which is associated with the managerial aspects of leadership, is measured through two characteristics. Contingent Reward (CR), (principal exchanges help for effort and expresses satisfaction when expectations are met). Management-by-Exception Active (MBEA), (principal focuses on mistakes and failures). Table 4.7 presents the means and standard deviations of the transactional leadership dimensions for both samples.

<table>
<thead>
<tr>
<th>MLQ-5X</th>
<th>TRANSACTIONAL LEADERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSION</td>
<td>N1=26</td>
</tr>
<tr>
<td>CR</td>
<td>3.22</td>
</tr>
<tr>
<td>MBEA</td>
<td>2.85</td>
</tr>
</tbody>
</table>
Using the calculated means for contingent reward and management-by-exception active, the mean score on transactional leadership for principal 1 was calculated to be 3.03, and that for principal 2 was calculated to be 2.77, thus, both principals are “more transactional than the norm”. This means that teachers perceive that their principals display the characteristics of a transactional leader (defines tasks and objectives and specifies the rewards given upon their successful completion).

4.2.3 Passive-Avoidant Leadership

Passive-Avoidant leadership is represented by two characteristics. Management-by-Exception Passive (MBEP), (principal fails to interfere until the situation is critical) and Laissez-Faire (LF), (principal is absent when needed). Table 4.8 presents the means and standard deviations of the Passive-Avoidant leadership dimensions for both samples.

<table>
<thead>
<tr>
<th>MLQ-5X</th>
<th>PASSIVE-AVOIDANT LEADERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSION</td>
<td>N1=26</td>
</tr>
<tr>
<td>MBEP</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>0.95</td>
</tr>
<tr>
<td>LF</td>
<td>0.70</td>
</tr>
</tbody>
</table>
Using the calculated means for MBEP and LF, the mean score on passive-avoidant leadership for principal 1 was calculated to be 0.83, and that for principal 2 was calculated to be 1.14, thus both principals are not passive-avoidant. This means that teachers perceive that their principals do not display the characteristics of a passive-avoidant leader (absence of leadership).

4.3 Leadership and School Climate

This section presents the results pertaining to the third research question: What are the leadership characteristics and behaviors that impact school climate as described by the teachers at the school?

This question was addressed quantitatively through conducting correlational analysis between the 9 dimensions of leadership from the MLQ-5X and the 6 dimensions of school climate from the OCDQ-RE, as well as qualitatively through questions 2 and 3 of the open-ended questions. These questions asked teachers to choose from the 2 surveys the items that they believe represent the characteristics and behaviors of an effective leader that have an impact on school climate and to explain their choices. The following sections present the results of the correlational analysis and of the qualitative data, for the combined samples of the study, N=52 for the correlations and N=42 for the questions.

4.3.1 Correlations Between Leadership Dimensions and School Climate

The correlational analysis was conducted on the combined data from both samples of the study. Table 4.9 displays the correlations between the 9 dimensions of leadership and the 6 dimensions of school climate for N=52.
The 5 dimensions of transformational leadership significantly and positively correlated with Supportive (SP) behavior (principal helps teachers and listens to their suggestions) and Directive (DR) behavior (principal monitors teachers closely). There were no significant correlations between the 5I’s and Restrictive (RS) behavior (principal burdens teachers with non-teaching tasks), except for Intellectual Stimulation (IS) (principal seeks different perspectives and instructs others to observe situations from multiple angles when faced with conflict), which strongly and negatively correlated with principal restrictiveness. All dimensions of transformational leadership, except that of Individualized Consideration (IC) (principal gives individual attention to the needs of others, coaches and helps them develop their strengths), correlated strongly and positively with Collegial (CL) behavior (teachers help and support each other). However, IC
correlated strongly and positively with Intimate (IN) behavior (teachers socialize and have close relationships with each other) while all other dimensions did not. There were strong and negative correlations between the 5 leadership characteristics, except Individualized Consideration (IC), and Disengaged (DE) teacher behavior (teachers are disconnected and dysfunctional as a group). In other words, according to the results of this study, transformational leadership has a significant positive impact on the school climate dimensions of supportive and directive principal behaviors as well as collegial teacher behavior (except for Individualized Consideration). Transformational leadership also has a significant negative impact on disengaged teacher behavior (except for Individualized Consideration).

As for transactional leadership, both Contingent Reward (CR) (principal exchanges help for effort and expresses satisfaction when expectations are met) and Management-by-Exception Active (MBEA) (principal focuses on mistakes and failures) strongly and positively correlated with Supportive (SP) behavior (principal helps teachers and listens to their suggestions) and Directive (DR) behavior (principal monitors teachers closely). Only the dimension of Management-by-Exception Active (MBEA) correlated strongly and negatively with Restrictive (RS) behavior (principal burdens teachers with non-teaching tasks). There were strong positive correlations with Collegial (CL) teacher behavior and strong negative correlations with Disengaged (DE) teacher behavior. In other words, according to the results of this study, transactional leadership, like transformational leadership, has a significant positive impact on supportive and directive principal behaviors and collegial teacher behavior. Transactional leadership also has a significant negative impact on disengaged teacher behavior.
On the other hand, the Passive-Avoidant dimension of Management-by-Exception Passive (MBEP) (principal fails to interfere until the situation is critical), strongly and negatively correlated with Supportive (SP) principal behavior and Collegial (CL) teacher behavior. There was a strong positive correlation between MBEP and Disengaged (DE) teacher behavior. The dimension of Laissez-Faire (LF) (principal is absent when needed) correlated strongly and negatively with Supportive (SP), Directive (DR) principal behaviors and Collegial (CL) teacher behavior. LF correlated strongly and positively with Restrictive (RS) principal behavior and Disengaged (DE) teacher behavior. In other words, according to the results of this study, passive-avoidant leadership has as significant negative impact on supportive principal behavior and collegial teacher behavior. Passive-avoidant leadership also has a significant positive impact on disengaged teacher behavior.

4.3.2 Leadership Dimensions that Impact School Climate

This section presents the results derived from the responses to the open-ended questions 2 and 3 of the combined data for both samples of the study (N=42). The data was organized in figure 4.2, in the form of a bar graph. The graph presents the most frequently selected items from the dimensions of leadership from the MLQ-5X and the principal behavior dimensions from the OCDQ-RE. The leadership dimensions highly selected by teachers were those of transformational leadership. As for the OCDQ-RE, teachers mostly selected items from the supportive principal behavior dimension but some also selected items from the directive principal behavior dimension.
Figure 4.2 Frequency of Selected Leadership Characteristics and Behaviors

Idealized Attributes (IA) (principal has a sense of power and confidence, goes beyond his/her self-interest for the benefit of the group and instills pride in others), was the characteristic of leadership with the highest selection frequency. Within this dimension, the item mostly selected by teachers was number 25 (Displays a sense of power and confidence), followed by number 18 (Goes beyond self-interest for the good of the group). One teacher who chose those 2 items explained that “These behaviors promote teamwork and encourage teachers to accomplish more work and goals and as a result, this creates a climate of satisfaction and persistence towards the best among all faculty members.”

The second most selected characteristic of leadership was Idealized Behavior (IB) (principal explains the importance of values, beliefs and having a strong sense of purpose and a collective mission). Within this dimension, the item mostly selected by teachers
was number 34 (Emphasizes the importance of having a collective sense of mission), followed by number 14 (Specifies the importance of having a strong sense of purpose). One teacher who chose those 2 items explained that “the trust and clarity in what is to be achieved instill a spirit of perseverance towards always giving our best.” Another teacher stated that “An effective principal is creative, has clear goals, has a vision and a goal to pursue utilizing all resources and ways. He sees his success through the success of his teachers and students and the organization. He has the capacity to work with others in a constructive, satisfactory manner and has the ability to coordinate among teachers’ efforts and encourage the spirit of collaboration, trust and intimacy, as well as constant supervision of their work.”

The characteristic of Inspirational Motivation (IM) (principal sets a captivating vision of the future, conveys confidence and enthusiasm that goals will be accomplished), was the third most selected. Within this dimension, the items mostly selected by teachers were numbers 9 (Talks optimistically about the future), which according to one teacher “helps promote the spirit of hope in all faculty members to always move forward towards continuity and success” and number 13 (Talks enthusiastically about what needs to be accomplished), which according to one teacher, “encourages us towards always placing positive efforts towards the school work and therefore, the results will be positive especially when it comes to student achievement.”

The fourth most selected characteristic was Intellectual Stimulation (IS) (principal seeks different perspectives and instructs others to observe situations from multiple angles when faced with conflict). Within this dimension, the items mostly selected by teachers were numbers 8 (Seeks differing perspectives when solving problems) and 32 (Suggests new ways of looking at how to complete assignments), which according to one teacher,
means “reassuring the spirit of collaboration (in decision-making) and love among colleagues increases enthusiasm among all members of the school.”

The fifth most selected characteristic was Individualized Consideration (IC) (principal gives individual attention to the needs of others, coaches and helps them develop their strengths). The most selected item from this dimension was number 31 (Helps me to develop my strengths), which according to one teacher, “encourages a teacher to work hard and place a great effort to appear at her best.”

As for the principal behavior dimensions of the OCDQ-RE, the highest selection frequency was for items of Supportive (SP) (principal helps teachers and listens to their suggestions) principal behavior. The most selected item from this dimension was number 42 (The principal goes out of his/her way to show appreciation to teachers), because as one teacher stated, “teachers deserve some moral support from the principal when they fulfill their duties. This gives them comfort and trust and as a result, teachers will persevere because they know they have accomplished the required goals.”

The following 3 items were equally selected by teachers. Number 4 (The principal goes out of his/her way to help teachers), number 9 (The principal uses constructive criticism) and number 23 (The principal treats teachers as equals). One teacher explained that these behaviors “eliminate feelings of differentiation or favoritism in school, and in turn increase productivity and help teachers accept criticism from the principal.” Another teacher explained that these behaviors are important because, “follow-up on all teachers’ work, providing constructive criticism and treating them in a clear and friendly manner will achieve the required success.” Another teacher stated that “those behaviors create a positive climate at the school, where the principal’s goals are clear with no uncertainty regarding what is required of teachers and there is a unified and equal law governing all
teachers... this provides psychological comfort, content and security for teachers, especially if they have fulfilled their duties as required and are at the same time qualified.”

Few teachers selected items belonging to the Directive (DR) (principal monitors teachers closely) principal behavior dimension. The items selected were number 5 (The principal rules with an iron fist), number 30 (The principal closely checks classroom (teacher) activities), number 34 (The principal supervises teachers closely) and number 41 (The principal monitors everything teachers do). Teachers who chose these items explained that this “helps keep things on the right track and contributes to getting acquainted with teachers’ competencies” and “it is important to follow-up on all teacher-related matters, give the necessary criticism and treat them in a friendly and clear manner in order to ensure the required success.”

4.4 Conclusion

According to the analysis of the OCDQ-RE and the MLQ-5X rater form, teachers perceived their school climate as open (high principal support, high collegiality and intimacy among teachers) and their principals as both transformational (inspirational, intellectually stimulating, challenging and visionary) and transactional (defines tasks and objectives and specifies the rewards given upon their successful completion). The characteristics of transformational and transactional leadership correlated significantly and positively with supportive principal behavior. All characteristics except Individualized Consideration (IC) correlated positively with collegial (CL) teacher behavior and negatively with disengaged (DE) teacher behavior. This was supported by the items selected by teachers in open-ended questions 2 and 3, whereby the most highly
selected items were those that represent characteristics of a transformational leader and of a supportive principal. Thus, these characteristics and behaviors are perceived, by the elementary teachers participating in this study, to have the most impact on school climate.

Nevertheless, Bass (1985) who expanded on and refined the work of Burns (1978) on transformational leadership, described transformational and transactional leadership as a single continuum rather than two separate continua (Northouse, 2019). Even though organizational leaders should adopt more transformational qualities, they should also maintain effective transactional qualities (Bass & Avolio, 1993). Thus, effective leaders display both transformational and transactional leadership (Bass & Avolio, 1993; Bass, 1999). These results are discussed in the following chapter in relation to the review of literature.
Chapter 5

Discussions

This chapter presents a discussion of the results from the previous chapter and
draws the necessary connections to the review of literature. The purpose of this study was
to explore the school climate and principal leadership style as perceived by elementary
school teachers. But more importantly, it was to determine the leadership characteristics
and behaviors that have the greatest impact on school climate as described by teachers.
The following sections are organized according to the research questions addressed in this
study.

5.1 Teachers’ Perceptions of School Climate

The first research question investigated teachers’ perceptions of their school
climate. The Organizational Climate Description Questionnaire-Revised Elementary
(OCDQ-RE) was used to determine how the elementary school teachers participating in
this study perceived their school climate. According to the instrument, school climate is
determined through the interaction of principal behaviors and teacher behaviors. Principal
behaviors are supportive, directive and restrictive. Teacher behaviors are collegial,
intimate and disengaged (Hoy et al., 1991).

The principal in sample N1 scored a mean of 3.10 on supportive behavior, 2.91 on
directive behavior and 2.06 on restrictive behavior. Teachers in sample N1 scored a mean
of 3.04 on collegial behavior, 2.66 on intimate behavior and 1.36 on disengaged behavior.
The principal in sample N2 scored a mean of 3.05 on supportive behavior, 2.93 on directive behavior and 2.05 on restrictive behavior. Teachers in sample N2 scored a mean of 3.00 on collegial behavior, 2.88 on intimate behavior and 1.56 on disengaged behavior. The levels and interactions of these behaviors determine the climate at a school (Hoy et al., 1991; Hoy & Miskel, 2013). The climate in both schools was determined to be open in the “above average” range, although both principals scored high on directive behavior.

A principal who demonstrates directive behavior is characterized as having close control and constant monitoring over teachers and school activities (Hoy et al., 1991). High directiveness coupled with high restrictiveness could result in an engaged climate, where the principal is ineffective, yet teachers maintain high professional performance, given that they are highly collegial and intimate. This was not the case in this study since the principals were not perceived as restrictive. On the other hand, high directiveness coupled with high restrictiveness could result in a closed climate, where the principal is ineffective, and teachers are highly disengaged. This was also not the case in this study since the principals were not perceived as restrictive nor the teachers as disengaged. An open climate is characterized as having high principal supportiveness and low principal directiveness but not its absence. Thus, despite the high directiveness of the principals, both climates were determined to be open due to high principal supportiveness and high teacher collegiality and intimacy (Hoy et al., 1991; Hoy & Miskel, 2013).

5.2 Teachers’ Perceptions of the Principal Leadership Style

The second research question investigated teachers’ perceptions of their principals’ leadership style. The Multi-Factor Leadership Questionnaire rater form
(MLQ-5X) was used to determine how the elementary school teachers participating in this study perceived the leadership styles of their principals. According to the instrument, leadership style is determined using nine dimensions of principal behaviors and characteristics. Transformational leadership is determined through five dimensions which are Idealized Attributes, Idealized behaviors, intellectual Stimulation, Inspirational Motivation and Individualized Consideration. Transformational leadership is determined through Contingent Reward and Management-by-Exception in its active form. Whereby Passive-Avoidant leadership is determined through the dimensions of Management-by-Exception in its passive form and Laissez-Faire (Avolio & Bass, 2004).

Principal 1 scored a mean of 3.23 on transformational leadership, 3.03 on transactional leadership and 0.83 on passive-avoidant. Principal 2 scored a mean of 3.16 on transformational leadership, 2.77 on transactional leadership 1.14 on passive-avoidant. Thus, both principals in this study were perceived to be “more transformational than the norm” and also “more transactional than the norm”. Transactional leadership presents the managerial aspects of leadership. It is necessary for managing a school but not sufficient for effective leadership (Avolio & Bass, 2004; Burns, 1978; Bass, 1999; Northouse, 2019). Nevertheless, a combination of the two leadership styles is crucial to an organization’s effectiveness and success (Avolio & Bass, 2004; Hauserman & Stick, 2013; Marks & Printy, 2003), whereby a transformational leader develops and builds upon the transactional aspects of leadership (Booker, 2003; Judge & Piccolo, 2004; Lowe et al., 1996). Thus, a leader can be perceived as both transformational and transactional. In fact, research supports the notion that effective leadership is to demonstrate a combination of transformational and transactional behaviors (Avolio & Bass, 2004; Booker, 2003; Lowe et al., 1996; Mooney, 2003).
5.3 Leadership and School Climate

The third and most significant research question investigated what leadership characteristics and behaviors teachers perceived as having the most impact on school climate. Thus, the title of this study, “Teachers’ perceptions of the effect of leadership on school climate.”

The results of the correlational analysis revealed a significant positive correlation between all the characteristics of transformational leadership (5I’s) and supportive principal behavior. These results were consistent with findings from numerous studies using the MLQ-5X and various forms of the OCDQ-RE. In a research entitled “A study of the relationship between transformational leadership and organizational climate of elementary schools”, Mooney (2003) found strong positive correlations between all the dimensions of transformational leadership and supportive principal behavior. McCarley (2012) in the study “Transformational Leadership related to school Climate”, found statistically significant positive relationships between all the dimensions of transformational leadership and supportive principal behavior. In two other studies by Eshbach and Henderson (2010) and O’Connor (2001) the same significant relationship between the characteristics of transformational leadership and supportive principal behavior were found. “Transformational leaders are proactive, raise follower awareness for transcendent collective interests, and help followers achieve extraordinary goals” (Antonakis et al., 2003, p. 264). Thus, it could be deduced that transformational leaders demonstrate supportive behavior.

Another significant result was that all characteristics of transformational leadership except individualized consideration (principal gives individual attention to the
needs of others, coaches and helps them develop their strengths), correlated positively with collegial (collaborative and supportive) teacher behavior and negatively with disengaged (disconnected and dysfunctional) teacher behavior. In Mooney (2003), the dimensions of transformational leadership, except for inspirational motivation (principal sets a captivating vision of the future, conveys confidence and enthusiasm that goals will be accomplished), correlated positively with collegial teacher behavior and all except inspirational motivation and individualized consideration, as in this study, correlated negatively with disengaged teacher behavior. In the study by McCarley (2012) all the dimensions of transformational leadership correlated positively with engaged teacher behavior which is the parallel of collegial behavior on the OCDQ-RS and correlated negatively with frustrated teacher behavior which is the equivalent of disengaged behavior on the OCDQ-RS.

Thus, principals who demonstrate transformational characteristics, are not only perceived as supportive but also encourage collegiality, engagement and collaboration among teachers (Avolio & Bass, 2004). Therefore, it could be concluded that transformational leaders promote a positive and open school climate (Eshbach & Henderson, 2010; Kelley et al., 2005; Mooney, 2003) where the principal is supportive, and teachers are collegial and engaged.

On the other hand, the results also revealed a significant and positive correlation between all the characteristics of transformational leadership (5I’s) and directive principal behavior. There was also a significant positive correlation between the dimensions of transactional leadership, contingent reward and Management-by-Exception Active, and directive principal behavior. Since Management-by-Exception Active is a directive characteristic of leadership, which involves close monitoring and corrective behaviors
(Avolio & Bass, 2004), its correlation with directive behavior, which is also denoted by constant and close monitoring and control (Hoy et al. 1991; Hoy & Miskel, 2013) was expected (Eshbach & Henderson, 2010).

Research on the relationship of leadership to school climate have found that open climates were distinctive by supportive principals who display the characteristics of a transformational leader. In this study the principals were both highly supportive and highly directive. They were also perceived as both “more transformational” and “more transactional” than the norm. Yet, the school climate profile turned out to be open in the “above average” range. The fact that the principals were perceived as highly directive might have affected the level of openness of the school. Therefore, the school climate was “above average” instead of ranking in the “high” or “very high” range. Although this was unexpected and inconsistent with the reviewed literature, a transformational leader can be both supportive and directive as well as democratic and authoritarian (Bass & Avolio, 1993; Northouse, 2019) and teachers might be more effective given both direction and support (Booker, 2003). When analyzing the qualitative data collected from open-ended questions 2 and 3, it was not too surprising that some teachers chose items of directive principal behavior as characteristics of an effective leader and that they believe have a positive impact on school climate. Some teachers believe that close monitoring and supervision of their work is necessary to ensure quality control over the teaching learning process. This finding calls for specific investigation into to the possibility that a preferable or favorable leadership style is a culturally bound phenomenon. The fact that studies on the relationship of leadership to school climate have not been conducted in Lebanon, and few in the region, it is difficult to substantiate or compare these findings with literature from relevant cultural contexts.
Chapter 6

Conclusions

6.1 Summary

The purpose of this mixed-method research was to examine school climate and leadership as perceived by elementary school teachers and to explore the relationships between leadership characteristics and school climate. Quantitative data was collected using the OCDQ-RE, which measures school climate, and the MLQ-5X, which measures principal leadership. Qualitative data was collected using three open-ended questions which asked teachers to describe the climate at their school, choose the characteristics and behaviors that they believe impact school climate and explain their choices.

The results of the study revealed that teachers from both schools perceived their school climate as open and their principals as more transformational and more transactional than the norm. According to the correlational analysis, all the characteristics of transformational leadership significantly and positively related to both supportive and directive principal behaviors. All the characteristics of transformational leadership, except individualized consideration, significantly and positively correlated with collegial teacher behavior. Since, an open climate is distinguished by a supportive principal and collegial and intimate teachers, it could be concluded that a transformational leader promotes an open climate.
6.2 Limitations

There were many limitations related to this study that should be acknowledged. The first limitation is that the participating sample was small, and the response rate on the open-ended questions was low. Another limitation is also related to the sample and participants. Even though one sample was the French Elementary school teachers and the other was the English Elementary school teachers, both samples were from the same school. It would have been more comprehensive to have investigated the school climate and leadership from different schools from the same region or from different regions in Lebanon.

A second limitation is related to the methods of data collection. Originally, qualitative data was to be collected through semi-structured interviews with a purposive sample of teachers from different grade levels in the school. Having changed the method from semi-structured interviews, to open-ended questions, in order to ensure the protection of the teachers involved, as recommended by the IRB office at the university, presented a significant shift in the study. Semi-structured interviews would have been more effective for probing the required information from interviewees than open-ended questions handed out for teachers to answer on their own.

Another limitation is related to the nature of the study in that it examines teachers’ perceptions of school climate and leadership. Since perceptions are subjective and dependent on individual perspectives and feelings, the results of the study might have been affected by personal dispositions. Another limitation could be the fact that the instruments were translated into Arabic in order to ensure that all teachers understand the language, which might have affected their validity and reliability.
6.3 Implications

This study has implications not only for the school involved, whereby both principals and the director of the school can use the data acquired to improve upon the climate and leadership factors, but also for schools across Lebanon interested in the relationship between transformational leadership and school climate. The importance of leadership and its effect on principal-teacher and teacher-teacher relationships, and ultimately school climate was emphasized through this study. This can help schools plan and execute methods to assess and determine the prevalent leadership and climate, and as a result undergo the necessary changes and improvements.

Schools might decide to administer the MLQ-5X in order to determine the leadership style of a principal. More importantly the results can be used to determine the dimensions of leadership that the principal needs to strengthen, enhance or even change. The MLQ-5X self-form can also be used when hiring a new principal to determine the leadership style the candidate exhibits.

Schools might also decide to administer the OCDQ-RE / RM / RS (Revised Middle or Revised Secondary) on a regular basis as a method of quality control over principal behaviors, teacher behaviors and school climate. There are numerous instruments designed to measure school climate that can be administered not only on teachers but on students and parents as well.

The most important implication would be to bring about awareness regarding the impact of leadership on different aspects of school including climate, teacher satisfaction, performance, commitment, motivation, retention as well as student achievement.
6.4 Recommendations

This study revealed that there are certain leadership characteristics and behaviors that are more favorable than others for teachers. Thus, it would be insightful to conduct detailed interviews with purposive samples of teachers from different levels, to better understand what they expect or prefer when it comes to their leaders.

Since the principals scored high on directive behavior according to the OCDQ-RE, it would be interesting to conduct studies on a larger scale in order to determine whether these behaviors are favorable or not depending on the cultural context of schools and their teachers.

Since school climate is determined through the perceptions of teachers, another recommendation would be to study which behavior dimensions have a greater impact on school climate, principal behaviors or teacher behaviors. The results of this study revealed that the principals are highly directive, yet the climates were open. Thus, it would be important to determine whether the collegiality and intimacy of teachers had more impact on determining the climate profile of the schools, than the directiveness or supportiveness of the principal.

This research would provide significant insight if conducted on private and public, religious and secular, French and English schools from different regions in Lebanon. It could also be used to determine if there are any distinctions between the leadership style and its effect on school climate and other school related outcomes, in relation with the gender of the principal, years of experience, nationality, educational background and qualifications.
The relationship between leadership characteristics or school climate and the outcomes of leadership (Effectiveness, Extra Effort and Satisfaction), measured by the MLQ-5X were not addressed in this study. Therefore, it would be recommended that future research investigates whether any connections exist, and which leadership characteristics or school climate dimensions have the most significant impact on leadership outcomes.

Since “Organizational literature has recognized leadership as an essential element in determining organizational climate and productivity . . . By the same token, organizational climate has been recognized as a powerful element in determining leadership effectiveness” (Griffith, 1999, p. 267), it is recommended that future research investigates leadership effects through the reciprocal-effect model. The reciprocal-effect model posits that the relationship between the principal, teachers, school features and the environment are interactive and multi-dimensional (Hallinger & Heck, 1996; 1998). Thus, it would be interesting to study whether school climate influences leaders like leaders influence school climate.

Research has supported the fact that the principals’ relationships with teachers strongly and directly affect their attitudes and perceptions of their work environment, which as a result define school climate (Price, 2012). Thus, school leaders have the power to impact school climate by anticipating their teachers’ needs and empowering them to adopt a shared vision, develop trust and collegiality (Kelley et al., 2005; Velasco et al., 2012). Although improving school climate is a collective effort involving all stakeholders, it is the primary role of a school leader to model the norms and behaviors consistent with the school vision (Halawah, 2005). Therefore, it is vital that principals are aware of the significance of their role in assuring and maintaining the success of their schools.
References

doi: 10.1177/1741143213510503


Antonakis, J. (2001). *The validity of the transformational, transactional, and laissez-faire leadership model as measured by the multifactor leadership questionnaire (MLQ 5X)* (Doctoral dissertation) (Order No. 3000380).


Appendix A

Institutional Review Board Approval

NOTICE OF IRB APPROVAL

To: Ms. Zeina Ibrahim
Dr. Mona Nabikari
Associate Professor
School of Arts & Sciences

Date: April 25, 2019

RE: IRB #: LAU.SAS.MN3.25/Apr/2019
Protocol Title: Teachers’ Perceptions of the Effect of Leadership on School Climate

The above referenced research project has been approved by the Lebanese American University, Institutional Review Board (LAU IRB). This approval is limited to the activities described in the Approved Research Protocol and all submitted documents listed on page 2 of this letter. Enclosed with this letter are the stamped approved documents that must be used.

APPROVAL CONDITIONS FOR ALL LAU APPROVED HUMAN RESEARCH PROTOCOLS

LAU RESEARCH POLICIES: All individuals engaged in the research project must adhere to the approved protocol and all applicable LAU IRB Research Policies. PARTICIPANTS must NOT be involved in any research related activity prior to IRB approval date or after the expiration date.

PROTOCOL EXPIRATION: The LAU IRB approval expiry date is listed above. The IRB Office will send an email at least 45 days prior to protocol approval expiry - Request for Continuing Review - In order to avoid any temporary hold on the initial protocol approval, it is your responsibility to apply for continuing review and receive continuing approval for the duration of the research project. Failure to send Request for Continuation before the expiry date will result in suspension of the approval of this research project on the expiration date.

MODIFICATIONS AND AMENDMENTS: All protocol modifications must be approved by the IRB prior to implementation.

NOTIFICATION OF PROJECT COMPLETION: A notification of research project closure and a summary of findings must be sent to the IRB office upon completion. Study files must be retained for a period of 3 years from the date of notification of project completion.

IN THE EVENT OF NON-COMPLIANCE WITH ABOVE CONDITIONS, THE PRINCIPAL INVESTIGATOR SHOULD MEET WITH THE IRB ADMINISTRATORS IN ORDER TO RESOLVE SUCH CONDITIONS. IRB APPROVAL CANNOT BE GRANTED UNTIL NON-COMPLIANT ISSUES HAVE BEEN RESOLVED.

If you have any questions concerning this information, please contact the IRB office by email at irb@lau.edu.lb
The IRB operates in compliance with the national regulations pertaining to research under the Lebanese Minister of Public Health’s Decision No. 141 dated 27/1/2016 under LAU IRB Authorization reference 2016/3/08, the International guidelines for Good Clinical Practice, the US Office of Human Research Protection (45CFR46) and the Food and Drug Administration (21CFR56). LAU IRB U.S. Identifier as an international institution: FW000014723 and IRB Registration # IRB00006954 LAUIRB#1

Dr. Joseph Stephen
Chair, Institutional Review Board

**Documents Submitted:**

<table>
<thead>
<tr>
<th>Document Description</th>
<th>Received Date</th>
</tr>
</thead>
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<tr>
<td>LAU IRB Exempt Protocol Application</td>
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</tr>
<tr>
<td>Research Proposal</td>
<td>28 March 2019, amended 23 April 2019</td>
</tr>
<tr>
<td>Letter to Shouf National College</td>
<td>23 April 2019</td>
</tr>
<tr>
<td>Informed Consent</td>
<td>28 March 2019, amended 23 April 2019</td>
</tr>
<tr>
<td>MLQ-SX Arabic Version</td>
<td>28 March 2019</td>
</tr>
<tr>
<td>MLQ5X</td>
<td>28 March 2019</td>
</tr>
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<td>OCDQ-RE Arabic</td>
<td>28 March 2019</td>
</tr>
<tr>
<td>ocdq.re</td>
<td>28 March 2019</td>
</tr>
<tr>
<td>Semi-Structured interview Questions</td>
<td>28 March 2019</td>
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<tr>
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<td>4 April 2019</td>
<td>Cert. # 207839 Dated (1 April 2009)</td>
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<td>10 April 2019</td>
<td></td>
</tr>
<tr>
<td>NIH Training – Mona Naibhani</td>
<td>Cert. # 2643558 Dated (8 February 2018)</td>
</tr>
<tr>
<td>NIH Training – Zeina Ibrahim</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B

Letter to the School

To: Shouf National College
Baakline, Shouf, Lebanon

April 18, 2019

Object: Consent to collect data for an LAU research study entitled
“Teachers’ Perceptions of the Effect of Leadership on School Climate”

To whom it may concern,

I am writing to request permission for my student to be able to collect data from your
elementary school teachers. Zeina A. Ibrahim is a Masters of Arts in Educational
Management and Leadership student at the Lebanese American University (Department of
Education) and would be visiting your facility only in order to complete a research project
related to examining teachers’ perceptions of the effect of leadership on school climate, by
administering 2 surveys and a set of 3 open-ended questions, on the elementary teachers
(English and French Programs). The data collected, which is based on 2 surveys (20
minutes/each) and 3 open-ended questions (25 minutes) will be kept anonymous and will
not be used for any other purpose.

Please do not hesitate to contact me should you need any additional information.

If you have any questions about this study, or you want to talk to someone outside the
research, please contact the: IRB Office, Lebanese American University 3rd Floor, Dorm A, Byblos Campus. Tel: 00 961 1 786456 ext. (2546)

Sincerely yours,

Dr. Mona Nabhani
Associate Professor
School of Arts and Sciences
Department of Education
Tel. 01-786 456 ext. 1266
P.O.Box: 36-Byblos, Lebanon

Acknowledgement

Name:
Signature:
Date:

Institutional Review Board
Lebanese American University

25 APR 2019
APPROVED
Appendix C

Consent to participate in a Survey and Questionnaire

Teachers’ Perceptions of the Effect of Leadership on School Climate

I would like to invite you to participate in a research project by completing the following 2 surveys and questionnaire. I am a student at the Lebanese American University, and I am completing the research project as part of my Masters in Education Management and Leadership degree. The purpose of the surveys and questionnaire is to determine how you perceive the climate and the leadership at your school. The aim is to identify the school climate and the type of leadership at your school and then determine if there are any relations between them.

There are no known risks, harms or discomforts associated with this study beyond those encountered in normal daily life. The information you provide can be used to enhance and improve the school environment. You will not directly benefit from participation in this study. Completing the surveys will take 30-40 minutes of your time. While the questions might need an additional 20 minutes.

In order to ensure the confidentiality and anonymity of all teachers involved in this study, please DO NOT write your names, complete the surveys and questionnaire privately and individually, seal the envelope when finished and submit it to the researcher ONLY.

By continuing with the surveys and questionnaire, you agree with the following statements:

1. I have been given sufficient information about this research project.
2. I understand that my answers will not be released to anyone and my identity will remain anonymous. My name will not be written on the questionnaire nor be kept in any other records.
3. When the results of the study are reported, I will not be identified by name or any other information that could be used to infer my identity. Only researchers will have access to view any data collected during this research however data cannot be linked to me.
4. I understand that I may withdraw from this research any time I wish and that I have the right to skip any question I don’t want to answer.
5. I understand that my refusal to participate will not result in any penalty or loss of benefits to which I otherwise am entitled to.
6. I have been informed that the research abides by all commonly acknowledged ethical codes and that the research project has been reviewed and approved by the Institutional Review Board at the Lebanese American University.
7. I understand that if I have any additional questions, I can ask the research team listed below.
8. I have read and understood all statements on this form.
9. I voluntarily agree to take part in this research project by completing the following surveys and questionnaire.

If you have any questions, you may contact:

<table>
<thead>
<tr>
<th>Name (PI)</th>
<th>Phone number</th>
<th>Email address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zeina Ibrahim</td>
<td>764417771</td>
<td><a href="mailto:zl970702@lau.edu">zl970702@lau.edu</a></td>
</tr>
</tbody>
</table>

25 Apr 2019

APPROVED
If you have any questions about your rights as a participant in this study, or you want to talk to someone outside the research, please contact the:

Institutional Review Board Office,
Lebanese American University
3rd Floor, Dorm A, Byblos Campus
Tel: 00 961 1 786456 ext. (2546)
irb@lau.edu.lb

This study has been reviewed and approved by the LAU IRB:
Appendix D

Permission to use the OCDQ-RE

Re: OCDQ-RE

Wayne Hoy <whoy@mac.com>
11/21/2018 10:59 AM

To: Zeina Ibrahim

Dear Zeina,

You have my permission to use the OCDQ-RE for your research project.

Best wishes.

Wayne

Wayne K. Hoy
Fauccett Professor Emeritus in
Education Administration
The Ohio State University
www.waynekho.com

7655 Pebble Creek Circle, #301
Naples, FL 34109
Email: whoy@mac.com
Phone: 239 595 5732

On Nov 21, 2018, at 6:09 AM, Zeina Ibrahim <zi970702@lau.edu> wrote:

Dear Mr. Hoy,

My name is Zeina Ibrahim. I am a graduate student at the Lebanese American University in Beirut. I am currently working on my thesis proposal in pursuit of a Masters degree in Education Management and Leadership. I would like to request your permission to use the OCDQ-RE for my research on school climate and leadership.

Best Regards,
Zeina Ibrahim

Sent from Mail for Windows 10
Appendix E

OCDQ-RE

**Directions:** The following are statements about your school. Please indicate the extent to which each statement characterizes your school.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rarely Occurs</th>
<th>Sometimes Occurs</th>
<th>Often Occurs</th>
<th>Very Frequently Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The teachers accomplish their work with vim, vigor, and pleasure.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>2. Teachers' closest friends are other faculty members at this school.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>3. Faculty meetings are useless.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>4. The principal goes out of his/her way to help teachers</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>5. The principal rules with an iron fist.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>6. Teachers leave school immediately after school is over.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>7. Teachers invite faculty members to visit them at home.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>8. There is a minority group of teachers who always oppose the majority.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>9. The principal uses constructive criticism.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>10. The principal checks the sign-in sheet every morning.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>11. Routine duties interfere with the job of teaching.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>12. Most of the teachers here accept the faults of their colleagues.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>13. Teachers know the family background of other faculty members.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>14. Teachers exert group pressure on non-conforming faculty members.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>15. The principal explains his/her reasons for criticism to teachers.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>16. The principal listens to and accepts teachers’ suggestions.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>17. The principal schedules the work for the teachers.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>18. Teachers have too many committee requirements.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>19. Teachers help and support each other.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>20. Teachers have fun socializing together during school time.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>21. Teachers ramble when they talk at faculty meetings.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>22. The principal looks out for the personal welfare of teachers.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>23. The principal treats teachers as equals.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>24. The principal corrects teachers’ mistakes.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>25. Administrative paperwork is burdensome at this school.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>26. Teachers are proud of their school.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>27. Teachers have parties for each other.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>28. The principal compliments teachers.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>29. The principal is easy to understand.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>30. The principal closely checks classroom (teacher) activities.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>31. Clerical support reduces teachers’ paperwork.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>32. New teachers are readily accepted by colleagues.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>33. Teachers socialize with each other on a regular basis.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>34. The principal supervises teachers closely.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>35. The principal checks lesson plans.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>36. Teachers are burdened with busy work.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>37. Teachers socialize together in small, select groups.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>38. Teachers provide strong social support for colleagues.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>39. The principal is autocratic.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>40. Teachers respect the professional competence of their colleagues.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>41. The principal monitors everything teachers do.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>42. The principal goes out of his/her way to show appreciation to teachers.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>
Appendix F

Details of the OCDQ-RE

Dimensions of Behavior and Corresponding Items

A) Dimensions of teacher behaviors and corresponding items are:

1) **Collegial teacher behavior** (Items # 1, 6, 12, 19, 26, 32, 37, 40)
   - Open and professional interactions among teachers.
   - Enthusiastic, proud of their school and enjoy working with their colleagues
   - Acceptance and mutual respect among colleagues.

2) **Intimate teacher behavior** (Items # 2, 7, 13, 20, 27, 33, 38)
   - Cohesive and strong social relations among teachers
   - Close personal relationships and strong social support for each other

3) **Disengaged teacher behavior** (Items # 3, 8, 14, 21)
   - Lack of meaning and focus to professional activities
   - Non-productive group efforts, no common goals
   - Negative and critical of their colleagues and the school

B) Dimensions of principal behaviors and corresponding items are:

1) **Supportive principal behavior** (Items # 4, 9, 15, 16, 22, 23, 28, 29, 42)
   - Reflects concern for teachers
   - Listens to and is open to teacher suggestions
   - Praises teachers genuinely and frequently
   - Criticism constructively
- Respects the competence of teachers
- Exhibits personal and professional interest in teachers

2) **Directive principal behavior** (Items # 5, 10, 17, 24, 30, 34, 35, 39, 41)
- Rigid, close supervision
- Maintains constant monitoring
- Controls all teacher and school activities in detail

3) **Restrictive principal behavior** (Items # 11, 18, 25, 31, 36)
- Hinders rather than facilitates teacher work
- Burdens teachers with paperwork and other demands

**Types of School Climate**

1) **Open Climate**

Distinctive characteristics of an Open Climate include cooperation, respect, and openness between faculty and the faculty and principal. The behavior of both the principal and teachers is genuine and open. It is a climate with high supportiveness, low directiveness, low restrictiveness, high collegiality, high intimacy and low disengagement.

2) **Engaged Climate**

The engaged climate is one in which the principal exhibits ineffective attempts to lead, yet teachers maintain high professional performance. Teachers are productive despite weak principal leadership. They are cohesive committed, supportive, and
engaged. It is a climate with high directiveness, low supportiveness, high restrictiveness, high collegiality, high intimacy and high engagement.

3) Disengaged Climate

The disengaged climate is the opposite of the engaged climate. The principal's leadership behavior is strong, supportive, and concerned. Yet teachers are unwilling to accept responsibility ignoring the initiatives of the principal. It is a climate with high supportiveness, low directiveness, low restrictiveness, low collegiality, low intimacy and high disengagement.

4) Closed Climate

The closed climate is the antithesis of the open. The principal stresses on routine and unnecessary busywork. Principals are inflexible and controlling, teachers are disruptive, apathetic, intolerant, and dishonest. It is a climate of high restrictiveness, low supportiveness, high directiveness, low intimacy, low collegiality and high disengagement.
Appendix G

Permission to translate OCDQ-RE

Re: OCDQ-RE

Wayne Hoy <whoy@mac.com>
1/31/2019 07:36 PM

To: Zeina Ibrahim

Hi Zeina.

Of course, you have permission to translate specific words into Arabic to ensure better understanding.

Good luck.

Wayne

Wayne K. Hoy
Fawcett Professor Emeritus in
Education Administration
The Ohio State University
www.waynehoy.com
7665 Pebble Creek Circle, #301
Naples, FL 34108
Email: whoy@mac.com
Phone: 239 565 5732

On Jan 31, 2019, at 10:36 AM, Zeina Ibrahim <zi970702@lau.edu> wrote:

Dr. Mr. Hoy,

Thank you for your permission to use the OCDQ-RE in my research. I have piloted the instrument on some of my colleagues at university. Since this instrument will be administered to teachers in a rural area in mount Lebanon, where English is their second language, some of the terms used will be difficult to understand. I would like to request your permission to translate specific words such as: vim, vigor, clerical, non-conforming, into Arabic to ensure better results on the survey.

Thank you
Zeina Ibrahim
## Appendix H

### OCDQ-RE (Arabic)

<table>
<thead>
<tr>
<th>رقم</th>
<th>العبارة</th>
<th>2</th>
<th>1</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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| 40 | 41 | 42 | 108 | 25 APR 2013 APPROVED
Appendix I

Permission to use the MLQ-5X rater form

For use by Zeina Ibrahim only. Received from Mind Garden, Inc. on March 13, 2010

www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her thesis or dissertation research:

Instrument: Multifactor Leadership Questionnaire

Author: Bruce Avolio and Bernard Bass

Copyright: 1995 by Bruce Avolio and Bernard Bass

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

[Name]

Mind Garden, Inc.

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Appendix J

Multifactor Leadership Questionnaire
Rater Form

Name of Leader: __________________________ Date: ____________
Organization ID #: ______________________ Leader ID #: ____________

This questionnaire is used to describe the leadership style of the above-mentioned individual as you perceive it. Answer all items on this answer sheet. If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank. Please answer this questionnaire anonymously.

**Important (necessary for processing): Which best describes you?**

- [ ] I am at a higher organizational level than the person I am rating.
- [ ] The person I am rating is at my organizational level.
- [ ] I am at a lower organizational level than the person I am rating.
- [ ] Other than the above.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing. Use the following rating scale:

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<th>Not at all</th>
<th>Once in a while</th>
<th>Sometimes</th>
<th>Fairly often</th>
<th>Frequently, if not always</th>
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</table>

*The Person I Am Rating, . . .

1. Provides me with assistance in exchange for my efforts ........................................... 0 1 2 3 4
2. *Re-examines critical assumptions to question whether they are appropriate .................. 0 1 2 3 4
3. Fails to interfere until problems become serious ............................................................ 0 1 2 3 4
4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards .... 0 1 2 3 4
5. Avoids getting involved when important issues arise ...................................................... 0 1 2 3 4
6. *Talks about his/her most important values and beliefs .................................................. 0 1 2 3 4
7. Is absent when needed ......................................................................................................... 0 1 2 3 4
8. *Seeks differing perspectives when solving problems ...................................................... 0 1 2 3 4
9. *Talks optimistically about the future ................................................................................ 0 1 2 3 4
10. *Instills pride in me for being associated with him/her .................................................... 0 1 2 3 4
11. Discusses in specific terms who is responsible for achieving performance targets ........ 0 1 2 3 4
12. Waits for things to go wrong before taking action ............................................................ 0 1 2 3 4
13. *Talks enthusiastically about what needs to be accomplished ........................................ 0 1 2 3 4
14. * Specifies the importance of having a strong sense of purpose ...................................... 0 1 2 3 4
15. *Spends time teaching and coaching ................................................................................ 0 1 2 3 4

Continued →
Appendix K

Details of the MLQ-5X rater form

Leadership Types, Factors and Corresponding Items

A) Transformational Leadership:

1. Idealized Attributes (IA) (Items #10, 18, 21, 25)
   - Instill pride in others
   - Go beyond self-interest for the good of the group
   - Build respect
   - Display a sense of power and confidence

2. Idealized Behaviors (IB) (Items #6, 14, 23, 34)
   - Express important values and beliefs
   - Stress upon the importance of having a strong sense of purpose
   - Consider the moral and ethical consequences of decisions
   - Emphasize the importance of having a collective sense of mission

3. Inspirational Motivation (IM) (Items #9, 13, 26, 36)
   - Optimistic about the future
   - Enthusiastic about what needs to be accomplished
   - Articulate a compelling vision of the future
   - Express confidence that goals will be achieved
4. **Intellectual Stimulation (IS)** (Items # 2, 8, 30, 32)
   - Re-examine critical assumptions and their appropriateness
   - Seek differing perspectives when solving problems
   - Encourage others to look at problems from different angles
   - Suggest new ways to complete assignments

5. **Individual Consideration (IC)** (Items # 15, 19, 29, 31)
   - Spend time teaching and coaching
   - Treat others as individuals rather than just as a member of the group
   - Consider individual needs, abilities and aspirations
   - Help others develop their strengths

B) **Transactional Leadership:**

1. **Contingent Reward (CR)** (Items # 1, 11, 16, 35)
   - Provide others with assistance in exchange for their efforts
   - Assign specific terms and responsibilities for achieving performance targets
   - State clear rewards to be receive when performance goals are achieved
   - Express satisfaction when others meet expectations

2. **Management-by-Exception: Active (MBEA)** (Items # 4, 22, 24, 27)
   - Focus attention on irregularities, mistakes, exceptions, and deviations
   - Concentrate on dealing with mistakes, complaints and failures
   - Keep track of all mistakes
   - Direct attention toward failures to meet standards
C) Passive/avoidant leadership:

1. Management-by-Exception: Passive (MBEP) (Items # 3, 12, 17, 20)
   - Abstain from interference until problems become serious
   - Step in when things to go wrong
   - Show belief in "if it ain’t broke, don’t fix it"
   - Demonstrate that problems must become chronic before I take action

2. Laissez-Faire (LF) (Items # 5, 7, 28, 33)
   - Avoid getting involved when important issues arise
   - Am absent when needed
   - Avoid making decisions
   - Delay responding to urgent questions

D) Outcome of Leadership

1. Extra Effort (Items # 39, 42, 44)
   - Get others to accomplish more than they expected
   - Heighten the desire to succeed
   - Increase the willingness to try harder

2. Effectiveness (Items # 37, 40, 43, 45)
   - Effective in meeting the job-related needs of others
   - Effective in fulfilling organizational requirements
   - Lead an effective group

3. Satisfaction with the Leadership (Items # 38, 41)
   - Methods of leadership are satisfactory
   - Satisfactory work relations with others
## Appendix L

**MLQ-5X rater form (Arabic sample)**

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<tr>
<th>Behavior</th>
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<td>Manages the help needed to help others in the role.</td>
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<td>Avoids a joint evaluation and an assessment that affects them adversely for the role.</td>
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<td>Expects to be involved in solving problems.</td>
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<tr>
<td>Focusses on failures and mistakes, and the explanations, and other work that cause this type of role.</td>
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<td>Avoids the syndrome of the uncompleted role.</td>
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<tr>
<td>Prevents confusion and misinterpretation of role.</td>
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<td>Breaks the habit of not solving problems.</td>
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<td>Seeks and receives help in solving problems.</td>
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<td>Seeks knowledge and information.</td>
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<td>Seeks to improve the role.</td>
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<td>Seeks for all possible improvements.</td>
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<td>Seeks knowledge and experience.</td>
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<td>Prevents solving problems.</td>
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<td>Prevents making mistakes.</td>
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<td>Prevents adopting a different approach that you think suitable.</td>
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<td>Prevents the acknowledged problems from happening.</td>
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<td>Shows a clear understanding of the role when you face difficulties.</td>
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<td>Overcomes his personal problems to serve the community.</td>
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<td>Argues with others on any problems.</td>
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<td>Shows signs of internal or external problems.</td>
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Appendix M

Open ended Questions

Referring to the OCDQ:

1. How would you describe the climate at your school?

2. Which principal behaviors do you believe are most important in creating a positive school climate? Pick 3 items from the survey and explain how they impact school climate.

Referring to the MLQ-5X:

3. Which characteristics do you believe best define an effective principal? Pick 3 items from the survey and explain their importance.