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Teachers' Perceptions of effective principal practices in international schools in Egypt

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Teachers' Perceptions of Effective Principal Practices in International Schools in

Egypt

Nermeen Salem

Lehigh University

May, 2016

Presented to the Graduate and Research Committee
of Lehigh University
in Candidacy for the Degree of
Doctor of Education
in
Educational Leadership
Lehigh University

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Abstract

The educational leadership literature has identified core practices in which principals engage to positively impact student achievement. The core practices are categorized in four domains; 1) establishing and communicating vision, mission, and goals 2) understanding and developing staff 3) developing effective organizational structures 4) focusing on the instructional program. Principals, through their interactions with teachers, are in a position to influence teacher behaviors, thus effecting positive student academic achievement. Principals in international schools largely employ the same core practices that have been identified with successful schools. Thus, the purpose of this study was to ascertain the practices employed by principals that teachers perceive to help improve their instructional practices.

The targeted population for this study was K-12 teachers working in international schools in Egypt and attending the AdvancEd education conference in Egypt on November 14, 2015. The Principal Core Practices Questionnaire (PCPQ) is the survey instrument developed for this study to measure teacher perceptions of the principal practices that are most helpful to improving their instruction. Results of the study were analyzed using a series of statistical tests including paired t-tests, regression analysis, and a series of MANOVA's to determine if there is a correlation in responses due to the respondents' teaching assignment, experience, teaching credentials, and gender. A qualitative data analysis approach was used to analyze the open-ended question asking respondents to list other principal practices teachers deem helpful.

The results indicated that the five most helpful principal practices as perceived by teachers were 1) develops policies to ensure an orderly environment, 2) supports teacher requests to attend out of school professional development activities, 3)

ensures necessary instructional resources are available, 4) collaborates with teachers to establish clear instructional goals for student academic improvement, 5) organizes professional development based on teacher needs.”

Results of the paired t-tests showed a significant difference between the top five practices and the bottom five practices teachers deemed helpful to improving their instruction.

When grouped items were examined in components, the data showed no significant difference in the way teachers perceive the helpfulness of the Focus on the Instructional Program (FIP) component compared to the Understanding and Developing Staff (UDS) component. The analysis also showed no significant difference in the way teachers perceive the helpfulness of item two of the CSAG component, “the principal develops and communicates high expectations for student achievement,” and the FIP component and item two of the CSAG component and the UDS component. However, the data showed that teachers’ perception of item one of the CSAG component, “the principal collaborates with teachers to establish clear instructional goals for student academic improvement,” as more helpful than the FIP component is statistically significant. Moreover, the data show that teachers’ perception of item one of the CSAG component as more helpful than the UDS component is statistically significant.

Data results indicated no statistical significance in teachers’ perceptions of the helpfulness of principal practices based on grade level taught, teacher education background, number of years of experience, and gender. Therefore, according to the data of this study, the grade level at which a teacher teaches, the teacher’s educational background, the teacher’s number of years of experience, and the

teacher's gender are not predictors of teachers' perceptions of the helpfulness of effective principal practices.

Chapter 1

Introduction

Educational paradigms dictate that one of the main goals of schools is to improve student achievement. As the leader of the school, the improvement of student achievement falls under the vast umbrella of the principal's duties and responsibilities. Global education reforms as well as government mandates in the U.S. are making it necessary for principals to play a more vital role and bear greater responsibility in increasing student achievement (Cotton, 2003; Hallinger, 2003; Lyons, Algozzine, & Carolina, 2006; O'Donnell & White, 2005; Robinson, Lloyd, & Rowe, 2008). Furthermore, interest in the relationship between educational leadership and its influences on school improvement is gaining global momentum in countries outside of the US (Hallinger, 2005; Moos & Johansson, 2009) such as Thailand (Hallinger & Lee, 2013), Pakistan (Salfi, 2011), and Greece (Kythreotis, Pashiardis, & Kyriakides, 2010). Thus, the relationship of principal leadership and how the role influences pedagogical outcomes continues to command the attention of researchers and school practitioners alike (Harris, 2005; Heck & Hallinger, 2005; Leithwood & Jantzi, 2006).

The Principal as Instructional Leader

The role of the school principal encompasses a vast array of duties and responsibilities. Historically, school principals have functioned as managerial administrators (Valentine & Prater, 2011). The literature on effective schools describes tasks that are managerial in nature necessary for the effective running of the school such as setting policies and procedures, hiring and supporting teaching staff, setting budgets, and providing a safe and secure environment for students and staff (Brazier & Bauer, 2013; Valentine & Prater, 2011).

As a result of evolving social, political, and school organizational contexts, the roles and expectations of the school principal have changed over time (Valentine & Prater, 2011). Principals are increasingly being held accountable for the academic achievement of their students, thus necessitating more involvement in the teaching and learning aspects of the organizational context of the school (Barton, 2013; Brazer & Bauer, 2013; Robinson, 2006). Research on effective schools suggests that successful schools have principals who take on a more active role in guiding instructional matters and who are at the forefront of the instructional program (Brazer & Bauer, 2013; Lethwood & Jantzi, 2000; Nettles & Herrington, 2007). Robinson (2006) states that “school leaders should not only run efficient, safe and caring learning environments - they should also be leaders of teaching and learning” (p.62). Although managerial aspects of leading a school are essential and should not be discounted, research on effective schools has gravitated toward the explorations of behaviors and practices of the principal as instructional leader (Hallinger, 2005; Valentine & Prater, 2011).

Broadly defined, instructional leadership is the knowledge of aspects of the curriculum and what constitutes quality instruction (Wahlstrom & Louis 2008). Robinson (2010) describes instructional leadership as “those sets of leadership practices that involve the planning, evaluation, coordination, and improvement of teaching and learning” (p.2). Others in the educational leadership field approach instructional leadership through a more narrow lens and delineate practices that have been identified as effective. In their qualitative research on effective practices of principals, Portin, Schneider, DeArmond, and Gundlach (2003) identify instructional leadership as an essential function of educational leadership encompassing practices such as assuring quality of instruction, modeling teaching practice, supervising

curriculum, and assuring quality of teaching resources. Robinson, Lloyd, and Rowe's (2008) meta-analysis on the effects of types of leadership on student achievement describe that instructional leadership encompasses five dimensions of leadership: leading through promoting and participating in teacher learning and development; establishing goals and expectations; planning, coordinating, and evaluating teaching and the curriculum; strategic resourcing and ensuring an orderly and supportive environment. In their review of the educational leadership research, Louis, Leithwood, Wahlstrom and Anderson (2010) identify Managing the Instructional Program as one of four broad categories necessary for effective educational leadership. The practices in this category center on teaching and learning through "staffing the program, providing instructional support, monitoring school activity, buffering staff from distractions to their work, and aligning resources." (Louis et al. p.69)

Instructional Leadership and Student Achievement

The literature on effective schools is consistent in its contention that the principal's focus and support on instructional matters is a prerequisite to effective schools (Brazer & Bauer, 2013; Hallinger & Heck, 2010; Louis, Dretzke, & Wahlstrom, 2010; Marzano, Waters, & McNulty, 2005; May & Supovitz, 2011; Nettles & Herrington, 2007; Robinson, 2010). However, the definitive goal of schools, especially in light of the new demands and expectations placed upon principals, is for students to attain academic success. Can the principal's instructional practices affect student achievement? A considerable amount of research exploring the influence of instructional leadership practices on student achievement suggests that principals can have an effect on student achievement (Hallinger & Heck, 1998;

Leithwood, Louis, Anderson, & Walhstrom, 2004; Waters, Marzano, & McNulty, 2003; Witziers, Bosker, & Krüger, 2003).

According to Leithwood et al. (2004), “leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school” (p. 5) and “is widely regarded as a key factor in accounting for differences in the success with which schools foster the learning of their students” (p.17). Although a limited body of recent research supports the direct effects of principals on student achievement, (Gentilucci & Muto, 2007; Silva, White, & Yoshida, 2011), a substantial amount of research suggests that principals’ practices have an indirect yet significant effect on student achievement (Hallinger, 2011; Leithwood, Patten, & Jantzi, 2010; Marzano et al., 2005). Principals have the potential to influence student achievement indirectly through mediated factors that emphasize teaching and learning such as managing and supporting instructional programs, articulating clear curricular goals, motivating staff, building capacity, providing staff development, and creating a positive school environment (Dinham, 2005; Hallinger, 2007; Louis et al., 2010; Sebastian & Allensworth, 2012; Valentine & Prater, 2011).

Robinson et al. (2008) conducted a study comparing the relationship between transformational leadership and student achievement and instructional leadership and student achievement. Their findings suggest a stronger relationship between instructional leadership and student achievement. Other studies exploring instructional leadership and student achievement suggest that effective principals have the capacity to influence the staff and other stakeholders as a means to affecting student achievement (Sebastian & Allensworth, 2012; Supovitz, Sirinides & May, 2010; Wahlstrom & Louis, 2008). Effective schools that make a positive impact on student learning are headed by principals who make a positive impact on their staff,

thus potentially increasing teachers' effectiveness and student achievement (Bottoms, O'Neill, Fry, & Hill, 2003; Leithwood, Harris, & Hopkins, 2008).

Instructional Leadership's Influence on Teachers

In their review of the leadership literature on successful schools, Leithwood, Harris, and Hopkins (2008) contend that "leadership serves as a catalyst for unleashing the potential capacities that already exist in the organization" (p. 29). In addition to developing the knowledge and skills of staff, principals have the potential to influence teachers by providing inspiration, support, motivation, and creating an environment of collaboration and trust (Leithwood et al., 2008; Sebring, Allesworth, Bryk, Easton & Luppescu, 2006). In their case study in an urban school in New York City, Glanz, Shulman and Sullivan (2007) found that purposeful and focused instructional leadership encouraged collaboration and promoted professional development growth in teaching strategies. The results of Supovitz et al.'s (2010) study examining principal leadership and teachers' instructional practices, suggest that teachers' instruction is influenced by a principal's ability to create an instructionally centered environment in which trust is established and clear school goals are communicated. Consequently, principals, through focused instructional leadership practices, have the potential to influence teachers and in turn, result in a positive effect on student achievement outcomes.

Capitalizing on the influence of educational leaders on teachers' practice is pivotal in light of research that strongly suggests the direct effect of teacher practices and the classroom environment on student learning (Ding, 2006; Louis et al., 2010; Marzano, 2007; Rowan, Correnti, & Miller, 2002). According to Marzano (2007) teachers are a major factor in impacting student achievement. Studies exploring effective teaching practices conclude that, independent of other school variables, teachers wield

significant influence on student learning (Marzano, 2007; Marzano, Pickering, & Pollack, 2001). Moreover, Glanz et al. (2007) assert that instructionally focused principals can effect successful teaching in the classroom. Therefore, examining principals' instructional practices that serve to develop and enhance teacher instruction is critical in the effort to improve student achievement. Robinson et al., (2008) suggest that research explore ways of developing principal practices that have been identified as affecting student achievement.

Statement of the Problem

Research on effective schools has established that, although indirect in nature, principals have significant impact on the instruction and the success of the school (Crum & Sherman, 2008). Numerous studies have explored the characteristics and the leadership styles of successful principals (Barnett & McCormick, 2004; Firestone & Wilson, 1985; Marzano, Waters, & McNulty's, 2005) thereby indirectly enabling teachers to have a positive effect on student learning. However, Heck and Hallinger (2005) suggest that research moves away from descriptions of the work and the traits of effective principals and start exploring what they actually do as leaders of schools. Accordingly, recent research has shifted in the direction of examining the practices and skills of successful principals who nurture and promote quality teaching and learning (Crum & Sherman, 2008; Leithwood et al. 2008). Robinson (2006) asserts that principals need to know how to establish an environment in which teachers can grow and develop in order to positively impact their students. However, a majority of studies on successful educational leadership have been conducted in public schools in North America and Europe (Harris, 2005).

Although interest in educational leadership has been peaking globally, it has not been adequately "examined outside the Anglo-American and Australian context"

(Magno, 2013, p. 200). Can the practices of principals that have been identified as having an impact on successful schools be perceived as effective in other parts of the world?

There is a scarcity of research on whether the practices of successful principals would be effective when principals are in a private international school setting in non-western societies (please see the definition of international school at the end of this chapter). Principals in the international school arena accommodate a student population that has varying needs or demands and different principles and values than public school students in the U.S. (Walker & Cheng, 2009). Furthermore, teachers in international schools may be under a different set of demands than their U.S. counterparts. For example, some international school teachers, having little experience and no teaching credentials, teach in a society that is of a different culture with different norms than their own, which may be a cause of initial stress (Shaklee & Merz, 2012). Walker and Cheng's (2009) research indicate an importance for education leaders to develop teachers' understandings of differing cultures and to foster teaching methods that are culturally appropriate to better serve their students.

While historically the international school population consisted of students of expatriate families, more recently international schools are increasingly catering to a more local student population, having distinct cultural, political, linguistic and historical influences (Walker & Cheng, 2009). Additionally, parents of international school students report that high achievement and education in the English language are priorities when choosing international schools giving their children an advantage in western universities in the employment arena (Hayden, 2006; Hayden, 2011; Hayden and Thompson, 2008).

A careful review of the literature has revealed little research on education leadership in international schools in the Middle East and the north Africa region, particularly Egypt. In recent years, Egypt has experienced an expansion in the establishment of private schools. The demand for free, public education has surpassed the ability of the national system in Egypt to provide it adequately, resulting in under-qualified, undertrained teachers, and dilapidated schools with little resources (Loveluck, 2012). As a result, a private school system has evolved offering those who can afford it, an English language-based national curriculum, but with better resources than their government counterparts (Loveluck, 2012). Additionally, wealthy families have the added option of private international schools offering a curriculum mostly from the UK or North America. As of 2012, there were 72 international schools in Cairo alone (Bunnell, 2014). According to Schaub (2000), the popularity of private English language schools in general and international schools in particular may be attributed to the prevalence of the demand for English speakers in the job market. Schaub asserts that those who speak English fluently will most likely get the highest paying jobs. Moreover, this thinking is in line with Hayden's (2011) premise that affluent families in the host country perceive an international education as more prestigious and affording more opportunities for universities abroad. My experience and background in Egypt has seen a steady increase in the establishment of international schools in the past decade. The majority of these schools are privately owned and although they teach a western-based curriculum, attract an array of expatriate as well as local teachers. Therefore, the current state of international education in Egypt offers a rich environment in which to study the improvement of international schools. As being the most populous country in the

middle east, it serves as an ideal location in which to further explore the dynamics of instructional leadership and its influences on teaching in international schools.

The purpose of this study was to ascertain the practices employed by principals that teachers perceive to help improve their instructional practices in international schools in Egypt. Limited studies have been conducted that present the teacher with the opportunity to opine about the leadership practices he or she perceives as helpful. Gaining this information from the teacher's perspective adds another dimension to the knowledge base of education as well as gaining insight from the intended recipients of principal support. Moreover, given the multifaceted nature of the role of principals coupled with the complex organizational structure of schools, where to best direct principal efforts to improve instruction can be a rich source of information for principals. This study aims to add to the scarce literature on educational leadership in the context of international schools in Egypt, in an effort to inform principals and better equip them to positively affect teacher instruction.

Research Questions

The following research questions guided this study:

1. Which principal practices do teachers perceive as most and least helpful to improving their class instruction?
2. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on grade level taught (elementary, middle school, or secondary school)?
3. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on number of years of teaching experience.

4. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on the teacher's education background?
5. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on the teacher's gender?

Significance of the Study

Research that informs principals of specific practices that they can employ, as identified by the teacher, to help the teacher improve instruction is limited, especially in the international school setting. International schools in this context are defined as schools outside of the U.S. that deliver a western-based curriculum in the English language. This study aims to inform principals of practices that teachers identify as improving their instruction. The information collected in this study is especially pertinent in the international school setting where principals and teachers are under a different set of demands than their U.S. counterparts. Gathering this information may give principals a better understanding of what teachers in an international school setting need in order to do a better job in the classroom and ultimately improve student achievement.

Definition of Terms

For the purpose of this study, the following definition of terms will be used throughout this study:

1. international school- for purposes of this study, international school is defined as a private school delivering a western-based curriculum and is accredited by the U.S. based agency AdvancED

2. principal practices – for purposes of this study, instructional leader practices are behaviors or actions exhibited by the principal as defined by the Principal Core Practices Questionnaire (PCPQ)
3. teacher credentials – for purposes of this study, teacher credentials are the type of undergraduate or graduate university degree and area of study

Limitations of the Study

This study acknowledges three limitations. The first limitation is that the survey instrument developed for this study may not include all possible principal practice variables. The second limitation is that the survey instrument responses are dependent upon voluntary participation of teachers attending the AdvancEd education conference in Cairo, Egypt. Respondents who self-select to participate may be more motivated to express their views than participants who choose not to participate. The third limitation is that the study collected data from teachers in Egypt. The unique cultural and political context may limit the generalizability of the findings to other countries.

Chapter 2

Literature Review

Introduction

The purpose of this study was to examine teacher perceptions of which practices employed by principals help improve the instructional practices of teachers in international schools in Egypt. The foremost goal of schools is to effect positive achievement outcomes for their students. School principals play a pivotal role in this endeavor through their practices as instructional leaders. International schools especially, are expected to deliver achievement results that will enable their students to attend the best universities worldwide (Hayden, 2011).

This review of the literature bridges three major concepts of relational dynamics within the school as they pertain to student achievement outcomes. The first concept is the link, both direct and indirect, between principal instructional leadership practices and student achievement outcomes. The second concept is the direct link between teacher effectiveness and student achievement outcomes. The third concept is the principal's effect on the instructional practices of the teacher and how it translates into improved instruction for the students. Finally, there is a brief review of the literature as it pertains to instructional leadership practices in international schools.

The Direct Link Between Instructional Leadership and Student Achievement

Research on effective schools has established a link between the instructional practices of principals and student achievement outcomes. The literature differentiates the effect of principals on student achievement as being indirect or direct in nature. An indirect effect is the principal's influence on student achievement outcomes through mediated variables such as managing the instructional program,

motivating staff, building capacity, and guiding the vision and mission of the school (Gentilucci & Muto, 2007; Hallinger & Heck, 1998; Leithwood et al., 2004; Waters et al., 2003; Witziers et al., 2003). A direct effect is the principal's influence on student achievement outcomes through their relationship with students that engages them directly, such as visiting classes, meeting with students, and praising students' achievements (Gentilucci & Muto, 2007; Silva et al., 2011).

In their meta-analysis of studies examining the relationship between education leadership practices and student achievement, Marzano et al. (2005) identified 21 principal behaviors shown to have a positive correlation with student achievement. Of the 21 principal behaviors, two may be classified as having a direct effect on student achievement; "establishing strong lines of communication with teachers and students," and "having quality contact and interactions with teachers and students" (p. 42). The effect of the principals' direct relationship with students was further examined in two separate studies conducted by Gentilucci and Muto (2007) and Silva et al. (2011) yielding similar results. Their findings show that principals can have a positive effect on student achievement outcomes when principals establish positive relationships with students and engage them in meaningful interactions.

Gentilucci and Muto's (2007) research focused on practices of principals that directly influence academic achievement from the perspective of middle school students. They argued that students' insight and opinions about what affects their own learning can be valuable information for principals who wish to improve the academic achievement of students. Their research sought to answer two questions: Do students perceive that leadership behaviors of principals have a direct effect on their (students') learning and academic development? If yes, what specific leadership behaviors do students perceive most positively influence learning and academic

achievement in their schools? The researchers collected data from 39 randomly selected eighth graders from three different schools in three different school districts located in the western U.S. state of California. The research findings indicated that students believed principals have a direct influence on the academic achievement in their schools. Furthermore, the students' responses identified particular instructional leadership behaviors believed to influence academic achievement such as directly engaging students about academic and nonacademic matters, regular interactive classroom visits, and acting more like teachers than administrators by assisting students with their work and checking if they were on task. Instructional leadership behaviors perceived to have less influence on student achievement were identified as principal-student interactions that were dominated by discipline issues and passive class visits that focused on school business or for the sole purpose of observing the teacher (Gentilucci & Muto, 2007).

Silva et al. (2011) sought to investigate the direct effects of principals' practices on students' reading achievement through an experimental study examining whether one to one discussions between a principal and a student would have an effect on the student's reading score on the PSSA Reading Test. The participants of the study were 41 eighth grade students from a suburban school in the U.S. state of Pennsylvania who were identified as non-proficient as determined by the previous year's state achievement reading test. The participants were randomly assigned to the experimental group and the control group with approximately an equal number of students in each group. Each student in the experimental group met with the principal two times during the month prior to the state achievement reading test. The principal-student discussion mainly focused on high expectations for reading achievement, a

review of the student's previous reading scores, and a collaboratively set goal for the student's percentile score on the upcoming PSSA Reading Test.

Students in the control group met with the principal for discussion two times in the month following the state achievement reading test. The results of the study indicated that the students from the experimental group achieved a mean net gain of 2.60 percentile points above their predicted score on the state reading test while the students in the control group achieved a mean net loss of -2.00 percentile points below their predicted scores. These findings support that the principals' direct practice of engaging in discussion with students about their achievement goals resulted in significant gains in their reading achievement.

The findings of both studies (Gentilucci & Muto, 2007; Silva et al., 2011) show that establishing positive relationships with students and engaging students in meaningful achievement-based discussions has a positive effect on student achievement. Although these practices may be impractical given the amount of students with which principals have to meet, the findings, nonetheless, underscore the necessity to further explore the principal's instructional leadership role and how it influences student achievement.

The Indirect Link Between Instructional Leadership and Student Achievement

The majority of the effective schools literature supports the conclusion that the effect of principals' instructional leadership practices on student achievement is indirect in nature, mediated through various aspects of school contextual and organizational factors (Hallinger, 2011; Leithwood, Patten, & Jantzi, 2010; Louis et al., 2010; May, Huff, & Goldring, 2012; Robinson et al., 2008; Supovitz et al., 2009). In the past decade, several reviews, meta-analyses, and studies have been conducted examining the relationship between instructional leadership practices and student

achievement. Their primary findings conclude that there is a significant relationship between instructional leadership practices and student achievement. Leithwood et al. (2008) assert that “school leadership is second only to classroom teaching as an influence on pupil learning” (p.28). Witziers et al.’s (2003) quantitative meta-analysis of 37 multinational, direct effects model studies, calculated small but significant effect size between educational leadership and student achievement suggesting that principals do have an effect on student achievement. However, the authors state that these results were not robust after adjusting for outlier effect sizes. After reviewing five indirect effect studies, Witziers et al. conclude that indirect effect models show significant results on student achievement through mediating school factors and suggest that research explore more indirect effect models in order to better understand the impact of educational leaders.

Similarly, Marzano et al. (2005) conducted a meta-analysis of 69 research studies also examining the relationship between education leadership practices and student achievement. However, Marzano et al. examined studies that only involved U.S. schools and no distinction was made as to whether the studies involved a direct or indirect relationship between leadership practices and student achievement. The results of their study indicated a correlation of .25 between principal leadership behaviors and student achievement, a much higher effect size than Wietzer et al.’s (2003) .02 average correlation. Marzano et al.’s findings suggest that principal behaviors can have a pronounced effect on student achievement.

A third large-scale meta-analysis, undertaken by Robinson et al. (2008), examined the relationship between transformational leadership and instructional leadership on both academic and non-academic student outcomes. They found that instructional leadership had a larger effect size on student outcomes. However, the

authors caution that half of the instructional leadership effect studies indicated weak or small effects. Nonetheless, according to Robinson et al., teachers in the higher performing schools reported that leadership in their schools focus on teaching and learning and serve as a strong instructional resource.

In the past decade, several studies have further cemented the significant relationship between instructional leadership practices and student achievement outcomes. Kaplan, Owings and Nunnery (2005) investigated the relationship between the rating of quality principals as measured by the Interstate School Leaders Licensure Consortium (ISLLC) instrument and student achievement outcomes as measured by the Virginia State achievement tests. The researchers designed the instrument using the ISLLC 1996 standards for school leaders. These standards, since updated in 2008, were developed in collaboration with several member educational organizations under the National Policy Board for Educational Administration and serve as guidelines to inform education policy and better promote student learning (CCSSO, 2008).

The ISLLC 1996 standards used in Kaplan, Owings and Nunnery's (2005) study stipulate that leaders promote student success by:

1. facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community.
2. advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.
3. ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.
4. collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.

5. acting with integrity, fairness, and in an ethical manner.
6. understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context. (p.33)

Surveying 160 schools, Kaplan et al. (2005) found that there was a significant relationship between principals' quality rating and student achievement scores.

Student mean achievement scores were higher in schools with principals who had higher quality ratings in the elementary schools. Conversely, according to the data, student achievement scores were lower in schools who had principals with low quality ratings, even after controlling for students' socioeconomic status. The data revealed no significant relationship between principals' quality rating and student achievement at the middle school or high school level. The researchers speculate that principals' instructional influence is decreased at the secondary school level because secondary school principals work with many more teachers than elementary principals.

Similarly, in Louis et al.'s (2010) study examining the relationship between principal leadership and student achievement, their results found that the combination of principals' instructional leadership, shared leadership, and trust in the principal had a positive effect on students' math achievement. Their study involved approximately 180 schools throughout the U.S. However, like Kaplan et al. (2005), Louis et al. found that student math achievement scores were higher in elementary schools than in secondary schools also positing that the size of secondary schools may pose a challenge for principals trying to wield influence.

Practices of Effective Instructional Leaders

Instructional leadership research has identified core practices in which principals engage that have been shown to positively impact student achievement.

According to Leithwood and Riehl (2005), research findings support the premise that instructional leaders engage in a set of common practices despite school contextual differences. Additionally, two major meta-analysis, Marzano et al. (2005) and Robinson et al. (2008) calculated a positive effect size between effective leadership practices and student achievement. A review of the instructional leadership literature show that these core practices generally can be framed within four broad domains identified as 1) establishing and communicating vision, mission and goals 2) understanding and developing staff 3) developing effective organizational structures 4) focusing on the instructional program (Hallinger & Murphy, 1985; Leithwood et al., 2004; Marzano et al., (2005); Leithwood and Riehl, 2005; Leithwood et al., 2008; Robinson et al., 2008; Louis et al. 2010).

Core effective leadership practices have been identified in studies involving countries outside the U.S. as well. The International Successful School Principal Project used a case study approach to examine educational leadership practices in over 60 elementary and secondary public schools in eight countries. The countries that were included in the study were Australia, Canada, China, Denmark, England, Norway, Sweden, and the USA. The study concluded that while school leaders across countries use many of the same core practices to improve achievement in their schools, the way in which the practices are applied differs and is dependent upon school and country contexts (Gurr, Drysdale, Swan, Doherty, Ford, & Goode, 2006; Day, 2007; Jacobson, 2011).

An investigation of 63 principals from eight countries spanning North America, Europe, and Asia initiated through the International Successful School Principal Project (ISSPP) revealed that effective principals will employ a set of practices that is common across countries (Gurr et al, 2006). Researchers conducted

observations and administered surveys in schools in Australia, China, Denmark, England, Norway, Sweden and the USA that showed an improvement in student achievement outcomes (Gurr et al., 2006). Commonalties include the principal's strong commitment to student learning and the ability to cultivate relationships of trust with staff and the community (Gurr et al., 2006) as well as the three core leadership practices identified by Leithwood and Reihl (2005) of setting direction, developing people, and redesigning the organization (Gurr et al.; Jacobson, 2011). Although ISSPP data reveal that principals from the countries studied employ common practices that lead to effective schools, principals use the practices differently depending on the country's policies and norms (Gurr et al., 2006).

Establishing and Communicating Vision, Mission and Goals

Establishing and effectively communicating vision, mission, and goals creates a sense of common purpose and aids in moving the organization forward (Leithwood et al., 2004). Under this domain, the education leader communicates high performance expectations and fosters mutual understandings thereby inspiring and motivating staff to achieve the school's common goals. In his review of 40 years of empirical research from North America, Asia Pacific, and Europe, Hallinger (2011) identified having a clearly defined vision and goal as one of three main mediating factors in which effective leadership indirectly impacts student learning. Hallinger asserts that a clearly defined and well-communicated vision motivates and inspires people to achieve school goals. Furthermore, a clearly defined vision guides the principal in making decisions conducive to the advancement of the school such as hiring staff, acquiring resources and initiating various programs. Additionally, Hallinger notes that several studies link having a clear academic vision and mission to effective schools. Results of Witziers et al.'s (2003) meta-analysis, for example,

show that defining and communicating mission was the leadership behavior that had the largest effect size on student achievement. Both Marzano et al. (2005) and Robinson et. al (2008) found that the practice of establishing clear goals and expectations is correlated with student achievement. Both concur that this practice is most effective when leaders establish specific educational goals aligned with desired outcomes.

Understanding and Developing Staff

Understanding and developing staff comprises the ability to develop the knowledge and skills of staff members as well as the ability to connect to the staff offering emotional and intellectual inspiration (Leithwood & Riehl, 2005). Under this domain, the leader not only feeds the intellect of staff members but the emotions as well, offering acknowledgement, encouragement, and recognition (Leithwood et. al, 2008). Marzano et al. (2004) identified several practices that develop and encourage the affective needs of staff including “recognizes and rewards individual accomplishments” and “demonstrates an awareness of the personal aspects of teachers and staff” (p. 42), serve to stimulate the emotions of the staff. Marzano et al. explain that these practices make teachers feel valued and encourage teachers to stay focused on the school goals.

In Robinson et al.’s (2008) meta-analysis, the practice of promoting and participating in teacher learning and development yielded the largest effect size on student achievement. According to Robinson et. al, development for both teachers and the principals can be in the form of professional development or staff meetings, or can take more of an informal approach such as pedagogical discussions between principals and staff members. Robinson et al. further note that as a result, the principal is regarded as an instructional source to which teachers can consult for instructional

problems or improvements. Marzano et al.'s (2004) findings suggest that the extent of principals' knowledge of best practices in the areas of curriculum, instruction and assessment serve as a guide for teachers on effective instruction and assessment hence yielding higher achievement. Marzano et al. further note that the practices of "ensures faculty and staff are aware of the most current theories and practices" and "provides teachers with materials and professional development necessary for the successful execution of their jobs" (p. 43), are necessary to develop and enhance the knowledge and skills of teachers.

Developing Effective Organizational Structures

Educational leaders develop effective organizational structures conducive to the achievement of organizational goals. Leithwood and Riehl (2005) maintain that three main aspects of leadership are involved in this domain; strengthening the school culture, modifying organizational structures, and building collaborative processes. They posit that effective education leaders strengthen the school culture by operating from and reinforcing the organization's values, norms and beliefs. Similarly, Hallinger's (2011) synthesis of the literature proposed a leadership model in which one of the principles is that leadership is underpinned by values. He explains that the norms and values inherent in the school culture serve as the driving force to achieving the objectives and fulfilling the purposes of the school. He further explains that education leaders understand the values that guide the school and use school cultural values as well as their personal values to make decisions and solve problems that further and enhance the effectiveness of the school. The findings of Marzano et al.'s (2005) meta-analysis indicate that the principal's ability to foster a culture of collaboration and cooperation as well as operate from strong beliefs about teaching

and learning can significantly influence the teaching and learning environment of the school (Marzano et al.).

Modifying the organizational structure, according to Leithwood and Reihl (2005) entails practices that facilitate teacher and student performance. They suggest that such practices include “changes in staff and task assignments, the scheduling and design of time and space, routine operating procedures, and the deployment of technology and other material resources” (Leithwood & Reihl, p. 22). Robinson et al.’s (2008) findings concur that the education leader’s decisions about such things as hiring staff and allocating learning resources can influence student achievement. Similarly, Marzano et al. (2005) identified operating as a change agent and the ability to inspire and lead new challenges as effective practices. They explain that effective leaders consistently look for better ways of doing things and inspire and energize others when initiating or implementing change. Additionally, Marzano et al.’s findings indicate that effective leaders create a structure within the framework of policies and procedures that establish order and facilitate procedures necessary for the day-to-day running of the school.

Fostering a collaborative process entails creating an environment in which staff are encouraged to share their knowledge and opinions about important issues and policies (Marzano et al., 2005; Leithwood & Riehl, 2005;). Inherent in a collaborative environment is a climate of positivity, trust, and a sense of community, all of which have been identified as necessary for high achieving schools (Heck, 2000; Leithwood et al., 2008). Marzano et al. suggest the creation of mechanisms such as leadership teams, suggestion boxes, or other channels through which teachers can be involved in the decision-making process.

Focusing on the Instructional Program

Focusing on the instructional program essentially entails that the principal focus on the main function of schools; teaching and learning. Liethwood and Riehl's, (2005) review of the literature state that schools that reported a high achievement gain have "educational leaders who maintain a clear and consistent focus on improving the core task of teaching" (p. 662). Valentine and Prater (2011), in their study exploring the relationship between principal leadership characteristics and student achievement, identified a focus on curricular and instructional improvement as having a positive correlation with student achievement.

Marzano et al. (2005) and Robinson et al (2008) identified a number of similar practices within the realm of curriculum and instruction associated with high achievement schools. The first practice stipulates that the principal monitors the effectiveness of school practices and their impact on student learning. Effective leaders use data and ensure that their staff use data in the form of student progress, to monitor and adjust the instructional program (Marzano et al. 2005; Robinson et al. 2008).

The second practice maintains that high achievement is associated with educational leaders who are directly involved in the design, planning and coordination of the curriculum, instruction, and assessment (Marzano et al. 2005; Robinson et al. 2008). Direct involvement can be in the form of principals partaking in instructional improvement discussions with teachers and articulating teaching standards and objectives across grade levels (Robinson et al.). Marzano et al.'s findings suggest that principals in high achieving schools help teachers design effective instructional activities and assessments, and help align content to state tests.

The third practice entails making regular classroom observations or what Marzano et al. (2005) term "visibility." Communicating clear teaching standards and

making frequent classroom observations enables principals to give teachers feedback that help improve their instruction (Robinson et al., 2008). Additionally, Marzano et al. report that frequent classroom visits communicates a message that the principal is aware of and interested in the daily activities of the school.

The Direct Link Between Teacher Instruction and Student Achievement

Teachers can be a strong force in influencing student achievement regardless of the ineffectiveness of the school as a whole (Marzano, Pickering, & Pollack, 2001; Marzano, 2007). The quality of the teacher is an important factor in determining student achievement success (Kaplan & Owings, 2001; Marzno, 2007). Marzano states that “the impact of decisions made by individual teachers is far greater than the impact of decisions made at the school level” (p. 72). Leithwood et al.’s (2008) assertion that “school leadership is second only to classroom teaching as an influence on pupil learning” (p. 28) assumes that classroom instruction is the primary influence on student learning.

Although researchers agree that teachers impact student achievement, many studies sought to measure to what degree does the teacher influence student achievement. In an earlier study, Wright, Horn and Sanders (1997) sought to measure the effects of teachers on students’ achievement gains. The study involved 60,000 students from grades 3 through 5 and analyzed the factors believed to affect student learning such as classroom heterogeneity, individual student achievement, class size, and teacher effects. Although the description of teacher effects was not clear, the statistical formula used in the analysis defined the teacher variable as the product of difference in student achievement, the school system, and class size (Wright et al., 1997). The results indicated that teacher effects had a significant effect size and proved to be the most important factor affecting student achievement gain.

Later studies such as Rockoff (2004) and Aaronson, Barrow and Sanders (2007) explored the relationship between teacher effects and student achievement in school districts in New Jersey and Chicago respectively. Both studies examined extant standardized achievement data of the same students spanning 3 to 10 years in addition to teacher observations. Tracking the achievement of the teachers' students over the years enabled the researchers to distinguish variation in teacher quality. Both studies yielded similar conclusions that teacher effects resulted in up to a 22% average gain in math achievement in a school year.

Two separate experimental studies conducted by Nye, Konstantopoulos, and Hedges (2004) and Kane and Staiger (2008) also confirmed that teachers had a sizeable effect on student achievement. In Nye et al.'s study, kindergarten students from 79 elementary schools in Tennessee were randomly assigned to teachers. The researchers tracked the experimental cohort of students through the third grade. Their results indicated that students who had a teacher in the 75th percentile (an effective teacher) had a math achievement gain of .48 standard deviation compared to students who had a teacher in the 25th percentile.

Kane and Staigher (2008) used a similar experimental technique. They randomly assigned students from grades two through five from 123 schools in Los Angeles, CA. Achievement data for the students were tracked for two years. The results of the study were similar to that of Nye et al. (2004) yielding a standard deviation of .18 to .20 in achievement scores suggesting that teacher impact on student achievement is relatively strong.

Ding and Sherman (2006) criticized earlier teacher effect studies by noting that they inadequately define teacher effects. Ding and Sherman explained that while teacher effects can be operationalized using descriptions such as possessing

certification, number of years of experience, type of academic degree, or area of undergraduate study, it should not be confused with teacher effectiveness, which can be characterized as possessing a specific set of teaching practices that result in a student gain in achievement. Nevertheless, in their review of studies examining teaching on student achievement as well as in their own analysis, Rowan et al. (2002) conclude that although different types of statistical analyses can lead to different interpretations, teacher effects in the form of a combination of instructional variables and effective instructional practices have a significant impact on student achievement.

The Link Between Principals and Teachers

Research has established that principals engage in a set of core practices that indirectly affect student achievement. The core practices are enacted within the framework of the school organization predicated upon a close working environment with teachers. Principals are in a prime position to influence teacher behaviors in the classroom prompting positive student achievement (Glanz et al., 2007; Louis et al., 2010). Studies by both Barnett and McCormick (2004) and Sebastian and Allensworth (2012) found that principals influence the practices of teachers through their ability to create a positive learning environment and positive school culture.

Quinn (2002) believes that the principal's ability to "motivate and inspire teachers with the end-goal of impacting instructional practice" (p. 451) is embedded in their role. In his study, Quinn examined the relationship between instructional leadership and teacher instructional practice. Quinn found a significant relationship between strong instructional leadership and effective teacher instructional practices. According to the results of his study, teachers who identified their principals as possessing strong instructional leadership skills in the areas of resource provider, instructional resource, communication and being visibly present exhibited higher rates

of student engagement and student active learning as measured by the Instructional Practices Inventory (IPI).

In their case study on successful leadership, Glanz et al. (2007) sought to examine the role of supervision and its impact on teacher classroom behavior as it relates to student achievement. They define supervision as “a non-evaluative process in which instructional dialogue is encouraged for the purpose of engaging teachers to consider effective strategies to promote student learning” (p. 7). Their research included interviews and observations of teachers and principals in New York City public schools that showed improved student achievement results in English language arts and math standardized tests. According to their data, they conclude that “supervision is seen as critical to teacher growth” (p. 23). They posit that supervisors can indirectly affect student achievement by working with teachers to implement research-based teaching strategies therefore improving instruction. They further note that principals who focus on instructional aspects of the school program influence teachers’ instructional ability.

Teachers perceive that principals’ practices have an influence on their instruction. Blase and Blase (1999), in their study involving 809 teachers, asked teachers to describe something positive that their principal does that they think leads to an improvement in their classroom teaching. The responses resulted in a framework of effective instructional leadership comprising two broad themes: “talking with teachers to promote reflection” and “promoting professional growth” (p. 132). Blase and Blase state that principal practices “have strong enhancing effects on teachers, emotionally, cognitively and behaviorally” (p. 367). A decade later, Louis et al. (2010) conducted similar research to ascertain what school leader practices teachers identify as influencing their teaching. The largest percentage of teachers

identified three practices: focusing on school goals, providing relevant professional development, and creating collaboration opportunities. Moreover, a study exploring influences on teaching and learning conducted by Supovitz et al. (2009) found that there was a positive association between both principal influence and peer influence and the teachers' reported change in instruction. The study also revealed a positive association between principal leadership and peer influence. Consequently, principals, through their practices, not only influence teacher practice, but create an environment in which teachers have the opportunity to influence each others' teaching.

Characteristics of International Schools

There is little agreement as to what exactly constitutes an international school (Hayden, 2006; James & Sheppard, 2014). The description varies from country to country, and even from school to school. Historically, international schools were founded to educate the children of expatriate families serving as government or multinational organization employees (Hayden, 2006; Hayden & Thompson, 2008). The global growth of corporations and the consequent increase in the global mobility of their employees prompted an increased demand for international schools, especially in recent decades (Hayden, 2006; Hayden & Thompson, 2008; Walker & Cheng, 2009). Moreover, the international school population has increasingly included wealthy host country families who deem their national education system inadequate (Hayden & Thompson, 2008; Walker & Cheong, 2009). They see an international school education as a vehicle for entry into more prestigious local universities or universities in the UK or North America (Hayden & Thompson, 2008; Hayden, 2011). The rise of more host nationals attending international schools has led to an increase in the number of international schools worldwide (Hayden; James & Sheppard). The International School Consultancy's (ISC) research puts the number

of international schools whose main language of instruction is English at over 7,000 serving over 3 million students (ISC, 2014). The rise is especially prominent in Asia and the Middle East (Bunnell, 2014).

According a definition for the term “international school” is problematic mainly because using the term or describing an educational institution as such is self-granting (Hayden, 2006). Hayden notes that international schools may be subject to local criteria of what constitutes an international school, but that may not be the case in many countries. Consequently, schools may be appropriating the term “international” under a variety of guises and for diverse purposes. Hayden offers that schools may categorize themselves as international based on the type of curriculum they offer, their student population, their marketing strategy, or their mission. Hayden and Thompson (2008) put international schools in two camps: those that that serve the needs “of globally-mobile expatriate families and upwardly-mobile host national families and (those that are) ideological motivators concerned with offering education focused on encouraging young people to become ‘global citizens’ with a concern for world peace, environmental responsibility and sustainable development” (p. 27). Most international schools are described as such by earning recognition from various international accreditation agencies (James & Sheppard, 2014). As international schools gained popularity, accreditation agencies such as the Middle States Association of Colleges and Schools, the Western Association of Schools and Colleges, and the New England Association of Schools and Colleges were established to serve as guides and symbols of quality (Hayden & Thompson, 2008). Regardless of an agreed upon definition, Hayden and Thompson suggest that most international schools have a common set of characteristics. With few exceptions, international schools are privately owned and governed. International schools offer a curriculum

that, for the most part, is independent of the national or local education system.

International schools cater to a more diverse student population therefore, faculty and leadership tend to be more diverse as well (Hayden & Thompson). Roberts (2012) sums up the definition debate by stating “hence the concept of ‘being international’ is influenced by the school itself and by those people who operate within the institution”(p. 75).

Education Leadership in International Schools

The literature suggests there is little difference between educational leaders in international schools and other schools regarding qualities and practices of effective school leaders. Spradling, (2009), who served as a teacher and then an administrator in international schools in Africa and Europe, opines that the elements of a successful international school is no different than that of any successful school, whether public or private in the US. In his qualitative study, Machin (2014) interviewed 15 principals working in for profit international schools in Asia. He found that although the principals recognize and acknowledge the business aspect of their roles and duties, they define themselves as educators first and foremost. Despite facing tensions and challenges inherent in running a commercial enterprise, Machin’s study revealed that principals upheld their professional commitment to their students and staff.

Moreover, Machin points out that many of the challenges that face international school principals such as limited funds for particular projects, are faced by their public school counterparts as well.

Reflecting on his first international leadership experience in an international school in Egypt, Hould (2011) states,

a school is a school no matter what country you are in. I needed to focus on the work a good leader does to make a difference, which has served me well

for 23 years as a principal (in Montana). I set out to build relationships, observe the operations and the middle school program, and observe students and staff. Then I slowly started to make changes I felt were necessary to improve the over- all quality of our program (p. 35).

Roberts and Mancuso (2014) conducted a study examining the qualities and characteristics international school boards look for in an international school leader. They found that school boards wanted managerial, instructional, and collaborative leaders with good communication skills and who were able to work in a diverse environment. Pelonis and Gialamas (2010) state “successful leadership in the international, academic arena calls for leaders to have the following qualities: to be continuous learners, risk takers, visionaries, performing well under stress and able to promote and accommodate change.” (p.73) A study conducted by Sheppard (2014) examining governance in international schools found that school governing boards typically authorize pedagogical decision making to the education leader.

The International Successful School Principal Project concluded that while school leaders across countries use many of the same core practices proven to be effective to improve achievement in their schools, the way in which the practices are applied differs and is dependent upon school and country contexts (Gurr, Drysdale, Swan, Doherty, Ford, & Goode, 2006; Day, 2007; Jacobson, 2011). Although international school leaders may face different challenges unique to an international school setting (Pelonis & Gialamas, 2010; Lee, Hallinger, & Walker, 2012; Keller, 2014), findings from studies indicate that effective leadership in international schools generally requires the same set of core practices. In a study of primary international schools in Hong Kong, Walker and Cheng (2009) asked school leaders to identify similarities and differences in the ways they enacted their roles in international

schools and in schools in their home country. They found that principals perceive themselves as engaging in the same type of leadership tasks in international schools as required of them in their home country schools. Although the principals acknowledge that a more heightened level of cultural sensitivity and awareness is needed in international schools, they still enacted leadership practices including “team development, mentoring and supporting, ensuring cohesive teamwork and quality planning” (Walker & Cheng, p. 53). Additionally, leaders reported that in both international schools and their home country schools, they need to be sensitive to the needs of the staff, providing them with support and care, however, in international schools, special attention was paid to helping some members of the staff settle in a new and different environment (Walker and Cheng).

Similarly, Lee, Hallinger, and Walker (2012), examined leadership challenges in International Baccalaureate (IB) schools in the Asia-Pacific region. The IB program offers an international curriculum for primary and middle school years as well as a college preparatory diploma program for 16-18 year olds (Hayden & Thompson, 2008). The study outlined five main challenges faced by leaders of which two of them are “achieving coherence and consistency across the three IB programs” and “ongoing professional development of teachers” (p. 305). Accordingly, these two practices fall under the core practices of focusing on the instructional program and developing staff.

Lee et al. (2012) also found that education leaders in international schools face the challenge of “managing parental expectations” (p. 305). They explain that parents place an emphasis on exam-based grades and have high expectations for academic success (Lee et al.). Primary international school leaders in Walker and Cheng’s (2009) study reported that, compared to their home country schools, international

school parents had higher expectations regarding academic achievement of students (Walker & Cheng). Hence, meeting the high academic expectations of parents can be a particular challenge to education leaders in international schools and serve as further motivation to influence successful learning and teaching for both students and teachers.

Teaching in International Schools

The international school teaching landscape has seen a gradual change in recent years (Bunnell, 2008; Hayden, 2008). Historically, teachers who accepted an international school assignment were mainly looking for new experiences and an opportunity to see other parts of the world (Hayden, 2008). However, the rise of international schools has seen an “attempt to create a cadre of professional international educators” (Bunnell, 2008, p. 420) whereby teachers view their international school experience as an integral part of and a continuation of their teaching career (Bruce, 1987). Hayden and Thompson’s (1998) study on teacher perceptions of international education in international schools ranked the school’s ability to offer examinations enabling students to enter universities around the world as well as an international curriculum such as the IB as extremely important contributors to students’ international education. Hence, teachers in international schools, like their counterparts in their home country, would stand to benefit from instructional improvement and continued development.

Research Variables

The research on education largely suggests that the principal’s role is vast and permeates throughout the many domains of the educational, organizational, and relational structures that comprise a school. This study attempts to pinpoint, from the teacher’s perspective, principal practices that positively influence teacher instruction

in an attempt to equip principals with information to better maximize their efforts in maintaining effective schools. Therefore, one of the aims of this study is to compare participants' responses along lines of grade level of instruction (primary, middle, secondary), years of teaching experience, gender, and field of the respondents' higher education in an attempt to better understand effective leadership behaviors in different contexts.

Grade Level of Instruction

As each grade level may have different demands, the ways in which teachers can be supported may differ as well, depending on the grade level they teach. This is evident in several studies. In one study, Kaplan, Owings, and Nunnery (2005) found a significant correlation between principal quality and student achievement at the primary level (grades 3 and 5) but not at the middle or high school level. The researchers speculate that principals' instructional influence may be decreased at the secondary school level because secondary school principals may work with many more teachers than elementary principals. Louis et al. (2010) explain that in larger schools such as secondary level schools, principals may lack the time to work directly with teachers. They further explain that the compartmentalized structure of secondary schools makes it difficult for principals to have an influence on teacher instruction. In a study conducted by Louis et al. (2010), results indicated a variation across grade levels in teacher perceptions of principal behaviors they deemed as helpful. According to the study, more primary school teachers reported "Monitoring teachers' classroom work" (p. 72) as helpful than middle school and high school teachers. Conversely, "Creating structures and opportunities for teachers to collaborate" (p. 72) was deemed helpful by more high school and middle school teachers than primary school teachers (Louis et al., 2010).

Teaching Credentials and Teaching Experience

Defining teacher quality has been a challenging task in the discourse on education. Research has used variables such as and number of years of experience, level of education, and teaching credentials to characterize teacher quality. Goldhaber's (2002) study found that years of experience and level of education accounted for only 3% of teachers' contribution to student learning. According to Goldhaber, the other 97% of student learning was attributed to teacher characteristics and personal qualities. However, Goldhaber found that teachers' advanced coursework in the areas of math and science was a significant predictor of student achievement.

Clotfelter, Ladd, and Vigdor (2007) also examined the relationship between teachers' years of experience, teacher level of education and student achievement. The study found a positive correlation between teachers' number of years of experience and student achievement scores. However, findings of the study indicated that a teacher's attainment of an advanced graduate degree did not have a significant effect on student achievement.

Goldhaber and Anthony (2005) and Clotfelter et al. (2007) examined the effect of teacher certification on student achievement. In both studies, findings indicated a positive correlation between teachers who were certified by the National Board for Professional Teaching Standards (NBPTS) and student achievement. However, Goldhaber and Anthony caution that findings indicate NBPTS teachers many not be more effective than teachers who did not apply for such certification. Sharkey and Goldhaber (2008) conducted a study comparing certified and non-certified teachers and student achievement outcomes in both public and private schools in the U.S. Their findings indicate that certified teachers do not necessarily

mean better qualified teachers. Sharkey and Goldhaber state that even though private schools are not obligated to hire certified teachers, they may use indicators of quality other than certification to ensure teacher effectiveness in their hiring process. However, given the ambiguity of the findings of certification studies, Darling-Hammond (2000) argues that teacher training and pedagogical coursework matter for effective teaching. She states that “teachers who have a greater knowledge of teaching and learning are more highly rated and more effective with students” (Darling-Hammond, p. 167). Given the results of these studies, as well as the fact that international schools in Egypt are not required to hire certified teachers, teachers with differing levels of experience and education level may need different types of support from their principals.

Gender

Sabbe and Aelterman’s (2007) assert that a salient problem in gender research in teaching is that researchers tend to discount the diversity within the male/female dichotomy, treating all members of each sex the same. Nevertheless, numerous studies examining gender differences in teaching have been conducted yielding varying results (Sabbe & Aelterman; Raymond-Lam, Tse, Lam, & Loh, 2010).

Demetriou, Wilson and Winterbootm (2009), in a sample of 512 teachers, examined if there were differences in how male and female teachers engaged and motivated students. Although the researchers concede the limitation of the sample size, Demetriou et al. found that male and female teachers differ in their approaches when trying to engage students in learning and in solving discipline problems. Demetriou et al. explain that female teachers put more emphasis on the emotional aspect of teaching and getting to know students as individuals. The study also revealed that male teachers were less likely to appeal to colleagues for support in

difficult situations and were less reflective of their teaching practices (Demetriou et al.).

Klassen and Chiu (2010) sought to examine the relationship between gender and teacher self-efficacy and job stress. Their sample consisted of approximately 1,500 K-12 teachers in Canada. Findings of their study revealed that male teachers had a higher rate of self-efficacy in the area of classroom management than female teachers. Female teachers reported a higher rate of job stress than male teachers.

Clotfelter et al. (2007) and Raymond-Lam et al. (2010) conducted studies examining whether a difference in the gender of the teacher yielded different student achievement results. Clotfelter et al. found that for grades 3, 4 and 5, female teachers had more positive results than male teachers in math achievement, but no significant difference in reading achievement results were found. Raymond-Lam et al., however, in their study on primary students in Hong King, found that grade 4 students who were taught by female teachers had higher reading test scores than grade 4 students who were taught by male teachers.

In their literature review, Sabbe and Aelterman (2007) conclude that research has not unequivocally established a clear difference between male and female teachers. They contend that various contextual considerations need to be accounted for within the categories of gender. Despite inconclusiveness of the results regarding differences in gender and teaching, whether gender is a factor in choosing appropriate instructional supports is worth exploring.

Summary

School principals employ an array of practices in their day-to-day running of effective schools in order to catalyze successful achievement outcomes for their students. The literature on effective schools has established that principals can have

both a direct effect on student achievement outcomes through positive interactions with students and an indirect effect mediated through various aspects of school contextual and organizational factors. Moreover, principals engage in core practices which have been identified to positively impact student achievement. The core practices are categorized in four domains; 1) establishing and communicating vision, mission, and goals 2) understanding and developing staff 3) developing effective organizational structures 4) focusing on the instructional program. The literature shows that teacher instruction, through effective instructional practices, has a significant impact on student achievement. The literature also shows that principals, through their interactions, are in a position to influence teacher behaviors, thus effecting positive student achievement. Generally, teachers and principals in international schools face similar challenges to U.S. public schools. Principals in international schools largely employ the same core practices that have been identified with successful schools. The desire for students to attend universities abroad and the prevalent demand for English speakers in the global job market led to the rise of international schools in Egypt in the past decade. Thus, this study targets international schools in Egypt in an attempt to pinpoint what principal practices are most helpful to improve teachers' instruction based on teacher perceptions.

Chapter 3

Methodology

Introduction

This chapter describes the methodology used to investigate the core principal practices teachers perceive to be most helpful in improving their instruction. The chapter will focus on a description of the target participants, instrumentation, and the process used for data collection. Additionally, the chapter addresses the data analysis conducted to answer the questions of the study.

Purpose and Research Questions

The principal is in a leading position to serve as a source of influence for teachers. Given the myriad roles of the principal, gaining a better understanding of which principal practices can best serve teachers in improving classroom instruction is paramount to maintaining effective schools. Therefore, the purpose of this study was to examine practices employed by principals that teachers perceive to help improve their instruction. The following research questions guided this study:

1. Which principal practices do teachers perceive as most and least helpful to improving their class instruction?
2. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on school level taught (elementary, middle school, or secondary school)?
3. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on number of years of teaching experience.

4. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on the teacher's education background?
5. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on the teacher's gender?

Population and Sample

The targeted population of this study was English speaking K-12 teachers working in schools that teach an English-based curriculum in Egypt and accredited by AdvancEd. AdvancEd is a non-profit accrediting agency that conducts external reviews of PreK-12 schools. The organization services over 32,000 schools in the U.S. and in 70 other countries (<http://www.advanc-ed.org/about-us>) including 200 schools in 12 countries in the Middle East (<http://m.advanc-ed.org/locations/egypt-office>) and 112 schools in Egypt. AdvanceEd accredits schools based on standards and criteria that must be met by all member schools. Using the AdvancEd organization serves as a unifying factor for international schools for purposes of this research. The accessible population used for this study consisted of 529 teachers from various AdvancEd accredited international schools in Egypt attending the Cairo AdvancEd annual education conference in 2015. Findings of the study were generalized to teachers who attend the conference.

The AdvancEd conference offers workshops on various educational topics presented by educators from all over the world. Since participation in the study is on a voluntary basis, AdvancEd has granted permission for a booth that will be set up at the conference (Appendix A) through which the questionnaire was distributed. Participants were asked to complete the questionnaire on the spot for immediate collection.

Research Context

The decision to gather data through the education conference hosted by AdvancEd was twofold. First, AdvancEd does not provide contact information for their accredited schools, only the name of the school. Obtaining accurate contact information for most of the international schools in Egypt proved to be very difficult. Many of the schools' information on their websites was outdated. Second, of the 30 schools I was able to contact, only three responded and showed interest in the possibility of participating in the study. Although randomly sampling the 112 schools accredited by AdvancEd would've been the more traditional route taken by researchers, my inability to contact these schools for consent coupled with a strong prediction of low response, made this method impossible to implement.

The vast majority of international schools are privately owned, for-profit enterprises and the low response rate led me to believe that a context of trust and sharing information did not exist among the network of international schools. The highly competitive nature of the business of international schools may diminish the motivation to share information and resources. In addition, the capricious political climate in Egypt makes businesses wary of sharing information due to the government's high level of scrutiny. Having direct access to teachers via the AdvancEd conference was more feasible and had a greater chance of yielding a higher response rate than contacting teachers through their school.

Instrumentation

A quantitative survey method approach was used for this study. Quantitative surveys allow for a numerical analysis of the central tendency and distribution of variables as well as how variables are related to each other (Punch, 2003). In addition, a qualitative approach was used to analyze one open-ended question asking

respondents to list other principal practices that are helpful to improving their instruction. A careful review of the literature revealed that no instrument has been developed to measure the specific principal practices teachers perceive as helpful to improving their instruction. Therefore, a survey instrument was developed for the purpose of this research. The Principal Core Practices Questionnaire (PCPQ) (Appendix B) consists of a total of 28 questions. The items were developed based on the review of the literature of practices of effective principals as well as Hallinger and Murphy's (1985) Principal Instructional Management Rating Scale. Table 1 presents a listing of each of the items with the specific research on which the item is based.

Table 1
Items on the Principal Core Practices Questionnaire (PCPQ) and Supporting Research

Item on Questionnaire	Supporting Research
1. The principal collaborates with teachers to establish clear instructional goals for student academic improvement.	(Hallinger and Heck, 2002; Marzano et al., 2005; Robinson et al., 2008)
2. The principal actively participates with teachers in the development of student assessments.	(Hallinger & Murphy, 1985; Marzano et al., 2005)
3. The principal develops policies and procedures to ensure an orderly school environment.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)
4. The principal conducts regular observations of teacher instructional methods in the classroom.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)
5. The principal creates structures and opportunities for teachers to collaborate.	(Hallinger & Murphy, 1985; Louis et al. 2010)
6. The principal develops and communicates high expectations for student achievement.	(Hallinger, 2011; Leithwood & Riehl, 2005).
7. The principal actively participates with teachers in the review and/or selection of curricular resources.	(Hallinger and Murphy, 1985)
8. The principal meets individually with teachers to discuss student academic progress.	(Hallinger and Murphy, 1985; Robinson et al., 2008)
9. The principal engages in discussions or conversations with teachers concerning instructional methods and how it impacts student learning.	(Hallinger & Murphy, 1985; Marzano et al., 2005)
10. The principal ensures necessary instructional	(Hallinger & Murphy, 1985;

resources are available.	Marzano et al., 2005; Robinson et al., 2008)
11. The principal gives feedback on strengths and weaknesses of teacher's instructional practices orally during post-observation meetings.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)
12. The principal organizes professional development around teacher needs.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)
13. The principal develops policies and procedures to protect instructional time from interruption.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)
14. The principal organizes professional development around instructional best practices.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)
15. The principal gives feedback on strengths and weaknesses of teacher's instructional practices in written evaluations.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)
16. The principal praises teachers privately for their efforts or performance.	(Hallinger & Murphy, 1985; Marzano et al., 2005)
17. The principal reviews assessment results and other student work with teachers to adjust instruction.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)
18. The principal provides articles, books, and website links on best instructional practices to teachers.	(Marzano et al., 2005; Robinson et al., 2008)
19. The principal provides instructional guidance e.g., models instructional methods by teaching model lessons, gives instructional advice.	(Robinson et al., 2008; Louis et al. 2010)
20. The principal creates structures and opportunities for teachers to share ideas and new information from professional development activities.	(Hallinger & Murphy, 1985; Louis et al. 2010)
21. The principal regularly monitors classroom activities to ensure they align with the school's instructional goals.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)
22. The principal praises teachers publicly for their effort or performance in staff meetings, newsletter, or memos.	(Hallinger & Murphy, 1985; Marzano et al., 2005)
23. The principal supports teachers' request to attend out of school professional development activities.	(Hallinger & Murphy, 1985; Marzano et al., 2005; Robinson et al., 2008)

Participating teachers were asked to indicate the degree to which each principal practice on the PCPQ is perceived to help improve their teaching methods. A six point Likert type scale was used to indicate responses to each item in the following

form: (1) Strongly disagree (2) Disagree (3) Slightly Disagree (4) Slightly agree (5) Agree (6) Strongly agree.

Review of the Proposed Instrument

A modified Delphi technique was used to determine content and construct validity of the instrument. The modified Delphi technique is commonly used to attain consensus of opinion on a particular topic through the knowledge and the expertise of a group specializing in a particular area (Hacker, 1988; Hasson & Keeney, 2011). A panel consisting of three educational leadership experts with an extensive background in instructional leadership was asked to review the proposed instrument. The members of the panel included an educational researcher who is a professor of education and two professors of education who were former heads of international schools. Each member of the expert panel received an email containing a consent letter (Appendix C) and a feedback form (Appendix D) requesting input on format, item relevance, and item clarity. The feedback was reviewed and modifications were made to the questionnaire. The panel was requested to review the questionnaire once again and feedback indicated no other major modifications were needed.

Instrument Pilot Study

Prior to distributing the proposed questionnaire to the pilot sample of teachers, interviews were conducted with five different teachers, accessible at the researcher's school, who had agreed to complete the proposed questionnaire (Appendix E). The focus of the interviews was on the clarity of the directions (Appendix F) and consequently the directions of the proposed questionnaire were revised. The instrument was then piloted by a convenience sample of 29 teachers working in various international schools in Egypt accredited by AdvancEd.

A series of reliability tests were conducted on the data of the pilot study to examine the hypothesized groupings of similar items into underlying constructs. Table 2 presents each item under its hypothesized corresponding domain representing the four dimensions of instructional leadership: establishing and communication vision, mission and goals; understanding and developing staff; developing effective organizational structures; and focusing on the instructional program.

Table 2 *Hypothesized Components and Related Items for the PCPQ*

Core Instructional Leadership Domains
1. Establishing and communicating vision, mission and goals
1.1 The principal collaborates with teachers to establish clear instructional goals for student academic improvement.
1.2 The principal develops and communicates high expectations for student achievement.
1.3 The principal communicates school-wide goals to all stakeholders.
2. Understanding and developing staff
2.1 The principal supports teachers' requests to attend out of school professional development activities.
2.2 The principal organizes professional development around instructional best practices.
2.3 The principal provides articles, books, and website links on best instructional practices to teachers.
2.4 The principal gives feedback on strengths and weaknesses of teacher's instructional practices orally during post-observation meetings.
2.5 The principal praises teachers publicly for their effort or performance in staff meetings, newsletter, or memos.
2.6 The principal praises teachers privately for their efforts or performance.
2.7 The principal provides instructional guidance i.e., models instructional methods by teaching model lessons, gives instructional advice.
2.8 The principal gives feedback on strengths and weaknesses of teacher's instructional practices in written evaluations.
2.9 The principal organizes professional development around teacher needs.
3. Developing effective organizational structures
3.1 The principal creates structures and opportunities for teachers to collaborate.
3.2 The principal develops policies and procedures to ensure an orderly school environment.
3.3 The principal develops policies and procedures to protect instructional time from interruption.

3.4 The principal creates structures and opportunities for teachers to share ideas and new information from professional development activities.
4. Focusing on the instructional program
4.1 The principal ensures necessary instructional resources are available.
4.2 The principal reviews assessment results and other student work with teachers to adjust instruction.
4.3 The principal meets individually with teachers to discuss student academic progress.
4.4 The principal actively participates with teachers in the development of student assessments.
4.5 The principal regularly monitors classroom activities to ensure they align with the school's instructional goals.
4.6 The principal conducts regular observations of teacher instructional methods in the classroom
4.7 The principal actively participates with teachers in the review and/or selection of curricular resources.
4.8 The principal engages in discussions or conversations with teachers concerning instructional methods and how they impact students.

Results of the Cronbach alpha reliability test indicated that domain two, understanding and developing staff and domain four, focusing on the instructional program, met the reliability criterion of Cronbach alpha $> .70$ with a Cronbach alpha of .78 and .80 respectively. Domain one, establishing and communicating vision, mission and goals and domain three, developing effective organizational structures did not meet the reliability criterion yielding a Cronbach alpha of .47 and .65 respectively.

Exploratory reliability analyses were conducted to better identify the items within each domain. The reliability analyses resulted in a reconfiguration of the items into three domains and the elimination of one item that did not correlate with the components. Domain one was renamed “establishing and communicating student achievement goals” to represent a more accurate description of the related items. Since domain one contained only two items, a Pearson correlation was computed to assess the stability of the construct. The results yielded a correlation of $r = .31$, a

small but significant correlation ($p < .05$). Cronbach alpha reliability coefficients computed for the reconfigured domains yielded Cronbach alpha = .76 for domain two

Table 3 *Final Component Structure and Related Items for the PCPQ*

Core Instructional Leadership Domains
1. Establishing and communicating student achievement goals
1.1 The principal collaborates with teachers to establish clear instructional goals for student academic improvement.
1.2 The principal develops and communicates high expectations for student achievement.
2. Understanding and developing staff
2.1 The principal supports teachers' requests to attend out of school professional development activities.
2.2 The principal organizes professional development around instructional best practices.
2.3 The principal provides articles, books, and website links on best instructional practices to teachers.
2.4 The principal gives feedback on strengths and weaknesses of teacher's instructional practices orally during post-observation meetings.
2.5 The principal praises teachers publicly for their effort or performance in staff meetings, newsletter, or memos.
2.6 The principal praises teachers privately for their efforts or performance.
2.7 The principal provides instructional guidance i.e., models instructional methods by teaching model lessons, gives instructional advice.
2.8 The principal gives feedback on strengths and weaknesses of teacher's instructional practices in written evaluations.
2.9 The principal organizes professional development around teacher needs.
2.10 The principal creates structures and opportunities for teachers to collaborate.
2.11 The principal creates structures and opportunities for teachers to share ideas and new information from professional development activities.
3. Focusing on the instructional program
3.1 The principal ensures necessary instructional resources are available.
3.2 The principal reviews assessment results and other student work with teachers to adjust instruction.
3.3 The principal meets individually with teachers to discuss student academic progress.
3.4 The principal actively participates with teachers in the development of student assessments.
3.5 The principal regularly monitors classroom activities to ensure they align with the school's instructional goals.
3.6 The principal conducts regular observations of teacher instructional methods in the classroom
3.7 The principal actively participates with teachers in the review and/or selection of curricular resources.
3.8 The principal engages in discussions or conversations with teachers concerning instructional methods and how they impact students.
3.9 The principal develops policies and procedures to ensure an orderly school

environment.
3.10 The principal develops policies and procedures to protect instructional time from interruption.

(understanding and developing teachers) and Cronbach alpha = .79 for domain three (focusing on the instructional program). Table 3 presents the final component structure with its related items.

Data Collection

AdvancEd has granted permission for a booth that was set up at their annual education conference (Appendix A) through which the questionnaire was distributed. Volunteer participants were asked to complete the paper and pencil questionnaire on the spot for immediate collection. The participant consent letter, attached to the questionnaire, (Appendix B) advised participants of the voluntary nature of the survey and requested that participants not include personally identifiable information such as names or place of employment. In order to facilitate the data gathering process and to maximize the number of participants, four assistants, in addition to myself, distributed the questionnaire. The assistants were non-educators and have no affiliation with AdvancEd or any international school in Egypt. Each data gatherer used a protocol (Appendix G) upon approaching a potential participant. After each completed questionnaire, the data gatherer kept the anonymous questionnaire in a pouch that was carried with them at all times. As instructed in the protocol, data gatherers checked each completed questionnaire and blacked out any identifiable information inadvertently included by the participant using permanent marker. I collected the completed questionnaires periodically and kept them in a locked briefcase. Once data was inputted in electronic format, the completed questionnaires were stored in a locked cabinet. Data stored in electronic format is password protected and all data will be destroyed two years after the completion of the study.

As an incentive to participate, each participant who completes the questionnaire received a 25 LE gift certificate to Diwan Bookstores, a nation-wide bookstore in Egypt carrying titles and resources in a variety of languages. The 25 LE gift certificate is equivalent to approximately four dollars.

Data Analysis

Using the Statistical Package for the Social Sciences (SPSS), statistical analyses were conducted to answer each conceptual research question. Question 24 of the PCPQ asked participants to list any other principal practice they deem as helpful to their instruction. The responses were analyzed qualitatively in order to ascertain additional practices not mentioned in the PCPQ. Table 4 presents the data source for each conceptual research question and the type of statistical analysis that was conducted.

Table 4
Conceptual Research Questions, Data Source and Type of Analysis

Research Question	Data Source (Items on the PCPQ)	Statistical Analysis	
		Data meet assumptions	Data do not meet assumptions
1. Which principal practices do teachers perceive as most and least helpful?	1-23	Paired t-tests	
	24 (open-ended)	Qualitative analysis	
2. Is there a statistical difference among teachers' perceptions of principal practices that are helpful to improving instruction based on school level ?	1-23, 26	Multivariate analysis of variance (MANOVA)	Analyses of variance (ANOVA)
3. Is there a statistical difference among teachers' perceptions of principal practices that are helpful to improving instruction based on number of years of teaching?	1-23, 28	Multivariate regression analysis	Simple regression analysis
4. Is there a statistical difference among teachers' perceptions of principal practices that are helpful	1-23, 27	Multivariate analysis of variance	Analyses of variance (ANOVA)

to improving instruction based on teaching credentials?		(MANOVA)	
5. Is there a statistical difference among teachers' perceptions of principal practices that are helpful to improving instruction based on gender?	1-23, 25	Multivariate analysis of variance (MANOVA)	Analyses of variance (ANOVA)

Note. Data must meet the assumptions of homogeneity of variance to conduct multivariate of analysis and MANOVA.

Chapter 4

Results

Introduction

The purpose of this study was to examine practices employed by principals that teachers perceive to help improve their instruction in international schools in Egypt. The data collected from this study can provide international school principals with a better understanding of what teachers in an international school setting need in order to improve classroom instruction and ultimately improve student achievement. The following research questions guided this study:

1. Which principal practices do teachers perceive as most and least helpful to improving their class instruction?
2. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on school level taught (elementary, middle school, or secondary school)?
3. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on number of years of teaching experience?
4. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on the teacher's education background?
5. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on the teacher's gender?

Respondents

The target population of the study consisted of teachers teaching at an international school in Egypt. The accessible population for this study consisted of

529 teachers attending the AdvancEd education conference in Cairo, Egypt on November 14, 2015. Five research assistants distributed the surveys during the lunch break of the conference and during transition periods between workshops.

Participating teachers were asked to indicate the degree to which each principal practice on the Principal Core Practices Questionnaire (PCPQ) is perceived to help improve their teaching methods using a six point Likert type scale in the following form: (1) Strongly disagree (2) Disagree (3) Slightly Disagree (4) Slightly agree (5) Agree (6) Strongly agree.

A power analysis with a power of 80% at the 95% confidence level indicated that a sample size of 117 respondents was needed for the data results to be statistically significant (Bausell & Li, 2002). A critical effect size was determined to be .25 (Kraemer & Thiemann, 1987). A total of 128 surveys were returned. Upon reviewing the surveys, three were incomplete and two surveys were completed by principals, thereby not meeting the sample criteria of teacher respondents. Thus, data for this research were based on a total of 123 completed surveys.

Research Question 1: Which principal practices do teachers perceive as most and least helpful?

PCPQ Item Data Analysis

Table 5 presents the means and standard deviations of each principal practice from highest to lowest mean. Each principal practice yielded a mean score above 4, indicating that, to some degree, teachers agree that most of the principal practices are deemed helpful to improving their instruction. According to the data, the principal practice teachers perceived as the most helpful to improving their instruction was “develops policies to ensure an orderly environment” (M= 5.34) falling between the agree and strongly agree continuum. The principal practice teachers perceived as the

least helpful was “actively participates with teachers in the review and/or selection of curricular resources” (M=4.48) falling between the slightly agree and agree continuum.

The five principal practices deemed most helpful were “develops policies to ensure an orderly environment” (M=5.34), “supports teacher requests to attend out of school professional development activities” (M=5.30), “ensures necessary instructional resources are available” (M=5.27), “collaborates with teachers to establish clear instructional goals for student academic improvement” (M=5.25), and “organizes professional development based on teacher needs” (M=5.20). The data show that teachers rated the five highest rated principal practices between 5 (agree) and 6 (strongly agree).

The five principal practices deemed relatively least helpful were “actively participates with teachers in the development of student assessments” (M=4.54), “praises teachers privately for their efforts or performance” (M=4.53), “provides instructional guidance, e.g., models instructional methods by teaching model lessons, gives instructional advice” (M=4.42), “reviews assessment results and other student work with teachers to adjust instruction” (M=4.35) and “actively participates with teachers in the review and/or selection of curricular resources” (M=4.28). The data show that teachers rated the five lowest rated principal practices between 4 (slightly agree) and 5 (agree).

The data revealed that the two principal practices associated with curricular resources appear in both the top five practices and the bottom five practices. Teachers agree that “ensures necessary instructional resources are available” (M=5.27) is helpful but slightly agree that “actively participates with teachers in the review and/or selection of curricular resources” (M=4.28) is helpful. Results additionally revealed

that each of the two practices associated with praise also appear at the top and the bottom of practices deemed helpful. Teachers agree that “praises teachers publicly for their effort or performance” (M=5.11) is helpful and responded between slightly agree and agree that “praises teachers privately for their efforts or performance” (M=4.53) suggesting public praise is more helpful than private praise.

Table 5
Means, Standard Deviations (SD) and Sample Sizes for each Principal Practice

	N	Mean	SD
1.(FIP)* Develops policies to ensure an orderly environment	123	5.34	.87
2.(UDS)* Supports teacher requests to attend out of school professional development activities	122	5.30	.98
3.(FIP)* Ensures necessary instructional resources are available	123	5.27	.98
4.(CSAG)* Collaborates with teachers to establish instructional goals for student academic improvement	123	5.25	.94
5.(UDS)* Organizes professional development based on teacher needs	123	5.20	1.17
6.(UDS)* Praises teachers publicly for their effort or performance in staff meetings, newsletter, or memos	123	5.11	1.22
7.(UDS)* Organizes professional development around instructional best practices	123	5.05	.98
8.(UDS)* Creates opportunities to share information from professional development	123	5.01	1.22
9.(UDS)* Creates structures and opportunities for teachers to collaborate	123	4.95	1.17
10.(FIP)* Develops policies and procedures to protect instructional time from interruption	122	4.94	1.18
11.(UDS)* Gives feedback on strengths and weaknesses of teacher’s instructional practices in written evaluations	123	4.93	1.20

12.(FIP)* Engages in discussions or conversations with teachers concerning instructional methods and how they impact student learning	123	4.89	1.15
13.(FIP)* Regularly monitors classroom activities to ensure they align with the school's instructional goals	123	4.85	1.17
14.(FIP)* Meets individually with teachers to discuss student progress	123	4.82	1.29
15.(FIP)* Conducts regular observations of teacher instructional methods in the classroom	123	4.79	1.21
16.(CSAG)* Develops and communicates high expectations for student achievement	123	4.77	1.21
17.(UDS)* Gives feedback on strengths and weaknesses of teacher's instructional practices orally during post-observation meetings	122	4.57	1.44
18.(UDS)* Provides articles, books, and website links on best instructional practices to teachers	123	4.56	1.34
19.(FIP)* Actively participates with teachers in the development of student assessments	123	4.54	1.24
20.(UDS)* Praises teachers privately for their efforts or performance	122	4.53	1.53
21.(UDS)* Provides instructional guidance, e.g., models instructional methods by teaching model lessons, gives instructional advice	122	4.42	1.34
22.(FIP)* Reviews assessment results and other student work with teachers to adjust instruction	123	4.35	1.37
23.(FIP)* Actively participates with teachers in the review and/or selection of curricular resources	123	4.28	1.44

* FIP=Focusing on the instructional program, UDS=Understanding and developing staff, CSAG=Communicating student achievement goals

Table 6 presents results of paired sample t-tests to determine if there was a significant difference between the principal practices deemed most helpful and the principal practices deemed less helpful. Each of the top five principal practices were compared to the principal practice that appeared fifth from the bottom (actively participates with teachers in the development of student assessments). The results indicate that the top five practices were significantly higher than the fifth principal practice from the bottom. Given this result, it is likely that the top five principal practices are significantly higher than the other bottom four principal practices.

Table 6
Paired Sample t-Tests of Mean Differences between the Top Five Principal Practices and a Practice with a Low Ranking

		Paired Differences		t	df	p
		Mean	Std. Deviation			
Pair 1	(FIP) develops policies to ensure an orderly environment – FIP4*	.805	1.464	6.099	122	.0005
Pair 2	(UDS) supports teacher requests to attend out of school professional development activities – FIP4*	.754	1.392	5.982	121	.0005
Pair 3	(FIP) ensures necessary instructional resources are available - FIP4*	.732	1.477	5.494	122	.0005
Pair 4	(CSAG) collaborates with teachers to establish instructional goals for student academic improvement - FIP4*	.715	1.358	5.842	122	.0005
Pair 5	(UDS) organizes professional development based on teacher needs - FIP4*	.659	1.530	4.773	122	.0005

*FIP4 = actively participates with teachers in the development of student assessments

Table 7 presents results of paired sample t-tests to determine if there was a significant difference between the principal practices deemed least helpful and the principal practices deemed most helpful. A Bonferroni adjustment was computed for these tests in order to control for type 1 error. The critical value for alpha on these tests was .006.

Each of the bottom five principal practices were compared to the fifth most helpful practice, “the principal organizes professional development around teacher needs.” The results indicate that the bottom five practices were significantly lower than the fifth principal practice from the top. Given this result, it is likely that the bottom five principal practices are significantly lower than the top five principal practices.

Table 7
Paired Sample t-Tests of Mean Differences between the Bottom Five Principal Practices and a Practice with a High Ranking

		Paired Differences		t	df	p
		Mean	Std. Deviation			
Pair 1	UDS9* - (FIP) actively participates with teachers in the development of student assessments	.659	1.530	4.773	122	.0005
Pair 2	UDS9* - (UDS) praises privately	.656	1.714	4.225	121	.0005
Pair 3	UDS9* - (UDS) provides instructional guidance and modeling	.779	1.321	6.513	121	.0005
Pair 4	UDS9* - (FIP) reviews student work to adjust instruction	.846	1.409	6.657	122	.0005
Pair 5	UDS9* - (FIP) participates in selection of curricular resources	.911	1.718	5.879	122	.0005

* UDS9 = The principal organizes professional development around teacher needs.

Survey Component Analysis

A series of reliability tests previously conducted on the pilot data of this study were repeated on the final survey set of data to confirm the hypothesized components of similar items into underlying constructs. Domain one, Establishing and Communicating Student Achievement Goals (CSAG) resulted in Cronbach alpha = .46 and did not meet the criterion of .70. A Pearson correlation analysis was conducted and resulted in the two items being significantly and positively correlated ($r = .31, p < .001$). However, to be prudent, the two items in the CSAG domain were analyzed separately with each item representing a construct.

The Cronbach alpha for domain two, Understanding and Developing Staff (UDS) was .84 and the Cronbach alpha for domain three, Focusing on the Instructional Program (FIP) was .82. Both of these components reached the criterion Cronbach alpha of .70.

Table 8 presents the descriptive data for the PCPQ component scores and the scores of the two CSAG items separately. Item one of the CSAG, “the principal collaborates with teachers to establish clear instructional goals for student academic improvement” yielded the highest mean ($M=5.25$), indicating that teachers agree that this principal practice is helpful. Of the two components, the UDS component yielded a higher mean ($M=4.88$) than the FIP component ($M=4.81$). The results indicate that teachers’ response is between slightly agree and agree, but closer to agree that the items in the UDS component are helpful to their instruction. Although as a component, the FIP component yielded the lowest mean ($M=4.81$), the mean score for the FIP items, taken together is still between slightly agree and agree, but closer to agree. Item two of the CSAG component yielded the lowest mean ($M=4.77$) putting teacher responses as lightly agree to agree that this item is helpful to their instruction. The component data scores appear to align with item scores in which

items in the UDS component are predominantly the most helpful while items in the FIP component are, for the most part, deemed less helpful to teachers' instruction.

Table 8
Descriptive Statistics for the Component Scores and for the Two CSAG Item Scores

	<i>N</i>	<i>M</i>	<i>SD</i>
CSAG1*	123	5.25	.94
UDS	123	4.88	.78
FIP	123	4.81	.74
CSAG2*	123	4.77	1.21

*CSAG1 = CSAG item 1 = the principal collaborates with teachers to establish instructional goals.

*CSAG2 = CSAG item 2 = the principal develops and communicates high expectations for students achievement.

Table 9 presents results of paired sample t-tests to determine if there was a significant difference between the mean scores of the FIP and UDS components and the two items of the CSAG components. Level of significance was set at $p < .05$. The data show there was no significant difference in the way teachers perceive the helpfulness of the FIP component compared to the UDS component. The analysis also shows there was no significant difference in the way teachers perceive the helpfulness of item 2 of the CSAG component, “the principal develops and communicates high expectations for student achievement,” and the FIP component and item 2 of the CSAG component and the UDS component. However, the data show that teachers’ perception of item 1 of the CSAG component, “the principal collaborates with teachers to establish clear instructional goals for student academic improvement,” as more helpful than the FIP component is statistically significant. Moreover, the data show that teachers’ perception of item one of the CSAG component as more helpful than the UDS component is statistically significant. The

data reveal that, when compared to the other two components of principal practices, teachers perceive the collaboration between teacher and principal in establishing academic goals as more helpful to their instruction

Table 9
Paired Samples t-Tests Contrasting each Pair of Component Scores

	Components	Mean Differences	<i>t</i>	<i>df</i>	<i>p</i>
Pair 1	FIP - UDS	-.07	-1.51	122	.13
Pair 2	CSAG2-FIP	-.03	-.35	122	.727
Pair 3	CSAG2-UDS	-.10	-1.00	122	.320
Pair 4	CSAG1-FIP	.45	5.94	122	.0005
Pair 5	CSAG1-UDS	.38	5.07	122	.0005

Research Question 2: *Is there a statistical difference among teachers’ perceptions of the principal practices that are helpful to improving their instruction based on school level taught (elementary, middle school, or secondary school)?*

Table 10 presents data on the number of teachers in each school division. The majority of respondents, numbered at 55 (44.7%), teach in the 9th -12th grade division. Thirty-three respondents (26.8%) teach in the K-5th grade division. Twenty-six (21.1%) respondents teach in the 6th -8th grade division. Seven respondents (5.7%) teach in the 6th – 12th grade division and two respondents (1.6%) teach in the K-8 division. For comparison purposes and data analysis, responses regarding school division were consolidated into two divisions: K-5 (elementary grades) and 6-12 (middle/high school grades), discarding the two K-8 responses (see Table 11). The majority of respondents numbered at 88 (71.5%) were teachers in the middle/high school division while elementary school teachers, numbered at 33, comprised 26.8% of the respondents.

Table 10

Frequency and Percent of Teachers in Each School Division

School Division	Frequency	Percent
9-12	55	44.7
K-5	33	26.8
6-8	26	21.1
6-12	7	5.7
K-8	2	1.6
Total	123	100.0

Table 11

Frequency and Percent of Teachers for School Level

		Frequency	Percent	Valid Percent
Valid	Elementary	33	26.8	27.3
	Middle and High School	88	71.5	72.7
	Total	121	98.4	100.0
Missing	System	2	1.6	
Total		123	100.0	

In order to see if there was a difference in the way elementary teachers and middle/high school teachers perceived effective principal practices, a multivariate analysis of variance (MANOVA) was conducted. Prior to conducting the MANOVA, a series of analyses were conducted to ensure the data met assumptions that warranted MANOVA testing. First, a Box's *M* test showed that the variability of scores was similar for the two divisions (Box's $M = 10.25, p = .13$). Next, Bartlett's test of sphericity tested whether the outcome variables (the mean component scores) contained a strong enough correlation to be considered as multiple aspects of a single underlying construct. The results showed that the outcome variables were well-correlated (Bartlett's test of sphericity = .00, $cp < .0005$). However, after conducting the MANOVA, results reveal that there were no significant differences between

elementary and middle/high school teachers in terms of principal practices they perceived as helpful (Pillai's Trace = .034, $p = .25$).

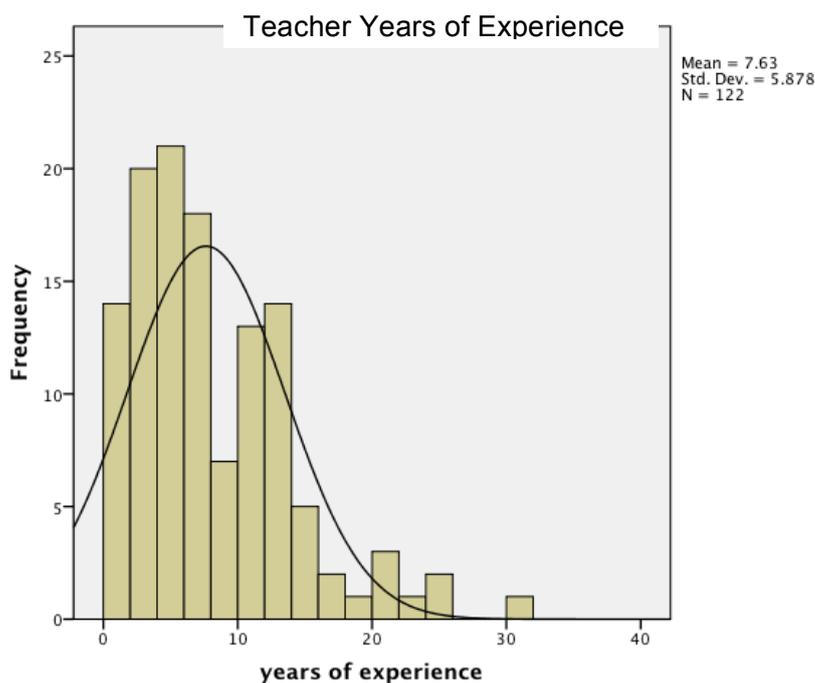
Research Question 3: *Is there a statistical difference among teachers' perceptions of principal practices that are helpful to improving instruction based on number of years of teaching?*

The average number of years of teaching experience was 7.63 with a standard deviation of 5.9 and a minimum of one year experience and a maximum of 30 years experience (see Table 12). The distribution of this data indicates that years of experience is positively skewed (see figure 1).

Table 12
Mean, Standard Deviation (SD), Minimum Value, and Maximum Value for Years of Experience

<i>N</i>		<i>M</i>	<i>SD</i>	Minimum	Maximum
Valid	Missing				
122	1	7.63	5.878	1	30

Figure 1



Data were tested to see whether they met the assumptions for a multivariate test (MANOVA) using Bartlett’s test of sphericity, which produced a chi-square of 162.99 ($df = 5, p < .0005$). This corroborated a strong enough correlation among the outcome variables (the component scores) to vindicate a multivariate test. However, the multivariate test produced results that were not significant as it presented a Pillai’s Trace value of .062 ($p < .06$). The data indicates that the difference in teacher responses of helpful principal practices is not statistically significant with regards to the number of years of teaching experience.

Research Question 4: *Is there a statistical difference among teachers’ perceptions of principal practices that are helpful to improving instruction based on education background?*

Table 13

Frequency and Percent of Teachers in Each Educational Category

	Frequency	Percent	Valid Percent
BA Ed	52	42.3	42.6
BA NonEd	32	26.0	26.2
Grad degree Ed	23	18.7	18.9
Valid Grad degree NonEd	15	12.2	12.3
Total	122	99.2	100.0
Missing	1	.8	
Total	123	100.0	

Table 13 summarizes demographic data for respondents’ educational credentials. Although some international schools in Egypt require teachers to have a degree in education, it is not a requirement in most international schools. Most respondents (42.6%) had a bachelor’s degree in education while 26.2% of respondents had a bachelor’s degree in an area other than education. Of the respondents with a

graduate degree, 18.9% specialized in education while 12.3% of respondents had a graduate degree in an area other than education. There was one survey with missing data on education, but no teacher reported he or she did not have a college degree.

Prior to conducting a MANOVA to determine if there was a significance in teachers' perceptions of the helpfulness of principal practices based on teacher credentials, a series of analyses were conducted to determine if data met assumptions of a MANOVA. Box's M was 44.22 ($p =$ not significant [ns]) yielding a result of equal covariance. Results of Bartlett's test of sphericity (chi-square [9] = 209.88, $p < .0005$) showed that the component scores were well-correlated. However, the results of the multivariate test yielded a Pillai's Trace of .09 ($p < .57$). The multivariate test data show that there is no significant difference for teachers' perceptions of the helpfulness of principal practices based on teacher credentials.

Research Question 5: *Is there a statistical difference among teachers' perceptions of principal practices that are helpful to improving instruction based on gender?*

Table 14 presents demographic data on respondents' gender. The data show that 86 (69.9%) of the respondents were female, making up the majority of respondents, and 37 (30.1%) of the respondents were male. The majority of attendees at the conference were also female with 422 (79.7%). Male attendees numbered at 107 comprising 25.3% of attendees.

Table 14
Frequency and Percent of Males and Females

	Frequency	Percent
F	86	69.9
M	37	30.1
Total	123	100.0

Prior to conducting a multivariate analysis of variance to determine if there was a significance in teachers' perceptions of the helpfulness of principal practices based on gender, a series of analyses were conducted to determine if data met assumptions of a MANOVA. Box's M was = 11.57, ($p < .09$) yielding a result of equal covariance. Results of Bartlett's test of sphericity yielded a chi-square of 171.92, $df = 5$, ($p < .0005$) indicating that the component scores were well-correlated. However, the results of the multivariate test yielded a Pillai's Trace of .005, ($p = .895$). The multivariate test data show that there is no significance on teachers' perceptions of the helpfulness of principal practices based on the gender of teachers.

Qualitative Analysis

Question 24 of the PCPQ asked participants to list any other principal practice that they deem helpful to improving their instruction. A research assistant with a psychology and education background was recruited to assist in analyzing the open-ended responses. The goal was to search for and come to an agreement on recurring and overarching themes (Merriam, S.B., 2014; Saldana, Leavy & Beretvas, 2011). A total of 32 participants (26%) completed the open-ended question. The research assistant and I first read through each response separately and coded them for emerging themes. When we compared the coding results, the research assistant and I independently came up with 11 themes, four of which were exactly the same. We discussed similarly worded themes and upon reviewing the data a second time, came to an agreement on unifying the phrasing of the themes. For example, we each noted "supportive working environment" and "stress-free working environment." We both agreed to rename the theme "positive working environment." We reviewed the data a third time to come to a 100% agreement on the emerging themes. After an in-depth discussion, we reviewed the data again and agreed on a summative count of the

number of responses mentioning each theme (L. Roberts, personal correspondence, January 25, 2016). Table 15 presents the final list of emerging themes and their frequency.

Table 15
Emerging Themes and Frequency of Responses

Theme	Frequency	%
Foster Positive Working Environment	13	30.9
Organize Professional Development	7	16.6
Provide Encouragement and Motivation	6	14.2
Involve Teachers in Decision-making Process	4	9.5
Provide Resources and Tools	4	9.5
Establish Discipline System	2	4.7
Implement Innovative Practices	2	4.7
Remain Present and Available	2	4.7
Provide Teacher Autonomy	2	4.7
Total	42	

According to the data, the most frequently mentioned theme was “foster positive working environment.” Examples of phrases categorized under this theme were “create a stress-free environment,” “enhance teamwork spirit,” and “create a friendly atmosphere for the staff members.” Teachers duplicated and further noted themes that were included in the PCPQ such as “organize professional development,” “provide encouragement and motivation,” “provide resources and tools,” and “establish a discipline system.” Most of the themes appear to align with the components of the PCPQ. For example, the top three most frequently mentioned themes fall under the Understanding and Developing Staff (UDS) component. The themes of “provide resources and tools,” “establish discipline system” and “implement innovative practices” fall under the Focusing and the Instructional Program (FIP) component. Additional themes not mentioned in the PCPQ that

teachers noted were “involve teachers in the decision-making process,” “remain present and available,” and “grant teacher autonomy.”

Summary of Results

In summary, the results indicated that the five most helpful principal practices as perceived by teachers were “develops policies to ensure an orderly environment,” “supports teacher requests to attend out of school professional development activities,” “ensures necessary instructional resources are available,” “collaborates with teachers to establish clear instructional goals for student academic improvement,” and “organizes professional development based on teacher needs.” The practices that teachers rated less helpful were “actively participates with teachers in the development of student assessments,” “praises teachers privately for their efforts or performance,” “provides instructional guidance, e.g., models instructional methods by teaching model lessons, gives instructional advice,” “reviews assessment results and other student work with teachers to adjust instruction,” and “actively participates with teachers in the review and/or selection of curricular resources.” Results of the paired t-tests showed a significant difference between the top five practices and the bottom five practices teachers deemed helpful to improving their instruction.

When grouped items were examined in components, the data show there was no significant difference in the way teachers perceive the helpfulness of the FIP component compared to the UDS component. The analysis also shows there was no significant difference in the way teachers perceive the helpfulness of item two of the CSAG component, “the principal develops and communicates high expectations for student achievement,” and the FIP component and item two of the CSAG component and the UDS component. However, the data show that teachers’ perception of item

one of the CSAG component, “the principal collaborates with teachers to establish clear instructional goals for student academic improvement,” as more helpful than the FIP component is statistically significant. Moreover, the data show that teachers’ perception of item one of the CSAG component as more helpful than the UDS component is statistically significant.

Data results indicated no statistical significance in teachers’ perceptions of the helpfulness of principal practices based on grade level taught, teacher education background , number of years of experience, and gender. Therefore, according to the data of this study, the grade level at which a teacher teaches, the teacher’s educational background, the teacher’s number of years of experience, and the teacher’s gender are not predictors of teachers’ perceptions of the helpfulness of effective principal practices.

Chapter 5

Discussion and Conclusions

Introduction

The focus of this study was to examine the core practices of principals that teachers perceive to be helpful in improving their instruction. This chapter presents a brief overview of the study including the purpose of the study, the research questions that guided the study, and the methodology. What follows are a summary and discussion of key findings, recommendations for practice and further research, and conclusions.

Purpose of the Study

Principals, through their enactment of effective core practices, can indirectly affect student achievement (Hallinger & Heck, 1998; Leithwood et al., 2004; Waters et al., 2003; Witziers et al., 2003). Consequently, principals engage in effective core practices within the framework of the school organization grounded in a close working environment with teachers. This places principals in a prime position to influence teacher instructional practices, which can lead to student achievement. This study examined practices employed by principals that teachers perceive as useful in improving their instruction in international schools in Egypt. This study gave teachers the opportunity to voice what they believe will best help them become better teachers. Although numerous studies have been conducted exploring the relationship between leadership practices and classroom instruction, limited studies exist that afford the teacher the opportunity to opine about the leadership practices he or she perceive as helpful. A better understanding of the principal practices that teachers deem helpful can guide principal efforts in improving teacher instructional practices.

Research Questions

The following research questions guided this study:

1. Which principal practices do teachers perceive as most and least helpful to improving their class instruction?
2. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on school level taught (elementary, middle school, or secondary school)?
3. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on number of years of teaching experience?
4. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on the teacher's education background?
5. Is there a statistical difference among teachers' perceptions of the principal practices that are helpful to improving their instruction based on the teacher's gender?

Methodology

Using a quantitative survey method approach, the Principal Core Practices Questionnaire (PCPQ) was the survey instrument developed for the purposes of this study. The items contained in the PCPQ were based on a review of the literature of effective principal practices and drew heavily from Hallinger and Murphy's (1985) Principal Instructional Management Rating Scale. Respondents of the survey, teachers working in international schools in Egypt who attended the AdvancEd education conference, were asked to indicate the degree to which each principal practice was perceived to help improve their instruction. The last question of the survey was open-ended, asking respondents to list other principal practices they deem helpful to improving their instruction. Results of the survey were calculated and

analyzed using descriptive and inferential statistics. The open-ended responses were analyzed by detecting dominant themes in respondents' answers.

Key Findings

Data results indicated that overall, respondents perceived all of the principal core practices as having some level of helpfulness to improving teacher instruction. Mean data show all of the core practices were rated between slightly agree and strongly agree. The results support the research cited in the literature review identifying a common set of core principal practices employed by principals that indirectly impact student achievement and create more effective schools (Leithwood & Riehl, 2005; Leithwood et al., 2010; Marzano et al., 2005; Robinson et al., 2008). Marzano et al.'s research, which focused on U.S. public schools, identified 21 leadership practices for effective schools. They contend that all 21 practices are important and list the practices alphabetically and not by importance. Similar to Marzano et al.'s belief that all the principal practices are important and necessary for effective schools, this study confirms that teachers working in international schools in Egypt also perceive all the principal practices identified as helpful to their instruction.

The principal practice perceived to be the most helpful to improving instruction, according to the results of this study, was "develops policies to ensure an orderly environment." In Marzano et al.'s (2005) meta-analysis, this principal practice is listed under "order" in the list of effective school leadership behaviors. They define order as "the extent to which the leader establishes a set of standard operating principles and routines" (p. 57). Marzano et al. state that establishing order involves developing and reinforcing clear routines, rules, and procedures for both students and staff. Additionally, Leithwood and Riehl (2005) maintain that developing organizational structures that include managing time and resources and

developing routines and procedures are crucial to the establishment of positive learning and teaching environments. This result showed that teachers are cognizant of the importance of creating this type of environment. However, this finding is different from two other similar studies conducted by Blase and Blase (1999) and Louis et al. (2010). Findings of Blase and Blase's qualitative study identified two prominent themes that teachers perceive to influence their instruction: principals talking to teachers to promote reflection and promoting professional growth. In Louis et al.'s qualitative study, the highest percentage of teachers identified the principal practice of "keeping track of teachers' professional development needs" as the specific behavior that was helpful to improving their instruction. One explanation to this disparity in results may be that although principals utilize a common set of core practices, the way in which they are used or needed is dependent upon contextual factors unique to each school setting.

When the principal practices were ranked by mean scores from highest to lowest, results of this study indicated a significant difference between the top five ranked principal practices and the bottom five ranked principal practices. The top five principal practices deemed helpful by teachers were: 1) develops policies and procedures to ensure an orderly environment 2) supports teacher requests to attend out of school professional development activities 3) ensures necessary instructional resources are available 4) collaborates with teachers to establish instructional goals for student academic improvement 5) organizes professional development based on teacher needs. An interesting finding here is that both practices regarding professional development appear in the top five practices. A similar finding emerged in the open ended question of this study that asked respondents to list other principal practices they deem helpful to improving their instruction. The second most

frequently mentioned theme was “organizes professional development.” Although two items on the PCPQ corresponded with professional development practices, respondents seemed to feel the need to further mention professional development practices in the open-ended response question. The importance of principals creating the opportunities for professional development is supported by both studies of Blase and Blase (1999) and Louis et al. (2010). “Promoting professional growth” was one of two major themes that emerged in the study conducted by Blase and Blase. Furthermore, an overwhelming majority of teachers (84%) in Louis et al.’s study identified “keeping track of teachers’ professional development needs” as helpful in improving teachers’ instruction.

Another key finding of this study was teachers’ perception of the helpfulness of the practice “collaborates with teachers to establish instructional goals for student academic improvement.” This item was ranked in the top five practices as well as being statistically significant as more helpful than items grouped in the components of Focus on the Instructional Program (FIP) and Understanding and Developing Staff (UDS). This item incorporates two constructs, collaboration and establishing instructional goals. It is also noteworthy that involving teachers in the decision-making process was the fourth top ranking theme to emerge from the open-ended question of this study. This finding suggests that teachers in the sample value collaboration when making decisions about academic goals. This finding is supported by the work of Robinson et al. (2008) where they state that “effective leaders do not get the relationships right and then tackle the educational challenges—they incorporate both sets of constraints into their problem solving” (p. 658). Effective principals weave positive relationships in the form of collaboration and goal setting at the same time. This practice is in line with the 21 effective principal practices from Marzano et

al.'s (2005) research where they describe the practice of "input" as "the extent to which the school leader involves teachers in the design and implementation of important decisions and policies" (p. 52). This finding is also supported by the research of Loius et al. (2005). Although Louis et al.'s research separate this item into two constructs, nevertheless, their study found 66.7% of teachers identified "creating structures and opportunities for teachers to collaborate" and "focusing the school on goals and expectations for student achievement" as helpful practices to improving their instruction.

Although the practice of praising teachers publicly ranked as the sixth most helpful practice in this study, the third most popular theme in the open-ended response was "provide encouragement and motivation." Praising and motivating teachers is an effective practice supported by the literature. Blase and Blase's (1999) study found that giving praise emerged as a sub-theme in their study of helpful principal practices. They found that praise positively affected teacher motivation and promoted more teacher reflections on their instructional practices. Although Marzano et al. (2005) note the rarity of recognizing or rewarding teachers in schools, they identify this practice as one of the 21 effective practices of leadership and underscore its importance by stating that recognizing the individual achievements of teachers promotes and encourages better teacher performance. Interestingly, this study found that teachers rated public praise as more helpful than private praise. Although little research has been found on public versus private praise, the recognition among ones peers may be a strong motivational factor for teachers' instructional improvement.

Although numerous studies support characteristic variables such as teacher gender, experience, and education and their effect on student achievement, the results of this study indicated no significant difference in teachers' perceptions of the

helpfulness of principal practices based on teachers' education background, number of years of experience, and teachers' gender. This finding suggests that teachers, despite differing characteristic variables, tend to rate the helpfulness of principal practices the same. This study also found no significant difference in teachers' perceptions of the helpfulness of principal practices based on grade level assignment (elementary vs. secondary). A similar study conducted by Louis et al. (2010), with public school teachers in the United States, found more variation in teacher responses regarding the variable of grade level assignment. They found that, 30% of middle school teachers and 30% of high school identified the practice of "monitoring teachers' classroom work," as important while 54.5% of elementary school teachers found this practice to be helpful. However, Louis et al. found less variation in the principal practice of "creating structures and opportunities for teachers to collaborate" where 78.3% of high school teachers, 70% of middle school teachers, and 63.6% of elementary school teachers identified this practice as helpful. They also found less variation in the principal practice of "allowing teachers flexibility regarding classroom instruction" where 55% of middle school teachers, 43.8% of high school teachers, and 40.9% of elementary school teachers identified this practice as helpful.

The findings of this study refute the intuitive notion that teachers may need differing support from their principals depending on their characteristic variables. This result may be due to the fact that most international schools in Egypt operate as one K-12 entity, typically in the same facility, and their policies may not differ much across school levels.

Another key finding of this study is participants' response to the open-ended item asking them to list any other principal practice deemed helpful to improving their instruction. The most prominent theme that emerged was "foster positive working

environment.” Some of the specific items grouped under this theme was “creating a stress-free environment,” “providing fun programs for students,” “creating a friendly atmosphere,” “cheerful spirit,” and “asking about teachers’ progress and solving their problems.” Although this category of practice is broad and encompasses an array of specific practices, it emphasizes the importance teachers place on working in a friendly, positive environment outside of the confines of their classrooms.

Teacher perceptions of the helpfulness of the concept of creating a positive working environment is supported by numerous studies. For example, both Liethwood et al. (2005) and Leithwood et al., (2008) state that one of the ways education leaders support teachers is by being sensitive to their personal feelings and needs. Teacher morale, motivation, and optimism are influenced by principals who are cognizant of improving working conditions. This finding also supports leadership research, which shows that employees’ frustration is decreased while their sense of enthusiasm and sense of mission is increased when leaders are responsive to both their personal and professional needs (McColl-Kennedy & Anderson, 2002).

Limitations of the Study

This study contains limitations which are important to acknowledge. First, the sample for this study was a unique group. The respondents of the survey were teachers in international schools in Egypt who chose to attend an educational conference. Teachers who go to conferences tend to be more reflective and more interested in growth and development than teachers who choose not to attend. Another unique aspect of the respondent group is that these teachers chose to participate in the survey. People who choose to stop and participate in a study are willing to offer information with the intention of furthering the knowledge of the teaching profession. Therefore, the sample for this study is limited in its

representation of international school teachers in Egypt and therefore, the generalizability of this study's findings to a broader population of international school teachers in Egypt is limited.

Second, the survey instrument was specifically designed for this study and may not have adequately addressed the intended concepts to measure. It was designed to be concise and to consume as little time to fill out as possible. The findings of this study showed little discrimination in how teachers perceived the helpfulness of the core principal practices. The items on the survey may have provided limited or missing core principal practices that teachers may deem as helpful. Moreover, during the pilot study of the survey instrument, respondents confused the directions of the survey and initially answered the survey based on their current principal's behavior rather than on the perceived principal practice. This confusion in interpreting the directions of the survey may have transferred to the respondent group used for this study.

Recommendations for Practice

The results of this study have implications for school principals and organizations seeking guidance on how to better support teachers in international schools in Egypt and possibly in other international schools within similar cultures. First, given the magnitude of the principal's responsibilities, the data from this study suggest principals focus their efforts on the top five practices teachers deemed helpful; 1) develops policies and procedures to ensure an orderly environment 2) supports teacher requests to attend out of school professional development activities 3) ensures necessary instructional resources are available 4) collaborates with teachers to establish instructional goals for student academic improvement 5) organizes professional development based on teacher needs.

Second, principals can focus their attention on meeting the emotional needs of the teachers. The concept of socio-emotional leadership argues that leaders must possess the ability to empathize and consider the emotions of their employees (Humphrey, 2002). Meeting the needs of employees through socio-emotional leadership traits creates positive relationships and fosters a more positive working environment. This theme encompasses many specific practices that this study determined to be helpful to improving teacher instruction. Collaborating with teachers, offering praise, and developing the professional needs of teachers are all practices that foster positive working environments and feed the emotional and professional needs of teachers. Principals can collaborate with teachers on school-related issues, namely school achievement goals. Including teachers in the decision-making process makes teachers feel valued. Furthermore, the principal can foster a positive working environment by praising and celebrating both the personal and professional achievements of teachers. Again, feeding the emotional needs of teachers gives them a sense of worth bolstering their motivation.

Third, another practice on which principals can focus is meeting the professional needs of teachers through professional development. Two aspects of this practice were deemed the top five most helpful practices to teachers. Tending to the professional development of staff sends a message to teachers that principals care for their professional growth bridging the personal and professional relationship that is important to fostering a positive working environment.

Fourth, findings from this study may be helpful to higher institutions of learning seeking to enhance principal preparation programs. It is recommended that principal preparation programs highlight components of this study and incorporate the findings into the curriculum to prepare aspiring principals for working in international

schools.

Recommendations for Further Study

The results of this research study offer guidance on how to best direct principal efforts in utilizing effective core principal practices to maximize their influence on improving teacher instruction. However, this study also uncovers other related areas for further study. The following are suggestions for further lines of inquiry for researchers who wish to explore similar themes:

1) Research exploring the specific practices of principals and how these practices directly influence teacher instruction is limited (Louis et al., 2010). Replicating this study using a broader sample population can be conducted to reveal more definitive results regarding the significance of characteristic variables and teacher perceptions of the helpfulness of core principal practices. For example, the overwhelming majority of respondents of this study were middle/high school teachers. Replicating this study with a population that has a more even distribution of grade level assignments may yield new insight into whether this variable is significant in the way teachers perceive the helpfulness of principal practices. Furthermore, the sample of this study was limited to teachers who attended the education conference, which in and of itself, makes this particular group of teachers unique. Replicating this study using a broader teacher base of international teachers, whether in Egypt or in other countries, enables the results to be more generalizable to a broader population of international school teachers.

2) Socio-emotional leadership emerged as an important theme in this study. Humphrey (2002) argues that managing the emotions of employees is an important leadership trait and can influence productivity. Further exploring the importance of

this leadership trait to teachers, and how it ties into the core effective principal practices, can provide a rich source of information for principals.

3) Exploring the characteristic variable of culture and how it relates to teacher perceptions of the helpfulness of core principal practices is an interesting line of inquiry, especially for international school principals. Does the cultural background of the teacher affect the way he or she perceives the helpfulness of the core principal practices? International schools employ a diverse population of teachers bringing in diverse sets of beliefs and values. In Egypt especially, international schools tend to employ a sizeable amount of host national teachers. Comparing the perceptions of host national teachers and expat teachers regarding the helpfulness of principal practices can further guide principal efforts in positively influencing teacher instruction

4) This study provides some base line data on a sub-population of international school teachers in Egypt. It is recommended that a case study of schools be conducted to further explore the influences of the core principal practices deemed helpful to teachers. Case studies provide an effective method of learning because this method allows for the gathering of context-dependent knowledge and experiences (Flyvbjerg, 2006). A case study exploring how the core principal practices specifically influence teachers can give principals better insight in the application of the core practices in context specific situations.

5) The survey instrument used was designed specifically for this study. Although every effort was made to include core principal practices identified by the literature as effective, the survey may have not been adequate in including all the pertinent practices. It is recommended that the survey instrument be refined and improved to reliably measure teacher perceptions of the helpfulness of principal

practices. Such an instrument can be an invaluable tool in measuring the perceptions of teachers and furthering the knowledge of effective principal practices.

Conclusion

Principals have a significant albeit indirect impact on student achievement (Hallinger, 2011; Leithwood et al., 2010; Loius et al., 2010; May et al., 2012) and through effective principal practices, are in a position to influence teacher instruction (Glanz et al., 2007; Louis et al., 2010). The literature on education leadership has identified a set of core effective principal practices through which principals operate to create more effective schools. This study sought to ascertain the principal practices teachers deemed most helpful to improving their instruction. The findings of this shed light how principals can guide and support teachers, from the teachers' perspective. The results of this study indicated that, for the most part, teachers perceived all of the core principal practices to be helpful to improving their instruction. This finding is consistent with the literature which does not place an emphasis on one principal practice over another but states that all the practices are important and necessary. This finding is important because it underscores the importance of having a vast repertoire of practices for principals to utilize in order to be able to help and support teachers.

Although all core practices were deemed helpful by the respondents of this study, teachers deemed "develops policies to ensure an orderly environment" as the most helpful. This finding confirms that principals' ability to develop policies and procedures that allow the smooth running of the school is a helpful practice to teachers.

This study also found that teachers rated the helpfulness of the core principal practices the same way across characteristic variable of grade level assignment,

number of years of experience, education background, and gender. According to this finding, teachers need the same level of support regardless of their characteristic variables. This research further highlights the vast and intricate role of the principal. The principal must find a delicate balance in how to apply all the principal practices in each unique context to effect change and help support teachers.

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APPENDIX A
PERMISSION FOR CONDUCTING SURVEY AT ADVANC-ED CONFERENCE

On Mar 25, 2015, at 3:16 PM, Sherif El Taweel <staweel@advanc-ed.org> wrote:
Hi,

Of course she can have a table on our conference. Cost is \$500 but I am sure we can work something out to reduce that. I think the conference is her best chance because it is usually attended by about 550 educators mostly are teachers. Any other approach will be individual schools and will be hard to diversify.

Thanks,

Sherif

Sent from iPad

On Mar 25, 2015, at 2:11 PM, Stacie Rissmann-Joyce <drjstacie@hotmail.com> wrote:

Hi,

Nermeen Salem is working on her Ed.D. I am on her dissertation committee. Her research study population must be narrowed not only to international schools, but ones with a commonality. Here's the question:

Can she distribute her survey to teachers (not administrators) during the fall conference 2015? Could she have a table/booth to do so? The common factor she will use is that all respondents are working in an international school accredited by Advanc-Ed. Is there a cost for the table? What else should we know? Would you like a copy of the survey instrument?

There should not be a conflict of interest to the conference and all respondents' answers are confidential and no specific school will be identified.

Thoughts?????? You can email Nora with your response and/or questions.

See you soon!

Dr. Stacie

APPENDIX B
RESPONDENT CONSENT LETTER AND PCPQ



CONSENT FORM

Teachers' Perceptions of Effective Principal Practices in International Schools in Egypt

You are invited to be in a research study exploring effective ways principals can improve teacher instruction. As a teacher, you are in a position to provide valuable information on this topic. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Nermeen Salem, under the direction of Dr. George White, Graduate Education Department, Lehigh University.

Background Information

The purpose of this study is to ascertain the instructional practices employed by principals that teachers perceive to help improve their instruction in international schools in Egypt. The role of the principal is wide-ranging and the information gathered from this study aims to direct principal efforts to better help teachers improve their instructional practices.

Procedures

If you agree to be in this study, we would ask you to do the following things:

- Please do not write your name or school affiliation anywhere on the questionnaire
- Please read the directions on the questionnaire carefully
- Please read each statement of the questionnaire carefully and indicate to what extent you agree or disagree the indicated principal practices would help you in improving your teaching practices.
- Please submit the completed questionnaire to the person who distributed it to you.

Risks and Benefits of being in the Study

The risk of participating in this study is that you may be rushed to get to your next session and the questionnaire may induce some stress.

Although you will not benefit directly from participating, your knowledge and experience will contribute to a growing knowledge base on how we can improve education in Egypt.

Compensation

In appreciation of your valuable time, you will receive a 25LE voucher to Diwan Bookstore upon completion of the questionnaire.

Confidentiality

The records of this study will be kept confidential and any information collected through this research project that personally identifies you will not be voluntarily released or disclosed without your separate consent, except as specifically required by law. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records.

Voluntary Nature of the Study

Participation in this study is voluntary. If you decide to participate, you are free to not answer any question or withdraw at any time. Your discontinuation or refusal to participate will not jeopardize your relationship with Lehigh or any relevant institution(s).

Contacts and Questions

The researcher conducting this study is:

Nermeen Salem. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at 1 917 9933278 or email at norasalem10@gmail.com. You may also contact her advisor, Dr. George White at 1 610-758-3262 or email at gpw1@lehigh.edu.

Questions or Concerns:

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact Naomi Coll of Lehigh University's Office of Research Integrity at 1 (610) 758-3021 or inors@lehigh.edu. All reports or correspondence will be kept confidential.

You will be given a copy of this information to keep for your records.

Statement of Consent

I have read the above information. I have had the opportunity to ask questions and have my questions answered. I consent to participate in the study.

Signature: _____ Date: _____

Signature of Investigator: _____ Date: _____

PRINCIPAL CORE PRACTICES QUESTIONNAIRE

Directions: The following items list practices and behaviors of school principals. Please read each statement carefully and indicate to what extent do you agree or disagree the following practices would help you in improving your teaching practices. **This questionnaire is not intended to evaluate your principal but rather to evaluate the practice itself.** Please circle your response.

I believe my teaching practices would improve when...						
1. the principal collaborates with teachers to establish clear instructional goals for student academic improvement.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
2. the principal actively participates with teachers in the development of student assessments.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
3. the principal develops policies and procedures to ensure an orderly school environment.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
4. the principal conducts regular observations of teacher instructional methods in the classroom.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
5. the principal creates structures and opportunities for teachers to collaborate.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
6. the principal develops and communicates high expectations for student achievement.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
7. the principal actively participates with teachers in the review and/or selection of curricular resources.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
8. the principal meets individually with teachers to discuss student academic progress.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
9. the principal engages in discussions or conversations with teachers concerning instructional methods and how they impact student learning.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6

10. the principal ensures necessary instructional resources are available.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
11. the principal gives feedback on strengths and weaknesses of teacher's instructional practices orally during post-observation meetings.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
12. the principal organizes professional development based on teacher needs.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
13. the principal develops policies and procedures to protect instructional time from interruption.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
14. the principal organizes professional development around instructional best practices.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
15. the principal gives feedback on strengths and weaknesses of teacher's instructional practices in written evaluations.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
16. the principal praises teachers privately for their efforts or performance.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
17. the principal reviews assessment results and other student work with teachers to adjust instruction.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
18. the principal provides articles, books, and website links on best instructional practices to teachers.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
19. the principal provides instructional guidance, e.g., models instructional methods by teaching model lessons, gives instructional advice.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
20. the principal creates structures and opportunities for teachers to share ideas and new information from professional development activities.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
21. the principal regularly monitors classroom activities to ensure they align with the school's instructional goals.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6

22. the principal praises teachers publicly for their effort or performance in staff meetings, newsletter, or memos.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
23. the principal supports teachers' requests to attend out of school professional development activities.	Strongly disagree 1	Disagree 2	Slightly disagree 3	Slightly agree 4	Agree 5	Strongly agree 6
24. List any other principal practices that you deem to be helpful in improving your instruction.						

Please provide the following information by checking the response that applies.	
25. Gender	Male _____ Female _____
26. Division currently teaching	Grades K-5 _____ Grades 6-8 _____ Grades 9-12 _____
27. Degree earned	Bachelors (education major) _____ Bachelors (non-education major) _____ Masters (education major) _____ Masters (non-education major) _____ Doctorate (education major) _____ Doctorate (non-education major) _____
28. Please indicate the number of years you have been teaching. _____	

APPENDIX C
CONSENT LETTER FOR EXPERT PANEL OF PROFESSORS



Dear Participants,

I am a doctoral student at Lehigh University working with my academic advisor Dr. George White to develop an instrument to measure teachers' perceptions of principal practices that help them improve their instruction. As a professor in the graduate school of education, you are in a position to provide valuable information on this topic. I am seeking your help in reviewing and finalizing the proposed questionnaire that will be distributed to teachers. As part of the expert panel, you are asked to review the proposed questionnaire for clarity and relevancy. If you agree to participate in this study you will review the proposed survey and provide feedback on clarity and relevancy of the questions and any additional feedback you deem pertinent.

You may benefit from your participation in the design of the instrument by expanding your research interests and having access to the research review that was used as the basis for the instrument design. Additionally, your knowledge and expertise will contribute to a growing knowledge base on improving education in Egypt.

Your participation is completely voluntary. The records of this pilot study will be kept confidential and the data will be used solely to determine the relevancy and clarity of the items on the proposed questionnaire. You are free to withdraw your participation at any time.

Your informed consent is implied if you choose to complete the feedback form. I thank you in advance for providing your much-needed feedback. If you have any questions I could be reached at norasalem10@gmail.com. My supervising professor can be reached at gpw1@lehigh.edu. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact Naomi Coll of Lehigh University's Office of Research Integrity at (610) 758-3021 or inors@lehigh.edu. All reports or correspondence will be kept confidential.

Sincerely,
Nermeen Salem

Appendix D
Feedback Form for Expert Panel of Professors

Please review the attached Principal Core Practices Questionnaire (PCPQ) and provide the following feedback.

1. Does the format of the questionnaire make it easy for participants to understand? Please indicate any improvements that need to be made to the format to improve clarity and further the understanding of the participants.

2. Are there any items of the questionnaire that are not relevant or applicable? Are there any items that should be added?

3. Are the items on the questionnaire clear and easy to interpret? Please indicate any improvements that need to be made in syntax, grammar, or word choice of items.

4. Please indicate any other areas of improvement for the questionnaire.

Thank you.

APPENDIX E
PILOT STUDY PARTICIPANT CONSENT LETTER



Dear Participants,

I am a doctoral student at Lehigh University conducting a study exploring effective ways principals can improve teacher instruction. As a teacher in international schools, you are in a position to provide valuable information on this topic. I am seeking your help in reviewing the proposed questionnaire that will be distributed to teachers. The questionnaire is intended to measure teachers' perceptions of core principal practices that help them improve their instruction. Although you will not benefit directly from participating, your knowledge and expertise will contribute to a growing knowledge base on improving education in Egypt.

Your participation is completely voluntary. The records of this pilot study will be kept confidential and the data will be used solely to determine the clarity of the items and the directions on the proposed questionnaire. You are free to withdraw your participation at any time.

Your informed consent is implied if you choose to complete the questionnaire. I thank you in advance for providing your much-needed feedback. If you have any questions I could be reached at norasalem10@gmail.com. My supervising professor can be reached at gpw1@lehigh.edu. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact Naomi Coll of Lehigh University's Office of Research Integrity at (610) 758-3021 or inors@lehigh.edu. All reports or correspondence will be kept confidential.

Sincerely,
Nermeen Salem

APPENDIX F

PCPQ Pilot Study Interview Questions

1. Do you think the directions for the survey are clear? Are there any improvements that may make the directions more clear.
2. Is the wording of any of the items unclear?
3. How much time was spent on completing the questionnaire?
Do you think the questionnaire takes too long? If so, how can the time it takes be decreased?

APPENDIX G
Data Gatherer Protocol

Upon approaching a potential participant, ask:

- 1) Are you currently a teacher in an international school in Egypt? If yes, then ask:
- 2) Have you completed this survey before? If no, then say:

Would you like to participate in completing this questionnaire? Your participation is completely voluntary. All responses are intended to be anonymous so please do not write your name nor identify your school on the questionnaire. All responses will be kept confidential and you can withdraw your participation at any time by simply discarding the questionnaire.

In appreciation of your valuable time, you will receive a 25LE pound voucher to Diwan Bookstores.

- 3) Check all completed questionnaires and black out any identifiable information inadvertently added by the participant.