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Teacher Leadership in the Context of International Schools: The Key Attributes and Development of Teacher Leaders

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Teacher Leadership in the Context of International Schools:
The Key Attributes and Development of Teacher Leaders

by

James P. Duval

A Dissertation

Presented to the Graduate and Research Committee
of Lehigh University

in Candidacy for the Degree of

Doctor of Education

In

Educational Leadership

Advisor: Dr. George White

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March 2017

Dissertation Signature Sheet

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Table of Contents

Title Page	i
Copyright	ii
Approval Page	iii
Acknowledgements	iv
Table of Contents	vi
List of Tables	ix
Abstract	1
Chapter 1: Introduction to the Study	2
Background of the Study	3
Teachers as School Leaders	5
Statement of Problem and Purpose	7
Research Questions.....	7
Significance of the Study	8
Definitions of Key Terms	9
Chapter 2: A Review of the Literature	11
Distributed Leadership in a School Context.....	12
History of Teacher Leadership.....	13
Roles of Teacher Leaders.....	16
Positive Impact of Teacher Leaders.....	20
School Factors that Influence Teacher Leadership.....	24
Attributes of Teacher Leaders.....	27

Teacher Leadership Competency Frameworks.....	29
Implications for Further Study.....	31
Chapter 3: Research Methods	33
Population.....	34
Sample.....	35
Description of the Instrument	36
Instrument Validity.....	37
Pilot Study.....	39
Data Gathering.....	40
Statistical Analysis.....	41
Chapter 4: Results	46
Introduction.....	46
Survey Returns.....	46
Background Characteristics of Respondents	47
Chapter 5: Discussion of Findings	95
Notable Findings.....	95
Recommendations for Future Research	104
Recommendation for Practice.....	106
References	110
Appendices	
A. Principal Survey.....	122
B. Teacher Leader Survey.....	131

C. Survey Item Validity for Teacher Leader Attributes	139
D. Delphi Panelists.....	141
E. Invitation Letter for Delphi Panel Participation	142
F. Letter for Confirmed Delphi Panelists.....	143
G. Information for Delphi Expert Panel Member	144
H. Delphi Panel Feedback Form.....	146
I. Principal Survey Pilot Study Participants.....	160
J. Invitation for Pilot Study Participation	161
K. Letter for Confirmed Pilot Study Participants	162
L. Feedback Questions for Pilot Study Participants	163
M. Invitation Letter for Teacher Leaders in Pilot Study.....	164
N. Message to ECIS Requesting Member School Information	165
O. General Invitation Letter for ECIS Member Schools	167
P. Principal Survey Questions and Corresponding Summary Data.....	168
Q. Teacher Leader Survey Questions and Corresponding Summary Data.....	204

List of Tables

1. International School Organizations and Number of Member Schools	35
2. Research Questions, Data Sources, and Methods of Analysis.....	44
3. Descriptive Statistics of School Level of Teacher Leaders	48
4. Descriptive Statistics of Formal vs. Informal Roles of Teacher Leaders	48
5. Descriptive Statistics of Requirement of Specific Training for Teacher Leaders	49
6. Descriptive Statistics of Number of Full-Time Teachers, Formal Teacher Leaders, and Informal Teacher Leaders Across Schools	49
7. Frequency and Percent of Teacher Leaders at Each School Level Who are Formal and Informal Leaders.....	49
8. Descriptive Statistics of School Level of Principals.....	50
9. Descriptive Statistics of Types of Formal Teacher Leadership Roles.....	53
10. Descriptive Statistics of Formal Teacher Leader Responsibilities	54
11. Descriptive Statistics of Areas of Informal Teacher Leader Influence.....	55
12. Descriptive Statistics of Importance of Teacher Leader Attributes according to Formal Teacher Leaders	56
13. Descriptive Statistics of Importance of Formal Teacher Leader Attributes according to Principals.....	58
14. Descriptive Statistics of Importance of Teacher Leader Attributes according to Informal Teacher Leaders	61
15. Descriptive Statistics of Importance of Informal Teacher Leader Attributes according to Principals.....	63
16. Paired Samples Test between Formal and Informal Teacher Leader Attributes	67

17. ANOVAs of Formal vs. Informal Teacher Leader Responses by Attribute.....	73
18. PCA Rotated Component Matrix of Formal Teacher Leader Attributes.....	76
19. PCA Components Mean Scale Scores for Formal Teacher Leaders’ Responses.....	79
20. Paired t-tests for Mean Scale Scores for Formal Teacher Leaders’ Responses.....	80
21. PCA Components Mean Scale Scores for Principals’ Responses.....	81
22. Paired t-tests for Mean Scale Scores for Principals’ Responses.....	82
23. ANOVAs of Elementary vs. Secondary Principals’ Responses to Formal Teacher Leader Attributes.....	83
24. ANOVAs of Elementary vs. Secondary Formal Teacher Leaders’ Responses to Teacher Leader Attributes.....	84
25. Programs and/or Activities Formal Teacher Leaders Identify as Valuable in Developing the Attributes of a Teacher Leader.....	87
26. Programs and/or Activities Informal Teacher Leaders Identify as Valuable in Developing the Attributes of a Teacher Leader.....	90
27. Other Programs and/or Activities Teacher Leaders Identify as Valuable in Developing the Attributes of a Teacher Leader.....	91
28. ANOVAs for Programs and/or Activities Identified Other by Formal vs. Informal Teacher Leaders as Valuable in Developing the Attributes of a Teacher Leader.....	92
29. ANOVAs for Programs and/or Activities Identified by Formal Teacher Leaders in Elementary vs. Secondary as Valuable in Developing the Attributes of a Teacher Leader.....	93

Abstract

Teacher leaders have been acknowledged for playing a significant role in supporting student learning. The impact of these key individuals often centers upon influencing the professional work of colleagues and having the capacity to make important leadership decisions that shape aspects of the school beyond their classrooms.

Currently, the body of research on teacher leadership in international schools is limited. The purpose of the study was to contribute to the body of knowledge related to teacher leadership in the context of international schools and is motivated by the following three research questions: (1) What types of teacher leadership roles (formal and informal) exist in international schools? (2) What are the most important attributes for teacher leaders? (3) What programs and/or activities do teacher leaders identify as valuable in developing the attributes of a successful teacher leader?

All Principals and Teacher Leaders (formal and informal) served as the accessible population for the study. Principals and Teacher Leaders completed surveys in accordance with their roles in order to gather data for the study.

The significance of the study was based upon the practical implications of possible findings. With a broader understanding of how teacher leadership is being enacted, the most important attributes of teacher leaders, and how teacher leaders are developed, international school leaders was able to use the findings for strategic efforts to support teacher leadership. Knowledge of the most important attributes may help with developing criteria for selection and evaluation of teacher leaders, while an understanding of how teacher leaders are developed may provide insight into the type of professional development or experiences necessary to cultivate this category of leaders.

Chapter 1:

Introduction to the Study

As worldwide trends point to an increasingly competitive global economy, student achievement results have become the primary focus of many school leaders. Consequently, scholars and practitioners are seeking to identify factors and school processes that may improve student learning. One major area of examination is the strength of leadership within school communities.

Several decades ago the concept of school leadership focused almost exclusively on formal administrative roles defined by job title, such as Superintendents or Principals. However, scholars have recently been examining the impact of the teacher's role in school leadership. Teachers are positioned to have an immediate impact on the teaching and learning that takes place in classrooms, which allows their leadership to connect directly with student learning (York-Barr & Duke, 2004). Consequently, contemporary perspectives on school leadership are often inclusive of the understanding that leadership is simultaneously enacted through the work of teachers as well as administrators.

There are many different forms of teacher leadership within schools, both formal and informal. This study was concerned with examining individuals whose principals have identified as either formal or informal teacher leaders. The aim of the research was to investigate the types of teacher leader roles that exist in international schools, the most important attributes of teacher leaders, and the specific experiences that aided the leadership development of individuals in teacher leader positions.

Background of the Study

Over the past few decades in the U.S., there has been a renewed attention toward student achievement results on a societal level. One of the first noticeable movements was the implementation of standards-based reform, initially appearing at the state level in the 1990s and followed by the federal government in 2001 through the No Child Left Behind (NCLB) Act. Each of these efforts was aimed at establishing clear learning goals, attempting to provide necessary support for reaching those goals, assessing student performance through standardized tests, and measuring achievement and school effectiveness based on test results. Moreover, widespread reporting of test scores became common practice, which only heightened the level of scrutiny related to student performance in different schools nationwide.

Over the same period of time, there was also an increase in comparisons of different educational systems around the world. This trend was based upon the development of assessment instruments used to measure the performance of students in different nations. Beginning in 1995, the Trends in International Mathematics and Science Study (TIMSS) was administered to students in over 40 nations. Several years later, the Programme for International Student Assessment (PISA) was developed; by the year 2000, the PISA was administered to students in 43 countries. As a result of these assessment tools, the field of education witnessed the first widespread comparisons of student achievement using common instruments across international borders.

As a result of developments in the field related to using standardized assessment tools to measure student performance on a mass scale, the degree of societal pressure placed on schools related to student academic performance has greatly increased. Educators are aware that their schools' standardized assessments results will become public knowledge and that to some degree

either individual teachers and/or school communities was held accountable for those results. Concurrently, educational policy makers are in a similar position where their decisions are often judged based upon these testing outcomes. As a result, the level of emphasis being placed upon student achievement is arguably at a historical peak, which is a distinct societal change from several decades ago.

The heightened focus upon achievement results has coincided with attempts to investigate contextual variables that may contribute to and detract from the academic performance of students. Extensive studies within the field have attempted to examine factors such as the effectiveness of individual teachers, class sizes, curriculum design, and classroom environment (Rothstein, 2008; Jepsen & Rivkin, 2009; Stecker, Fuchs, & Fuchs, 2005; Meece, Anderman, & Anderman, 2006).

While the results of the research often varies between different contexts based on the unique and dynamic nature of individual school communities, there is consistency among research results that the quality of individual teachers has a significant impact upon student achievement outcomes (Harris & Sass, 2011; Stronge, Ward, & Grant, 2011). Consequently, there is a logical desire to better understand and promote practices and factors that increase the effectiveness of individual teachers.

One of the primary factors shown to have an impact on the effectiveness of teachers working as a professional learning community is the quality of teacher leadership within a school (Marzano, Waters, & McNulty, 2005; Seashore Louis, Dretzke, & Wahlstrom, 2010). Unsurprisingly, school leaders have the opportunity to act as instructional leaders to help support and guide effective teaching practices and also create an environment that supports student

learning and professional growth among faculty members (Thoonen, Slegers, Oort, & Peetsma, 2012)

Teachers as School Leaders

Historically, the context of school leadership has been more heavily focused on school administrators such as superintendents and principals (Fullan & Hargreaves, *What's Worth Fighting for in Your School?* Revised Edition, 1996). However, the concept of school leadership has shifted greatly in recent times to include the recognition that teachers have a sizable impact on the way in which schools are led (Frost & Durrant, 2003). Moreover, influential teachers significantly impact the instructional leadership within their schools (Moller & Pankake, 2006). Given the strong desire within the field to build the effectiveness of individual teachers, increased attention has been given to the importance of establishing strong teacher leadership within school communities and leveraging the impact of these individuals to improve overall student achievement (Mujis & Harris, *Teacher led school improvement: Teacher leadership in the UK*, 2006)

The increase of attention given to teacher leadership has led to the increased prevalence of formal leadership positions, such as instructional coach or new faculty mentor, that are occupied by individuals who maintain part-time teaching responsibilities (Angelle & Beaumont, 2006). Depending on the specific context of the school, these teacher leadership positions are centered upon areas of practice ranging from supporting pedagogy to helping establish collaborative norms to leading curriculum reviews (Angelle & DeHart, 2011; Harris A. , 2005; York-Barr & Duke, 2004).

In light of this shift within the field, many organizations have begun establishing standards and expectations for the skills and qualities necessary to be effective teacher leaders.

For example, in the United States, individual states, such as Missouri and Georgia, have developed unique sets of standards for individuals in teacher leadership positions (Missouri Department of Elementary and Secondary Education, 2011; Georgia Assessments for the Certification of Educators, 2011). Meanwhile, countries such as Scotland have worked to establish teacher leader frameworks for schools across the nation (The General Teaching Council for Scotland, 2012).

In addition to the work being led by specific states and nations, there are also numerous educational consortiums that have created frameworks to establish standards for teacher leadership (Center for Strengthening the Teaching Profession, 2009; Teacher Leader Exploratory Consortium, 2012). One of the prime examples of this movement is the Teacher Leadership Competencies, recently developed by the National Board for Professional Teaching Standards (NBPTS), and the National Education Association (NEA) as part of their Teacher Leadership Initiative (TLI) partnership.

The TLI model combines three specific leadership pathways – instructional leadership, policy leadership, and association leadership – to delineate the different ways in which teacher leadership is exercised (National Board for Professional Teaching Standards & National Education Association, 2014). Additionally, this framework includes competencies associated with each pathway and descriptors to indicate the level of performance for each competency. Overall, the goal of the TLI model is to a) provide further clarity regarding the skills necessary to be an effective teacher leader, b) aid teacher leaders in self-identifying their level of development within each competency, and c) offer direction as to the next steps for leadership growth (National Board for Professional Teaching Standards & National Education Association, 2014)

Teacher leadership is an important factor that is positively correlated with student achievement (Seashore, Leithwood, Wahlstrom, & Anderson, 2010; Silins & Mulford, 2002). Thus, it is logical for stakeholders to demand proper training for teachers to become leaders. However, a survey by the Center for Teacher Leadership showed that 82% of teachers in leadership positions have not received *any* training for the roles they have been asked to assume (Ingersoll, 2003). Even though teacher leaders continue to demonstrate a strong desire to grow in this area of practice and to take on leadership roles, the amount of formal training for these positions is severely lacking (Dozier, 2007). As a result, many teacher leaders within the field must develop leadership skills on the job and work independently to become more effective leaders.

Statement of Problem and Purpose

Problem. Currently, the body of research on teacher leadership in international schools is limited. There are no widely accepted definitions for either formal or informal teacher leadership at international schools. Moreover, there is limited knowledge in this context about a) the most important attributes of practicing teacher leaders, b) the way in which teacher leadership is being enacted in international schools in terms of formal roles and areas of influence c) what professional experiences help teacher leaders acquire leadership attributes.

Purpose. The purpose of this study was to address these specific gaps of knowledge in the field. I intended to extend the literature on teacher leadership and generate findings in this area of research that are specific to the international school context.

Research Questions

The following research questions served to guide this study:

1. What types of teacher leadership roles (formal and informal) exist in international schools?
2. What are the most important attributes for teacher leaders?
 - 2a. Is there a significant difference between the attributes identified by principals for formal vs. informal teacher leaders
 - 2b. Is there a significant difference between the attributes identified by teacher leaders in formal vs. informal roles?
 - 2c. Is there a significant difference between the formal teacher leader attributes identified by principals vs. formal teacher leaders?
 - 2d. Is there a significant difference between the attributes of formal teacher leaders identified by principals in elementary/primary vs. secondary levels?
 - 2e. Is there a significant difference between the attributes of formal teacher leaders identified by formal teacher leaders in elementary/primary vs. secondary levels?
3. What programs and/or activities do teacher leaders identify as valuable in developing the attributes of a successful teacher leader?
 - 3a. Is there a significant difference between the programs and activities identified by formal vs. informal teacher leaders?
 - 3b. Is there a significant difference between the programs and activities identified by formal teacher leaders in elementary/primary vs. secondary levels?

Significance of the Study

My goal for this study was to make a significant contribution to the knowledge of teacher leadership in international schools. While there are many studies related to the history and

importance of teacher leadership, there is limited research in the realm of international schools regarding definitions of formal and informal teacher leadership, the attributes of practicing teacher leaders, how they acquired those qualities, and the types of professional experiences that help teacher leaders continue developing in their leadership positions. Consequently, the findings of the study was useful in providing research-based information that may be of benefit for schools that support and value teacher leadership.

While the sample of the study included only international school principals and teacher leaders, aspects of the findings may be transferable to an independent school context in the U.S., which has some similarities with international schools (Nagrath, 2011). Since the majority of research on teacher leadership in the U.S. studies public schools, this study may also be valuable for educators and researchers focused more exclusively on independent schools.

Finally, by closely examining teacher leadership, the study added to the general literature related to school leadership (Harris, 2003). Many contemporary faculty structures indicate a shift away from the hero model of a single, powerful leader and instead employ some form of collective leadership, where tasks are led and accomplished through the interactions of multiple leaders (Leithwood, Harris, & Hopkins, 2008; Spillane & Camburn, 2006; Spillane, Halverson, & Diamond, 2001). Therefore, knowledge gained about how to build effective teacher leaders also contributes to the larger, overarching body of research related to school leadership.

Definitions of Key Terms

International School: For the purpose of this study an international school is any school that has full membership in ECIS.

According to the literature, teacher leadership is defined in a various ways without consensus across the field. Katzenmeyer and Moller (2001) said, "Teacher leadership roles may be formal or informal, and they vary as much as one school is different from another. Each unique school context determines teachers' options for leadership roles." For the purpose of this study, the following definitions for teacher leaders will apply:

Formal teacher leader: a faculty member with formal leadership responsibilities and a teaching load of at least 50% (examples include department chair, team leader, instructional coach)

Informal teacher leader: a faculty member with a full-time teaching load that influences the work of colleagues without any positional authority

Chapter 2

A Review of the Literature

The traditional organizational structure of schools places administrators at the top of the hierarchy and identifies them as the sole instructional leaders within the organization. This top-down structure with relatively isolated leadership has been highlighted in literature from the past two decades as being ineffective in supporting student learning (Lambert, 2003; York-Barr & Duke, 2004). Elmore (2000) iterated a similar conclusion by stating, “unless there is radical change in the structure of school leadership, few schools was able to rise to the challenge of enabling all students to meet high standards” (p.1).

With the understanding that the traditional organization structure was outdated and ineffective, the path for exploring new possibilities was paved. Rather than school leadership being owned by only a few individuals, there has been an increasing emphasis on distributing and sharing leadership throughout the community (Elmore, 2007). Unsurprisingly, when looking to alternative sources of leadership to flatten the organization, a great deal of attention has been focused on the impact of teacher leaders (Fullan, 1993). Moreover, the sheer range of knowledge and expertise that is now expected and required to reach high levels of student achievement has created the need for teams of instructional leaders to collaborate effectively in order to reach common objectives (Smylie, Conley, & Marks, Reshaping leadership in action, 2002)

The purpose of this study is to contribute to the understanding of teacher leadership within international schools. Because of the limited scope of research focused specifically on the international school context, this review summarizes broad views on teacher leadership with the United States as the predominant setting for most studies.

This literature review investigates many different aspects of teacher leadership. The areas of research in this review include the following: a) distributed leadership in a school context, b) history of teacher leadership, c) roles of teacher leaders, d) positive impact of teacher leaders, e) school factors that influence teacher leaders, and f) implications for further study based on the existing research.

Distributed Leadership in a School Context

As school leaders continue to determine the most effective ways to provide leadership throughout the organization, the approach of strategically distributing leadership continues to be applied in numerous settings. Even though accountability for success typically falls upon the shoulders of school administrators, the reality is that these individuals recognize that leadership must extend beyond the role of principals in the current educational context. School leaders are increasingly aware of the limitations of working in isolation to realize change and are simultaneously beginning to realize that teachers are more likely to be invested in improvement processes when empowered with a sense of leadership responsibility (Barth, 2013).

Many educational researchers (DuFour & Eaker, 2010; Lambert, 1998; Leithwood, Patten, & Jantzi, 2010; Lieberman & Mace, 2008; Murphy, 2005; Smylie, 2014; Spillane & Camburn, 2006)) have drawn attention to school leadership as a distributed responsibility that extends far beyond any single individual. Reeves (2012) describes the importance of administrators working alongside teacher leaders within a school community as follows:

Sustained capacity building for high-impact learning depends on the development of teacher leadership...Moreover the multiple demands on leaders make clear that they must keep the focus on teaching and learning. Because administrators cannot do this alone, they must make maximum use of teacher leaders. (p. 71)

In addition to distributing leadership between administrators and formal teacher leaders, some studies have pointed to leadership being enacted by all members of the organization. Leithwood, Patten, and Jantzi (2010) described school leadership as a “set of practices distributed among staff rather than enacted only by those in formal leadership roles” (p. 683). Moreover, some studies consider leadership for continuous school improvement as work that can be distributed and performed by individuals throughout an organization as opposed to connected to roles and responsibilities of particular positions (Mayrowetz, Murphy, Seashore Louis, & Smylie, 2007).

Overall, a distributed leadership model intentionally spreads the decision-making power among various members of the organization. The approach incorporates the idea that “many voices must be heard in the context of decision making” and that “leadership and influence on school decision making could come from any individual or group of staff members” (Anderson, 2008, p. 16). This shift away from the traditional power structure in schools is in direct response to the increasingly complex world of education whereby leadership must be dynamic and flexible to meet the changing demands and growing expectations for school leaders (Harris & Spillane). Most importantly, in organizations where leadership is effectively distributed, researchers have found that principals do not lose influence, but instead build leadership traction when other members of the organization also gain influence (Seashore Louis, et al., 2010).

History of Teacher Leadership

As many schools adopt distributed models of organizational leadership, teacher leadership, by definition, becomes essential (Berry, Johnson, & Montgomery, 2005). Moreover, the evidence in support of schools benefiting from teacher leadership for improvement efforts

has been well documented (Barth, 1999; Andrews & Crowther, 2002; Birkey, Shelton, & Headley, 2006; Danielson, 2006).

At the same time, while the importance of distributed leadership in schools has been most extensively lauded over the past decade, the idea of teacher leadership is far from new (Mangin, 2007). For more than a few decades, teachers have been placed in leadership positions for different purposes based on institutional needs. During this period of time, the overarching objectives for teacher leaders have shifted and these changes can be categorized into three distinct phases (Silva, Gimbert, & Nolan, 2000).

Phase One. In the first iteration of teacher leadership, which began more than five decades ago, teachers took on formal roles such as head of department, lead teacher or union representative. The chief aim of each of these roles was to function as an extension of the administrative structure by maintaining the status quo of behavior and increasing the level of logistical efficiency (Argyris & Schön, 1978). Furthermore, the roles created distinct hierarchical lines of separation and authority between teachers and teacher leaders, similar to what already existed between teachers and administrators (Wasley, 1991). Perhaps most importantly, the work of teacher leaders in this phase was rarely focused upon improving teaching practices or instructional leadership and instead was geared toward managerial and logistical tasks (Silva, Gimbert, & Nolan, 2000)

Phase Two. The second phase of teacher leadership was developed in light of the need for further instructional leadership. Despite improvements in logistical efficiency, teacher leaders rarely worked directly with colleagues to improve instructional practices. Consequently, a new subset of teacher leadership positions were created to provide opportunities for teacher leaders to formally work with faculty for the purpose of improving instructional strategies.

Some of the positions that were created within this phase included curriculum coordinators, staff developers and mentors for new teachers (Silva, Gimbert, & Nolan, 2000). These positions were designed to align teacher leaders more closely with fellow teachers than administrators. In most situations, these teacher leaders have not held an evaluative responsibility over teachers in an attempt to establish open, collaborative and supportive relationships centered on teaching and learning practices (Silva, Gimbert, & Nolan, 2000). This stance aligns with the viewpoint of most teachers that only individuals at the highest level, such as principals and assistant principals, should have supervisory responsibilities (Hupia, Devos, & Van Keer, 2010)

Despite the effort to align teacher leaders with colleagues, faculty members do not always view teacher leaders as contributing to their daily practices. Often times, the support that teachers have received from teacher leaders in the area of curriculum is the delivery of pre-packaged or scripted materials that are designed to be independently executed in the classroom without significant ongoing support. Darling-Hammond (1998) refers to these efforts as the “remote control of teaching,” which attempts to control for and provide uniformity of practice across numerous classrooms (p. 7).

Phase Three. The third phase of teacher leadership arose in the 1990’s shortly after the second phase was initiated. There are several key distinctions between these phases that seek to address the shortcomings that arose from the second iteration of teacher leaders.

To begin, this phase marked the importance of increased collaboration and discourse among all teachers and not only between individual teachers and teacher leaders. The working assumption was that all teachers have the capacity to grow and also positively impact the practices of their colleagues. Moreover, as teachers collaborate and teach one another and about

new practices, they begin assuming collective responsibility for improving instruction across the school (Katzenmeyer & Moller, 2009)

Another marked difference is that the line between formal and informal teacher leadership has been intentionally blurred. While a teacher leader may be charged with tasks of creating the structure for collaboration, it is assumed that the responsibility for providing instructional expertise falls upon all members of a team or faculty as opposed to a lone instructional leader. Consequently, in this phase of teacher leadership the collective group plays a vital role in shaping instructional practices and school culture both inside and outside the classroom (Curtis, 2013)

Roles of Teacher Leaders

There are numerous ways in which teachers exercise leadership within schools. Katzenmeyer and Moller (2009) declared teacher leaders as individuals who are “leaders within and beyond the classroom, identify with and contribute to a community of teachers learners and leaders, and influence others toward improved educational practice” (p. 5). Similarly, other scholars have shared that the common element among teacher leaders is that individuals extend their influence beyond individual classrooms (Margolis, 2008; Phelps, 2008; (Reeves, 2009). These leadership roles have evolved from focusing solely upon managerial logistics to creating positive change related to student learning, teacher support, and the effective administration of the school (Snell & Swanson, 2000). Overall, the literature demonstrates that teacher leadership roles are primarily grouped into two categories: formal and informal.

Formal teacher leaders. The first category of teacher leadership roles includes positions with specific titles that indicate responsibilities in addition to at least part-time classroom teaching. These roles are established by the school administration or district and it is quite

common for an individual school to select its own teacher leadership positions (Harrison & Killon, 2007; Curtis, 2013). Some of the most common formal teacher leadership roles include: head of department or grade level leader, coach, and mentor.

Head of department or grade level leader. One of the most common formal teacher leadership roles is that of head of department or grade level leader. These roles are linked because each constitutes a role whereby an individual acts as a representative leader of a pre-defined group of faculty members. Heads of departments are more commonly found in secondary school settings where teams of teachers are often grouped into departments by subject area whereas grade level leaders are more typical of elementary/primary contexts where teachers are grouped by common grade levels of students (Fitzgerald & Gunter, 2008)

Typically speaking, this role includes the responsibility of executing a number of operational tasks related to the department or grade level. For example, ordering materials, managing schedules, and acting as a conduit between teachers and administrators for sharing information. In many ways, this role is often considered as an extension of administrative outreach (Katzenmeyer & Moller, 2009). Additionally, individuals are often selected for this role based on specific knowledge of a particular subject or grade level as well as respect from peers (Printy, 2008).

In some cases, department heads and grade level leaders possess various levels of decision-making authority related to their departments or teams. When these formal teacher leaders are granted authentic authority to make important decisions related to school improvement, they have the capacity to provide a unique and powerful layer of school leadership different than the school administration (Printy, 2008). These teacher leaders have unique insights and, often times, close relationships with colleagues that enables ground-level leadership

to initiate change or support improvement efforts (Danielson, Teacher leadership that strengthens professional practice, 2006). In fact, Printy (2008) found that this type of formal leadership was “the most influential factor in determining the quality of teachers’ participation in professional learning communities” (p. 214). Therefore, it is unsurprising that department heads and grade level leaders are some of the most common formal teacher leader roles.

Coach. Teacher leaders in the role of coach take on a number of different forms. For example, some of the different areas of focus for coaches include data, literacy, general instruction, or content expertise. This overarching aim of all coaches is to have a positive impact on the professional practice of teachers (Scott, Cortina, & Carlisle, 2012)

There are a variety of ways in which coaches seek to support colleagues. Some of the specific efforts include helping teachers incorporate effective teaching strategies, planning lessons, implement new programs, examine student data to inform instruction, observing teaching and providing feedback, or even co-teaching lessons (Brown M. , 2007). The primary benefit of this role is that teachers benefit from the explicit modeling and support provided by coaches to target key areas of practice for improvement. With direct feedback from coaches, teachers are more likely to report that they are learning and improving their practice (Scott, Cortina, & Carlisle, 2012)

Mentor. One of the inherent strengths of many teacher leaders is their experience in the field; the formal role of mentor is designed to capitalize on this quality. Teacher leaders who act as formal mentors are typically assigned to support new faculty members and help them adjust to the profession and/or organization (Ryan & Hornbeck, 2004). In fact, mentoring has been an important element of teacher induction programs over the past three decades (Odell, Huling, & Sweeny, 2000).

In addition to being able to sharing previous experiences to support others, mentors are typically expected to serve as role models and help advise teachers about instruction, curriculum, and school wide practices (Harrison & Killon, 2007). In a sense, the role of mentors is often to do whatever is necessary to provide the necessary knowledge, expertise, and inspirational support to guide a fellow teacher toward success in a new environment (Robinson & Melnychuk, 2012). The most frequently reported benefits for the mentee include staying in the profession, improving classroom practices, and increasing student achievement (Davis & Higdon, 2008; Gilles, Cramer, & Hwang, 2001; McGlamery, Fluckinger, & Edick, 2006).

Informal teacher leaders. In many contexts, the type of work executed by informal teacher leaders is very similar to that of teacher leaders with formal roles. These individuals simply influence others without any title or positional authority (Hanuscin, Rebello, & Sinha, 2012). These teacher leaders are motivated by the desire to help students, support colleagues, and improve aspects of the school program (Donaldson, 2007). Consequently, informal teacher leadership occurs organically based on the specific needs of the situation and the unique qualities and characteristics of those individuals (Danielson, Teacher leadership that strengthens professional practice, 2006). Overall, the literature points to two other categories of teacher leaders more commonly associated with informal teacher leadership; these categories are instructional expert and supportive peer.

Instructional expert. Teachers who assume this informal leadership role are viewed by peers as some of the most knowledgeable individuals with respect to instructional expertise. Additionally, these teacher leaders are often known for being willing to share their ideas and practices openly with colleagues (Reeves, 2008)

There are multiple works related to the informal role of instructional expert that have recently been published (Angelle & DeHart, 2011; Ghamrawi, 2010). One of the common findings is the fact that these informal teacher leaders share their knowledge and expertise through close collaboration with colleagues. In fact, without the structural platform for teachers to build a collaborative network, these leaders would not have access to the channels necessary to foster the improvements of fellow colleagues (Hanuscin, Rebello, & Sinha, 2012).

Interestingly, as many instructional experts engage in efforts to support peers without external prompting, these individuals often do not perceive themselves to be leaders (Angelle & DeHart, 2011). Instead, they view their work as critically important to school success, but within the range of expectations for any member of the faculty (Hanuscin, Rebello, & Sinha, 2012).

Supportive Peer. The teacher leaders who occupy this informal role are recognized by their efforts to help colleagues through offering support and encouragement. These individuals work hard to reduce the sense of isolation experienced by many teachers (Phelps, 2008).

Another characteristic commonly found in supportive peers is a sense of resilience as they attempt to move their own practice and the practices of peers toward evidence of success (Timperley, 2005). Similar to instructional experts, supportive peers are transparent with their instructional methods, which in turn, encourages others to be open to discussing and improving upon practices in order to support students (Donaldson, 2007). In a sense, they provide support and help motivate peers by helping create a community of professional learners that has a broad impact upon others (Hanuscin, Rebello, & Sinha, 2012).

Positive Impact of Teacher Leaders

Teacher leaders have been acknowledged both anecdotally and qualitatively as playing a key role in supporting student achievement (Katzenmeyer & Moller, 2009; York-Barr & Duke,

2004). The impact of teacher leaders is most evident in their sphere of influence over the professional work of colleagues and their capacity to make leadership decisions that impact the school beyond their classrooms (Brown & Medway, 2007). Three specific ways that teacher leaders directly impact school communities are supporting individual faculty members, playing an integral role in the establishment of professional learning communities, and providing additional leadership capacity in alignment with the school administration.

Supporting individual faculty members. One of the key ways that teacher leaders have a significant impact is through their support of individual faculty members. As Danielson (2006) pointed out, a characteristic frequently associated with teacher leaders is the *positive effect* they have on fellow faculty members with respect to attitude and instructional practice.

Teacher leaders are often in an ideal position to provide support to fellow faculty members. They have regular opportunities to engage with colleagues about common aspects of work and do so in either one-on-one or intimate, small group settings. The context for these exchanges provides an ideal situation for developing positive and supportive relationships that endure over time (Donaldson, 2007).

In the realm of influencing peers, teacher leaders help colleagues navigate the change process, nurture professional relationships, encourage professional growth, and model professionalism (Suranna & Moss, 2002). When teacher leaders influence their peers, it is often through informal means, such as casual conversations related to practice. This outcome is based on the fact that the span of influence of many teacher leaders is more directly related to their relationships with colleagues than the power they possess through formalized roles (Barth, 2002).

Establishing professional learning communities. Nearly two decades ago, Darling-Hammond (1996) emphasized the importance of creating a school environment that values teachers as highly skilled professionals and supported opportunities for collaborative inquiry and shared decision-making. These ideas mirrored the third phase of teacher leadership proposed by Silva and colleagues (2000), whereby all teachers play a key role in school leadership and those in formal leadership roles work to provide the structure and culture to support professional dialogue.

In professional learning communities (PLC's), faculty members collaborate to support and discuss factors related to student achievement. This emphasis is based on evidence indicating that teacher-to-teacher relationships have the greatest impact on helping teachers improve instruction (Seashore Louis, Febey, Gordon, Meath, & Thomas, 2006). Teacher leaders are instrumental in both leading and contributing to these high impact interactions among faculty members. They facilitate opportunities to discuss teaching strategies, collaborate to develop the curriculum, and create shared values that support students, all of which increase learning opportunities (Hord & Summers, 2008). Moreover, Fullan (2001) mentions the importance of having solutions generated by those who are closest to the problem in order to create cohesion throughout the school.

Another major benefit of PLC's is that teachers are placed in a position to be the driving force behind improvement efforts. According to Leithwood, Seashore Louis, Anderson, and Wahlstrom (2004), teachers, rather than administrators, are in the ideal position to change instructional practices within a faculty. Their proximity to both students and teachers put them in the best position to utilize instructional expertise and close relationships to make curricular

decisions and support teachers in the implementation of specific classroom strategies (Frey & Fisher, 2009).

In the area of facilitating learning communities, teacher leaders participate in and very often lead collegial, collaborative work with a specific goal. Some of these tasks include guiding reflections on instructional practice, analyzing student data and results, focusing on curriculum development, and facilitating professional development opportunities (Gabriel, 2005).

The sheer presence of teacher leaders also impacts the overall professional culture within the learning community. Without teacher leaders, the implicit message is that knowledge and power are held by the administration (Barth, 2001). On the contrary, providing teachers with leadership responsibility both formally and informally helps generate the conditions for building an inclusive professional culture that fosters faculty engagement (Brown, 2007; Mujis & Harris, 2006).

Increased leadership capacity. In a study of schools with consistently high-performing students, Lambert (2003) noted that each organization had a particularly elevated leadership capacity. She described this quality as the presence of “broad-based, skillful participation in the work of leadership” (p. 63). Lambert found that as schools continued to build leadership capacity, the distinction between principals and teachers became far less evident. Not only teacher leaders but many members of the faculty began to demonstrate leadership by taking more initiative, proactively solving problems, and taking more responsibility for overall school effectiveness (Lambert, 2005)

These observations echo Sergiovanni’s (2001) notion of leadership density, whereby the organizational norm is for individuals to work collaboratively, to be trusted with information, to engage in decision-making and to act as producers who both create and support the transfer of

ideas and knowledge. Teacher leaders also benefit school communities in other ways such as by supervising and supporting others, making instructional and staffing decisions, and assuming other managerial roles. In doing so, the leadership capacity is increased and eases the burden placed on principals (Curtis, 2013).

Finally, the increased leadership capacity means that more faculty members are in direct contact with some level of school leadership. The increased presence of leadership has the potential to create a chain of influence where teachers begin adopting the attitudes, practices, and ways of thinking that align with school leaders (Wetig, 2002). Moreover, as teachers evolve from focusing solely on classroom responsibilities to carrying a broader vision of the school, it is more likely that those faculty members become formal or informal teacher leaders that join in the process of exercising leadership (Curtis, 2013).

School Factors that Influence Teacher Leadership

The presence of teacher leadership and the degree to which teacher leaders are deemed successful varies greatly from school to school. While each school has an extensive number of unique variables, there are two main factors consistently cited in the literature for having an impact on teacher leadership as follows: school culture and school administration.

School Culture. Of the various factors that influence school leadership, York-Barr & Duke(2004) found that the specific working culture of a school is an extremely important variable. Each school has its own unique set of explicit and implicit expectations regarding the type of work that is emphasized and, more importantly, the manner in which the work is accomplished and important decisions are made. These aspects form the foundation of a school culture that drives the interactions and relationships between teachers, teacher leaders, and school administrators.

Katzenmeyer & Moller (2009) surveyed over 5,000 teachers and identified seven specific dimensions of school cultures that help foster teacher leadership. The individual dimensions with accompanying descriptions are as follows:

Autonomy. Teachers are encouraged to take initiative in making improvements and given the opportunity to make decisions independently when necessary.

Collegiality. Teachers collaborate on instructional and student-related matters. Examples of collegial behavior include teachers discussing instructional strategies, sharing materials and conducting peer observations of teaching.

Developmental focus. Teachers are supported in learning new knowledge and skills and are encouraged to help others learn. Teachers are provided with assistance, guidance and coaching to grow instructional practice.

Open communication. Teachers both send and receive communication in open and honest ways in the school. Teachers feel informed about what is going on in the school and share opinions and feelings. Teachers are not blamed when things go wrong.

Participation. Teachers are actively involved in making decisions and have input regarding important matters. Team Leaders are selected with the participation of other teachers.

Positive environment. Teachers experience general satisfaction with the work environment. Teachers feel respected by one another and by students, parents and administrators. Teachers perceive the school as having effective administrative leaders.

Recognition. Teachers are respected and recognized for the professional roles they take and the contributions they make. There is mutual respect and caring among the teachers and processes to recognize effective work.

Ultimately, these dimensions help build a culture of collaboration and mutual commitment that has a direct impact on supporting teacher leadership (Mujis & Harris, 2003). Additionally, when there is a strong culture of empowering teachers to participate in school wide decision-making, it enhances teacher leadership throughout the school (Barth, 2002).

School administration. Another factor that impacts the success of teacher leadership is the work of school administrators (Mujis & Harris, 2003). The schools with the highest levels of teacher leadership have principals who empower teachers, treat teachers with respect, and highly value the complex work of teacher leaders (Acker-Hocevar & Touchton, 1999). The leadership culture, often led by the principal, must be one that promotes collaboration and shared leadership in order for teacher leadership to be successful (Harris, 2003).

Another reason why school administration has a direct impact on teacher leadership is because of the authority to control and utilize resources. For example, principals may support teacher leaders through providing release time for teachers, professional development opportunities, and specific budgets (Lashway, 1998). Without these resources, teacher leaders and their colleagues may lack the support necessary to fully realize their potential.

The final category of confronting barriers to improvement relates to the way in which teacher leaders are directly involved in decision-making to support positive change. Teacher leaders collaborate with teachers and administrators alike to make important decisions. In these situations, it is widely understood that there is power sharing and leadership distribution among teacher leaders and the administration. In this type of arrangement, teacher leaders and administrators both take initiative and responsibility for organizational improvement and work collaboratively to accomplish common goals (Angelle & Beaumont, 2006).

Along with building a culture and providing resources, principals also have a direct impact on the level of desire for individual teachers to take on leadership roles. In one study of over 100 teachers, it was found that the principal-teacher relationships had a statistically significant influence on whether a teacher was willing to participate in processes and decisions related to curriculum, instruction, and school management (Smylie & Brownlee-Conyers, 1992). For teachers to be willing to step into these important areas of leadership, there must be a positive relationship between these individuals and the school administration (Little, 2003). Therefore, the degree to which principals are able to foster positive relationships with teachers has a direct impact on the likelihood that individuals will step into key teacher leadership positions.

In addition to these categories, many teacher leaders operate with a mindset that is nearly identical to their administrators. Without prompting, they share critical responsibilities such as developing rapport among faculty, helping build trust within the organization, helping diagnose areas for improvement on an organizational level, and building long term leadership capacity within the faculty (Ackerman & Mackenzie, 2006; York-Barr & Duke, 2004). When teacher leaders are highly effective, their roles become more fluid and often times interchangeable with administrators as they collectively share responsibility leading the school community (Andrews & Crowther, 2002)

Attributes of Teacher Leaders

As the level of interest in teacher leadership continues to increase, many different organizations and researchers have sought to add further clarity to this domain by identifying the different attributes of teacher leaders (Ohio Department of Education, 2015). However, while

some broad themes are beginning to emerge, there is far from consensus as to what teacher leaders should know, be able to do, and how they should accomplish their work.

In a recent study, a number of characteristics of successful teacher leaders were identified. These attributes comprised a wide range and were subsequently grouped according to the presence of themes. Finally, the categories of characteristics of successful teacher leaders included: experience, dispositions, personal and ethical behaviors, relational behaviors, and content and curricular knowledge (Gordon, Jacobs, & Solis, 2014).

The Teacher Leader Exploratory Consortium also examined the attributes of successful teacher leaders (2012). Their findings focused on the actions that propelled teachers into leadership roles, often organically without formal teacher leadership programs. Most often, these individuals were characterized as: respected by their peers, continuous learners, being approachable, and using group skills and influence to improve the educational practice of peers.

In addition to these efforts, Leading Educators identified the core values that teacher leaders should promote through their work (2015). The core values included:

- Equity: Having a belief in all children's abilities, and challenging inequity
- Service: Listening and seeking to understand others, and working to address student needs
- Community: Supporting, celebrating, challenging, and collaborating with colleagues
- Growth: Developing oneself and others, identifying one's limitations, and seeking opportunities to leverage strengths and develop growth areas
- Results: Demonstrating diligence, high expectations, commitment, and personal responsibility.

Simultaneously, Leading Educators also highlighted three strategies deemed to be essential for teacher leaders seeking to improve student learning. These strategies included: 1) develop their priorities aligned to school priorities and set clear, measurable goals; 2) identify a clear, cohesive team to support; 3) develop a carefully-planned and agreed-upon schedule with administration to ensure enough time and opportunity to perform leadership responsibilities.

Teacher Leadership Competency Frameworks

In conjunction with the work of identifying the general attributes and qualities of successful teacher leaders, many educational organizations have made efforts to establish frameworks for teacher leadership competencies. Some of the educational bodies that have developed frameworks include the Center for Teacher Quality, Leading Educators, Teacher Leadership Exploratory Consortium, National Board for Professional Teaching Standards, and National Education Association (DeHart, 2011).

For example, the Teacher Leader Competency Framework includes 15 competencies organized into four overarching “pillars”: 1) developing self, 2) coaching others, 3) leading teams, and 4) driving initiatives (Leading Educators, 2015). Meanwhile, the Teacher Leader Model Standards are comprised of seven domains that describe the many dimensions of teacher leadership: 1) fostering a collaborative culture to support educator development and student learning; 2) accessing and using research to improve practice and student learning; 3) promoting professional learning for continuous improvement; 4) facilitating improvements in instruction and student learning; 5) promoting the use of assessments and data for school and district improvement; 6) improving outreach and collaboration with families and community; and 7) advocating for student learning and the profession (Teacher Leader Exploratory Consortium,

2012). Finally, the Center for Teaching Quality, National Board for Professional Teaching Standards, and National Education Association via the Teacher Leadership Initiative indicate the necessary competencies for three different types of leadership roles—instructional, policy, and association leadership— in addition to overarching competencies for all teacher leaders that include reflective practice, personal effectiveness, interpersonal effectiveness, communication, continuing learning, group processes, adult learning, and technological facility (2014).

In comparing the various frameworks for teacher leadership competencies, there are broad similarities that exist. However, there is certainly no widespread consensus in terms of the specific attributes needed for teacher leadership or the most effective way to organize competencies into a cohesive framework.

Teacher Leadership in an International School Context.

Currently, there is very limited research on teacher leadership in the context of international schools. Only one study on teacher leadership in international could be found and it was completed (Pruitt, 2008)

This study examined the experience of teachers at an international school in Colombia who transitioned into teacher leadership roles. More specifically, the focus of the study was to identify key events in the professional journey of individuals moving into teacher leadership positions and also to identify patterns with respect to school level factors that either supported or hindered the transition. Some of the main findings included that teachers identified leadership opportunities and professional development as major events in their trajectory as leaders and that teacher leadership positively influenced school improvement (Pruitt, 2008).

Implications for Further Study

The body of literature directly related to the topic of teacher leadership continues to expand and it is evident that this area of research is considered to be of value to the field. Despite the growing number of studies on teacher leaders, there are significant gaps in the literature that require further research.

To begin, there is a distinct need for further study in the context of international schools. In consideration of the fact that there are over 7,000 international schools worldwide serving more than 3.5 million students, it is essential to investigate teacher leadership within this distinct population instead of relying upon generalizations from the field (ICEF Monitor, 2014). International schools are unique educational institutions with a variety of criteria that separate these organizations from other schools around the world (Nagrath, 2011). Therefore, to better understand teacher leadership within this realm it is vital for further studies to be conducted with this specific population.

In addition to the need for further research related to teacher leadership within international schools, there is limited information in terms of what attributes are considered to be the *most* important in a ranked manner. It is no surprise that skills ranging from curriculum leadership to interpersonal skills are considered to be important for teacher leaders, but the existing literature does not portray one set or category of attributes as more or less important than another. This distinction may be critical for schools seeking to focus their efforts on the attributes of teacher leaders that have the greatest impact on the community.

Finally, there is a further need for understanding how to teacher leaders in international schools are supported and how they acquire the attributes for effective teacher leadership. Given that many teacher leaders in the field receive very limited or absolutely no professional

development to develop leadership skills, it is imperative to better understand how international schools support the development of these professionals (National Comprehensive Center for Teacher Quality, 2007; Danielson, 2007; Talbert, 2010). Additionally, it is important to also identify what types of professional experiences enable teacher leaders to best develop their leadership attributes.

By addressing these gaps in the literature, there was a deeper understanding of teacher leadership in international schools and the potential for developing a competency framework for this educational context. As Yarger & Lee (1994) indicated over two decades ago, the absence of a specific framework to guide teacher leadership leads to uneven and inconsistent implementation and outcomes. On the contrary, developing further clarity and definition around teacher leadership may “allow great teachers to have a far greater effect on vastly more students and teaching peers” (Public Impact, 2015).

Chapter 3

Research Methods

The focus of this chapter is to describe the population and sample, instrumentation, data gathering methods, and data analysis procedures utilized in this study. The overall purpose of the study was to investigate several key aspects of teacher leadership within international schools:

1) To identify the most important attributes of practicing teacher leaders and 2) To identify the experiences that help teacher leaders acquire those attributes. This study was guided by the following research questions:

1. What types of teacher leadership roles (formal and informal) exist in international schools?
2. What are the most important attributes for teacher leaders?
 - 2a. Is there a significant difference between the attributes identified by principals for formal vs. informal teacher leaders
 - 2b. Is there a significant difference between the attributes identified by teacher leaders in formal vs. informal roles?
 - 2c. Is there a significant difference between the formal teacher leader attributes identified by principals vs. formal teacher leaders?
 - 2d. Is there a significant difference between the attributes of formal teacher leaders identified by principals in elementary/primary vs. secondary levels?
 - 2e. Is there a significant difference between the attributes of formal teacher leaders identified by formal teacher leaders in elementary/primary vs. secondary levels?

3. What programs and/or activities do teacher leaders identify as valuable in developing the attributes of a successful teacher leader?
 - 3a. Is there a significant difference between the programs and activities identified by formal vs. informal teacher leaders?
 - 3b. Is there a significant difference between the programs and activities identified by formal teacher leaders in elementary/primary vs. secondary levels?

Population

The quantity of international schools across the globe has risen over 190% since the year 2000. Between 2015 and 2017,, the total number of international schools rose from approximately 7,500 to over 8,500 institutions. At the current rate, this figure is projected to reach 15,000 by the year 2025 (International School Consultancy, 2017). In an attempt to create stronger collaborative networks among these schools, various organizations have been established to provide professional services to meet the common needs of these communities, such as professional development and faculty recruitment.

One of the most widely recognized organizations of this type is the Educational Collaborative for International Schools (ECIS), formerly known as the European Council of International Schools. Founded over 50 years ago, “ECIS is a non-profit global membership organization that provides professional learning, credentials, and bespoke solutions to its members, comprising start-up and mature international and internationally-minded schools” (“ECIS – About Us,” 2016).

In addition to its long history of serving the international school community, ECIS’ prominence is also related to its extensive membership. There are currently 331 ECIS member schools, which is at least twice as large as the other similar international school associations.

Table 1 shows the largest international school associates across various geographical regions and the number of member schools for each organization.

Table 1

International School Organizations and Number of Member Schools

Name of International School Organization	Number of Member Schools
ECI Schools (ECIS)	331
Association of International Schools in Africa	74
Association of American Schools in South America	74
East Asia Regional Council of Schools	149

Overall, the recognition of ECIS around the world and the quantity of member schools help solidify the status of the organization in relation to its peers. These factors created a strong rationale for choosing all principals and teacher leaders working in ECIS member schools to be the accessible population for the study.

Sample

The sampling frame for this study consisted of principals and teacher leaders at the 331 ECIS member schools. Based on feedback from a random sample of principals at ECIS member schools, it was determined that average number of principals and the average number of teacher leaders at these schools is 1.4 and 9.1 respectively. Therefore, the estimated number of principals is 475 and the estimated number of teacher leaders is 3,000.

In order to determine the target sample size, a power analysis was conducted using the standard alpha level of .05, the beta level of .20, and identifying the critical effect size of .20, leading to a calculated power of .80. For each inferential test, the target sample was 192 subjects (Kraemer & Theimann, 1987). As a result, for research question 2a the target numbers would be 165 teachers and 27 principals to mirror the proportions in the population. For research questions 2b, 2c, 3a, and 3b, the target number would be 192 teachers.

Given the length of the survey and based on previous studies in international schools, the expected return rate was 30% (Nulty, 2008; Cox, 2012). Census sampling was conducted with principals and teacher leaders at ECIS member schools to help ensure a usable sample.

Description of the Instrument

There are two different instruments that were used for this study. The first instrument was the Principal Survey (Appendix A) and the second instrument was the Teacher Leader Survey (Appendix B).

All principals that participated in the study completed the Principal Survey. In addition to items related to the school level (elementary/primary or secondary) of the participant and the quantity of teacher leaders and faculty members, the instruments consisted of two parts.

The first part asked participants to indicate what type of formal teacher leadership positions exist within the school, the responsibilities of the formal teacher leaders, and the areas of influence of informal teacher leaders. Respondents had a list of possible choices for each item and the option of selecting “other” to add to the list.

The second part includes 29 items related to specific professional attributes of teacher leaders. For each item, respondents indicated the level of importance of those attributes for both formal teacher leaders and informal teacher leaders. Participants responded using a 5-point Likert scale as follows: 1) not important, 2) slightly important, 3) moderately important, 4) very important, and 5) essential.

The teacher leader attributes referenced in the instrument are areas of skill, knowledge, and understandings directly connected to existing literature on teacher leadership (Appendix C). The attributes intentionally come from a range of broader categories including collaboration,

communication, pedagogical content knowledge, systems knowledge, and interpersonal skills and dispositions.

All teacher leaders who participated in the study completed the Teacher Leader Survey. In addition to items related to the school level (elementary/primary or secondary) and the type of teacher leader role (formal or informal) of the participant, there are two main parts to the instrument.

The first part includes 29 items (identical to the items in the Principal Survey) related to specific professional attributes of teacher leaders. For each item, respondents must indicate the level of importance of those attributes in their current work as either a formal or informal teacher leader. Participants will respond using a 5-point Likert scale as follows: 1) not important, 2) slightly important, 3) moderately important, 4) very important, and 5) essential.

The second part asks participants to indicate what type of programs and/or activities have helped participants acquire the attributes necessary to be an effective teacher leader. Participants will have a list of possible choices and respond by indicating the relative value of each program or activity using a 5-point Likert scale as follows: 1) not valuable, 2) slightly valuable, 3) valuable, 4) very valuable, and 5) extremely valuable. Additionally, teacher leaders had the opportunity to select “other” to add to the list of programs or activities that have been beneficial in helping them acquire the attributes of an effective teacher leader.

Instrument Validity

The draft instrument was subjected to a two-step review process that included the Delphi method and a pilot study. The use of the Delphi method ensured that input was collected from an advisory panel of experts. The pilot study was used to gather feedback related to the clarity of

directions and items the survey as well as test the accuracy of data collection via the electronic platform.

Delphi advisory panel. The panel was composed of five professionals with a wide range of experiences related to teacher leadership (Appendix D). Each panelist received a letter of invitation and was asked to respond to confirm participation (Appendix E).

Once panel members confirmed participation, I sent a uniform email to each individual (Appendix F) to offer thanks for participation and explained that two documents were attached to the email. The first attached document was titled, “Information for Delphi Expert Panel,” (Appendix G) and included information about the study and directions for providing feedback. The second document was the feedback form (Appendix H) that panel members were asked to complete and return.

Each panelist reviewed the instrument following a modified Delphi technique. This procedure allowed each person to provide feedback about the instrument independently without influence or input from other advisory panel members. Delphi advisory panelists assessed the relevance of each individual survey question to the conceptual research questions. They responded to each question with one of the following responses: a) include question in survey, b) exclude question from survey, or c) include question with modifications. Panel members then had the opportunity to suggest modifications and provide feedback to each question through a short, open-ended response. Additionally, panelists were asked for overall feedback about each section of the survey and to share any suggestions for modifications to the survey at the item level.

During the first review, all panelists indicated that the survey adequately addressed the research questions with some modifications suggested. All suggestions from the panel members

were taken into consideration. In the original Part 1 of the survey instrument, feedback from the first round resulted in six items being deleted, three items being added, and 17 items being rephrased for increased clarity. Additionally, three panelists indicated that the original Part 2 of the instrument was redundant. Ultimately, the decision was made to drop this part of the instrument in order to streamline the survey.

For the second round, panelists received a revised version of the instrument and an additional form to record feedback. The second round of responses from the advisory panel validated the revised survey. All five panelists indicated strong agreement that all of the items in the revised survey were appropriate to disseminate in terms of content and clarity.

Pilot Study

The purpose of the pilot study was to gather feedback about several components of both the Principal Survey and Teacher Leader Survey in order to make improvements. Specifically, pilot participants were asked for feedback related to the clarity of the questions and directions on the survey as well as the amount of time needed to complete the survey. Additionally, the pilot study provided an opportunity to review how data from the survey was recorded in the electronic database. The pilot study included two sets of participants. The first group consisted of current or former principals and the second group consisted of current or former teacher leaders.

The group of principals included four individuals who do not work at an ECIS member school (Appendix I). Each pilot study participant received a letter of invitation by email and was asked to respond in order to confirm participation (Appendix J). Once participation was confirmed, a uniform message (Appendix K) was sent by email to offer thanks for participation and explain the necessary next steps for participation. The participants responded to all items included in the Principal Survey and three additional questions to gather feedback (Appendix L).

The group of teacher leaders included individuals that received information about the pilot study from the principal participants. Each of these pilot study participants received a letter forwarded by the principal (Appendix M) and was asked to respond to all items included in the Teacher Leader Survey and three additional questions to gather feedback (Appendix L).

After the pilot study was completed, the feedback from participants and mock data collection was analyzed. Based on this information, further revisions were made to improve the clarity of directions, eliminate survey items to reduce the length of time needed for completion, and reorganize how the data was sorted during the collection process.

Data Gathering

In order to establish contact with the target population, an initial email was sent to a representative from ECIS asking for a list of member schools (Appendix N). Upon receiving this message, the representative offered to seek permission from her supervisor to send the survey directly to school leaders on the ECIS distribution list. Once permission was received, it was determined that the primary means of soliciting participation from principals and teacher leaders at ECIS member schools would take place via messages sent directly from ECIS to individuals on their distribution list.

For the first attempt to ask for participation in the study, school leaders received an initial message (Appendix O) describing the study and providing links for principals to access the Principal Survey (Appendix A) and teacher leaders to access the Teacher Leader Survey (Appendix B). This message also requested that school leaders forward the information to all formal and informal teacher leaders at their school since those individuals were less likely to be on the ECIS distribution list.

All participants took part in the study by responding to an electronic survey hosted by Survey Monkey. The participants were informed that data would be kept securely within a web-based platform, which utilizes Secure Sockets Layer (SSL) and Transport Layer Security (TLS) technology to protect communication by using both server authentication and data encryption. These security measures ensured that user data in transit was safe, secure, and available only to intended recipients. The data could only be accessed through user identification that included a unique password with complexity requirements.

The responses from participants were held in strict confidentiality and used only for the purposes of this study. The results have been reported in aggregate form and individual responses are unidentifiable.

Statistical Analysis

For research question 1, “*What types of teacher leadership roles (formal and informal) exist in international schools?*”, I used data collected from survey items 2, 3, and 4 in the Principal Survey. I conducted frequency counts, conventional, and summative content analysis.

For research question 2, “*What are the most important attributes for teacher leaders?*”, I used data collected from survey items 5-62 from the Principal Survey and survey items 3-31 in the Teacher Leader Survey in order to analyze responses from principals, formal teacher leaders, and informal teacher leaders.

With respect to the responses from principals, I conducted quantitative analyses of means and standard deviations for perceptions of both formal teacher leaders and informal teacher leaders. Additionally, I conducted principal component analyses (PCA) on these two sets of responses.

With the responses from both formal and informal teacher leaders, I conducted quantitative analyses of means and standard deviations. Additionally, I conducted principal component analyses (PCA) for each of these two groups.

For research question 2a, *“Is there a significant difference between the attributes identified by principals for formal vs. informal teacher leaders?”*, I used data collected from survey items 5-62 in the Principal Survey. I conducted a series of paired t-tests comparing each principal’s response about perceptions of attributes for formal versus informal teacher leaders.

For research question 2b, *“Is there a significant difference between the attributes identified by teacher leaders in formal vs. informal roles?”*, I used data collected from survey items 3-31 in the Teacher Leader Survey. Since the results of the PCA demonstrated a high correlation between the variables, a multivariate analysis of variance (MANOVA) was conducted.

For research question 2c, *“Is there a significant difference between the formal teacher leader attributes identified by principals vs. formal teacher leaders?”*, I used data collected from survey items 5-62 in the Principal Survey and 3-31 in the Teacher Leader Survey. Since the results of the PCA demonstrated a high correlation between the variables, a multivariate analysis of variance (MANOVA) was conducted.

For research question 2d, *“Is there a significant difference between the attributes of formal teacher leaders identified by principals in elementary/primary vs. secondary levels?”*, I used data collected from survey items 5-62 in the Principal Survey. Since the results of the PCA demonstrated a high correlation between the variables, a multivariate analysis of variance (MANOVA) was conducted.

For research question 2e, *“Is there a significant difference between the attributes of formal teacher leaders identified by formal teacher leaders in elementary/primary vs. secondary levels?”*, I used data collected from survey items 3-31 in the Teacher Leader Survey. Since the results of the PCA demonstrated a high correlation between the variables, a multivariate analysis of variance (MANOVA) was conducted.

For research question 3, *“What programs and/or activities do teacher leaders identify as valuable in developing the attributes of a successful teacher leader?”*, I used data collected from survey item 32 in the Teacher Leader Survey. For both sets of responses, formal teacher leaders and informal teachers leaders, I conducted quantitative analyses of means and standard deviations as well as conventional and summative content analyses for open-ended responses.

For research question 3a, *“Is there a significant difference between the programs and activities identified by formal vs. informal teacher leaders?”*, I used data collected from survey item 32 in the Teacher Leader Survey. Since the results of the PCA demonstrated a high correlation between the variables, a multivariate analysis of variance (MANOVA) was conducted.

For research question 3b, *“Is there a significant difference between the programs and activities identified by formal teacher leaders in elementary/primary vs. secondary levels?”*, I used data collected from survey item 32 in the Teacher Leader Survey. Since the results of the PCA demonstrated a high correlation between the variables, a multivariate analysis of variance (MANOVA) was conducted.

Table 2

Research Questions, Data Sources, and Methods of Analysis

Research Question	Data Source	Method of Analysis
1. What types of teacher leadership roles (formal and informal) exist in international schools?	Survey items 2, 3, and 4 in the Principal survey	Frequency counts, conventional and summative content analysis
2. What are the most important attributes for teacher leaders?	Survey items 5-62 from the Principal Survey; Survey items 3-31 from the Teacher Leader Survey;	Means, standard deviations, and PCA for principals' perceptions of formal teacher leader attributes; Means, standard deviations, and PCA for principals' perceptions of informal teacher leader attributes; Means and standard deviations, and PCA of formal teacher leader perceptions of attributes; Means, standard deviations and PCA of informal teacher leader perceptions of attributes;
2a. Is there a significant difference between the attributes identified by principals for formal vs. informal teacher leaders?	Survey items 5-62 from the Principal Survey;	A series of paired t-tests
2b. Is there a significant difference between the attributes identified by teacher leaders in formal vs. informal roles?	Survey items 3-31 from the Teacher Leader Survey;	A series of ANOVAS. The outcome variable was the attribute scores. The predictor variable was a dummy variable coded 0 for informal and 1 for formal.
2c. Is there a significant difference between the formal teacher leader attributes identified by principals vs. formal teacher leaders?	Survey items 5-62 from the Principal Survey; Survey items 3-31 from the Teacher Leader Survey;	A series of ANOVAS. The outcome variable was the attribute scores. The predictor variable was a dummy variable coded 0 for principal and 1 for formal teacher leaders.

Research Question	Data Source	Methods of Analysis
2d. Is there a significant difference between the attributes of formal teacher leaders identified by principals in elementary/primary vs. secondary levels?	Survey items 5-62 from the Principal Survey;	A series of ANOVAS. The outcome variable was the formal teacher leader attribute scores. The predictor variable was a dummy variable coded 0 for elementary/primary and 1 for secondary.
2e. Is there a significant difference between the attributes of formal teacher leaders identified by formal teacher leaders in elementary/primary vs. secondary levels?	Survey items 3-31 from the Teacher Leader Survey;	A series of ANOVAS. The outcome variable was the formal teacher leader attribute scores. The predictor variable was a dummy variable coded 0 for elementary/primary and 1 for secondary.
3. What programs and/or activities do teacher leaders identify as valuable in developing the attributes of a successful teacher leader?	Survey item 32 from the Teacher Leader survey	Means and standard deviation for quantitative data and conventional and summative content analysis for open-ended responses for formal teacher leaders; Means and standard deviation for quantitative data and conventional and summative content analysis for open-ended responses for informal teacher leaders;
3a. Is there a significant difference between the programs and activities identified by formal vs. informal teacher leaders?	Survey item 32 from the Teacher Leader survey	ANOVA test
3b. Is there a significant difference between the programs and activities identified by formal teacher leaders in elementary/primary vs. secondary levels?	Survey item 32 from the Teacher Leader survey	ANOVA test

Chapter 4:

Results

Introduction

The purpose of this study was to examine three specific elements related to teacher leadership in international schools. The first aim was to identify what types of teacher leadership roles exist in international schools. The second aim was to identify the most important attributes for teacher leaders. The third aim was to identify what programs and/or activities teacher leaders identify as most valuable in developing the attributes of a successful teacher leader.

This chapter includes the survey returns, background characteristics of the respondents, and the results in response to the seven research questions that guided the study. The questions and corresponding data for the survey distributed to principals and the survey distributed to teacher leaders are provided in Appendix R and Appendix S respectively.

Survey Returns

The online survey collector opened May 10, 2016 and closed September 15, 2016. The survey was distributed electronically to school leaders of ECIS member schools that were registered in the ECIS database.

The usable yield was a total of 222 surveys. Of the submissions that were received, 104 surveys were submitted by Principals and 118 surveys were submitted by formal or informal teacher leaders. Some of the Principal respondents did not complete all sections of the survey. Therefore, the total number of Principal respondents varied in the data gathering and analysis for different aspects of the study.

The survey data was downloaded from SurveyMonkey into an Excel file and coded numerically. Any information that could potentially identify individual respondents was removed.

Background Characteristics of Respondents

This section includes descriptive statistics for the background characteristics of the respondents. The data is divided into two parts: Teacher Leaders and Principals.

Teacher Leaders. As shown on Table 3, there were 59 teachers at the elementary/primary level (50.0%) and 50 teachers at the secondary level (42.4%). Nine teachers taught at both the elementary/primary and at the secondary level (7.6%).

Table 3

Descriptive Statistics of School Level for Teacher Leaders

		Frequency	Valid Percent
Valid	Elementary/Primary	59	50.0
	Secondary	50	42.4
	Both Levels	9	7.6
	Total	118	100.0

As shown in Table 4, there were 87 formal teacher leaders (73.7%) and 31 informal teacher leaders (26.3%).

Table 4

Descriptive Statistics of Formal vs. Informal Roles of Teacher Leaders

		Frequency	Valid Percent
Valid	Formal Teacher Leader	87	73.7
	Informal Teacher Leader	31	26.3
	Total	118	100.0

Table 5 shows the responses to the question, “Is it a requirement for formal teacher leaders at your school to receive specific training and/or professional development directly related to the leadership role?” As shown in the table, 69 teachers said, “No,” (71.1% of those who gave a valid answer) and 28 teachers said “Yes,” (28.9% of those who gave a valid answer). There were 21 teachers who responded, “I do not know,” which was equivalent to 17.8% of the respondents.

Table 5

Descriptive Statistics of Requirement of Specific Training for Teacher Leaders

		Frequency	Percent	Valid Percent
	No	69	58.5	71.1
Valid	Yes	28	23.7	28.9
	Total	97	82.2	100.0
Missing	I do not know	21	17.8	
	Total	118	100.0	

Table 6 shows the means, standard deviations (SDs), minimum numbers, and maximum numbers of full-time teachers, formal teacher leaders, and informal teacher leaders at each school.

Table 6

Descriptive Statistics of Number of Full-Time Teachers, Formal Teacher Leaders, and Informal Teacher Leaders Across Schools

	N		Mean	SD	Min.	Max.
	Valid	Missing				
How many full-time teachers are employed within your level of the school?	77	27*	49.66	33.68	7	265
How many teachers in your level of the school are formal teacher leaders?	77	27*	12.19	16.01	0	111
How many teachers in your level of the school would you categorize as informal teacher leaders?	77	27*	12.81	23.80	0	173

* 27 Principals did not complete this section of the survey

Table 7 shows the percent of teacher leader respondents within each school level who are either formal and informal teacher leaders. While the proportion of formal teacher leaders among

elementary level respondents was lower than the proportion of secondary level respondents, the difference was not statistically significant ($p = .27$).

Table 7

Frequency and Percent of Teacher Leaders at Each School Level Who Are Formal and Informal Leaders

		Formal Teacher Leaders	Informal Teacher Leaders
Elementary	Count	40	19
	% within School Level	67.8%	32.2%
Secondary	Count	39	11
	% within School Level	78.0%	22.0%
Both Levels	Count	8	1
	% within School Level	88.9%	11.1%
Total	Count	87	31
	%	73.7%	26.3%

Principals. As shown in Table 8, there were 49 principals at the elementary/primary level (47.1%), 44 at the secondary level (42.3%), and 11 serving at both levels (10.6%).

Table 8

Descriptive Statistics of School Level of Principals

	Frequency	Valid Percent
Elementary/Primary	49	47.1
Secondary	44	42.3
Both Levels	11	10.6
Total	104	100.0

Limitations of the Study

Sample size. The primary limitation of the study was the sample size of participants. A total of 104 principals and 118 teacher leaders (87 formal and 31 informal) participated in the study. Additionally, out of 104 principals there were 77 individuals who completed all of the questions. These figures are below the expected response rate based on previous studies with a similar population and may limit the generalizability of the findings.

Despite the limited sample size, there was a nearly equal representation of elementary and secondary participants for principals and formal teacher leaders. Therefore, the sample is quite representative of the larger population of international school in terms of being balanced across school levels.

Completion rate of principal survey. Another limitation of the study was the completion rate of the research survey among principal participants. Of the 104 principals that participated, 27 did not complete all parts of the survey. This outcome impacted the size of the sample for certain parts of the study, which impacts that generalizability of the study.

The principals that did complete all parts of the study were equally divided across school levels and still represented a wide range of perspectives from administrators at international schools. While a larger sample size of principals that completed the full survey would have been beneficial to increase validity, there were many statistically significant findings from the study.

Type of schools examined. A final limitation of the study is that the teacher leaders and principals surveyed all come from international schools. These institutions represent a unique set of schools that are located across the globe and have a range of organizational structures, curricula, and accrediting bodies. Therefore, it is important to state that findings of the study are most applicable to the international school context.

Research Question 1: What types of teacher leadership roles (formal and informal) exist in international schools?

Formal Teacher Leadership Roles. Table 9 shows the frequency and percent of principals who claimed each formal teacher leader role existed in their school ($n = 104$). The valid percentages add to more than 100% because some principals mentioned more than one formal teacher leader role.

A total of 29 respondents answered, “Other,” in order to include different formal, teacher leadership roles at their schools. These responses have been clustered around common roles and the responses are shown in the table below.

A total of 14 respondents answered, “None of the above,” and did not provide any response in the “Other” section provided. It is reasonable to conclude that these 14 respondents do not have any formal teacher leadership roles at their schools.

Table 9

Descriptive Statistics of Types of Formal Teacher Leadership Roles

Formal Teacher Leadership Role	Frequency	Valid Percent
Head of Department	60	63.2
Team/Grade Leader	55	57.9
Instructional Coach	23	24.2
Mentor	15	15.8
Principal or Assistant Principal	12	12.6
Curriculum or IB/DP/MYP/PYP Coordinator	12	12.6
STEAM/Tech Coach/Integrationist	4	4.2
Head of School or Assistant Head of School	2	2.1
“None of the above” and no “Other” response	14	14.7

* 9 Principals did not complete this section of the survey

Formal Teacher Leader Responsibilities. Table 10 shows a list of formal teacher leader responsibilities and the frequency and valid percent of principals who mentioned each one ($n = 104$). The valid percentages add to more than 100% because some principals mentioned more than one responsibility.

A total of 10 respondents answered, “Other,” in order to include different formal, teacher leadership responsibilities at their schools. These responses have been clustered around common responsibilities and responses are shown in the table below.

Table 10

Descriptive Statistics of Formal Teacher Leader Responsibilities

Formal Teacher Leader Responsibilities	Frequency	Valid Percent
Evaluate teachers	39	41.1
Develop aspects of the curriculum that impact other teachers	74	77.9
Lead aspects of professional development for faculty	69	72.6
Lead meetings within a team or department	90	94.7
Analyze data to guide decision-making within a team/department/division/school	64	67.4
Scheduling of classes	3	3.2
Pastoral care and discipline	2	2.1
Manage budgets	2	2.1
Mentoring faculty	2	2.1
Admissions screening	1	1.0

* 9 Principals did not complete this section of the survey

Informal Teacher Leader Areas of Influence. Table 11 shows the frequency and percent of principals who listed each area of influence for informal teacher leaders ($n = 95$). The valid percentages add to more than 100% because some principals listed more than one area of influence.

A total of five respondents answered, “Other,” in order to include different areas of influenced by informal teacher leaders. Four of the responses clustered around initiating or proactively participating in school improvement efforts. The remaining response indicated that the word “influence” was not specific enough for the respondent.

Table 11

Descriptive Statistics of Areas of Informal Teacher Leader Influence

Areas of Informal Teacher Leadership Influence	Frequency	Valid Percent
Influence instructional practice and strategies of teachers	79	80.0
Influence aspects of curriculum development	77	81.0
Influence productiveness of collaboration among teachers	79	83.2
Influence morale within the faculty	83	87.4
Influence by initiating or proactively participating in school improvement efforts	4	4.2

* 9 Principals did not complete this section of the survey

Research Question 2: What are the most important attributes for teacher leaders?

Formal Teacher Leader Attributes

Formal Teacher Leaders’ Perspective. Formal Teacher Leaders were asked to rate the importance of specific teacher leader attributes. These responses are represented through the generation of descriptive statistics for each attribute. The means and *SDs* are presented in Table 12 and organized from highest to lowest mean.

As shown, most of the attributes (20 of 29) were perceived to be between “very important” and “essential,” as indicated by the mean scores between 4 and 5. The remaining nine attributes were rated between moderately important and very important, on average, as indicated by the means between 3 and 4.

It is worth noting that a pattern emerged among the highest-ranked attributes and lowest-ranked attributes identified by formal teacher leaders. The top five attributes identified by formal teacher leaders were skills related to how teacher leaders interact with others, as opposed to being attributes associated with knowledge or particular dispositions. On the contrary, each of

the five lowest-ranked attributes was related to understandings of systems and structures within the school context. This difference points to the significant importance that formal teacher leaders place on the quality of how they interact and collaborate with others.

Table 12

Descriptive Statistics of Importance of Formal Teacher Leader Attributes according to Formal Teacher Leaders

	N	Mean	Std. Deviation
Fostering engagement in collaborative work	87	4.55	.61
Leading productive meetings	87	4.53	.57
An ability to build strong collaborative relationships	87	4.51	.57
Listening actively for understanding	87	4.46	.61
Communicating ideas clearly when speaking	87	4.46	.59
An ability to grow professionally through reflection on experience	87	4.43	.64
Establishing expectations for collaborative work	87	4.41	.64
An ability to persist when facing challenges	87	4.39	.58
An ability to act productively in response to constructive feedback	87	4.33	.60
Synthesizing information	87	4.30	.63
Leading individuals and groups to complete tasks	87	4.28	.68
Communicating ideas clearly in writing	87	4.26	.71
Asking questions to promote thinking	87	4.23	.66

	N	Mean	Std. Deviation
Managing and minimizing resistance to change	87	4.18	.66
An ability to accurately assess interpersonal dynamics	87	4.18	.76
Providing productive feedback	87	4.18	.74
Deep knowledge of instructional strategies for pertinent subject matter	87	4.09	.76
Deep knowledge of differentiation strategies to reach a wide range of learners	87	4.06	.80
Deep knowledge of curriculum development	87	4.03	.83
Sharing responsibility through delegation	87	4.00	.76
Managing and resolving conflicts	87	3.99	.87
An ability to make difficult decisions under pressure	87	3.95	.87
Deep knowledge of using assessment data to make decisions	87	3.94	.72
An ability to cope with ambiguity	87	3.93	.64
An understanding of the organizational structure and reporting lines	87	3.90	.90
An understanding of how to sustain school improvement	87	3.83	.80
An understanding of how to initiate school improvement	87	3.83	.82
An understanding of the range of stakeholder interests in the school community	87	3.69	.89
An understanding of how to manage a budget and instructional resources	87	3.28	.97
Valid N (listwise)	87		

Principals’ Perspective. Principals were asked to rate the importance of numerous teacher leader attributes. These responses are represented through the generation of descriptive statistics for each attribute. The means and *SDs* are presented in Table 13 and organized from highest to lowest mean.

As shown, most of the attributes (24 of 29) were perceived to be between “very important” and “essential,” as indicated by the mean scores between 4 and 5. The remaining five attributes were rated between “moderately important” and “very important,” on average, as indicated by the means between 3 and 4.

One of the important differences between the responses of principals versus teacher leaders was apparent when examining the top three attributes of principals. The top three attributes were “An ability to persist when facing challenges,” “An ability to act productively in response to constructive feedback,” and “An ability to grow professionally through reflection on experience.” Each of these attributes emphasized personal attributes related to persistence, grit, and a growth mindset. These attributes were also rated highly by formal teacher leaders, but appeared further down in rank order.

Table 13

Descriptive Statistics for Importance of Formal Teacher Leader Attributes according to Principals

	N	Mean	Std. Deviation
An ability to persist when facing challenges	78	4.54	.66
An ability to act productively in response to constructive feedback	78	4.50	.70
An ability to grow professionally through reflection on experience	78	4.49	.72

	N	Mean	Std. Deviation
Leading productive meetings	78	4.47	.68
An ability to build strong collaborative relationships	78	4.47	.73
Fostering engagement in collaborative work	78	4.46	.72
Listening actively for understanding	78	4.46	.75
Communicating ideas clearly when speaking	78	4.44	.68
Leading individuals and groups to complete tasks	78	4.42	.71
Establishing expectations for collaborative work	78	4.36	.77
Managing and minimizing resistance to change	78	4.35	.80
Communicating ideas clearly in writing	78	4.29	.76
Providing productive feedback	78	4.23	.82
Asking questions to promote thinking	78	4.22	.77
Deep knowledge of instructional strategies for pertinent subject matter	78	4.22	.75
Synthesizing information	78	4.19	.74
An understanding of the organizational structure and reporting lines	78	4.17	.87
An ability to accurately assess interpersonal dynamics	78	4.14	.72
Sharing responsibility through delegation	78	4.14	.82
Deep knowledge of differentiation strategies to reach a wide range of learners	78	4.12	.77
An ability to make difficult decisions under pressure	78	4.04	.97
Managing and resolving conflicts	78	4.01	1.00

	N	Mean	Std. Deviation
An understanding of how to sustain school improvement	78	4.01	.76
An understanding of the range of stakeholder interests in the school community	78	4.01	.95
Deep knowledge of using assessment data to make decisions	78	3.99	.81
An ability to cope with ambiguity	78	3.96	.87
Deep knowledge of curriculum development	78	3.96	.83
An understanding of how to initiate school improvement	78	3.94	.81
An understanding of how to manage a budget and instructional resources	78	3.49	.99
Valid N (listwise)	78		

* 26 Principals did not complete this section of the survey

Informal Teacher Leader Attributes

Informal Teacher Leaders' Perspective. Informal Teacher Leaders were asked to rate the importance of various attributes for individuals in informal teacher leadership positions. These responses are represented through the generation of descriptive statistics for each attribute. The means and *SDs* are presented in Table 14 and organized from highest to lowest mean.

As shown, slightly more than half of the attributes (16 of 29) were perceived to be between “very important” and “essential,” as indicated by the mean scores between 4 and 5. The remaining nine attributes were rated between moderately important and very important, on average, as indicated by the means between 3 and 4.

The highest ranked attributes identified by informal teacher leaders spanned a wide range of skills and qualities. In addition to personal qualities, such as persisting when facing challenges

and growing professionally through reflection, skills including listening actively and communicating clearly were also highlighted.

The lowest ranked attributes were all related to understandings of systems and structures within the school context. In consideration of the informal leadership enacted by these individuals, it is expected that these attributes would carry less importance in relation to their roles as leaders.

Table 14

Descriptive Statistics of Importance of Informal Teacher Leader Attributes according to Informal Teacher Leaders

	N	Mean	Std. Deviation
Listening actively for understanding	31	4.58	.50
An ability to grow professionally through reflection on experience	31	4.55	.57
An ability to persist when facing challenges	31	4.52	.51
Communicating ideas clearly when speaking	31	4.48	.63
Leading productive meetings	31	4.39	.62
Providing productive feedback	31	4.39	.56
An ability to act productively in response to constructive feedback	31	4.35	.61
An ability to build strong collaborative relationships	31	4.32	.75
Fostering engagement in collaborative work	31	4.32	.70
Deep knowledge of instructional strategies for pertinent subject matter	31	4.23	.88
Synthesizing information	31	4.16	.78
Communicating ideas clearly in writing	31	4.16	.78

	N	Mean	Std. Deviation
Asking questions to promote thinking	31	4.10	.75
Deep knowledge of differentiation strategies to reach a wide range of learners	31	4.10	.94
Managing and resolving conflicts	31	4.06	1.00
An ability to accurately assess interpersonal dynamics	31	3.97	.80
Leading individuals and groups to complete tasks	31	3.97	.87
Establishing expectations for collaborative work	31	3.97	.80
An ability to make difficult decisions under pressure	31	3.94	.89
An ability to cope with ambiguity	31	3.90	.75
Sharing responsibility through delegation	31	3.90	.94
Deep knowledge of using assessment data to make decisions	31	3.90	.87
Deep knowledge of curriculum development	31	3.81	1.08
An understanding of the organizational structure and reporting lines	31	3.71	1.07
An understanding of how to initiate school improvement	31	3.68	.87
An understanding of how to sustain school improvement	31	3.65	.88
An understanding of the range of stakeholder interests in the school community	31	3.45	.96
An understanding of how to manage a budget and instructional resources	31	3.32	1.08
Valid N (listwise)	31		

Principals' Perspective. Principals were asked to rate the importance of numerous attributes for informal teacher leaders. These responses are represented through the generation of descriptive statistics for each attribute. The means and *SDs* are presented in Table 15 and organized from highest to lowest mean.

Only six of the 29 attributes were perceived to be between “very important” and “essential” (as indicated by the mean scores between 4 and 5) for informal teacher leaders. This proportion differed greatly from the responses Principals gave regarding formal teacher leaders, which highlighted 24 out of 29 as being between “very important” and “essential.”

The top two attributes that Principals identified for informal teacher leaders were, “an ability to grow professionally through reflection on experience” and “an ability to act productively in response to constructive feedback.” These qualities do not explicitly indicate that these individuals have a strong influence on the actions or behaviors of fellow faculty, but it is possible that Principals view these characteristics as being important for modeling the kind of professionalism and growth mindset desired within the community.

Table 15

Descriptive Statistics for Importance of Informal Teacher Leader Attributes according to Principals

	N	Mean	Std. Deviation
An ability to grow professionally through reflection on experience	78	4.36	.66
An ability to act productively in response to constructive feedback	78	4.29	.65
An ability to build strong collaborative relationships	78	4.14	.77
Listening actively for understanding	78	4.09	.79

	N	Mean	Std. Deviation
Communicating ideas clearly when speaking	78	4.08	.66
Fostering engagement in collaborative work	78	4.03	.77
An ability to persist when facing challenges	78	3.96	.83
Asking questions to promote thinking	78	3.81	.81
Deep knowledge of differentiation strategies to reach a wide range of learners	78	3.76	.74
Managing and minimizing resistance to change	78	3.76	.97
Deep knowledge of instructional strategies for pertinent subject matter	78	3.73	.70
An ability to accurately assess interpersonal dynamics	78	3.68	.78
Establishing expectations for collaborative work	78	3.67	.92
Synthesizing information	78	3.62	.86
Leading individuals and groups to complete tasks	78	3.58	.90
Providing productive feedback	78	3.56	.96
Communicating ideas clearly in writing	78	3.55	.91
Deep knowledge of using assessment data to make decisions	78	3.44	.78
Managing and resolving conflicts	78	3.42	.96
An understanding of the organizational structure and reporting lines	78	3.40	1.10
An ability to cope with ambiguity	78	3.38	1.05
Leading productive meetings	78	3.32	.96

	N	Mean	Std. Deviation
Deep knowledge of curriculum development	78	3.27	.85
An understanding of the range of stakeholder interests in the school community	78	3.27	.99
An understanding of how to sustain school improvement	78	3.27	.95
An understanding of how to initiate school improvement	78	3.22	.96
An ability to make difficult decisions under pressure	78	3.04	1.09
Sharing responsibility through delegation	78	3.00	1.16
An understanding of how to manage a budget and instructional resources	78	2.18	.94
Valid N (listwise)	78		

* 26 Principals did not complete this section of the survey

Research Question 2a. Is there a significant difference in the level of importance of attributes identified by principals for formal vs. informal teacher leaders?

The level of importance principals placed on attributes for formal leaders versus informal teachers was analyzed by conducting a paired samples test. All 29 items on the survey related to teacher leader attributes were compared. A Bonferroni adjustment was made to protect against type 1 error. The Bonferroni adjustment was made using an alpha level of .05 and dividing by the number of tests (29). The calculation of $.05/29$ equaled .002, which meant the criterion alpha for these tests was .002.

The effect sizes for the paired differences were also calculated to highlight the magnitude of difference between the importance of an attribute for formal and informal teacher leaders. According to Cohen, effect sizes less than .20 are small, between .20 and .80 are considered

moderate in size, and greater than .80 are considered large (Cohen, 1988). The results are presented in Table 16.

Of the 29 attributes, all had mean scores for level of importance that were higher for formal teacher leaders than for informal teacher leaders and a total of 27 of the paired differences were statistically significant.

All 29 attributes met or exceeded the criteria for moderate effect size. Perhaps more importantly, there were four attributes that met Cohen's criteria for large effect size. These attributes included, "sharing responsibility through delegation", "leading productive meetings", "an understanding of how to manage a budget and instructional resources", and "an ability to make difficult decisions under pressure." Although these attributes may not appear closely related, each one points to a level of responsibility far more likely associated with formal teacher and indicates the onus placed upon these individuals by principals.

Table 16

Paired Samples Test between Formal and Informal Teacher Leader Attributes

		Paired Differences					
		Mean	SD	Effect Size	<i>t</i>	<i>df</i>	<i>p</i>
Pair 1	Fostering engagement in collaborative work (Formal Teacher Leader) - Fostering engagement in collaborative work (Informal Teacher Leader)	.44	.92	0.48	4.18	77	.0005
Pair 2	Establishing expectations for collaborative work (Formal Teacher Leader) - Establishing expectations for collaborative work (Informal Teacher Leader)	.69	1.04	0.66	5.90	77	.0005
Pair 3	Managing and resolving conflicts (Formal Teacher Leader) - Managing and resolving conflicts (Informal Teacher Leader)	.59	1.01	0.58	5.15	77	.0005
Pair 4	Sharing responsibility through delegation (Formal Teacher Leader) - Sharing responsibility through delegation (Informal Teacher Leader)	1.14	1.19	0.96	8.45	77	.0005
Pair 5	Managing and minimizing resistance to change (Formal Teacher Leader) - Managing and minimizing resistance to change (Informal Teacher Leader)	.59	1.09	0.54	4.79	77	.0005

		Paired Differences					
		Mean	<i>SD</i>	<i>Effect Size</i>	<i>t</i>	<i>df</i>	<i>p</i>
Pair 6	Leading productive meetings (Formal Teacher Leader) - Leading productive meetings (Informal Teacher Leader)	1.15	1.06	1.08	9.63	77	.0005
Pair 7	Leading individuals and groups to complete tasks (Formal Teacher Leader) - Leading individuals and groups to complete tasks (Informal Teacher Leader)	.85	1.07	0.79	6.98	77	.0005
Pair 8	Communicating ideas clearly in writing (Formal Teacher Leader) - Communicating ideas clearly in writing (Informal Teacher Leader)	.74	1.13	0.65	5.80	77	.0005
Pair 9	Communicating ideas clearly when speaking (Formal Teacher Leader) - Communicating ideas clearly when speaking (Informal Teacher Leader)	.36	.84	0.43	3.79	77	.0005
Pair 10	Providing productive feedback (Formal Teacher Leader) - Providing productive feedback (Informal Teacher Leader)	.67	1.06	0.63	5.53	77	.0005
Pair 11	Listening actively for understanding (Formal Teacher Leader) - Listening actively for understanding (Informal Teacher Leader)	.37	.85	0.44	3.84	77	.0005

		Paired Differences					
		Mean	SD	Effect Size	t	df	p
Pair 12	Synthesizing information (Formal Teacher Leader) - Synthesizing information (Informal Teacher Leader)	.58	.93	0.62	5.46	77	.0005
Pair 13	Asking questions to promote thinking (Formal Teacher Leader) - Asking questions to promote thinking (Informal Teacher Leader)	.41	.76	0.54	4.75	77	.0005
Pair 14	Deep knowledge of instructional strategies for pertinent subject matter (Formal Teacher Leader) - Deep knowledge of instructional strategies for pertinent subject matter (Informal Teacher Leader)	.49	.88	0.56	4.90	77	.0005
Pair 15	Deep knowledge of differentiation strategies to reach a wide range of learners (Formal Teacher Leader) - Deep knowledge of differentiation strategies to reach a wide range of learners (Informal Teacher Leader)	.36	.77	0.47	4.10	77	.0005
Pair 16	Deep knowledge of curriculum development (Formal Teacher Leader) - Deep knowledge of curriculum development (Informal Teacher Leader)	.69	.90	0.77	6.78	77	.0005

		Paired Differences					
		Mean	SD	Effect Size	t	df	p
Pair 17	Deep knowledge of using assessment data to make decisions (Formal Teacher Leader) - Deep knowledge of using assessment data to make decisions (Informal Teacher Leader)	.55	.80	0.69	6.09	77	.0005
Pair 18	An understanding of how to manage a budget and instructional resources (Formal Teacher Leader) - An understanding of how to manage a budget and instructional resources (Informal Teacher Leader)	1.31	1.20	1.09	9.64	77	.0005
Pair 19	An understanding of the organizational structure and reporting lines (Formal Teacher Leader) - An understanding of the organizational structure and reporting lines (Informal Teacher Leader)	.77	.97	0.79	7.03	77	.0005
Pair 20	An understanding of the range of stakeholder interests in the school community (Formal Teacher Leader) - An understanding of the range of stakeholder interests in the school community (Informal Teacher Leader)	.74	1.06	0.70	6.18	77	.0005

		Paired Differences					
		Mean	SD	Effect Size	t	df	p
Pair 21	An understanding of how to initiate school improvement (Formal Teacher Leader) - An understanding of how to initiate school improvement (Informal Teacher Leader)	.72	.92	0.78	6.86	77	.0005
Pair 22	An understanding of how to sustain school improvement (Formal Teacher Leader) - An understanding of how to sustain school improvement (Informal Teacher Leader)	.74	.95	0.78	6.94	77	.0005
Pair 23	An ability to accurately assess interpersonal dynamics (Formal Teacher Leader) - An ability to accurately assess interpersonal dynamics (Informal Teacher Leader)	.46	.85	0.54	4.81	77	.0005
Pair 24	An ability to build strong collaborative relationships (Formal Teacher Leader) - An ability to build strong collaborative relationships (Informal Teacher Leader)	.33	.73	0.45	4.02	77	.0005
Pair 25	An ability to grow professionally through reflection on experience (Formal Teacher Leader) - An ability to grow professionally through reflection on experience (Informal Teacher Leader)	.13	.63	0.21	1.79	77	.077

		Paired Differences					
		Mean	SD	Effect Size	t	df	p
Pair 26	An ability to act productively in response to constructive feedback (Formal Teacher Leader) - An ability to act productively in response to constructive feedback (Informal Teacher Leader)	.21	.80	0.26	2.28	77	.026
Pair 27	An ability to make difficult decisions under pressure (Formal Teacher Leader) - An ability to make difficult decisions under pressure (Informal Teacher Leader)	1.00	1.10	0.91	7.99	77	.0005
Pair 28	An ability to cope with ambiguity (Formal Teacher Leader) - An ability to cope with ambiguity (Informal Teacher Leader)	.58	.97	0.60	5.23	77	.0005
Pair 29	An ability to persist when facing challenges (Formal Teacher Leader) - An ability to persist when facing challenges (Informal Teacher Leader)	.58	.96	0.60	5.30	77	.0005

Research Question 2b. Is there a significant difference in the level of importance of attributes when comparing teacher leaders in formal vs. informal roles?

For this research question, the statistical method used was an ANOVA in order to compare responses from formal teacher leaders to those of informal teacher leaders on the importance of each leadership attribute. To control for type 1 errors, a Bonferroni adjustment was made. The results are presented in Table 17.

As shown on Tables 8 and 10 above, the mean score for formal teacher leaders ($m = 4.41$, $SD = .64$) was greater than the mean score for informal teacher leaders ($m = 3.97$, $SD = .80$). After conducting ANOVAs for all 29 attributes, only attribute 2, “Establishing expectations for collaborative work,” reached the criterion of $p < .002$.

Table 17

ANOVAs of Formal vs. Informal Teacher Leader Responses by Attribute

		df	F	Sig.
Fostering engagement in collaborative work	Between Groups	1	3.01	.086
	Within Groups	116		
	Total	117		
Establishing expectations for collaborative work	Between Groups	1	9.76	.002
	Within Groups	116		
	Total	117		
Managing and resolving conflicts	Between Groups	1	.16	.689
	Within Groups	116		
	Total	117		
Sharing responsibility through delegation	Between Groups	1	.32	.570
	Within Groups	116		
	Total	117		
Managing and minimizing resistance to change	Between Groups	1	.16	.692
	Within Groups	116		
	Total	117		
Leading productive meetings	Between Groups	1	1.36	.245
	Within Groups	116		
	Total	117		
Leading individuals and groups to complete tasks	Between Groups	1	4.04	.047
	Within Groups	116		
	Total	117		
Communicating ideas clearly in writing	Between Groups	1	.46	.499
	Within Groups	116		
	Total	117		
Communicating ideas clearly when speaking	Between Groups	1	.04	.847
	Within Groups	116		
	Total	117		
		df	F	Sig.

Providing productive feedback	Between Groups	1	1.94	.166
	Within Groups	116		
	Total	117		
Listening actively for understanding	Between Groups	1	.99	.322
	Within Groups	116		
	Total	117		
Synthesizing information	Between Groups	1	.96	.330
	Within Groups	116		
	Total	117		
Asking questions to promote thinking	Between Groups	1	.87	.353
	Within Groups	116		
	Total	117		
Deep knowledge of instructional strategies for pertinent subject matter	Between Groups	1	.65	.421
	Within Groups	116		
	Total	117		
Deep knowledge of differentiation strategies to reach a wide range of learners	Between Groups	1	.05	.823
	Within Groups	116		
	Total	117		
Deep knowledge of curriculum development	Between Groups	1	1.47	.228
	Within Groups	116		
	Total	117		
Deep knowledge of using assessment data to make decisions	Between Groups	1	.06	.806
	Within Groups	116		
	Total	117		
An understanding of how to manage a budget and instructional resources	Between Groups	1	.05	.824
	Within Groups	116		
	Total	117		
An understanding of the organizational structure and reporting lines	Between Groups	1	.89	.348
	Within Groups	116		
	Total	117		
An understanding of the range of stakeholder interests in the school community	Between Groups	1	1.56	.214
	Within Groups	116		
	Total	117		
An understanding of how to initiate school improvement	Between Groups	1	.74	.393
	Within Groups	116		
	Total	117		
An understanding of how to sustain school improvement	Between Groups	1	1.14	.288
	Within Groups	116		
	Total	117		
		df	F	Sig.

An ability to accurately assess interpersonal dynamics	Between Groups	1	1.82	.180
	Within Groups	116		
	Total	117		
An ability to build strong collaborative relationships	Between Groups	1	2.00	.160
	Within Groups	116		
	Total	117		
An ability to grow professionally through reflection on experience	Between Groups	1	.89	.346
	Within Groups	116		
	Total	117		
An ability to act productively in response to constructive feedback	Between Groups	1	.03	.865
	Within Groups	116		
	Total	117		
An ability to make difficult decisions under pressure	Between Groups	1	.01	.920
	Within Groups	116		
	Total	117		
An ability to cope with ambiguity	Between Groups	1	.04	.843
	Within Groups	116		
	Total	117		
An ability to persist when facing challenges	Between Groups	1	1.14	.287
	Within Groups	116		
	Total	117		

Research Question 2c. Is there a significant difference in the level of importance for formal teacher leader attributes when comparing responses of principals vs. formal teacher leaders?

Due to the multivariate nature of the data set, a Kaiser-Meyer Olkin (KMO) test was conducted to measure the proportion of variance among variables that might be common variance. The KMO statistic was .901, a value that shows items are very highly correlated (Kaiser, 1974; Kaiser & Rice, 1974). Based on the KMO value, it was concluded that the data set was very well suited for using a principal component analysis (PCA) for further interpretation of the survey responses.

The aim of the PCA was to reduce the number of inferential tests and determine underlying structures within the data. The PCA was conducted on the responses from formal teacher leaders and from principals. The rotated component matrix in Table 18 shows a varimax rotation with six strong components and all of the items within each component with a loading of .40 or higher. These six components accounted for 63.30% of all the variance in the data.

Table 18

PCA Rotated Component Matrix of Formal Teacher Leader Attributes

	Component					
	1	2	3	4	5	6
Fostering engagement in collaborative work	.754					
Establishing expectations for collaborative work	.713					
An ability to build strong collaborative relationships	.628	.421				
Providing productive feedback	.497					
Asking questions to promote thinking	.467			.435		
Leading individuals and groups to complete tasks						
An ability to cope with ambiguity		.760				
An ability to act productively in response to constructive feedback		.710				
An ability to grow professionally through reflection on experience		.669				
An ability to make difficult decisions under pressure		.648				

	Component					
	1	2	3	4	5	6
An ability to persist when facing challenges		.636				
An ability to accurately assess interpersonal dynamics		.479				
Communicating ideas clearly when speaking			.753			
Communicating ideas clearly in writing			.717			
Listening actively for understanding	.468		.573			
Synthesizing information			.539			
Managing and minimizing resistance to change			.439			
Leading productive meetings						
Deep knowledge of differentiation strategies to reach a wide range of learners				.805		
Deep knowledge of instructional strategies for pertinent subject matter				.761		
Deep knowledge of curriculum development				.756		
Deep knowledge of using assessment data to make decisions				.607		
An understanding of how to sustain school improvement					.799	
An understanding of how to initiate school improvement					.794	

	Component					
	1	2	3	4	5	6
An understanding of the range of stakeholder interests in the school community					.567	
An understanding of the organizational structure and reporting lines					.450	.441
Managing and resolving conflicts						.707
An understanding of how to manage a budget and instructional resources						.647
Sharing responsibility through delegation	.463					.569

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

In looking at the PCA rotation and the items that accounted for most of the variance, the principal components were then classified into distinct headings to support further interpretation.

The six components are as follows:

1. Fostering collaborative teamwork (component 1)
2. Persistence and grit (component 2)
3. Communication and synthesis of ideas (component 3)
4. Deep knowledge of differentiation and instructional strategies (component 4)
5. An understanding of how to initiate and sustain school improvement (component 5)
6. Management and delegation skills (component 6)

Formal Teacher Leaders’ Perspectives of Their Own Leadership Skills as Measured by Scale Scores. To analyze the teacher leaders’ perspective of their own leadership qualities, six scale scores were first created for each teacher leader respondent in the dataset. The scale scores consisted of averaging all of the items included in each component with a loading of .40 or higher for each formal teacher leader response. Subsequently, the scale scores of all formal teacher leaders were condensed into a single mean scale score for each component. The mean scale scores for the formal teacher leader responses are presented in Table 19 in order from highest mean to lowest mean.

Table 19

PCA Components Mean Scale Scores for Formal Teacher Leaders’ Responses

Formal Teacher Leaders			
Components	N	Mean	Std. Deviation
C1 Foster Collaborative Teamwork	87	4.38	.45
C3 Communication/Synthesis of Ideas	87	4.33	.41
C2 Persistence and Grit	87	4.20	.48
C4 Deep Knowledge of Strategies	87	4.03	.63
C5 Know How to Improve School	87	3.81	.67
C6 Management Skills	87	3.75	.64
Valid N (listwise)	87		

Of the mean scale scores for formal teacher leaders, three of the six components were well within the range of “very important” to “essential” in terms of importance. These components were the ability to foster collaborative teamwork, the ability to communicate and synthesize ideas, and the qualities of having persistence and grit. All of these components were rated more highly than the lowest three components by statistically significant margins.

In order to determine whether the mean scores for any of these components were higher than others by statistically significant margins, a series of paired t-tests were conducted. For the series of t-tests, the means for components ranked adjacently were compared. Because five separate comparisons were computed, the Bonferroni adjustment was applied to help control for type 1 error and shifted the alpha level to .01 ($.05/5 = .01$). The results of the paired t-tests are shown in Table 20.

Table 20

Paired t-tests for Mean Scale Scores for Formal Teacher Leaders' Responses

Pair	Components Being Compared	Differences of Means	SD	t	df	p
Pair 1	C1 Foster Collaborative Teamwork - C3 Communication/Synthesis of Ideas	.04368	.41977	.971	86	.33
Pair 2	C3 Communication/Synthesis of Ideas - C2 Persistence and Grit	.13027	.49365	2.461	86	.02
Pair 3	C2 Persistence and Grit - C4 Deep Knowledge of Strategies	.17146	.61832	2.586	86	.01
Pair 4	C4 Deep Knowledge of Strategies - C5 Know How to Improve School	.22126	.72279	2.855	86	.005
Pair 5	C5 Know How to Improve School - C6 Management Skills	.05556	.68785	.753	86	.45

Principals' Perspective of Formal Teacher Leaders' Leadership Skills as Measured by Scale Scores. To analyze the principals' perspective of formal teacher leaders' leadership skills, six scale scores were first created for each principal respondent in the dataset. The scale scores consisted of averaging all of the items included in each component with a loading of .40 or higher for each principal response. Subsequently, the scale scores of principals were

condensed into a single mean scale score for each component. The mean scale scores for the principal responses are presented in Table 21 in order from highest mean to lowest mean.

Table 21

PCA Components Mean Scale Scores for Principals' Responses

Principals			
	N	Mean	Std. Deviation
C1 Foster Collaborative Teamwork	78	4.35	.63
C3 Communication/Synthesis of Ideas	78	4.35	.62
C2 Persistence and Grit	78	4.28	.62
C4 Deep Knowledge of Strategies	78	4.07	.67
C5 Know How to Improve School	78	4.03	.68
C6 Management Skills	78	3.88	.75
Valid N (listwise)	78		

The results of the mean scale scores for principals aligned very closely to the formal teacher leaders. The rank order of importance for the components was identical with the top three components as the ability to foster collaborative teamwork, the ability to communicate and synthesize ideas, and being able to demonstrate persistence and grit.

Moreover, once again, the mean scores for these components were higher than the lowest three components by statistically significant margins.

In order to determine whether the mean scores for any of these components were higher than others by statistically significant margins, a series of paired t-tests were conducted. For the series of t-tests, the means for components ranked adjacently were compared. Because five separate comparisons were computed, the Bonferroni adjustment was applied to help control for

type 1 error and shifted the alpha level to .01 (.05/5= .01). The results of the paired t-tests are shown in Table 22.

Table 22

Paired t-tests for Mean Scale Scores for Principals' Responses

Pairs	Components Being Compared	Differences of Means	SD	t	df	p
Pair 1	C1 Foster Collaborative Teamwork - C3 Communication/Synthesis of Ideas	.00	.41	.06	77	.95
Pair 2	C3 Communication/Synthesis of Ideas - C2 Persistence and Grit	.07	.41	1.47	77	.15
Pair 3	C2 Persistence and Grit - C4 Deep Knowledge of Strategies	.21	.59	3.09	77	.003
Pair 4	C4 Deep Knowledge of Strategies - C5 Know How to Improve School	.04	.62	.55	77	.58
Pair 5	C5 Know How to Improve School - C6 Management Skills	.15	.63	2.12	77	.04

Comparison of Mean Scale Scores of Formal Teacher Leaders vs. Principals. A

comparison between the mean scale scores for these two populations was made to determine whether any statistically significant variation existed. The means presented in Table 18 (formal teacher leaders' perspective) to the means in Table 20 (principals' perspective regarding formal teacher leader attributes.) were compared using a Multivariate Analysis of Variance (MANOVA). The results showed the mean scale scores for formal teacher leaders and principals were not significantly different (Pillai's Trace [6, 158] = .052, $p = .204$).

Research Question 2d. Is there a significant difference in the level of importance of attributes of formal teacher leaders identified by principals in elementary vs. secondary levels?

A series of analysis of variance (ANOVA) tests were completed to measure whether each group of principals (elementary vs. secondary) placed different levels of importance on the attributes of formal teacher leaders. The group means used for the ANOVAs were based upon the six principal components for principals and formal teacher leaders. The Bonferroni adjustment to adjust the alpha level to control for type 1 error. Since there were six comparisons, the alpha criterion for a significant effect was .0083 ($.05/6 = .0083$). As shown in Table 23, there were no significant differences between principals by school level.

Table 23

ANOVAs of Elementary vs. Secondary Principals' Responses to Formal Teacher Leader Attributes

		<i>Df</i>	<i>F</i>	<i>p</i>
C1 Foster Collaborative Teamwork	Between Groups	2	1.38	.258
	Within Groups	75		
	Total	77		
C2 Persistence and Grit	Between Groups	2	.50	.608
	Within Groups	75		
	Total	77		
C3 Communication/Synthesis of Ideas	Between Groups	2	.26	.770
	Within Groups	75		
	Total	77		
C4 Deep Knowledge of Strategies	Between Groups	2	.27	.768
	Within Groups	75		
	Total	77		
C5 Know How to Improve School	Between Groups	2	.87	.425
	Within Groups	75		
	Total	77		
C6 Management Skills	Between Groups	2	.68	.512
	Within Groups	75		
	Total	77		

Research Question 2e. Is there a significant difference in the importance of attributes of formal teacher leaders identified by formal teacher leaders in elementary vs. secondary levels?

A series of analysis of variance (ANOVA) tests were completed to measure whether each group of formal teacher leaders (elementary vs. secondary) placed different levels of importance on the teacher leader attributes. The group means used for the ANOVAs were based upon the six principal components for principals and formal teacher leaders. The Bonferroni adjustment to adjust the alpha level to control for type 1 error. Since there were six comparisons, the alpha criterion for a significant effect was .0083 ($.05/6 = .0083$). As shown in Table 24, there were no significant differences between the formal teacher leaders by school level.

Table 24

ANOVAs of Elementary vs. Secondary Formal Teacher Leaders' Responses to Teacher Leader Attributes

		df	F	Sig.
C1 Foster Collaborative Teamwork	Between Groups	2	4.94	.009
	Within Groups	84		
	Total	86		
C2 Persistence and Grit	Between Groups	2	1.11	.336
	Within Groups	84		
	Total	86		
C3 Communication/Synthesis of Ideas	Between Groups	2	1.29	.280
	Within Groups	84		
	Total	86		
C4 Deep Knowledge of Strategies	Between Groups	2	3.86	.025
	Within Groups	84		
	Total	86		
C5 Know How to Improve School	Between Groups	2	.33	.720
	Within Groups	84		
	Total	86		
C6 Management Skills	Between Groups	2	1.80	.171
	Within Groups	84		
	Total	86		

Research Question 3. What programs and/or activities do teacher leaders identify as valuable in developing the attributes of a successful teacher leader?

Quantitative Data

Formal Teacher Leaders. Table 25 shows the means, standard deviations (SDs) and sample sizes (n_s) for the programs and activities formal teacher leaders identified as valuable in becoming a successful teacher leader. The means are organized from highest to lowest.

The highest mean was for, “Hands-on experience as a teacher leader helps me become a teacher leader.” This activity had a mean of 4.6 ($SD = .56$). A score of 4.6 is slightly beyond the mid-point between a rating of 4 (“Very Valuable”) and 5 (“Extremely Valuable”), which indicates that formal teacher leaders place a high degree of value on their experience as a teacher leader. Essentially, formal teacher leaders acknowledged that they are learning on-the-job and greatly benefiting from current experiences to develop as teacher leaders.

The next highest mean was for “Hands-on experience as a teacher helps me become a teacher leader,” ($m = 4.54$, $SD = .65$). This mean was also about halfway between 4 and 5. Thus, formal teacher leaders also place much value on their regular teaching experience in preparation for their role as a leader.

The next two items, “On-site mentoring and/or specific feedback related to work as a teacher leader helps me become a teacher leader,” and “Professional development (such as conferences or workshops) in the area of leadership help me become a teacher leader,” had means close to 4. This rating indicates that formal teacher leaders consider these programs to be “very valuable” in preparation for their roles as leaders.

The lowest three items all had means that were slightly above 3. These items were as follows: “Advanced degree programs focused on leadership help me become a teacher leader,”

“Personal background (ex. parenting, volunteering, playing on a sports team, etc.) helps me become a teacher leader,” “Professional experience outside of education (ex. running a business, working in a restaurant, etc.) helps me become a teacher leader.” Since a mean of 3 represented an experience teacher leaders deemed to be “valuable,” even the lowest three items were perceived to be important in helping formal teacher leaders prepare for their roles.

Each item had a mean higher than 3. Therefore, it is reasonable to conclude that all items were perceived to be valuable or higher, on average. As the valid sample sizes for these items ranged from 75 to 86, the large majority of formal teacher leaders gave a response for each item.

Table 25

Programs and/or Activities Formal Teacher Leaders Identify as Valuable in Developing the Attributes of a Teacher Leader

	<i>n</i>	Mean	<i>SD</i>
Hands-on experience as a teacher leader helps me become a teacher leader	81	4.60	.56
Hands-on experience as a teacher helps me become a teacher leader	83	4.54	.65
On-site mentoring and/or specific feedback related to work as a teacher leader helps me become a teacher leader	85	4.14	.94
Professional development (such as conferences or workshops) in the area of leadership help me become a teacher leader	84	3.81	1.00
Advanced degree programs focused on leadership help me become a teacher leader	75	3.31	1.10
Personal background (ex. parenting, volunteering, playing on a sports team, etc.) helps me become a teacher leader	86	3.27	1.00
Professional experience outside of education (ex. running a business, working in a restaurant, etc.) helps me become a teacher leader	79	3.03	1.00
Valid N (listwise)	61		

Informal Teacher Leaders.

Table 26 shows the means, standard deviations (SDs) and sample sizes (n_s) for the programs and activities informal teacher leaders identified as valuable in becoming a successful teacher leader. The means are organized from highest to lowest.

The highest mean was for, “Hands-on experience as a teacher helps me become a teacher leader.” This activity had a mean of 4.72 ($SD = .65$). A score of 4.72 is close to a rating of 5 (“Extremely Valuable”), which indicates that informal teacher leaders consider their experience as a teachers as the most important factor in developing as leaders.

The next highest mean was for “Hands-on experience as a teacher leader helps me become a teacher leader,” ($m = 4.38$, $SD = .90$). This mean was about halfway between 4 (“Very Valuable”) and 5, demonstrating that these individuals also greatly value their experience as informal teacher leaders in continuing to develop as leaders in their communities.

The next two items, “Professional development (such as conferences or workshops) in the area of leadership help me become a teacher leader,” and “On-site mentoring and/or specific feedback related to work as a teacher leader helps me become a teacher leader,” had means close to 4. This rating indicates that informal teacher leaders consider these programs to be “very valuable” in preparation for their roles as leaders.

The lowest three items all had means between 3 (“Valuable”) and 4. These items were as follows: “Personal background (ex. parenting, volunteering, playing on a sports team, etc.) helps me become a teacher leader,” “Advanced degree programs focused on leadership help me become a teacher leader,” and “Professional experience outside of education (ex. running a business, working in a restaurant, etc.) helps me become a teacher leader.” Since a mean of 3

represented an experience teacher leaders deemed to be “valuable,” even the lowest three items were perceived to be important in helping informal teacher leaders develop as leaders.

The similarity between the programs and/or activities identified by formal and informal teacher leaders was that both groups rated their hands-on experiences as most valuable in aiding their development as leaders. While formal teacher leaders most highly valued their teacher leadership experience and informal teacher leaders most highly valued their experience as teachers, it is reasonable to conclude that both groups see opportunities for leadership development embedded in their daily work.

Table 26

Programs and/or Activities Informal Teacher Leaders Identify as Valuable in Developing the Attributes of a Teacher Leader

	<i>n</i>	Mean	<i>SD</i>
Hands-on experience as a teacher helps me become a teacher leader	29	4.72	.65
Hands-on experience as a teacher leader helps me become a teacher leader	29	4.38	.90
Professional development (such as conferences or workshops) in the area of leadership helps me become a teacher leader	28	4.21	.69
On-site mentoring and/or specific feedback related to work as a teacher leader help me become a teacher leader	28	3.93	.86
Personal background (ex. parenting, volunteering, playing on a sports team, etc.) helps me become a teacher leader	30	3.73	.98
Advanced degree programs focused on leadership help me become a teacher leader	22	3.41	.96
Professional experience outside of education (ex. running a business, working in a restaurant, etc.) helps me become a teacher leader	28	3.04	1.20
Valid N (listwise)	20		

Open-Ended Responses

There were a limited number of valid responses to the survey question about “other” activities and programs teacher leaders found to be valuable in developing leadership attributes. Table 27 shows all of the responses with formal teacher leaders in column 1 and informal teacher leaders in column 2. The variety of responses demonstrates that individuals may find alternative opportunities either within or outside of school that they deem to be highly valuable in developing as leaders.

Table 27

Other Programs and/or Activities Teacher Leaders Identify as Valuable in Developing the Attributes of a Teacher Leader

Formal Teacher Leaders	Informal Teacher Leaders
1. opportunities to understand governance, finance, scheduling, etc.	1. SRI (School Reform Initiative) - Critical Friendship PD (HIGHLY RECOMMEND THIS! IT IS EXCELLENT!)
2. staying well informed in current trends in education through: professional book clubs, informed on research articles and being an active member of professional organizations - extremely valuable	
3. A peer leadership mentor when I was still a student	
4. Growth mindset, vision	

Research Question 3a. Is there a significant difference in value for the programs and/or activities identified by formal vs. informal teacher leaders?

A series of ANOVAs were computed to test whether there were differences between formal and informal teacher leaders regarding the value they placed on each of the activities and programs. Consistent with the analyses reported above, I applied the Bonferroni adjustment for

multiple comparisons. Thus, the alpha criterion for significance was .007 (.05/7 = .007). As shown on Table 28, none of the contrasts were significant at $p < .007$.

Table 28

ANOVAs for Programs and/or Activities Identified by Formal vs. Informal Teacher Leaders as Valuable in Developing the Attributes of a Teacher Leader

		<i>df</i>	<i>F</i>	<i>p</i>
Advanced degree programs	Between Groups	1	.155	.695
focused on leadership help	Within Groups	95		
me become a teacher leader	Total	96		
Professional development	Between Groups	1	3.956	.05
(such as conferences or	Within Groups	110		
workshops) in the area of				
leadership help me become a	Total	111		
teacher leader				
On-site mentoring and/or	Between Groups	1	1.122	.292
specific feedback related to	Within Groups	111		
work as a teacher leader help				
me become a teacher leader	Total	112		
Hands-on experience as a	Between Groups	1	1.687	.197
teacher helps me become a	Within Groups	110		
teacher leader	Total	111		
Hands-on experience as a	Between Groups	1	2.437	.121
teacher leader helps me	Within Groups	108		
become a teacher leader	Total	109		
Personal background (ex.	Between Groups	1	4.883	.03
parenting, volunteering,	Within Groups	114		
playing on a sports team, etc.)				
helps me become a teacher	Total	115		
leader				
Professional experience	Between Groups	1	.002	.964
outside of education (ex.	Within Groups	105		
running a business, working				
in a restaurant, etc.) helps me	Total	106		
become a teacher leader				

Research Question 3b. Is there a significant difference in value for the programs and activities identified by formal teacher leaders in elementary vs. secondary levels?

A series of ANOVAs were computed to test whether there were differences between formal teacher leaders in elementary vs. secondary levels. The means for formal teacher at each school level were compared on the value scores for each activity/program that helps teachers develop leadership skills. There were 40 formal teacher leaders at the Elementary/Primary level, 39 at the Secondary level, and 8 who taught at both levels. As shown on Table 29, there were no mean differences across school levels on any of the value scores for activities and programs. None of the probability (p) statistics reached the criterion for a significant effect (i.e. $p < .007$).

Table 29

ANOVAs for Programs and/or Activities Identified by Formal Teacher Leaders in Elementary vs. Secondary as Valuable in Developing the Attributes of a Teacher Leader

		<i>df</i>	<i>F</i>	<i>p</i>
Advanced degree programs focused on leadership help me become a teacher leader	Between Groups	2	.70	.502
	Within Groups	72		
	Total	74		
Professional development (such as conferences or workshops) in the area of leadership help me become a teacher leader	Between Groups	2	2.41	.096
	Within Groups	81		
	Total	83		
On-site mentoring and/or specific feedback related to work as a teacher leader help me become a teacher leader	Between Groups	2	1.53	.224
	Within Groups	82		
	Total	84		
Hands-on experience as a teacher helps me become a teacher leader	Between Groups	2	2.83	.065
	Within Groups	80		
	Total	82		
Hands-on experience as a teacher leader helps me become a teacher leader	Between Groups	2	.03	.967
	Within Groups	78		
	Total	80		
Personal background (ex. parenting, volunteering, playing on a sports team, etc.) helps me become a teacher leader	Between Groups	2	.06	.944
	Within Groups	83		
	Total	85		
Professional experience outside of education (ex. running a business, working in a restaurant, etc.) helps me become a teacher leader	Between Groups	2	.11	.893
	Within Groups	76		
	Total	78		

Chapter 5:

Discussion of Findings

This study explored aspects of teacher leadership in the context of international schools. Although decades of studies have focused on teacher leadership, there is only one other study that explores this topic within an international school setting. With over 7,000 international schools worldwide and projections for continued growth in this sector, this study simultaneously adds to the general body of knowledge related to teacher leadership and broadens our knowledge of international schools (ICEF Monitor, 2014).

The specific aims of the research included an investigation of the types of leadership roles (formal and informal) that exist in international schools, the most important attributes of teacher leaders, and the kinds of experiences that are most valuable in developing the attributes of a successful teacher leader.

This chapter is organized into three sections. First, the notable findings of the study in relation to the existing literature will be summarized. Next, suggestions for further research will be made to add to the growing body of knowledge on teacher leadership. Finally, a discussion of the implications and suggestions for future practice will be provided.

Notable Findings

Most important attributes of formal teacher leaders. A number of recent efforts have been made in the field to identify the common elements of successful teacher leaders. For example, some educational organizations and consortiums have attempted to determine the core values and strategies utilized by effective teacher leaders (Teacher Leader Exploratory Consortium, 2012; Leading Educators, 2015). Similarly, there have also been research studies,

such as the one conducted by Gordon, Jacobs, & Solis (2014), that identify the primary categories of characteristics of successful teacher leaders.

Adding to the existing literature, this study examined similar elements related to teacher leaders with a unique focus on the context of international schools. The study explored the importance of 29 individual attributes of teacher leaders, which comprised a compilation of skills, knowledge, and understandings drawn from the literature related to teacher leadership. Additionally, further analysis of the ratings related to the 29 attributes was conducted in order to locate clusters that succinctly indicate the most important categories of attributes.

Formal teacher leader perspective. Of the 29 attributes of teacher leaders included in the survey, the top five attributes identified by formal teacher leaders were “fostering engagement in collaborative work,” “leading productive meetings,” “an ability to build strong collaborative relationships,” “listening actively for understanding,” and “communicating ideas clearly when speaking.” This finding indicates the high level of importance placed upon how teacher leaders interact with others. Moreover, these attributes were considered to be more important by statistically significant margins than other attributes associated with content knowledge, pedagogical strengths, or understandings of systems and structures within the school context.

The additional analysis of responses from formal teacher leaders highlighted three overarching components of teacher leadership that capture the essence of the results: 1) Foster Collaborative Teamwork 2) Communication and Synthesis of Ideas 3) Persistence and Grit. These components represent that core attributes that formal teacher leaders identify as being most important in their roles.

Principal perspective. Of the 29 attributes of teacher leaders included in the survey, the

top three attributes were “An ability to persist when facing challenges,” “An ability to act productively in response to constructive feedback,” and “An ability to grow professionally through reflection on experience.” This finding demonstrates the importance that principals place on the personal attributes of formal teacher leaders related to persistence, grit, and a growth mindset.

The additional analysis of responses from principals highlighted three overarching components of teacher leadership that capture the essence of the results: 1) Foster Collaborative Teamwork 2) Communication and Synthesis of Ideas 3) Persistence and Grit. These components represent the core attributes that principals identify as being most important in their roles.

Alignment between formal teacher leaders and principals. Typically, studies related to teacher leadership have focused on gathering data from either administrators or teacher leaders (York-Barr & Duke, 2004; Katzenmeyer & Moller, 2001; Pruitt, 2008). By comparison, this study offers a unique perspective utilizing a principal component analysis that merges the data from both principals and teacher leaders.

When comparing the key components that surfaced from the analysis of formal teacher leader and principal responses, the rank order of components was identical between the two groups. Both formal teacher leaders and principals identified the top three components as the ability to foster collaborative teamwork, the ability to communicate and synthesize ideas, and being able to demonstrate persistence and grit. The alignment between the two groups strengthens the conclusion that these categories of attributes are of utmost importance for teacher leaders in international schools.

The identification of those three primary components is generally supportive of the larger body of work related to teacher leadership. The existing literature indicates the importance of

attributes related to fostering collaboration, aspects of communication, and personal qualities related to work ethic (Center for Strengthening the Teaching Profession, 2009).

With that said, the findings of this study differ to some extent from previous research. The categories identified in this study were rated as significantly more important than areas such as content knowledge and pedagogy, which have previously been noted as being of equal or less importance (Danielson, 2006).

One possible reason for this divergence is the fact that school leadership across the field has changed significantly in recent years. School leaders are now expected to move well beyond the realm of being a simple “manager” of faculty and instead act as a coach and team builder that inspires teachers and fosters collaboration (Alvoid & Black Jr, 2014). Moreover, there has been a shift away from rewarding principals for focusing on solving isolated problems to instead placing emphasis on growing overall capacity and engaging in systems thinking to resolve challenges (Fullan, 2014). With administrators now viewing leadership through this contemporary lens, it is not difficult to imagine that current teacher leaders are expected to exercise leadership in a similar fashion. In such a context, it would come as no surprise that leadership attributes such as communication and the ability to foster collaboration would be deemed as more valuable than pedagogy and content knowledge.

Most important attributes of informal teacher leaders. While a significant number of studies focus on formal leadership structures within schools, the impact of informal leaders is an increasing area of focus for researchers (Topolinski, 2014). Even though informal teacher leaders often do not see themselves as providing genuine leadership capacity, principals consistently acknowledge the value and importance of these faculty members who influence the work of colleagues without any formal leadership role (Fairman & Mackenzie, 2015).

While there is general consensus within the field that all informal teacher leaders have influence beyond their classrooms, fewer studies have been conducted that explicitly examine attributes of these individuals (Danielson, 2006). Therefore, the findings from this study are notable in that principals were asked to identify the most important attributes of their informal teacher leaders, essentially indicating the kinds of qualities that enable those individuals to have a positive influence on colleagues.

Informal teacher leader perspective. Of the 29 attributes of teacher leaders included in the survey, the top five attributes identified by informal teacher leaders were “listening actively for understanding,” “an ability to grow professionally through reflection on experience,” “an ability to persist when facing challenges,” “communicating ideas clearly when speaking,” and “leading productive meetings.” These attributes represent a combination of skills related to interacting with others and qualities related to having a growth mindset.

The additional analysis of responses from informal teacher leaders highlighted three overarching components related to informal teacher leaders that capture the essence of the results: 1) Collaborating, Questioning, and Reflecting 2) Communication and Synthesis of Ideas 3) Persistence and Grit. It is worth noting that informal teacher leaders did not indicate that instructional expertise was an important attribute for informal teacher leadership, even though this characteristic is consistently noted as being an important factor in determining whether a faculty member will be able to positively influence colleagues through informal leadership (Danielson, 2007).

One possible reason for the difference between these findings and existing literature is that most studies on teacher leadership measure responses and input from school administrators as opposed to directly soliciting input from informal teacher leaders. This difference in

perspective is critical as one of the characteristics often associated with teacher leaders, particularly those with informal influence, is humility (Ackerman & Mackenzie, 2006; Danielson, 2006). As a result, it is quite possible that the informal teacher leaders who responded to the survey do not necessarily view their instructional skills as being notably different from colleagues because of their humble dispositions.

Another possible reason that for informal teacher leaders may not identify instructional expertise or content knowledge as being one of the most important attributes is because their influence is most deeply felt outside this narrow domain. For example, while it would be expected the informal teacher leaders would have an influence on the instructional strategies used by colleagues, studies have also shown that these informal leaders have a deep impact through modeling certain professional attitudes or dispositions, collaborating with colleagues to advocate for school change, or being in a supportive role to others that help establish deeper relationships among faculty (Fairman & Mackenzie, 2014). In light of these ways that informal teacher leaders influence colleagues, it is understandable to see how these leaders might value attributes outside of instructional expertise as being more important in positively influencing the work and engagement of colleagues.

Principal perspective. Of the 29 attributes of teacher leaders included in the survey, the top three attributes of informal teacher leaders identified were, “An ability to grow professionally through reflection on experience,” “An ability to act productively in response to constructive feedback,” and “An ability to build strong collaborative relationships.” This finding demonstrates the importance that principals place on the personal attributes of informal teacher leaders related to maintaining a growth mindset and collaborating with others.

The additional analysis of responses from principals highlighted three overarching

components related to informal teacher leaders that capture the essence of the results: 1) Collaborating, Questioning, and Reflecting 2) Communication and Synthesis of Ideas 3) Deep Knowledge of Instructional Strategies. As previously noted, field researchers frequently mentions the importance of pedagogical expertise as a common characteristic of informal teacher leaders and the responses from principals in this study affirm this finding (York-Barr & Duke, 2004; Danielson, 2006).

These components align very closely to the responses of informal teacher leaders, with the exception of the overarching third principle component. Whereas informal teacher leaders indicated persistence and grit as more important, principals indicated that deep knowledge of instructional strategies was more valuable. One possible explanation for this divergence may stem from the differences between the roles of principals and teacher leaders. In the case of principals, because they are continually trying to increase instructional expertise school wide, it is to be expected that they deeply value the ability of one faculty member to positively influence the teaching of a colleague. Conversely, though teachers may have a high level of interest in student achievement across the school, informal leaders are faced with the ongoing task of fostering collaboration and trying to elevate the quality of interactions with colleagues. The degree of necessity for informal teacher leaders to focus on these aspects of leadership in order to improve their own work experience could very well have an influence on the level of importance associated with these attributes.

Most valuable experiences to support development of teacher leaders. For school communities that value teacher leadership, knowledge of how to effectively develop teacher leaders is critical. Knowing that the attributes of successful teacher leaders differ from the attributes of good classroom teachers, it cannot be assumed that all educators will have had the

experiences to prepare for leadership roles (Danielson, 2006).

Through this study, formal teacher leaders were asked to indicate what type of experience had the greatest impact on their leadership development. The results showed that first-hand leadership experience as the most important factor in their development as teacher leaders. This finding supports the conclusions drawn by Pruitt (2008), which highlighted concrete leadership opportunities as very important events in the career trajectory of teacher leaders. Even though professional development, advanced degrees, and classroom experience aided the growth of teacher leaders, it is noteworthy that both studies of teacher leadership in international schools emphasize hands-on leadership experience as the most important factor in helping teacher leaders develop.

This finding also supports the broader existing literature related to the need for individuals to have leadership experience in order to develop certain leadership capacities (Teach Plus, 2015). Some of the specific skills that are enhanced through practice include running meetings, leading groups in collaborative processes, and facilitating change (Gordon, Jacobs, & Solis, 2014). Without a base of direct experience in which a teacher leader has had the opportunity to practice those skills, it is difficult to an individual becoming highly effective in these areas.

Effect of School Level on Attributes of Teacher Leaders. Previous studies in the field related to leadership differences by school level have predominantly been focused upon organizational design and administrative actions. In many cases, researchers noted that there are significant school level differences in terms of faculty and administrative structures that lead to fundamentally different leadership needs (Firestone & Herriott, 1982). Moreover, Louis et al.

(2010) demonstrated how elementary and secondary schools tended to differ in terms of actions taken by school principals in order to set a school wide instructional tone.

This particular study is the first to examine the effect of school level of the most important attributes of teacher leaders. In light of the existing literature that indicates differences in structures, leadership needs, and typical actions of principals at each school level, one might expect there to be differences between elementary and secondary levels in terms of the attributes deemed as most important for teacher leaders. However, the notable finding from the study is that there were no statistically significant differences between the responses of elementary and secondary participants. In comparing the responses of teacher leaders at both school levels as well as a comparison of principal responses across levels, there were absolutely no statistically significant differences of any kind.

Based on the previous literature related to the effect of school level on leadership, this finding may come as somewhat of a surprise. However, upon further reflection, the logical explanation is that the attributes required to be an effective teacher leader across both divisions remain constant even though the roles, collaborative structures, and types of tasks may vary. For example, department chairs typically associated with secondary schools often lead vertical teams with individuals who teach a single subject area. Meanwhile, grade level leaders typically associated with elementary schools lead horizontal teams with individuals that all teach a range of subject areas. Despite these differences, teacher leaders in both of these roles will still be required to foster collaboration, communicate effectively, and demonstrate perseverance, even if the specific collaborative outcomes might be different.

Recommendations for Future Research

Upon completion of this study and the subsequent consideration of its place within the broader context of the literature, a series of future studies emerge. Each of the recommendations is directly related to the notable findings of this study in order to strengthen or provide counter evidence against that would add to the body of knowledge on teacher leadership.

Studies on teacher leadership in different school contexts. The sampling frame for the study consisted of principals and teacher leaders at ECIS member schools. While ECIS is a leading network of international schools, there is ample room to consider similar studies in different school contexts.

One possibility would be to add to the knowledge base related to international schools. All major regions of the world have organizing bodies with member schools in that geographical region. By conducting similar studies in various regions, analyses could be made as to whether the findings from this study hold true across a broader set of international schools or whether there are significant differences related to teacher leadership based on the subset of international schools.

Another possibility would be to conduct a similar study within the context of U.S. schools. One specific option would be to examine teacher leadership among independent schools due to the many similarities between those institutions and international schools. Typically, international schools and U.S. independent schools are either unique entities or part of a small network of schools that operate with their own bylaws and governance structures. Additionally, both types of schools generally engage in very similar practices with respect to using tuition to finance the institution, developing curriculum internally, and utilizing external accreditation processes carried out by many of the same associations (Middle States Association, New

England Association of Schools and Colleges, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges). Because of the similarities between international schools and U.S. independent schools, further study within this new context may be of particular interest in the field

Study on type of ongoing support that benefits formal teacher leaders. One of the notable findings of this study was the level of importance that formal teacher leaders placed on gaining hands-on leadership experience. More than professional development or classroom experience, formal teacher leaders felt that being in a formalized role and learning in situ had the greatest impact on their leadership development.

Though practical experience will certainly be at the core of development for any leader, there are different types of support and feedback that individuals may receive to enhance their development. Consequently, one possible study would be to investigate what type of support is most beneficial for teacher leaders, whether it be feedback from teachers, mentoring from fellow teacher leaders, or guided reflections with principals. This study would be extremely valuable in designing a strategic plan for supporting the growth and development of teacher leaders once they have assumed these formal roles.

Study on attributes of teacher leaders from the perspective of teachers. This study focused on analyzing aspects of teacher leadership from the perspective of principals and teacher leaders in the context of international schools. The responses from each of these groups highlighted the top individual attributes of teacher leaders and further analysis allowed for determining how those attributes aligned into the key overarching components of effective teacher leadership.

While the perspective of principals and teacher leaders are critical given their formal roles as school leaders, the perspective of faculty members is absent from the study. Therefore, a recommendation for future study would be to survey faculty members at international schools with formal teacher leaders to add this stakeholder group's point of view. This future study could focus on determining how the top attributes of teacher leaders indicated by faculty members are either similar or dissimilar from those indicated by formal teacher leaders and principals. Moreover, it would be useful to determine whether the key components of teacher leaders indicated by faculty align the components indicated by teacher leaders and principals.

Study on selection and evaluation criteria for teacher leaders. In consideration of the findings related to the top attributes and key components of teacher leadership, another recommendation for future study would be to focus on the selection and evaluation criteria for teacher leaders. Given the strong alignment between the key components identified by both groups, it would be valuable to study whether the current practices related to selecting and evaluating the work of formal teacher leaders coincides with what is deemed to be most important for the success of those in these various roles.

Recommendation for Practice

This study provided insights into the different aspects of teacher leadership in the context of international schools. The most important attributes of teacher leaders, from the perspective of formal teacher leaders as well as principals, were identified. Additionally, knowledge was gained with respect to what formal teacher leaders believe is the most important experiential factor in leadership development. Based on these findings, I suggest a number of ideas for future practice.

Using key components of effective teacher leaders to design hiring process. The identification of the key components of effective teacher leaders has important implications for

recruitment and hiring in the realm of teacher leadership. One suggestion is for school administrators to use these components as the criteria for designing a strategic hiring process. For example, knowing that the most important components include the ability to foster collaborative teamwork, the ability to communicate and synthesize ideas, and the personal qualities of persistence and grit, administrators could establish a vetting process that focuses on these areas. Using behavioral interviewing strategies, administrators could attempt to determine which individuals might have the greatest capacity to foster collaborative work or demonstrate persistence and grit. Additionally, candidates could be asked to demonstrate communication skills around complex topics that require a synthesis of ideas.

While there is no such thing as a perfect hiring process, the importance of recruitment for any leadership position is paramount. By making an effort to strategically seek out individuals whose profiles align with the key components of teacher leaders may ultimately increase the likelihood of selecting candidates that are a good fit for the roles.

Using key components to guide support and evaluation of teacher leaders. The identification of the key components of effective teacher leaders has clear implications for the way in which teacher leaders are evaluated. As findings from the study demonstrated an alignment between principals and formal teacher leaders about these key components, one suggestion is for teacher leaders to receive support and be evaluated in alignment these categories of attributes. By working in this fashion, the school would provide clarity regarding the most important aspects of teacher leaders and help focus the efforts of these individuals toward the most important attributes.

Using knowledge of formal teacher leader responsibilities to improve role clarification and guide professional development. The basic knowledge of the range and

types of responsibilities typically associated with formal teacher leaders across international schools may be very useful for principals. To begin, this awareness of common practices across similar schools provides a reference point for any efforts to further refine or clarify the role of teacher leaders within a given context. For example, a school leader may notice that nearly three quarters of formal teacher leaders work on developing aspects of the curriculum and decide to clearly articulate this responsibility as part of the role.

In addition to the general benefits of having clearly defined roles for teacher leaders in a given community, this clarity of responsibilities also serves the purpose of guiding the kind of professional development necessary to support those teacher leaders. Once the role of a teacher leader includes specific responsibilities, such as curriculum development, evaluating teachers or facilitating meetings, it becomes increasingly clear that schools should seek to provide professional development and support in those specific areas. The combined effort of further defining the role of teacher leaders through clearly identifying key responsibilities and linking targeted professional development of teacher leaders could simultaneously develop individual capacity and ensure that the work being carried out through a shared leadership model is done effectively.

Leveraging leadership experience to grow leadership capacity. Unsurprisingly, formal teacher leaders indicated that hands-on leadership experience is the activity that has the greatest impact on leadership development. This finding leads to different implications for the growth of leadership capacity within a school.

In the case of individuals stepping into teacher leadership positions for the first time, one suggestion is for administrators to be cognizant that continuity in the role and the accumulation of experience may be the most important factor in helping the person grow as a leader.

Therefore, schools that systematically rotate individuals or have very short tenures for teacher leaders may want to reconsider their approach in order to fully develop the leadership capacities of these individuals.

Another important implication of this study is the possible impact of teacher leaders on leadership succession planning within a school. Knowing that concrete leadership experience helps individuals develop leadership attributes, it is likely that successful teachers leaders could become viable candidates for administrative openings that arise. For schools that are focused on deliberately supporting the transition between school administrators, the presence of a strong pool of internal candidates may be hugely beneficial. The strategic development of this pool, which begins with the creation and support of teacher leadership positions, provides an opportunity for schools to promote from within and maintain a degree of continuity that is difficult to match with an external candidate.

Finally, with the total number of international schools projected to double in the next decade, institutions around the world will be searching for individuals to assume important leadership roles. The sheer volume of future openings indicates that schools will need to seek out school administrators outside of the international school network or search for individuals within the network that are eager to make a transition to a full-time leadership position. For this latter category of candidates, one could assume that today's current crop of teacher leaders will likely include many of the future leaders of international schools. Consequently, efforts to better understand and support the development of teacher leaders in international schools may very well have a lasting impact on the landscape of international school leadership at the administrative level.

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Appendix A

Principal Survey

Teacher Leadership in the Context of International Schools

Introduction

1 / 6  17%

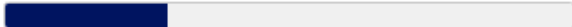
Thank you for agreeing to participate in this research study. The goal of the study is to examine different aspects of teacher leadership in the context of international schools.

This survey should take approximately 10 minutes to complete. Please be assured that responses will remain strictly confidential and be used only for the purpose of this study. The results will be reported in aggregate form only and unidentifiable by individual.

Next

Teacher Leadership in the Context of International Schools

Informed Consent

2 / 7  29%

The study will:

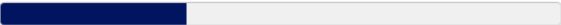
- Report results in aggregate form without identification of individuals or schools. The results will indicate the response of individuals at ECIS member schools related to the most important attributes of teacher leaders, the ways in which teacher leaders at their schools have acquired those attributes, and what their schools are doing to support the development of teacher leaders.
- Maintain strict confidentiality in accordance with the Federal Policy for the Protection of Human Subjects (Federal Register, 1991) and the Ethical Principles in the Conduct of Research with Human Participants (APA, 1982). You will be asked for demographic information about your school and your school's name will be published in the list of participating schools.
- Include minimal risks and provide potential benefits. Information submitted via the online survey will be password protected and access limited to the researcher. All data will be kept securely within a web-based survey platform (Survey Monkey) that utilizes Secure Sockets Layer (SSL) and Transport Layer Security (TLS) technology to protect communication by both server authentication and data encryption.
- Participants receive no direct benefit; however, participation may help increase information and knowledge that may prove beneficial to others in the future.
- Provide a summary report. You will receive a summary report of this study about teacher leadership at ECIS member schools.
- Honor your voluntary participation. You are identified as a principal at an ECIS member school. Completing and submitting the survey verifies your consent to include your responses in the aggregate survey data.

Prev

Next

Teacher Leadership in the Context of International Schools

Definitions of Key Terms

2 / 6  33%

Formal teacher leader: a faculty member with formal leadership responsibilities and a teaching load of at least 50% (examples include department chair, team leader, instructional coach)

Informal teacher leader: a faculty member with a full-time teaching load that influences the work of colleagues without any positional authority

Elementary Level: This level includes early childhood (ex. Birth to US Pre-Kindergarten/Kindergarten or equivalent) and any grade levels considered to be elementary/primary at your current school (ex. U.S. Kindergarten/1st Grade to 5th/6th Grade or equivalent)

Secondary Level: This level includes all grades beyond the Elementary level at your current school (ex. U.S. 5th/6th Grade to 12th Grade or equivalent)

Prev

Next

Teacher Leadership in the Context of International Schools

School Level

3 / 6  50%

Elementary Level: This level includes early childhood (ex. Birth to US Pre-Kindergarten/Kindergarten or equivalent) and any grade levels considered to be elementary/primary at your current school (ex. U.S. Kindergarten/1st Grade to 5th/6th Grade or equivalent)

Secondary Level: This level includes all grades beyond the Elementary level at your current school (ex. U.S. 5th/6th Grade to 12th Grade or equivalent)

*** 1. Indicate your school level.**

Please select all that apply.

Elementary

Secondary

Prev

Next

Teacher Leadership in the Context of International Schools

Teacher Leadership at Current School

4 / 6  67%

This part of the survey includes general questions about teacher leadership at your current school.

*** 2. Please indicate the formal teacher leadership positions at your school.**

Please select all that apply.

- Head of Department
- Team/Grade Leader
- Instructional Coach (must be at least 50% part-time teacher)
- Mentor (with formal mentor relationship with at least one colleague)
- None of the above

Other (please specify)

*** 3. Please indicate the responsibilities shared by or fully delegated to formal teacher leaders at your school.**

Please select all that apply.

- Evaluate teachers
- Develop aspects of the curriculum that impact other teachers
- Lead aspects of professional development for faculty
- Lead meetings within a team or department
- Analyze data to guide decision-making within a team/department/division/school
- None of the above

Other (please specify)

*** 4. Please indicate the areas of influence of informal teacher leaders at your school.**

Please select all that apply.

- Influence instructional practice and strategies of teachers
- Influence aspects of curriculum development
- Influence productiveness of collaboration among teachers
- influence morale within the faculty
- None of the above

Other (please specify)

Teacher Leadership in the Context of International Schools

Teacher Leadership Inventory

5 / 6

83%

This part of the survey includes items that ask you to rate the level of importance of different attributes for teacher leaders at your school.

For each attribute, please rate a level of importance for FORMAL TEACHER LEADERS and INFORMAL TEACHER LEADERS.

*** 5. Fostering engagement in collaborative work**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 6. Fostering engagement in collaborative work**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 7. Establishing expectations for collaborative work**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 8. Establishing expectations for collaborative work**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 9. Managing and resolving conflicts**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 10. Managing and resolving conflicts**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 11. Sharing responsibility through delegation**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 12. Sharing responsibility through delegation**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 13. Managing and minimizing resistance to change**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 14. Managing and minimizing resistance to change**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 15. Leading productive meetings**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 16. Leading productive meetings**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 17. Leading individuals and groups to complete tasks**

(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 18. Leading individuals and groups to complete tasks**

(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 19. Communicating ideas clearly in writing**

(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 20. Communicating ideas clearly in writing**

(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 21. Communicating ideas clearly when speaking**

(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 22. Communicating ideas clearly when speaking**

(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 23. Providing productive feedback**

(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 24. Providing productive feedback**

(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 25. Listening actively for understanding**

(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 26. Listening actively for understanding**

(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 27. Synthesizing information**

(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 28. Synthesizing information**

(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 29. Asking questions to promote thinking**

(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 30. Asking questions to promote thinking**

(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 31. Deep knowledge of instructional strategies for pertinent subject matter**

(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 32. Deep knowledge of instructional strategies for pertinent subject matter**

(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 33. Deep knowledge of differentiation strategies to reach a wide range of learners**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 34. Deep knowledge of differentiation strategies to reach a wide range of learners**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 35. Deep knowledge of curriculum development**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 36. Deep knowledge of curriculum development**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 37. Deep knowledge of using assessment data to make decisions**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 38. Deep knowledge of using assessment data to make decisions**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 39. An understanding of how to manage a budget and instructional resources**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 40. An understanding of how to manage a budget and instructional resources**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 41. An understanding of the organizational structure and reporting lines**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 42. An understanding of the organizational structure and reporting lines**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 43. An understanding of the range of stakeholder interests in the school community**
(Formal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 44. An understanding of the range of stakeholder interests in the school community**
(Informal Teacher Leader)

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 45. An understanding of how to initiate school improvement
(Formal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 46. An understanding of how to initiate school improvement
(Informal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 47. An understanding of how to sustain school improvement
(Formal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 48. An understanding of how to sustain school improvement
(Informal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 49. An ability to accurately assess interpersonal dynamics
(Formal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 50. An ability to accurately assess interpersonal dynamics
(Informal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 51. An ability to build strong collaborative relationships
(Formal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 52. An ability to build strong collaborative relationships
(Informal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 53. An ability to grow professionally through reflection on experience
(Formal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 54. An ability to grow professionally through reflection on experience
(Informal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 55. An ability to act productively in response to constructive feedback
(Formal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 56. An ability to act productively in response to constructive feedback
(Informal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 57. An ability to make difficult decisions under pressure
(Formal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 58. An ability to make difficult decisions under pressure
(Informal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 59. An ability to cope with ambiguity
(Formal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 60. An ability to cope with ambiguity
(Informal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 61. An ability to persist when facing challenges
(Formal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 62. An ability to persist when facing challenges
(Informal Teacher Leader)**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Prev

Next

Appendix B

Teacher Leader Survey

Teacher Leadership in the Context of International Schools

Introduction

1 / 6



17%

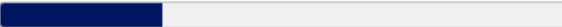
Thank you for agreeing to participate in this research study. The goal of the study is to examine different aspects of teacher leadership in the context of international schools.

This survey should take approximately 10 minutes to complete. Please be assured that responses will remain strictly confidential and be used only for the purpose of this study. The results will be reported in aggregate form only and unidentifiable by individual.

Next

Teacher Leadership in the Context of International Schools

Informed Consent

2 / 7  29%

The study will:

- Report results in aggregate form without identification of individuals or schools. The results will indicate the response of individuals at ECIS member schools related to the most important attributes of teacher leaders, the ways in which teacher leaders at their schools have acquired those attributes, and what their schools are doing to support the development of teacher leaders.
- Maintain strict confidentiality in accordance with the Federal Policy for the Protection of Human Subjects (Federal Register, 1991) and the Ethical Principles in the Conduct of Research with Human Participants (APA, 1982). You will be asked for demographic information about your school and your school's name will be published in the list of participating schools.
- Include minimal risks and provide potential benefits. Information submitted via the online survey will be password protected and access limited to the researcher. All data will be kept securely within a web-based survey platform (Survey Monkey) that utilizes Secure Sockets Layer (SSL) and Transport Layer Security (TLS) technology to protect communication by both server authentication and data encryption.
- Participants receive no direct benefit; however, participation may help increase information and knowledge that may prove beneficial to others in the future.
- Provide a summary report. You will receive a summary report of this study about teacher leadership at ECIS member schools.
- Honor your voluntary participation. You are identified as a teacher leader at an ECIS member school. Completing and submitting the survey verifies your consent to include your responses in the aggregate survey data.

Prev

Next

Teacher Leadership in the Context of International Schools

Definitions of Key Terms

2 / 6  33%

Formal teacher leader: a faculty member with formal leadership responsibilities and a teaching load of at least 50% (examples include department chair, team leader, instructional coach)

Informal teacher leader: a faculty member with a full-time teaching load that influences the work of colleagues without any positional authority

Elementary Level: This level includes early childhood (ex. Birth to US Pre-Kindergarten/Kindergarten or equivalent) and any grade levels considered to be elementary/primary at your current school (ex. U.S. Kindergarten/1st Grade to 5th/6th Grade or equivalent)

Secondary Level: This level includes all grades beyond the Elementary level at your current school (ex. U.S. 5th/6th Grade to 12th Grade or equivalent)

Prev

Next

Teacher Leadership in the Context of International Schools

School Level

3 / 6  50%

Elementary Level: This level includes early childhood (ex. Birth to US Pre-Kindergarten/Kindergarten or equivalent) and any grade levels considered to be elementary/primary at your current school (ex. U.S. Kindergarten/1st Grade to 5th/6th Grade or equivalent)

Secondary Level: This level includes all grades beyond the Elementary level at your current school (ex. U.S. 5th/6th Grade to 12th Grade or equivalent)

*** 1. Indicate your school level.**

Please select all that apply.

Elementary

Secondary

Prev

Next

Teacher Leadership in the Context of International Schools

Teacher Leadership Role

4 / 6  67%

Formal teacher leader: a faculty member with formal leadership responsibilities and a teaching load of at least 50% (examples include department chair, team leader, instructional coach)

Informal teacher leader: a faculty member with a full-time teaching load that influences the work of colleagues without any positional authority

*** 2. Please indicate your role.**

- Formal Teacher Leader
 Informal Teacher Leader

Prev

Next

Teacher Leadership in the Context of International Schools

Teacher Leadership Inventory

5 / 6  83%

This part of the survey includes items that ask you to rate the level of importance of different attributes in your role as a teacher leader.

*** 3. Fostering engagement in collaborative work**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 4. Establishing expectations for collaborative work**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 5. Managing and resolving conflicts**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 6. Sharing responsibility through delegation**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 7. Managing and minimizing resistance to change**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 8. Leading productive meetings**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 9. Leading individuals and groups to complete tasks**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 10. Communicating ideas clearly in writing**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 11. Communicating ideas clearly when speaking**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 12. Providing productive feedback**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 13. Listening actively for understanding**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 14. Synthesizing information**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 15. Asking questions to promote thinking**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 16. Deep knowledge of instructional strategies for pertinent subject matter**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 17. Deep knowledge of differentiation strategies to reach a wide range of learners**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 18. Deep knowledge of curriculum development**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 19. Deep knowledge of using assessment data to make decisions**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 20. An understanding of how to manage a budget and instructional resources**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 21. An understanding of the organizational structure and reporting lines**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 22. An understanding of the range of stakeholder interests in the school community**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 23. An understanding of how to initiate school improvement**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 24. An understanding of how to sustain school improvement**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 25. An ability to accurately assess interpersonal dynamics**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 26. An ability to build strong collaborative relationships**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 27. An ability to grow professionally through reflection on experience**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 28. An ability to act productively in response to constructive feedback**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 29. An ability to make difficult decisions under pressure**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 30. An ability to cope with ambiguity**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 31. An ability to persist when facing challenges**

Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Prev
Next

*** 32. Please rate the value of any the following programs or activities in helping you acquire attributes necessary to be an effective teacher leader.**

Please select all the apply.

	Not Valuable	Slightly Valuable	Valuable	Very Valuable	Extremely Valuable	N/A
Advanced degree programs focused on leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional development (such as conferences or workshops) in the area of leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On-site mentoring and/or specific feedback related to work as a teacher leader	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hands-on experience as a teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hands-on experience as a teacher leader	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Personal background
(ex. parenting,
volunteering, playing
on a sports team, etc.)

Professional
experience outside of
education (ex. running
a business, working in
a restaurant, etc.)

Other (please specify)

Appendix C

Survey Item Validity for Teacher Leader Attributes

The Principal Survey and Teacher Leader Survey includes 29 items with specific skills, pieces of knowledge, and understandings. Participants are asked to indicate how important it is for teacher leaders to possess these attributes.

The attributes are divided into five distinct categories: collaboration, communication, pedagogical content knowledge, systems knowledge, and interpersonal skills and dispositions.

The table below lists the categories, items, and direct reference to the literature.

Category	Item	Reference
Collaboration	1. Fostering engagement in collaborative work	York-Barr & Duke (2004)
	2. Establishing expectations for collaborative work	Dufour, R., Dufour, R. and Eaker, R. (2008)
	3. Managing and resolving conflicts among other teachers	Killion & Harrison (2006)
	4. Sharing responsibility through delegation	Dufour, R., Dufour, R. and Eaker, R. (2008)
	5. Managing resistance to change among teachers	Crowther, F. (2002)
	6. Leading productive meetings among teachers	Cave, LaMaster, & White (1998)
	7. Leading teachers to complete assigned tasks	Danielson (2006)
Communication	8. Communicating ideas clearly in writing	Danielson (2006); Yarger & Lee (1994); York-Barr & Duke (2004)
	9. Communicating ideas clearly when speaking	Danielson (2006); Yarger & Lee (1994); York-Barr & Duke (2004)
	10. Providing productive feedback to teachers	Sherrill (1999); York-Barr & Duke (2004)
	11. Listening actively for understanding among teachers	McDonald, J. (2007)
	12. Synthesizing information	Garmson, R., & Wellman, B. (1999)
	13. Asking questions to promote thinking of teachers	McDonald, J. (2007)
Pedagogical Content Knowledge	14. Having deep knowledge of instructional strategies for pertinent subject matter	Crowther, F. (2002)
	15. Having deep knowledge of differentiation strategies to reach a wide range of learners	Sherrill (1999); Yarger & Lee (1994)

	16. Having deep knowledge of curriculum development	Danielson, 2006
	17. Having deep knowledge of using assessment data to make decisions	York-Barr & Duke (2004)
Systems Knowledge	18. Having an understanding of how to manage resources	Crowther, F. (2002)
	19. Having an understanding of the decision-making power of different roles in the school system	Fullan, Michael (2005)
	20. Having an understanding of the range of stakeholder interests in the school community	Katzenmeyer, M. & Moller, G. (2001)
	21. Having an understanding of how to initiate school improvement	Katzenmeyer, M. & Moller, G. (2001)
	22. Having an understanding of how to sustain school improvement	Fullan, Michael (2005)
Interpersonal Skills and Dispositions	23. Having an ability to accurately assess interpersonal exchanges and relationships.	Killion & Harrison (2006)
	24. Having an ability to build strong collaborative relationships	York-Barr & Duke, 2004
	25. Having an ability to grow as a teacher and as a leader through reflection on experience	Danielson, 2006
	26. Having an ability to act productively in response to constructive feedback	Yarger & Lee (1994); York-Barr & Duke (2004)
	27. Having an ability to make difficult decisions under pressure	Crowther, F. (2002)
	28. Having an ability to cope with ambiguity	Danielson, 2006
	29. Having an ability to persist when facing challenges	Danielson, 2006

Appendix D

Delphi Panelists

The following table lists the Delphi panelists and their respective job titles and affiliations.

Panelist	Job Title and Affiliation
Ms. Bambi Betts	Director, Principals' Training Center
Ms. Genevieve Hildebrand	Maths Teacher, International Community School
Dr. Ralph Pruitt	Director of Student Services, International Schools Group
Dr. Mark Smylie	Professor of Education Emeritus, University of Illinois-Chicago
Ms. Kili Lay	Director of Curriculum and Staff Development, American School of the Hague

Appendix E

Invitation Letter for Delphi Panel Participation

Dear XX,

As I recently shared with you, I am conducting a research study about teacher leadership within the context of international schools as part of my doctoral program at Lehigh University. The specific focus of the study is to investigate the knowledge, skills, and dispositions necessary to be an effective teacher leader.

In order to develop a research instrument to gather data for the study, I was using the Delphi technique to establish content and construct validity. Part of this process will include enlisting an expert panel of field practitioners to provide critical feedback. Based on your background and expertise, I would like to formally ask if you would be willing to serve on the panel.

Panel members are asked to provide two or three rounds of feedback on the research instrument that I am developing for my study. Each round of feedback should require no more than 30 minutes of time and my goal is to complete this process during the months of June and July.

To indicate your willingness to participate in the study, please reply to this message by email. If you are no longer interested in participating in the panel, please let me know at your earliest convenience.

If you have any questions about the study, please do not hesitate to contact me by phone (+34 677 125 669) or email (jamesd@bfischool.org).

Thank you in advance for your support and I look forward to hearing from you soon.

Most sincerely,

James Duval
Doctoral Student
Lehigh University

Appendix F

Letter for Confirmed Delphi Panelists

Dear XX,

First, thank you so much for taking the time to participate on the expert panel for my research study. Truly, I would not be able to move forward with my study without your input and I really appreciate your time and support.

There are two documents attached to this email. The first document includes information that panel members may find useful. The second document is the form that you will need to complete and send back in order for me to collect feedback.

If for any reason you have further questions or if something remains unclear, please do not hesitate to contact me at any time.

Most sincerely,

James

Appendix G

Information for Delphi Expert Panel Member

Overview of the study

The objective of the study is to determine what international school principals believe are the most important attributes of effective teacher leaders. The primary rationale for the research is to help provide information that may be valuable to school leaders in terms of identifying teachers with strong leadership potential, hiring teacher leaders, and also considering what kind of professional development is most advantageous for those in teacher leadership positions.

While this study is designed around gathering input from school principals, an idea for the future is to replicate the study gathering input from different populations. For example, it might be worth examining what teacher leaders or general faculty members identify as the most important attributes for teacher leadership and identify similarities and differences between the various groups.

Delphi Technique for Instrument Validity

For this study I have chosen to design my own research survey instrument. In order to establish content validity for this survey, I was using a Delphi technique and enlisting feedback from a panel of five field experts over multiple rounds.

For those who may not already know, the Delphi technique is a process whereby researchers solicit feedback from field practitioners who are independent from the research team. Through a systematic process of vetting the survey and making revisions based on the feedback received, content validity for the instrument may be established.

Specific Instructions and Sequence of Events

Each member of the expert panel will receive a personalized form to capture the necessary feedback. You will need to open the form in Word, complete the various fields, save the document with your responses, and email it back to me.

When you open form, you will see the questions from the survey and accompanying fields where you will provide feedback. Here is an example:

1. Fostering engagement from group members				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable): <input type="text"/>				

The first question of the survey asks the responder to indicate how important the skill of “fostering engagement from group members” is to being an effective teacher leader. **Since you are not being asked to complete survey itself but rather provide feedback about the relevance of the survey content to the study**, your possible responses are “include question in survey”, “exclude question from survey”, etc. The majority of feedback you will need to provide follows this exact pattern, with the exception of a couple open-ended questions where you may suggest broader amendments to the content.

Once I receive responses from all five experts, I will analyze the results of the feedback and determine revisions that need to be made to the survey. I will then repeat the process by sending experts a revised draft of the instrument and ask for feedback in a similar fashion.

Based on the size and complexity of the instrument, it is likely that there will only be two rounds of feedback. The maximum number of rounds possible is three.

If you have any trouble or questions at all, please do not hesitate to contact me. I will reach you in whatever way is most convenient – email, Skype, phone, etc.


Appendix H


Delphi Panel Feedback Form


Name of Panel Member:

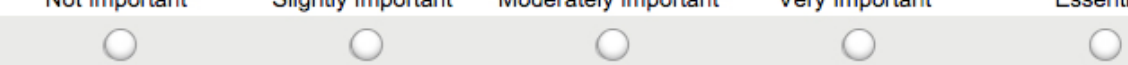
Date:

Part 1

1. Fostering engagement from group members		
Not Important Slightly Important Moderately Important Very Important Essential		
		
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
Suggested modification (if applicable):		

2. Teaching, developing and using norms of collaboration		
Not Important Slightly Important Moderately Important Very Important Essential		
		
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
Suggested modification (if applicable):		

3. Mediating and resolving conflicts		
Not Important Slightly Important Moderately Important Very Important Essential		
		
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
Suggested modification (if applicable):		

4. Sharing and delegating responsibility		
Not Important Slightly Important Moderately Important Very Important Essential		
		
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification

survey	survey	modification
Suggested modification (if applicable):		

5. Dealing with resistance to change				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

6. Facilitating meetings				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

7. Moving groups of individuals toward task completion				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

8. Moving groups of individuals toward task completion				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

9. Communicating clearly in writing

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

10. Giving and receiving feedback effectively

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

11. Listening deeply to others

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

12. Synthesizing and summarizing information

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

13. Asking questions to promote thinking and reflection

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
Suggested modification (if applicable):		

14. Modifying communication to reflect cultural norms				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

15. Deep knowledge of specific subject matter				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

16. Deep knowledge of curriculum development and coordination				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

17. Deep knowledge of assessment practices				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

18. Deep knowledge of pedagogical strategies

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

19. Deep knowledge of professional resources to support teachers

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

20. An understanding of school budgeting and resource management

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

21. An understanding of the interconnected nature of school systems

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

22. An understanding of power structures and decision making

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
Suggested modification (if applicable):		

23. An understanding of stakeholders within different contexts				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

24. An understanding of how to build capacity for sustainability				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

25. An understanding of how to create and implement a plan to reach specific goals				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

26. An ability to “read” people and situations				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

27. An ability to build strong collegial relationships				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

28. An ability to reflect on past experience and grow				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

29. An ability to accept and act on constructive feedback				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

30. An ability to show courage in professional context				
Not Important	Slightly Important	Moderately Important	Very Important	Essential
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification		
Suggested modification (if applicable):				

31. An ability to take risks for potential improvement

Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

32. An ability to embrace challenges








Not Important Slightly Important Moderately Important Very Important Essential

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

Part 2

33. Below is a list of skills related to collaboration. Please rank the importance of the following skills for teacher leaders.








<input type="checkbox"/>  The skill of fostering engagement from group members
<input type="checkbox"/>  The skill of teaching, developing, and using norms of collaboration
<input type="checkbox"/>  The skill of mediating and resolving conflicts
<input type="checkbox"/>  The skill of sharing and delegating responsibility
<input type="checkbox"/>  The skill of dealing with resistance to change
<input type="checkbox"/>  The skill of facilitating meetings
<input type="checkbox"/>  The skill of moving a group toward task completion

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

Would you add or remove any skills to modify the overall list above?

34. Below is a list of skills related to communication. Please rank the importance of the following skills for teacher leaders.

<input type="checkbox"/>  The skill of communicating effectively in writing
<input type="checkbox"/>  The skill of communicating ideas clearly
<input type="checkbox"/>  The skill of giving and receiving feedback
<input type="checkbox"/>  The skill of listening deeply to others
<input type="checkbox"/>  The skill of synthesizing and summarizing information
<input type="checkbox"/>  The skill of asking questions to promote thinking and reflection
<input type="checkbox"/>  The skill of modifying communication to reflect cultural norms

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

survey	survey	modification
Suggested modification (if applicable):		
Would you add or remove any skills to modify the overall list above?		

35. Below is a list of areas of knowledge related to content areas and pedagogy. Please rank the importance of the following areas of knowledge for teacher leaders.

- Deep knowledge of content subject matter
- Deep knowledge of curriculum development and coordination
- Deep knowledge of assessment practices
- Deep knowledge of pedagogical strategies
- Deep knowledge of professional resources to support teachers

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---

Suggested modification (if applicable):

Would you add or remove any areas of knowledge to modify the overall list above?

36. Below is a list of understandings related to systems thinking in a school setting. Please rank the importance of the following understandings for teacher leaders.


- An understanding of school budget matters related to resource management
- An understanding of the interconnected nature of school systems
- An understanding of roles and responsibilities of different positions
- An understanding of establishing organizational hierarchy to meet objectives
- An understanding of stakeholders in different contexts
- An understanding of how to build leadership capacity for sustainability
- An understanding of how to create and implement a plan to reach specific goals


<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
---	---	---


Suggested modification (if applicable):


Would you add or remove any understandings to modify the overall list above?


37. Below is a list of interpersonal skills and dispositions. Please rank the importance of the following attributes for teacher leaders.


 An ability to "read" people and situations


 An ability to build strong collegial relationships

 An ability to reflect on past experience and grow

 An ability to accept and act on constructive feedback

 An ability to show courage in a professional context

 An ability to take risks for potential improvement

 An ability to embrace challenges

Include question in survey

Exclude question from survey


Include question with modification


Suggested modification (if applicable):


Would you add or remove any interpersonal skills or dispositions to modify the overall list above?


38. The literature on teacher leadership points to five main categories of attributes that impact performance: Collaboration skills, communication skills, knowledge of content areas and pedagogy, systems thinking, and interpersonal skills and dispositions.


Please rank order the level of importance of these categories for teacher leaders.

 Collaboration Skills

 Communication Skills

 Knowledge of Content Areas and Pedagogy

 Systems Thinking

 Interpersonal Skills and Dispositions

Include question in

Exclude question from

Include question with

survey	survey	modification
Suggested modification (if applicable):		

Part 3

***39. How many teachers do you supervise?**

Teachers

Teachers

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
Suggested modification (if applicable):		

***40. How many of these teachers would you categorize as either formal or informal teacher leaders?**

Teachers Leaders

Teacher Leaders

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
Suggested modification (if applicable):		

***41. For the individuals you identified as teacher leaders, what criteria did you use to reach this conclusion?**

Formal Leadership Position

Informal Leadership Among Colleagues

Instructional Knowledge

Overall Contribution to School Community

Other (please specify)

<input type="checkbox"/> Include question in survey	<input type="checkbox"/> Exclude question from survey	<input type="checkbox"/> Include question with modification
Suggested modification (if applicable):		

***42. How does your school specifically support the development of teacher leaders?**

- Individual mentoring
- On-site professional development for teacher leaders
- Funding for off-site professional development for teacher leaders
- Funding for advanced degrees
- The school does not provide specific support for the development of teacher leaders

Other (please specify)

Include question in survey

Exclude question from survey

Include question with modification

Suggested modification (if applicable):

***43. How many years have you been a principal or division head?**

Include question in survey

Exclude question from survey

Include question with modification

Suggested modification (if applicable):

***44. The teacher leaders that you supervise are within what levels of the school?**

- High School (US Grades 9-12 or equivalent)
- Middle School (US Grades 5/6 to Grade 8 or equivalent)
- Elementary School (US Grades Kindergarten/1 to Grade 5/6 or equivalent)
- Early Childhood (Birth to US Pre-Kindergarten/Kindergarten or equivalent)

Include question in survey

Exclude question from survey

Include question with modification

Suggested modification (if applicable):

45. Are you male or female?

- Female
- Male

Include question in survey

Exclude question from survey

Include question with modification

Suggested modification (if applicable):		

Would you add any further demographic questions to Part 3 of the survey?
--

Appendix I

Principal Survey Pilot Study Participants

The following table lists the Principal Survey Pilot Study participants and their respective job titles and affiliations.

Panelist	Job Title, Organization
Ms. Anna Hall	Senior Director, Springpoint
Mr. Daniel McKee	General Director, Colegio Isaac Rabin
Ms. Angel Prince	Principal, American Cooperative School in La Paz, Bolivia
Mr. Joe Santos	Principal, Brooklyn International School

Appendix J

Invitation for Pilot Study Participation

Dear XX,

I am conducting a research study about teacher leadership within the context of international schools as part of my doctoral program at Lehigh University. The specific focus of the study is to investigate the knowledge, skills, and dispositions necessary to be an effective teacher leader.

In order to test the research instrument I have developed for the full study, I am conducting a pilot study to gather feedback related to the following areas:

- Clarity of instructions
- Functionality of instrument
- Length of time required to complete the survey

Individuals who participate in the pilot are asked to complete the survey and provide feedback. This process should require no more than 20 minutes of your time. **To indicate your willingness to participate in the study, please reply to this message by email.**

If you have any questions about the study, please contact me at the Benjamin Franklin International School (+34 93 434 23 80), via my cell phone (+34 677 125 669) or by email at jpd207@lehigh.edu. You may also contact my advisor, Dr. George White, at Lehigh University (+1 610 758 3262). Any problems or concerns that may result from your participation in this study may be reported to the Office of Research at Lehigh University (+1 610 758 3024).

Thank you in advance for your support and I look forward to hearing from you soon.

Most sincerely,



James Duval
Elementary School Principal
Benjamin Franklin International School
Carrer Martorell i Peña n° 9
08017, Barcelona

Appendix K

Letter for Confirmed Pilot Study Participants

Dear XX,

Thank you so much for taking the time to participate in the pilot study. Your support and feedback are instrumental in helping me move forward with my research.

As a participant in the pilot study, you are asked to answer a series of questions. These questions include all of the survey items on the instrument that has been developed for the study and two additional questions that seek specific feedback your experience when responding. You may access the survey questions via the following link:

[insert link]

If you have any questions about the study, please contact me at the Benjamin Franklin International School (+34 93 434 23 80), via my cell phone (+34 677 125 669) or by email at jpd207@lehigh.edu. You may also contact my advisor, Dr. George White, at Lehigh University (+1 610 758 3262). Any problems or concerns that may result from your participation in this study may be reported to the Office of Research at Lehigh University (+1 610 758 3024).

Thank you in advance for your support and I look forward to hearing from you soon.

Most sincerely,



James Duval
Elementary School Principal
Benjamin Franklin International School
Carrer Martorell i Peña nº 9
08017, Barcelona

Appendix L

Feedback Questions for Pilot Study Participants

75. Were the directions on the survey clear? Yes/No

If you answered no, please identify the area of confusion and offer any suggestions for improvement.

76. How many minutes did you take to complete the survey?

77. Please indicate if you experienced any technical problems while completing the survey.

Appendix M

Invitation Letter for Teacher Leaders in Pilot Study

Dear Teacher Leader,

My name is James Duval and I am the Elementary School Principal at the Benjamin Franklin International School in Barcelona, Spain. As part of my doctoral studies, I am conducting a study designed to increase knowledge of teacher leadership in the context of ECIS member schools. You are receiving this letter because your principal has identified you as a teacher leader at your school.

The goal of this study is to identify the most important attributes of teacher leaders, the programs and experiences that help teacher leaders acquire those attributes, and the formal teacher leader roles that exist in international schools. Participation is purely voluntary and I would greatly appreciate it if you will take a few minutes to support this work by completing a short survey.

This study is being completed as part of my doctoral dissertation at Lehigh University. If you have any questions about the study, please contact me at the Benjamin Franklin International School (+34 93 434 23 80), via my cell phone (+34 677 125 669) or by email at jpd207@lehigh.edu. You may also contact my advisor, Dr. George White, at Lehigh University (+1 610 758 3262). Any problems or concerns that may result from your participation in this study may be reported to the Office of Research at Lehigh University (+1 610 758 3024).

Thank you in advance for taking time to provide valuable information about teacher leadership at your school. The survey is available via the following link:

[insert link]

Sincerely,

James Duval
Elementary School Principal
Benjamin Franklin International School

Dr. George White
Iacocca Professor of Educational Leadership
Lehigh University

Appendix N

Message to ECIS Requesting Member School Information

Dear ECIS,

My name is James Duval and I am the Elementary School Principal at the Benjamin Franklin International School in Barcelona, Spain. As part of my doctoral studies, I am conducting a study designed to increase knowledge of teacher leadership in the context of international schools. The goal of this study is to identify the most important attributes of teacher leaders, the programs and experiences that help teacher leaders acquire those attributes, and the formal teacher leader roles that exist in international schools.

Due to ECIS' strong presence in the international school community and the fact that it has more member schools than any other international school organization, I have chosen to use educators from ECIS member schools as the population for my study.

The data gathering process for the study will take place by contacting school principals at ECIS member schools. They will be given the opportunity to participate voluntarily in the study by responding to an online survey instrument. The information gathered through this process will be analyzed to determine relevant findings related to teacher leadership international schools.

The study will:

- Report results in aggregate form without identification of individuals or schools. The results will indicate responses of individuals at ECIS member schools related to the most important attributes of teacher leaders, the ways in which teacher leaders at their schools have acquired those attributes, and what their schools are doing to support the development of teacher leaders.
- Maintain strict confidentiality in accordance with the Federal Policy for the Protection of Human Subjects (Federal Register, 1991) and the Ethical Principles in the Conduct of Research with Human Participants (APA, 1982). You will be asked for demographic information about your school.
- Include minimal risks and provide potential benefits. Information submitted via the online survey was password protected and access limited to the researcher. All data was kept securely within a web-based survey platform (Survey Monkey) that utilizes Secure Sockets Layer (SSL) and Transport Layer Security (TLS) technology to protect communication by both server authentication and data encryption.
- Provide no direct benefits to participants; however, participation may help increase information and knowledge that may prove beneficial to others in the future.

In order to access the population for my study (school principals of ECIS member schools), I am reaching to ask for support from ECIS. If possible, it would be extremely if ECIS would be willing to share the following information:

- A list of ECIS member schools
- An exact count or estimated number of principals/division heads at ECIS member schools

If you have any questions about the study, please contact me at the Benjamin Franklin International School (+34 93 434 23 80), via my cell phone (+34 677 125 669) or by email at jpd207@lehigh.edu. You may also contact my advisor, Dr. George White, at Lehigh University (+1 610 758 3262). Any problems or concerns that may result from your participation in this study may be reported to the Office of Research at Lehigh University (+1 610 758 3024).

Thank you in advance for your support and I look forward to hearing from you soon.

Most sincerely,



James Duval
Elementary School Principal
Benjamin Franklin International School
Carrer Martorell i Peña n° 9
08017, Barcelona

Appendix O

General Invitation Letter for ECIS Member Schools

Dear ECIS Member School,

We are writing this letter to ask for your support with a research study related to teacher leadership in international schools. The goal of the study is to identify the most important attributes of teacher leaders, the programs and experiences that help teacher leaders acquire those attributes, and the formal teacher leader roles that exist in international schools. Participation is purely voluntary and consists of completing a short survey.

If you support this study, please forward this message with the attached invitation letters to principals and teacher leaders at your school. For the purpose of this study, the following definitions of formal and informal teacher leaders applies:

Formal Teacher Leader: a faculty member with formal leadership responsibilities and a teaching load of at least 50% (examples include department chair, team leader, instructional coach)

Informal Teacher Leader: a faculty member with a full-time teaching load that influences the work of colleagues without any positional authority

The surveys for participation in the study are available via Survey Monkey.

Principal participants may access the survey here: [insert link]

Teacher Leaders may access the survey here: [insert link]

This study is being conducted by James Duval, Elementary School Principal at the Benjamin Franklin International School in Barcelona, Spain, as part of his doctoral studies. If you have any questions, please contact him by phone (+34 677 125 669) or email (jpd207@lehigh.edu). You may also contact his advisor, Dr. George White, at Lehigh University (+1 610 758 3262). Any problems or concerns that may result from your participation in this study may be reported to the Office of Research at Lehigh University (+1 610 758 3024).

Thank you in advance for taking time to provide valuable information about teacher leadership at your school.

Sincerely,

James Duval
Elementary School Principal
Benjamin Franklin International School

Dr. George White
Iacocca Professor of Educational Leadership
Lehigh University

Appendix P

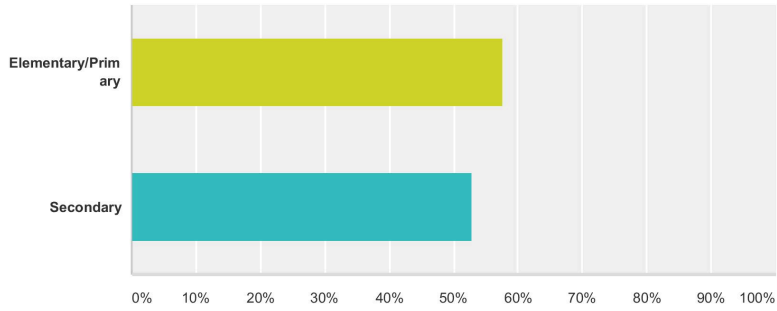
Principal Survey Questions and Corresponding Summary Data

Teacher Leadership In the Context of International Schools - Principal Survey

SurveyMonkey

Q1 Indicate your school level. Please select all that apply.

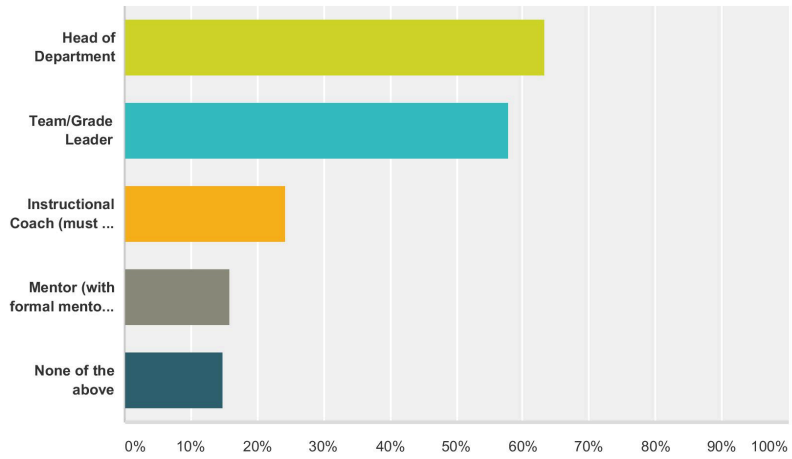
Answered: 104 Skipped: 0



Answer Choices	Responses
Elementary/Primary	57.69% 60
Secondary	52.88% 55
Total Respondents: 104	

Q2 Please indicate the formal teacher leadership positions at your school. Please select all that apply.

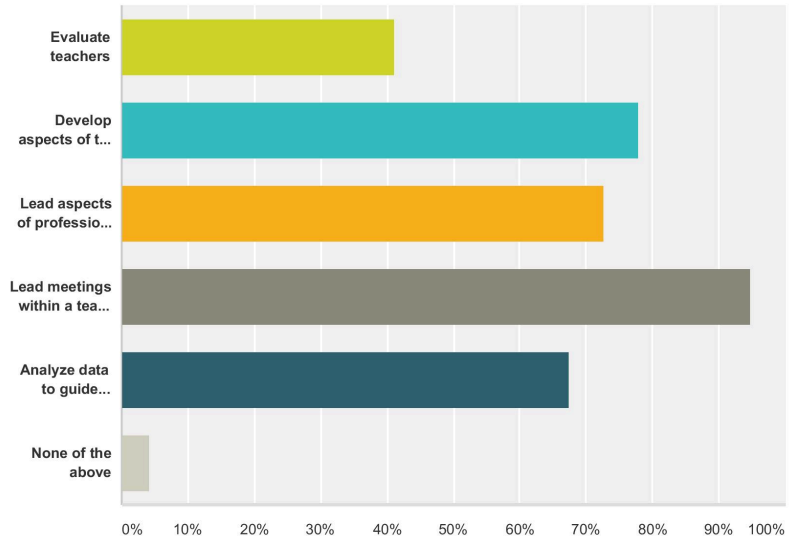
Answered: 95 Skipped: 9



Answer Choices	Responses	
Head of Department	63.16%	60
Team/Grade Leader	57.89%	55
Instructional Coach (must be at least 50% part-time teacher)	24.21%	23
Mentor (with formal mentor relationship with at least one colleague)	15.79%	15
None of the above	14.74%	14
Total Respondents: 95		

Q3 Please indicate the responsibilities shared by or fully delegated to formal teacher leaders at your school. Please select all that apply.

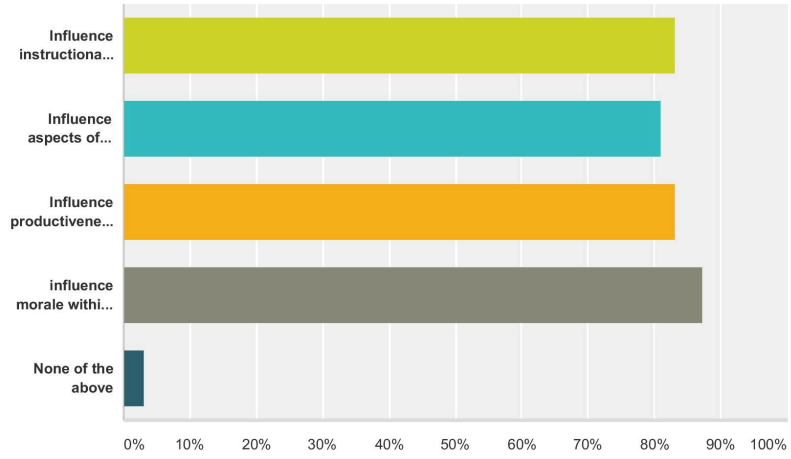
Answered: 95 Skipped: 9



Answer Choices	Responses
Evaluate teachers	41.05% 39
Develop aspects of the curriculum that impact other teachers	77.89% 74
Lead aspects of professional development for faculty	72.63% 69
Lead meetings within a team or department	94.74% 90
Analyze data to guide decision-making within a team/department/division/school	67.37% 64
None of the above	4.21% 4
Total Respondents: 95	

Q4 Please indicate the areas of influence of informal teacher leaders at your school. Please select all that apply.

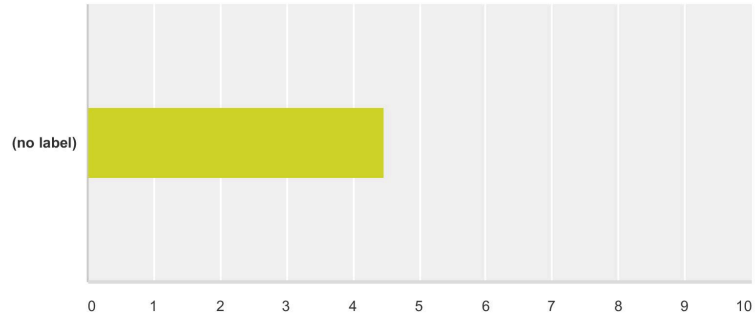
Answered: 95 Skipped: 9



Answer Choices	Responses
Influence instructional practice and strategies of teachers	83.16% 79
Influence aspects of curriculum development	81.05% 77
Influence productiveness of collaboration among teachers	83.16% 79
influence morale within the faculty	87.37% 83
None of the above	3.16% 3
Total Respondents: 95	

Q5 Fostering engagement in collaborative work(Formal Teacher Leader)

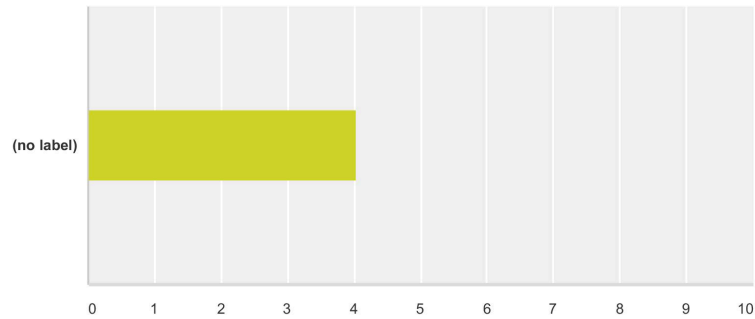
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	5.13% 4	38.46% 30	55.13% 43	78	4.46

Q6 Fostering engagement in collaborative work(Informal Teacher Leader)

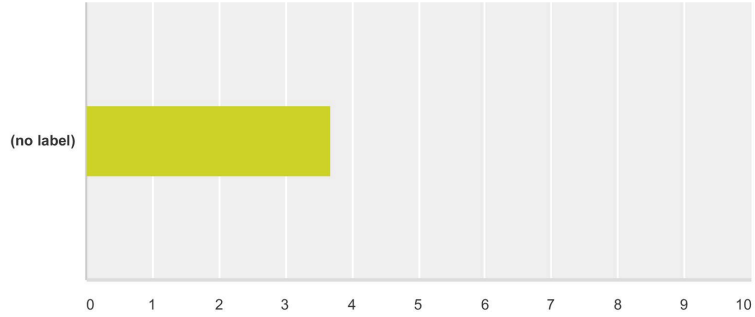
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	5.13% 4	12.82% 10	56.41% 44	25.64% 20	78	4.03

Q8 Establishing expectations for collaborative work (Informal Teacher Leader)

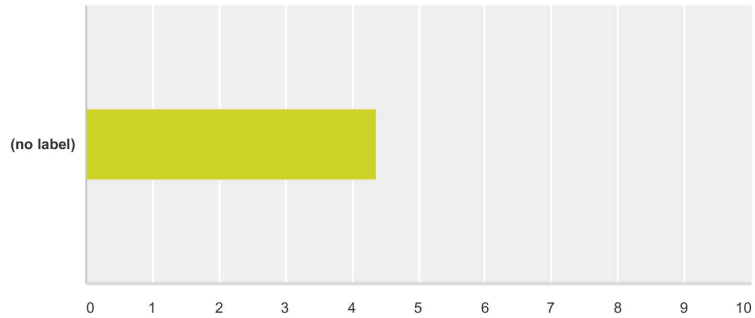
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	10.26% 8	25.64% 20	46.15% 36	16.67% 13	78	3.67

Q7 Establishing expectations for collaborative work (Formal Teacher Leader)

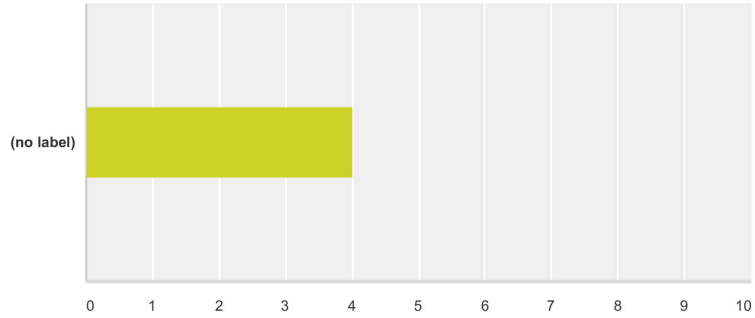
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	1.28% 1	6.41% 5	42.31% 33	48.72% 38	78	4.36

Q9 Managing and resolving conflicts(Formal Teacher Leader)

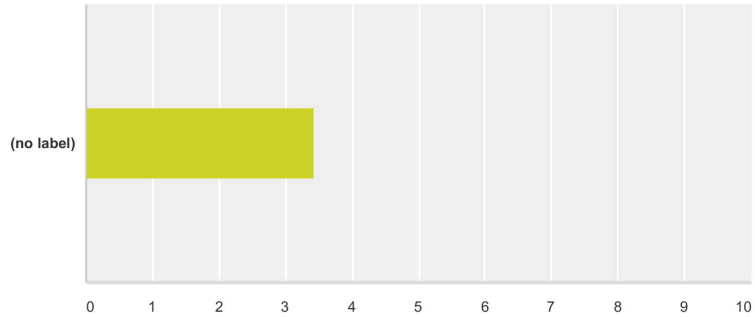
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	2.56% 2	5.13% 4	17.95% 14	37.18% 29	37.18% 29	78	4.01

Q10 Managing and resolving conflicts(Informal Teacher Leader)

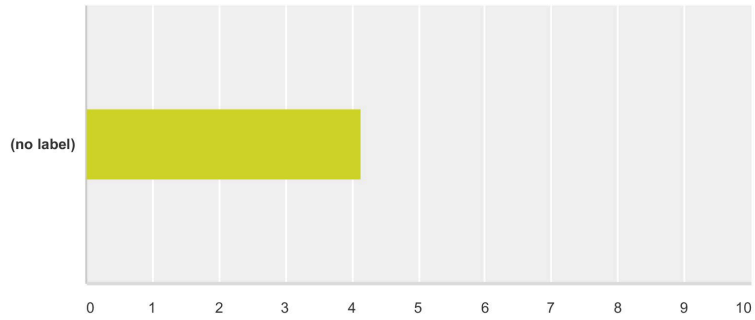
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	3.85% 3	12.82% 10	29.49% 23	44.87% 35	8.97% 7	78	3.42

Q11 Sharing responsibility through delegation(Formal Teacher Leader)

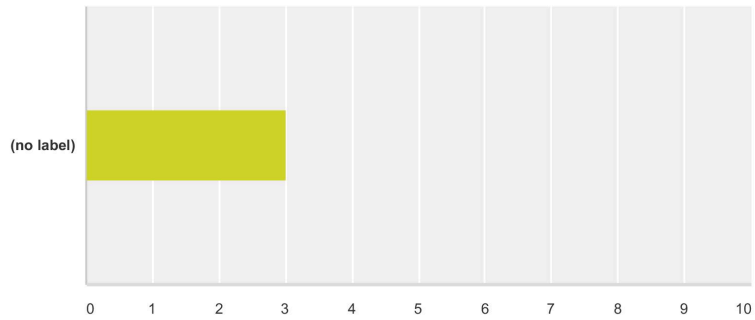
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	2.56% 2	0.00% 0	11.54% 9	52.56% 41	33.33% 26	78	4.14

Q12 Sharing responsibility through delegation(Informal Teacher Leader)

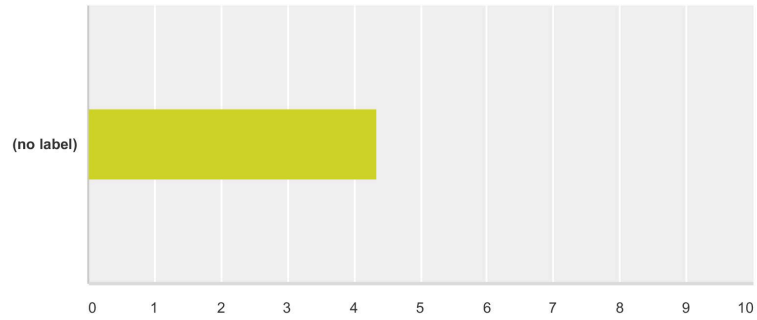
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	12.82% 10	20.51% 16	28.21% 22	30.77% 24	7.69% 6	78	3.00

Q13 Managing and minimizing resistance to change(Formal Teacher Leader)

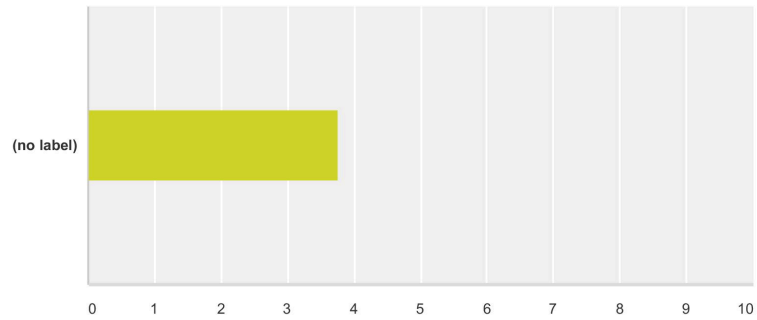
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	2.56% 2	5.13% 4	42.31% 33	48.72% 38	78	4.35

Q14 Managing and minimizing resistance to change(Informal Teacher Leader)

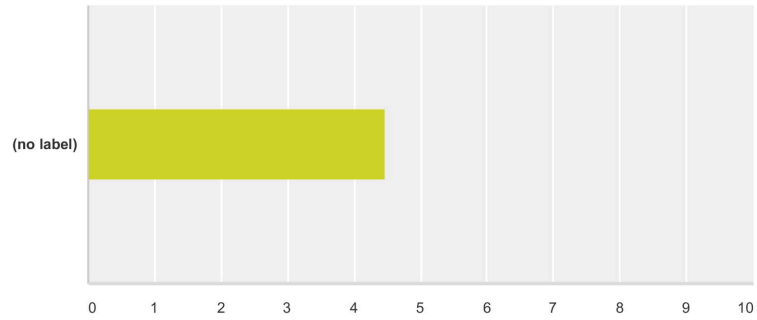
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	3.85% 3	3.85% 3	26.92% 21	43.59% 34	21.79% 17	78	3.76

Q15 Leading productive meetings(Formal Teacher Leader)

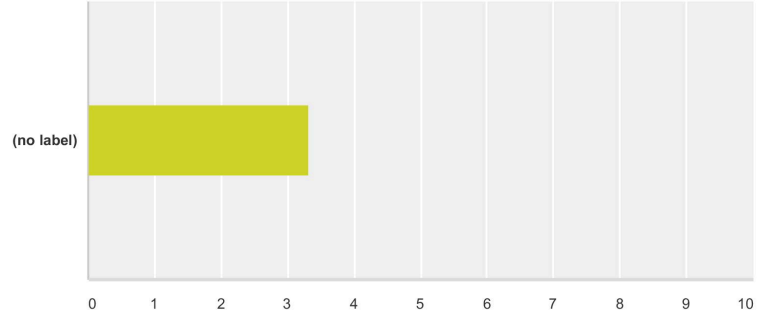
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	2.56% 2	42.31% 33	53.85% 42	78	4.47

Q16 Leading productive meetings(Informal Teacher Leader)

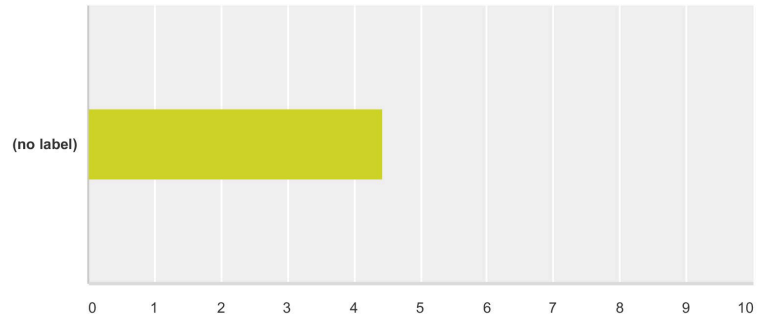
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	5.13% 4	10.26% 8	41.03% 32	34.62% 27	8.97% 7	78	3.32

Q17 Leading individuals and groups to complete tasks(Formal Teacher Leader)

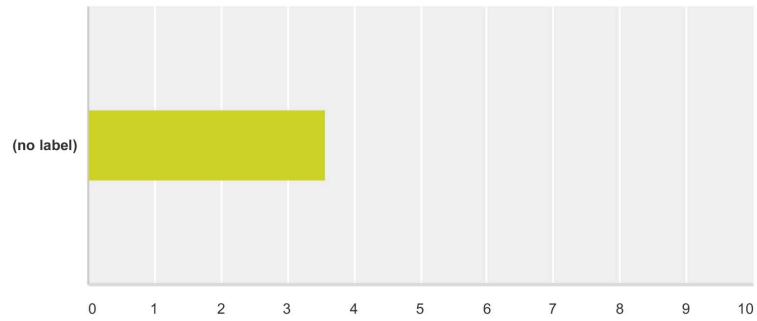
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	5.13% 4	42.31% 33	51.28% 40	78	4.42

Q18 Leading individuals and groups to complete tasks(Informal Teacher Leader)

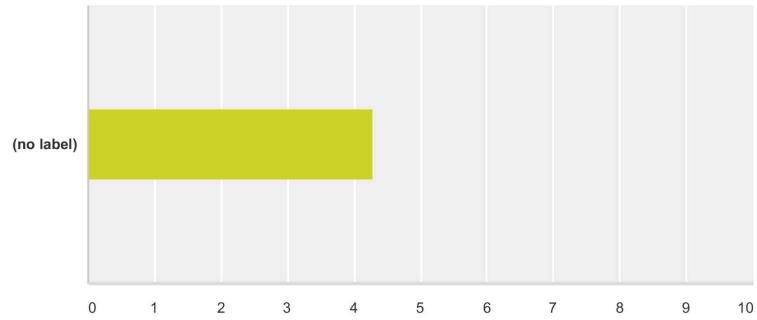
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	3.85% 3	6.41% 5	28.21% 22	51.28% 40	10.26% 8	78	3.58

Q19 Communicating ideas clearly in writing(Formal Teacher Leader)

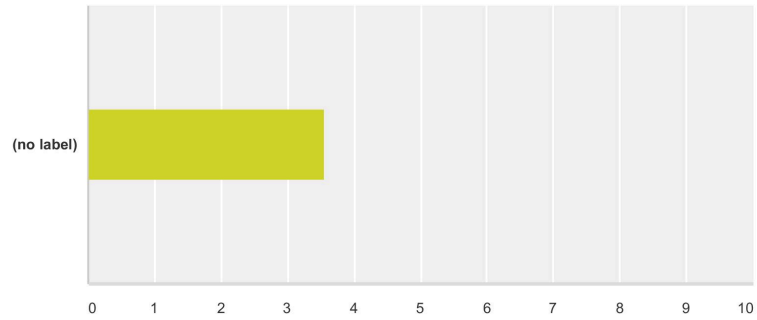
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	10.26% 8	44.87% 35	43.59% 34	78	4.29

Q20 Communicating ideas clearly in writing(Informal Teacher Leader)

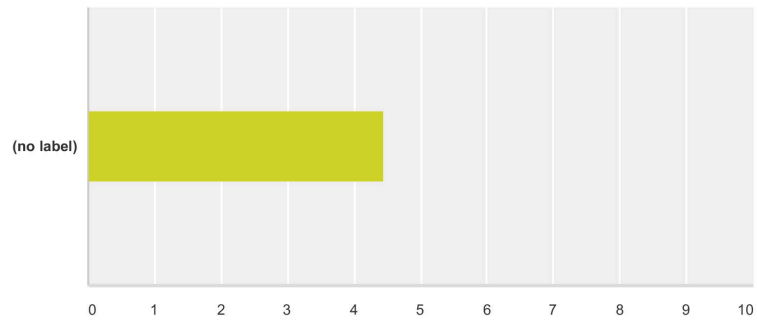
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	10.26% 8	34.62% 27	39.74% 31	14.10% 11	78	3.55

Q21 Communicating ideas clearly when speaking(Formal Teacher Leader)

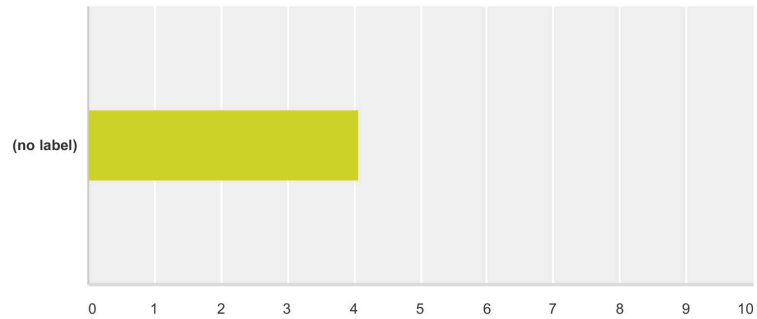
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	2.56% 2	46.15% 36	50.00% 39	78	4.44

Q22 Communicating ideas clearly when speaking(Informal Teacher Leader)

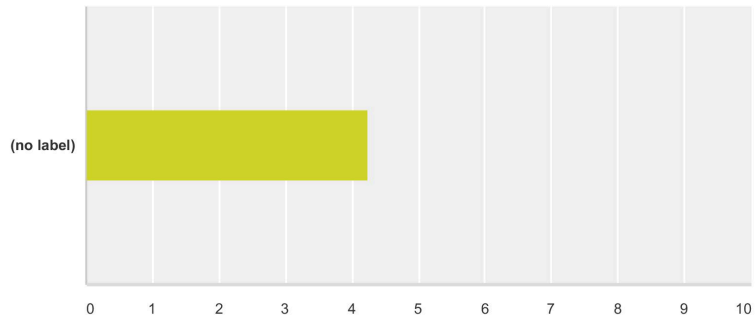
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	17.95% 14	56.41% 44	25.64% 20	78	4.08

Q23 Providing productive feedback(Formal Teacher Leader)

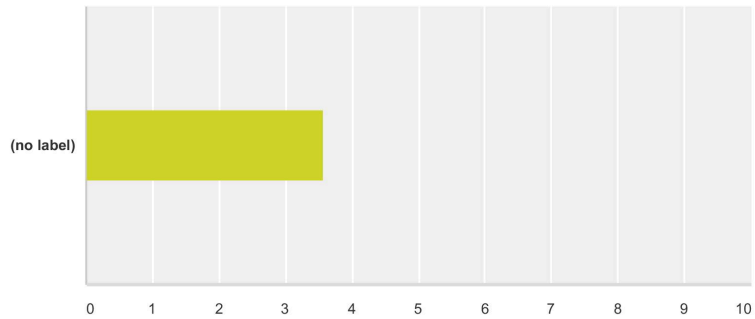
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	1.28% 1	12.82% 10	42.31% 33	42.31% 33	78	4.23

Q24 Providing productive feedback(Informal Teacher Leader)

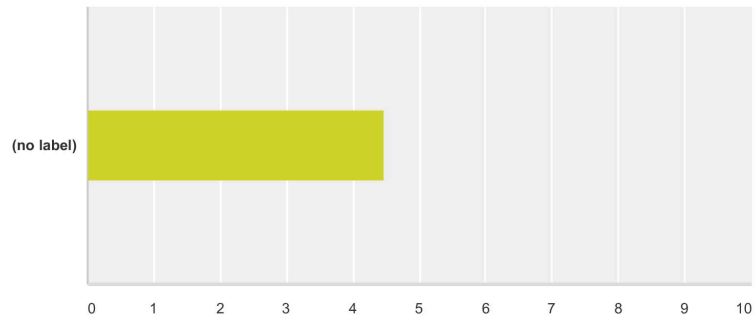
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	3.85% 3	6.41% 5	34.62% 27	39.74% 31	15.38% 12	78	3.56

Q25 Listening actively for understanding(Formal Teacher Leader)

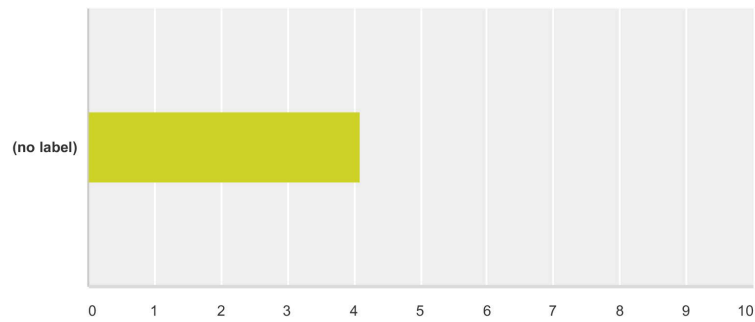
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	7.69% 6	33.33% 26	57.69% 45	78	4.46

Q26 Listening actively for understanding(Informal Teacher Leader)

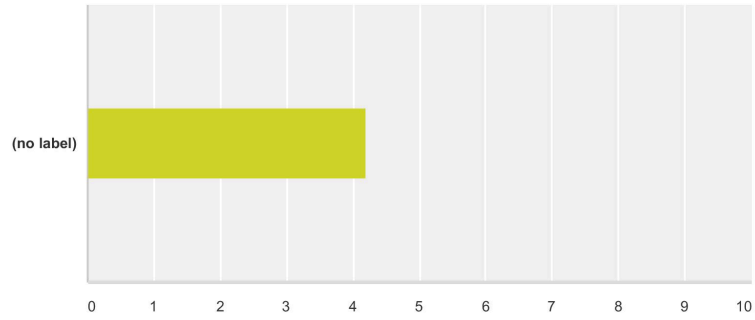
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	2.56% 2	19.23% 15	44.87% 35	33.33% 26	78	4.09

Q27 Synthesizing information(Formal Teacher Leader)

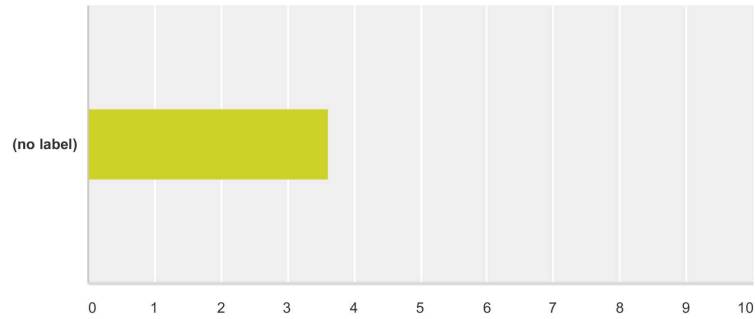
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	11.54% 9	52.56% 41	34.62% 27	78	4.19

Q28 Synthesizing information(Informal Teacher Leader)

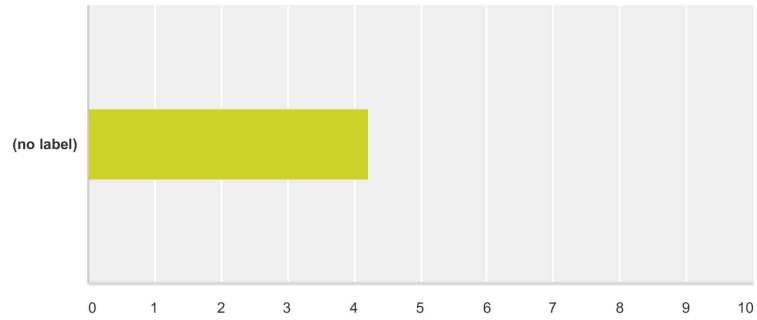
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	10.26% 8	32.05% 25	43.59% 34	14.10% 11	78	3.62

Q29 Asking questions to promote thinking(Formal Teacher Leader)

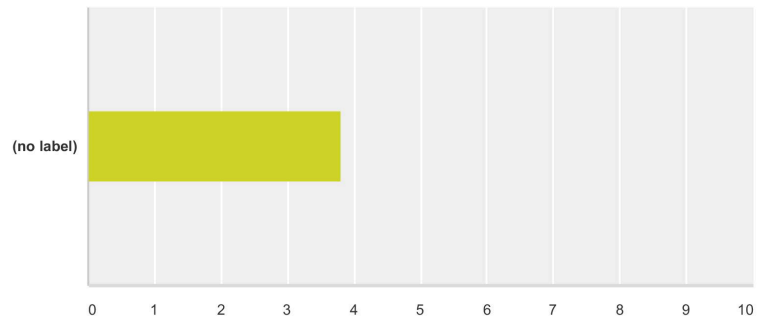
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	1.28% 1	8.97% 7	51.28% 40	37.18% 29	78	4.22

Q30 Asking questions to promote thinking(Informal Teacher Leader)

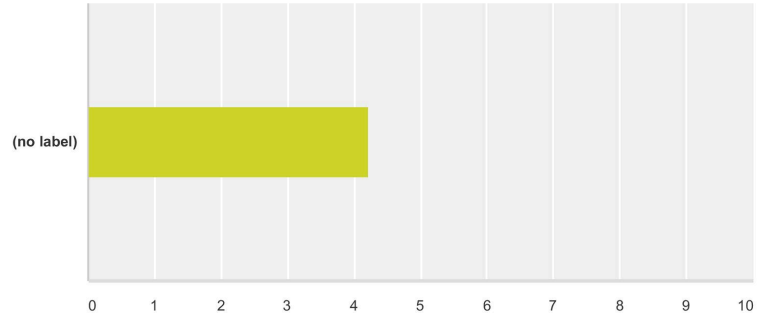
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	3.85% 3	32.05% 25	43.59% 34	20.51% 16	78	3.81

Q31 Deep knowledge of instructional strategies for pertinent subject matter(Formal Teacher Leader)

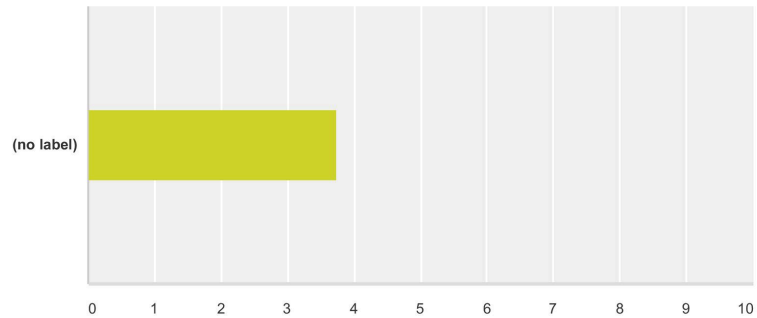
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	11.54% 9	50.00% 39	37.18% 29	78	4.22

Q32 Deep knowledge of instructional strategies for pertinent subject matter(Informal Teacher Leader)

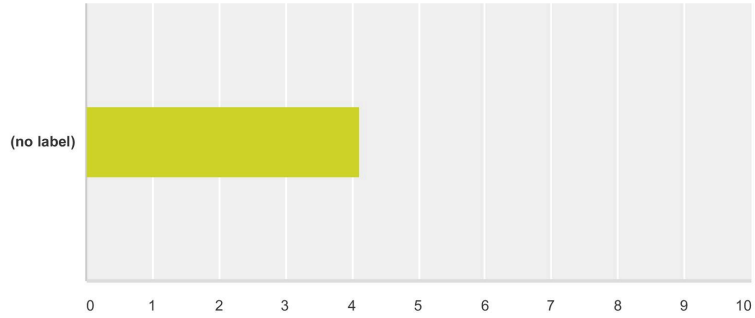
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	3.85% 3	29.49% 23	56.41% 44	10.26% 8	78	3.73

Q33 Deep knowledge of differentiation strategies to reach a wide range of learners(Formal Teacher Leader)

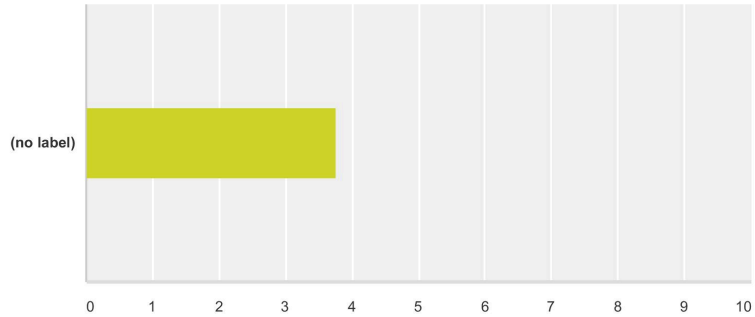
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	1.28% 1	12.82% 10	53.85% 42	30.77% 24	78	4.12

Q34 Deep knowledge of differentiation strategies to reach a wide range of learners(Informal Teacher Leader)

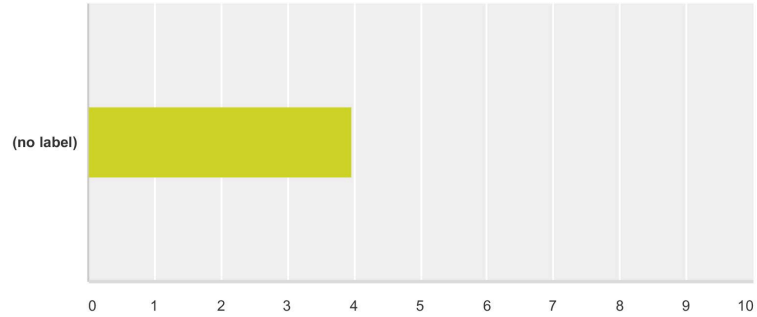
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	5.13% 4	26.92% 21	55.13% 43	12.82% 10	78	3.76

Q35 Deep knowledge of curriculum development(Formal Teacher Leader)

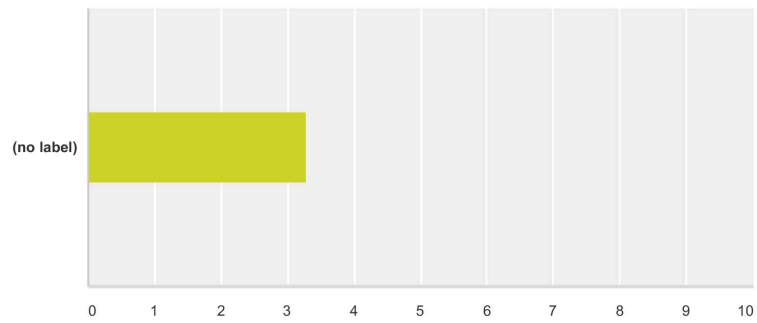
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	1.28% 1	24.36% 19	46.15% 36	26.92% 21	78	3.96

Q36 Deep knowledge of curriculum development(Informal Teacher Leader)

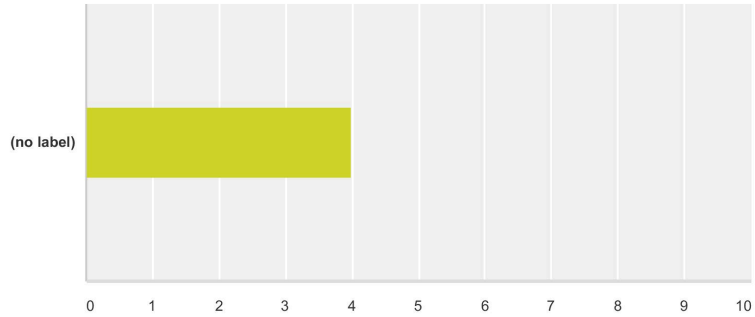
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	3.85% 3	7.69% 6	52.56% 41	29.49% 23	6.41% 5	78	3.27

Q37 Deep knowledge of using assessment data to make decisions(Formal Teacher Leader)

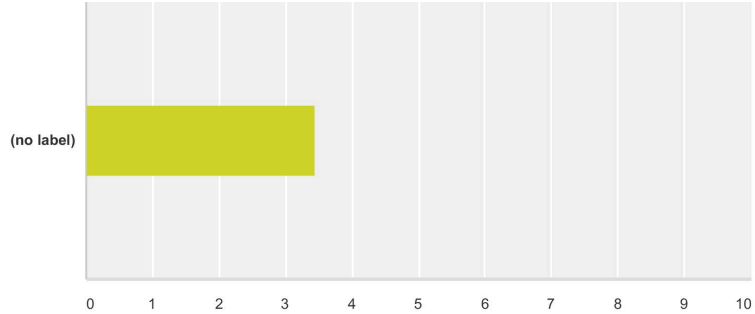
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	2.56% 2	17.95% 14	52.56% 41	25.64% 20	78	3.99

Q38 Deep knowledge of using assessment data to make decisions(Informal Teacher Leader)

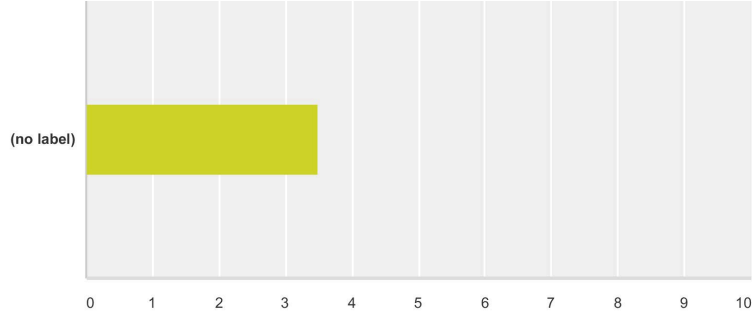
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	7.69% 6	43.59% 34	41.03% 32	6.41% 5	78	3.44

Q39 An understanding of how to manage a budget and instructional resources(Formal Teacher Leader)

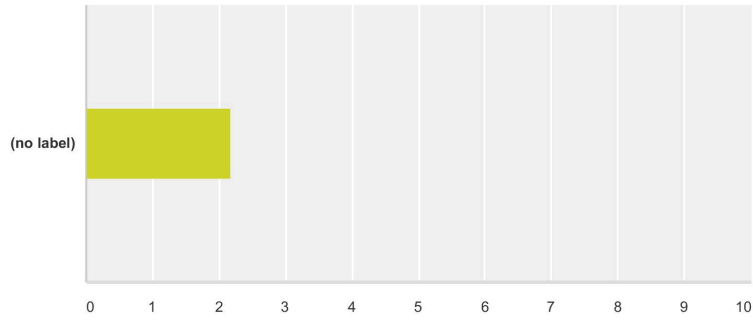
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
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Q40 An understanding of how to manage a budget and instructional resources(Informal Teacher Leader)

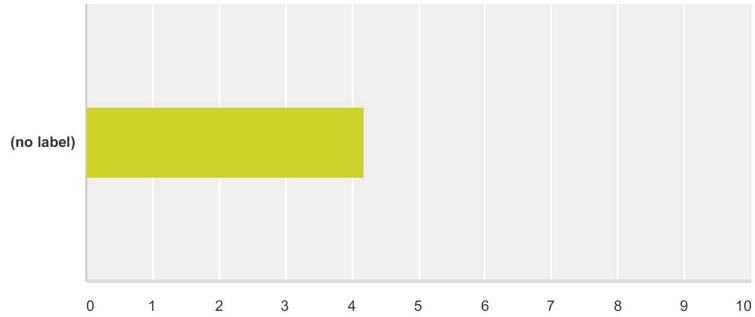
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	26.92% 21	37.18% 29	26.92% 21	8.97% 7	0.00% 0	78	2.18

Q41 An understanding of the organizational structure and reporting lines(Formal Teacher Leader)

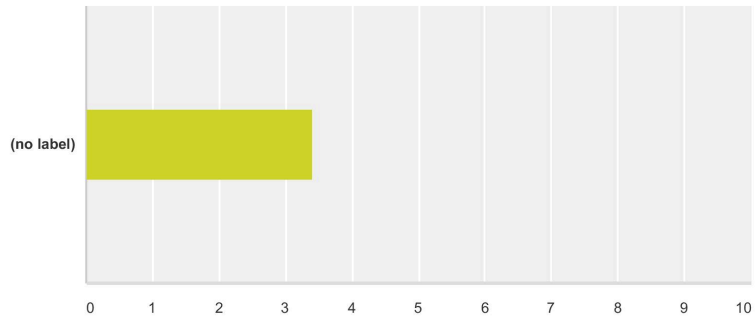
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	3.85% 3	11.54% 9	43.59% 34	39.74% 31	78	4.17

Q42 An understanding of the organizational structure and reporting lines(Informal Teacher Leader)

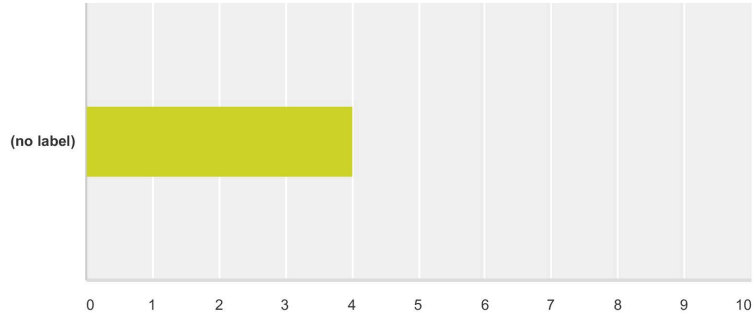
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	7.69% 6	10.26% 8	30.77% 24	37.18% 29	14.10% 11	78	3.40

Q43 An understanding of the range of stakeholder interests in the school community(Formal Teacher Leader)

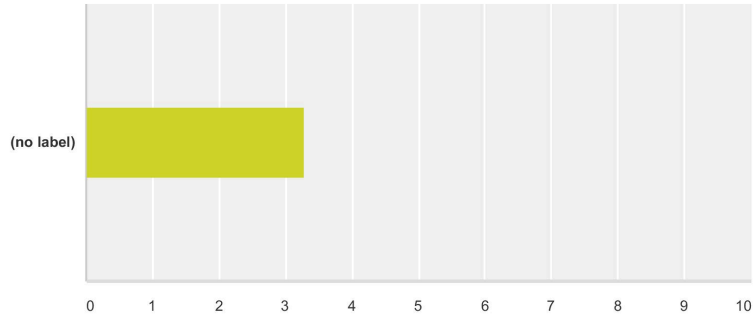
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	7.69% 6	12.82% 10	44.87% 35	33.33% 26	78	4.01

Q44 An understanding of the range of stakeholder interests in the school community(Informal Teacher Leader)

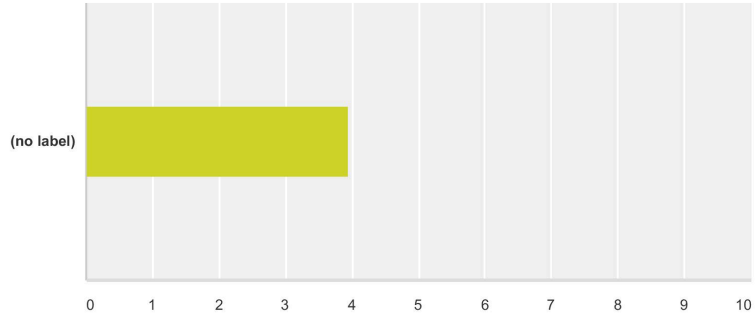
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	3.85% 3	19.23% 15	30.77% 24	38.46% 30	7.69% 6	78	3.27

Q45 An understanding of how to initiate school improvement(Formal Teacher Leader)

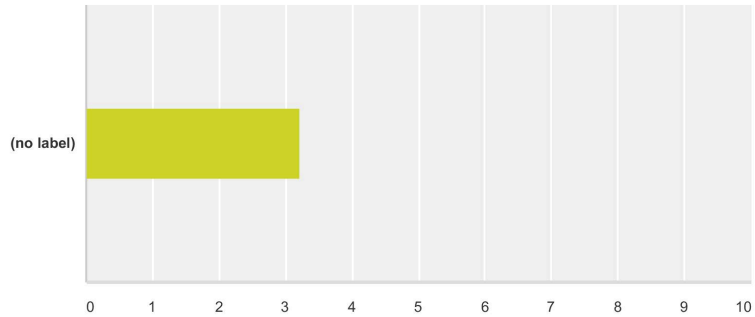
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	3.85% 3	16.67% 13	56.41% 44	21.79% 17	78	3.94

Q46 An understanding of how to initiate school improvement(Informal Teacher Leader)

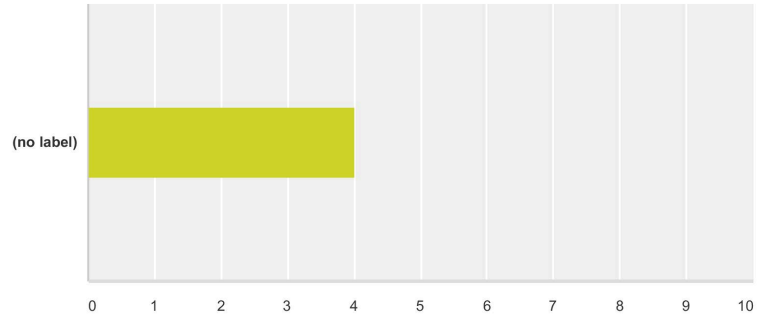
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	6.41% 5	12.82% 10	38.46% 30	37.18% 29	5.13% 4	78	3.22

Q47 An understanding of how to sustain school improvement(Formal Teacher Leader)

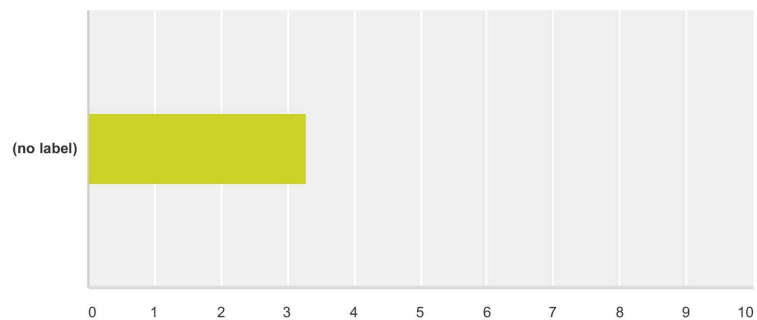
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	2.56% 2	12.82% 10	60.26% 47	23.08% 18	78	4.01

Q48 An understanding of how to sustain school improvement(Informal Teacher Leader)

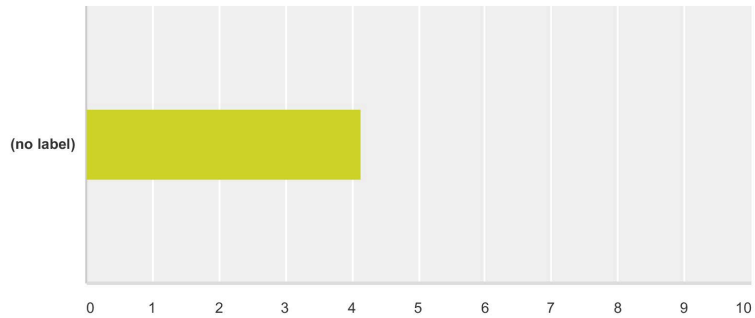
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	5.13% 4	8.97% 7	50.00% 39	25.64% 20	10.26% 8	78	3.27

Q49 An ability to accurately assess interpersonal dynamics(Formal Teacher Leader)

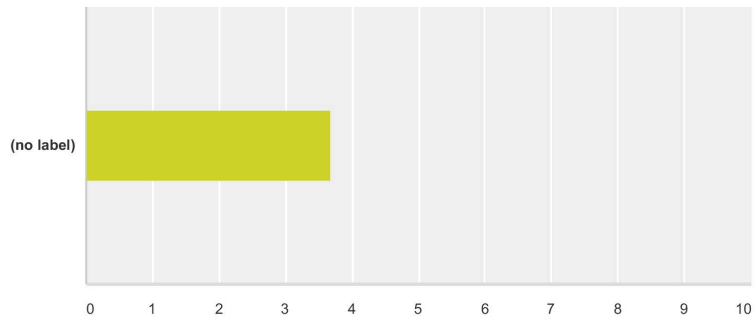
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	1.28% 1	7.69% 6	61.54% 48	28.21% 22	78	4.14

Q50 An ability to accurately assess interpersonal dynamics(Informal Teacher Leader)

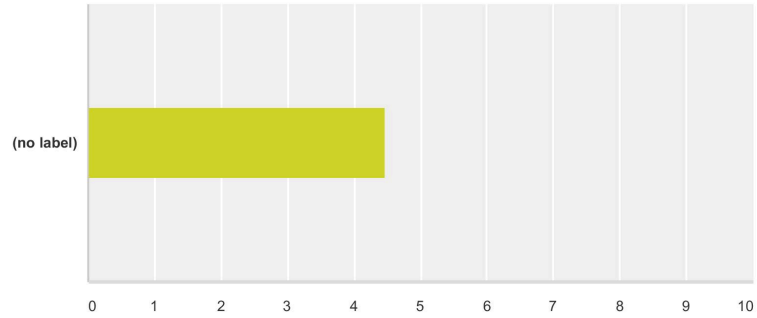
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	5.13% 4	35.90% 28	44.87% 35	14.10% 11	78	3.68

Q51 An ability to build strong collaborative relationships(Formal Teacher Leader)

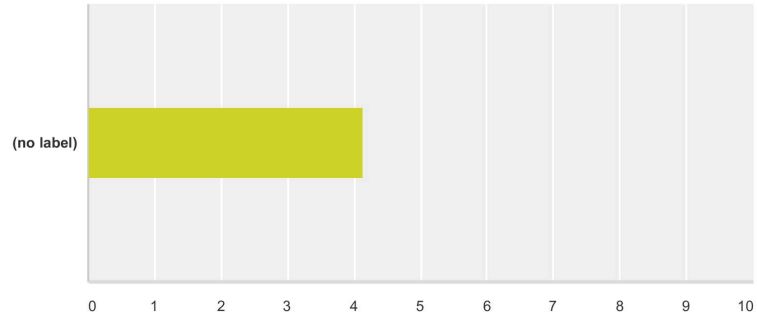
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	1.28% 1	2.56% 2	38.46% 30	56.41% 44	78	4.47

Q52 An ability to build strong collaborative relationships(Informal Teacher Leader)

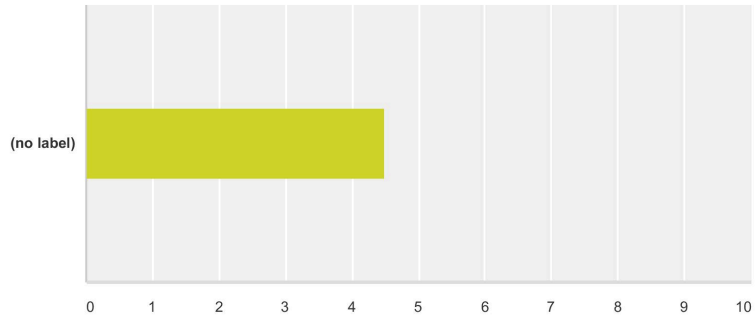
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	3.85% 3	11.54% 9	51.28% 40	33.33% 26	78	4.14

Q53 An ability to grow professionally through reflection on experience(Formal Teacher Leader)

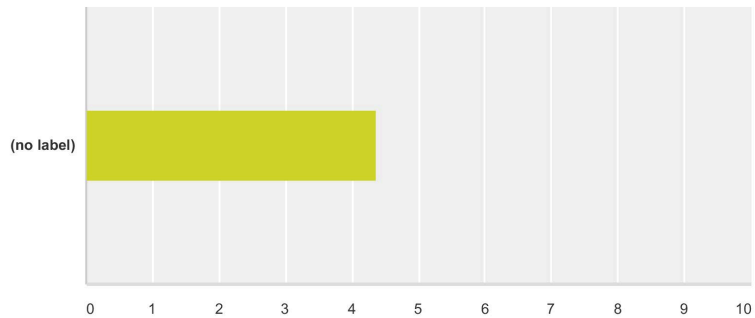
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	5.13% 4	35.90% 28	57.69% 45	78	4.49

Q54 An ability to grow professionally through reflection on experience(Informal Teacher Leader)

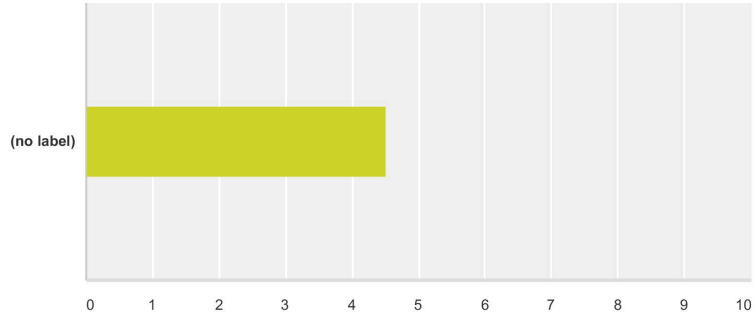
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	10.26% 8	43.59% 34	46.15% 36	78	4.36

Q55 An ability to act productively in response to constructive feedback(Formal Teacher Leader)

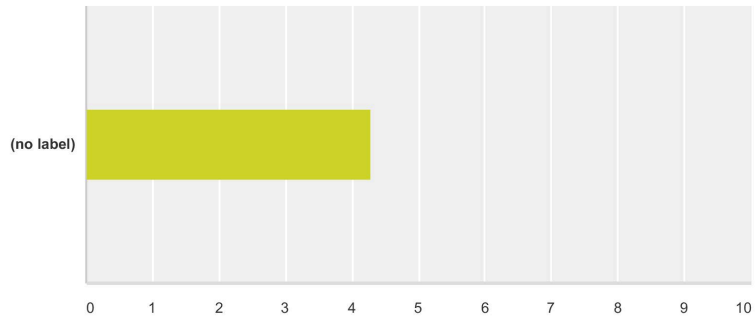
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	3.85% 3	37.18% 29	57.69% 45	78	4.50

Q56 An ability to act productively in response to constructive feedback(Informal Teacher Leader)

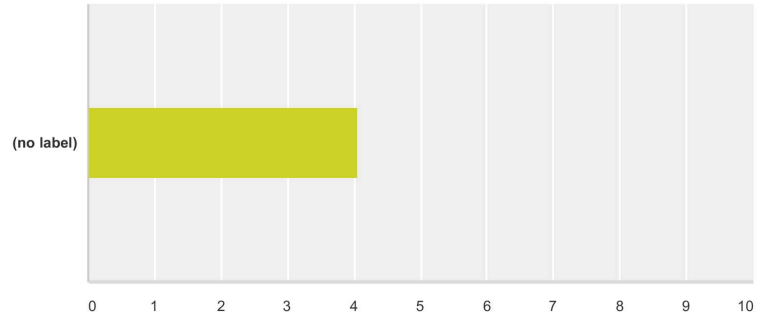
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	10.26% 8	50.00% 39	39.74% 31	78	4.29

Q57 An ability to make difficult decisions under pressure(Formal Teacher Leader)

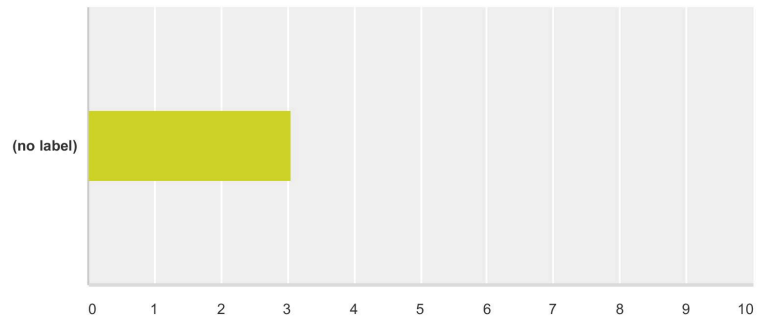
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	6.41% 5	17.95% 14	35.90% 28	38.46% 30	78	4.04

Q58 An ability to make difficult decisions under pressure(Informal Teacher Leader)

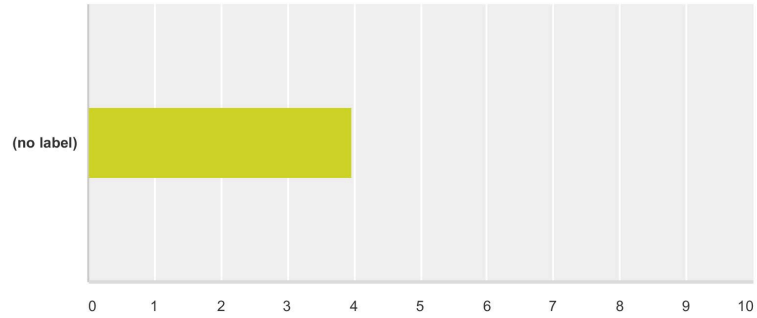
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	8.97% 7	21.79% 17	33.33% 26	28.21% 22	7.69% 6	78	3.04

Q59 An ability to cope with ambiguity(Formal Teacher Leader)

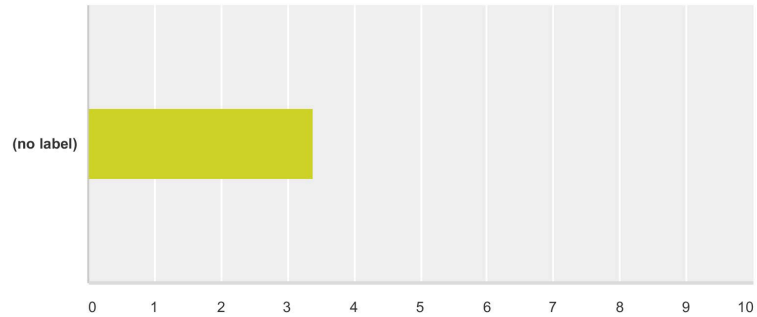
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	2.56% 2	1.28% 1	20.51% 16	48.72% 38	26.92% 21	78	3.96

Q60 An ability to cope with ambiguity(Informal Teacher Leader)

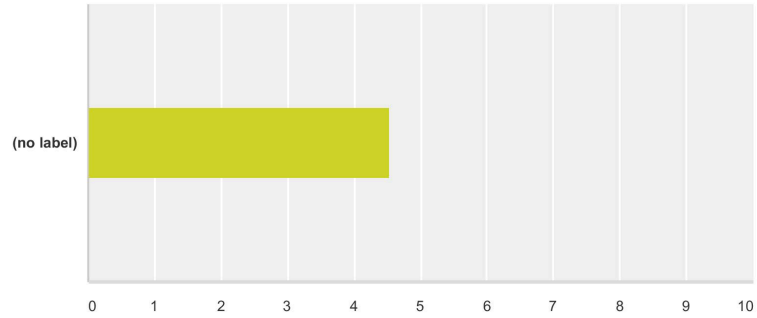
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	7.69% 6	6.41% 5	38.46% 30	34.62% 27	12.82% 10	78	3.38

Q61 An ability to persist when facing challenges(Formal Teacher Leader)

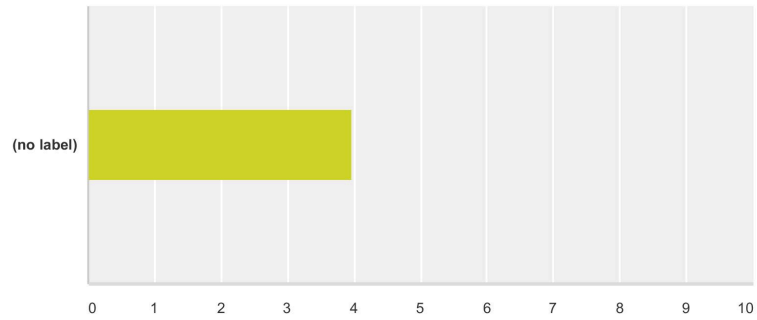
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.28% 1	0.00% 0	1.28% 1	38.46% 30	58.97% 46	78	4.54

Q62 An ability to persist when facing challenges(Informal Teacher Leader)

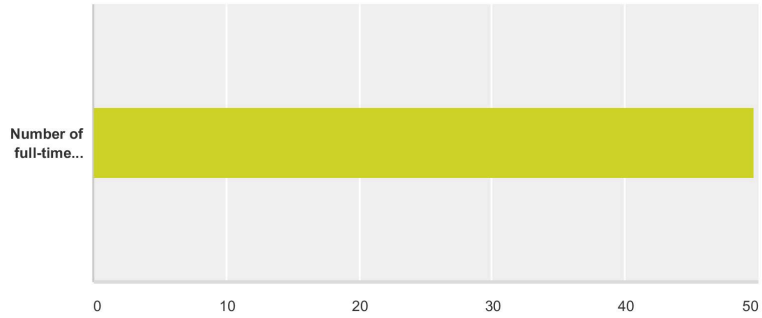
Answered: 78 Skipped: 26



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	5.13% 4	20.51% 16	47.44% 37	26.92% 21	78	3.96

Q63 How many full-time teachers are employed within your level of the school?

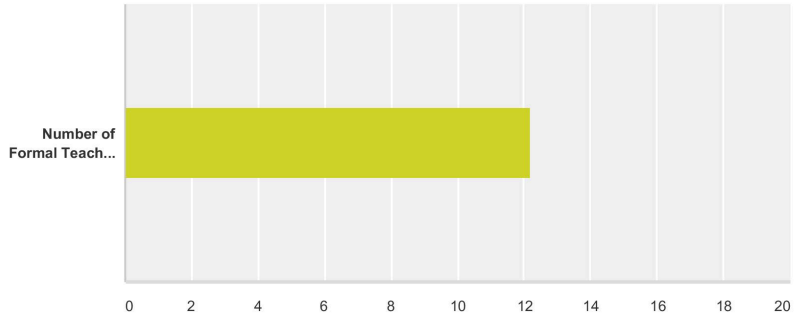
Answered: 77 Skipped: 27



Answer Choices	Average Number	Total Number	Responses
Number of full-time teachers	50	3,824	77
Total Respondents: 77			

Q64 How many teachers in your level of the school are formal teacher leaders?

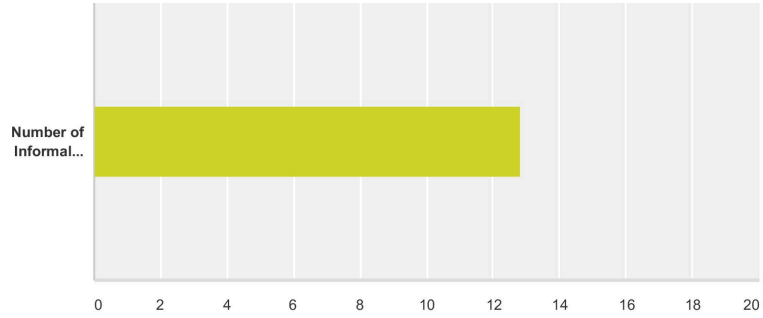
Answered: 77 Skipped: 27



Answer Choices	Average Number	Total Number	Responses
Number of Formal Teacher Leaders	12	939	77
Total Respondents: 77			

Q65 How many teachers in your level of the school would you categorize as informal teacher leaders?

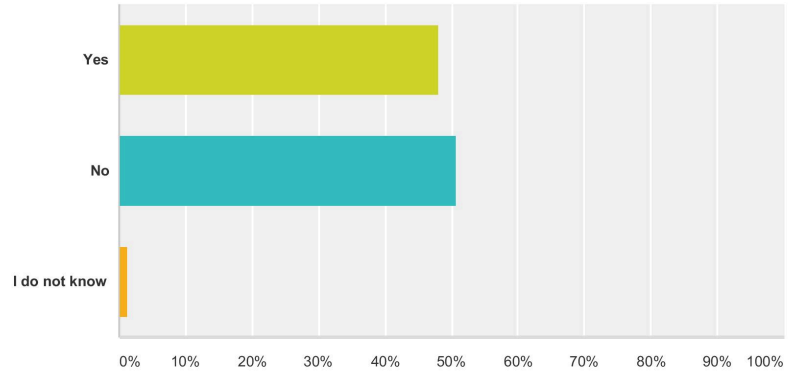
Answered: 77 Skipped: 27



Answer Choices	Average Number	Total Number	Responses
Number of Informal Teacher Leaders	13	986	77
Total Respondents: 77			

Q66 Are formal teacher leaders at your school required to have training and/or professional development specifically related to their leadership role?

Answered: 77 Skipped: 27



Answer Choices	Responses	
Yes	48.05%	37
No	50.65%	39
I do not know	1.30%	1
Total		77

Appendix Q

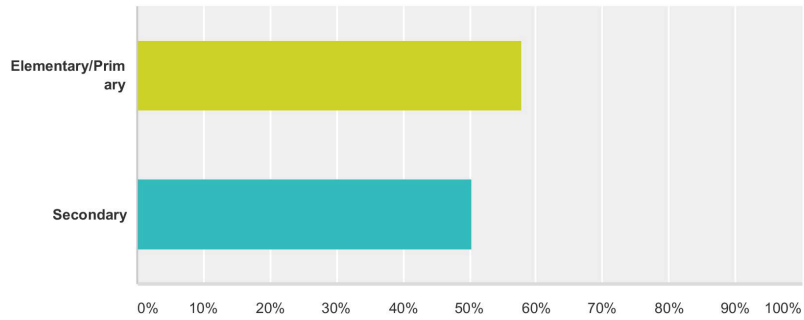
Teacher Leader Survey Questions and Corresponding Summary Data

Teacher Leadership In the Context of International Schools - Teacher Leader Survey

SurveyMonkey

Q1 Indicate your school level. Please select all that apply.

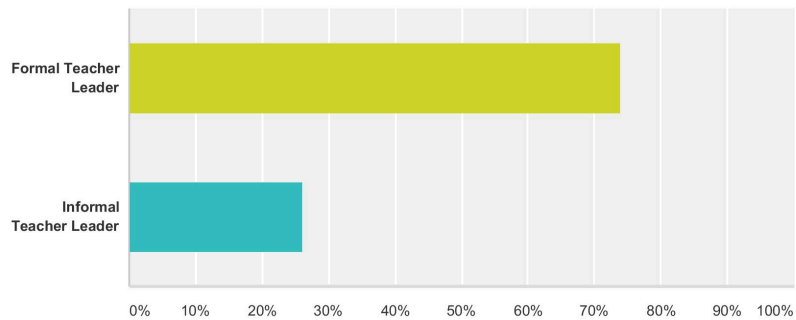
Answered: 121 Skipped: 0



Answer Choices	Responses
Elementary/Primary	57.85% 70
Secondary	50.41% 61
Total Respondents: 121	

Q2 Please indicate your role.

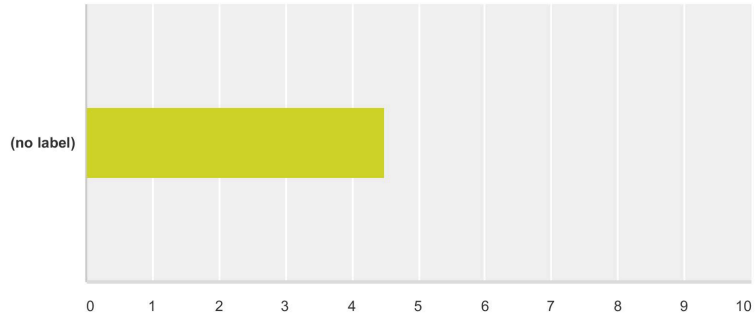
Answered: 119 Skipped: 2



Answer Choices	Responses
Formal Teacher Leader	73.95% 88
Informal Teacher Leader	26.05% 31
Total	119

Q3 Fostering engagement in collaborative work

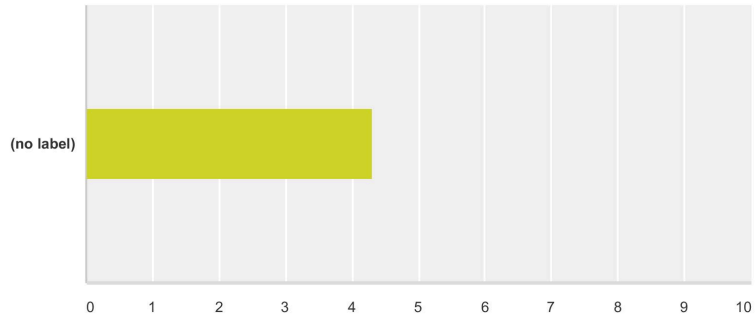
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	7.63% 9	35.59% 42	56.78% 67	118	4.49

Q4 Establishing expectations for collaborative work

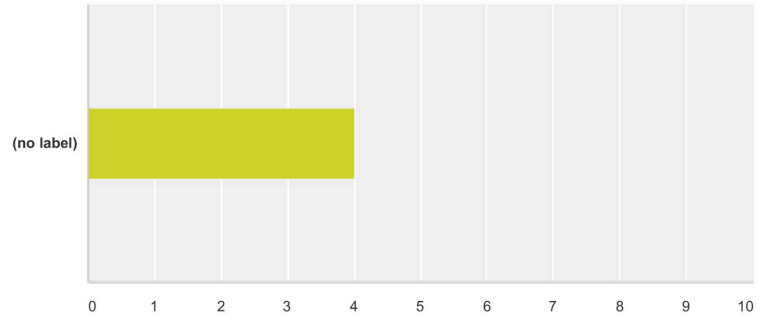
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	0.00% 0	9.32% 11	48.31% 57	41.53% 49	118	4.30

Q5 Managing and resolving conflicts

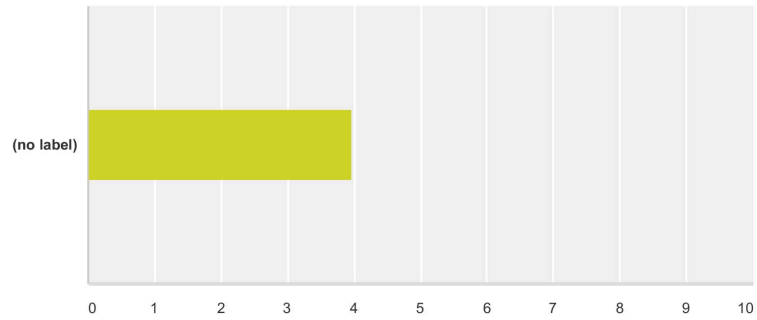
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	5.93% 7	16.95% 20	44.07% 52	32.20% 38	118	4.01

Q6 Sharing responsibility through delegation

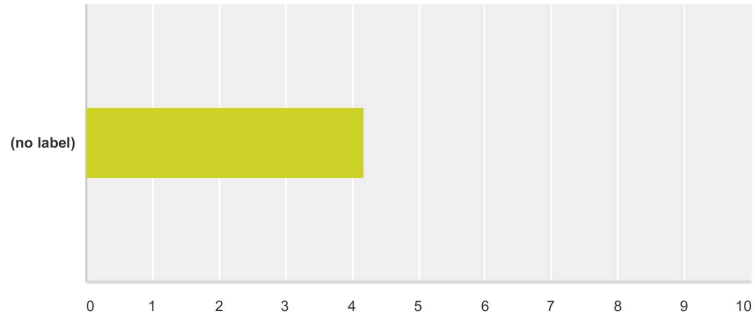
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	1.69% 2	23.73% 28	46.61% 55	27.12% 32	118	3.97

Q7 Managing and minimizing resistance to change

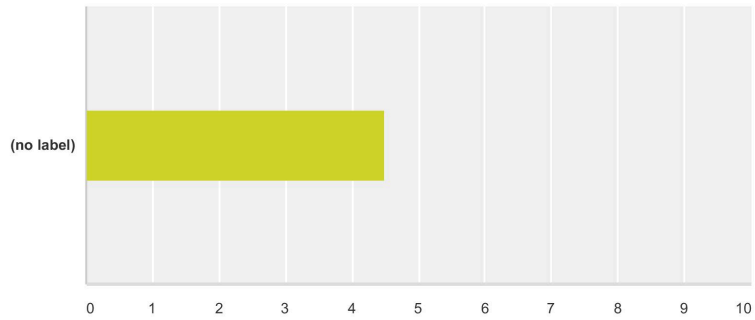
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	14.41% 17	54.24% 64	31.36% 37	118	4.17

Q8 Leading productive meetings

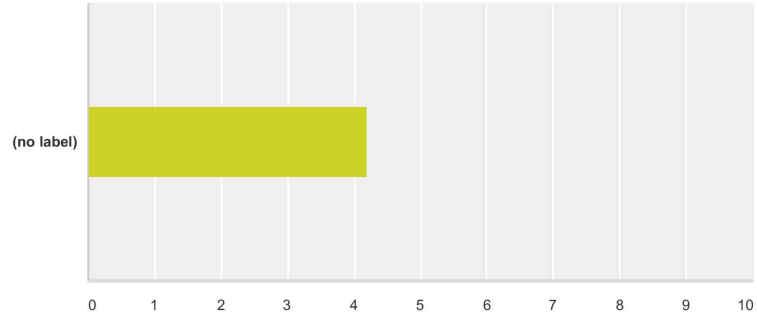
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	4.24% 5	42.37% 50	53.39% 63	118	4.49

Q9 Leading individuals and groups to complete tasks

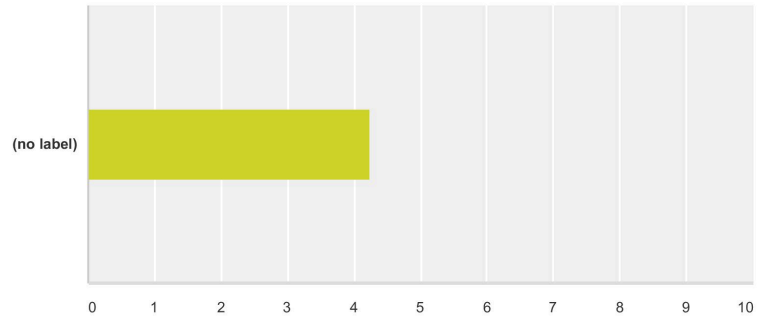
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	0.00% 0	14.41% 17	48.31% 57	36.44% 43	118	4.19

Q10 Communicating ideas clearly in writing

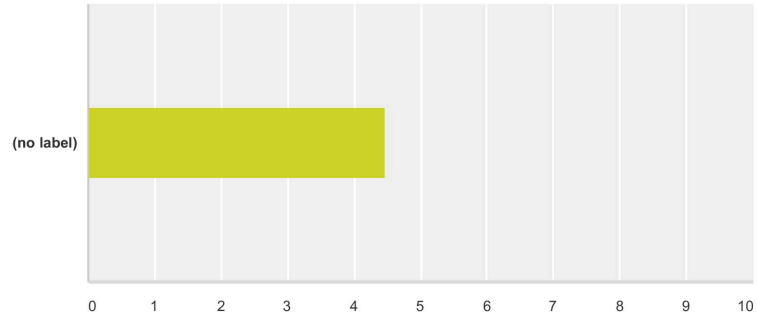
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	1.69% 2	11.86% 14	47.46% 56	38.98% 46	118	4.24

Q11 Communicating ideas clearly when speaking

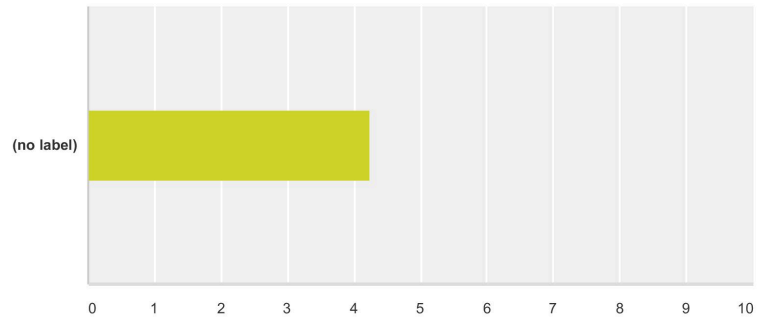
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	5.08% 6	43.22% 51	51.69% 61	118	4.47

Q12 Providing productive feedback

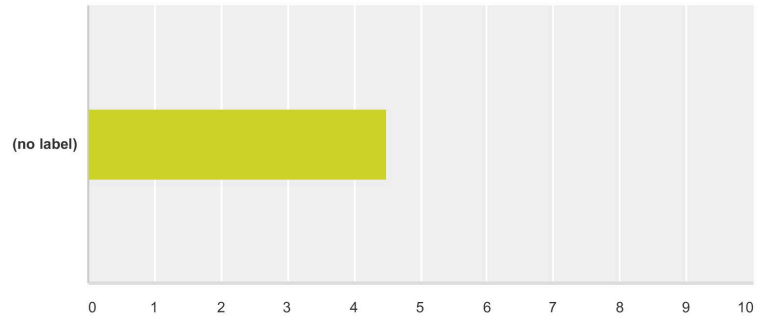
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	1.69% 2	10.17% 12	50.85% 60	37.29% 44	118	4.24

Q13 Listening actively for understanding

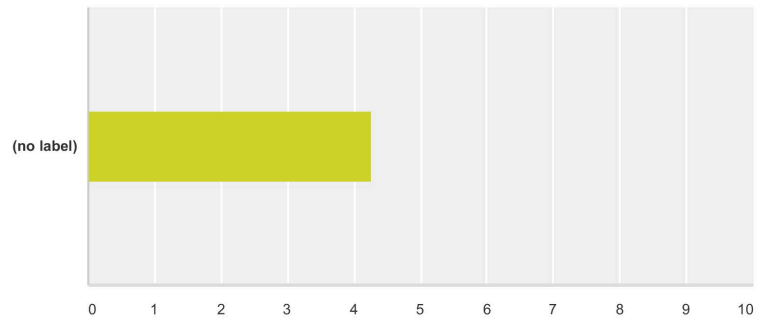
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.85% 1	1.69% 2	44.92% 53	52.54% 62	118	4.49

Q14 Synthesizing information

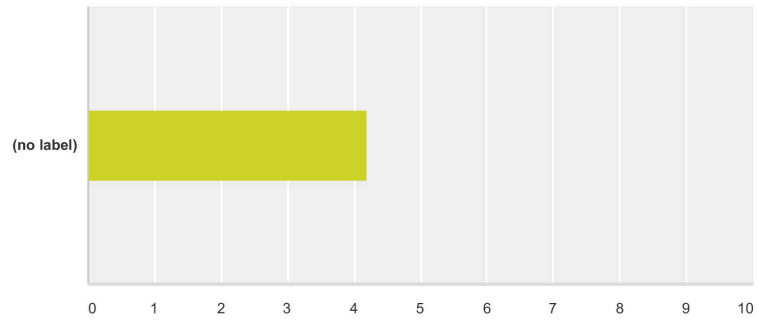
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.85% 1	10.17% 12	50.85% 60	38.14% 45	118	4.26

Q15 Asking questions to promote thinking

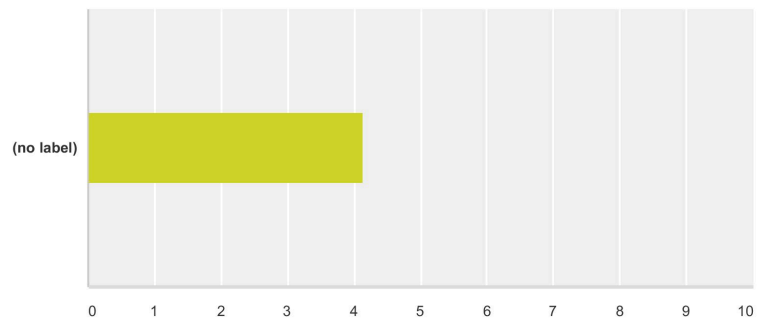
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	2.54% 3	7.63% 9	57.63% 68	32.20% 38	118	4.19

Q16 Deep knowledge of instructional strategies for pertinent subject matter

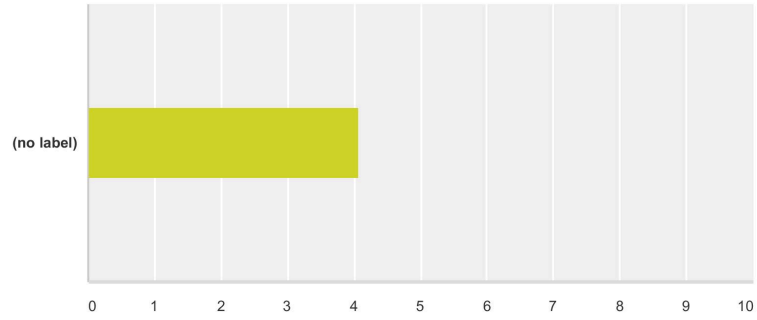
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	1.69% 2	15.25% 18	48.31% 57	33.90% 40	118	4.13

Q17 Deep knowledge of differentiation strategies to reach a wide range of learners

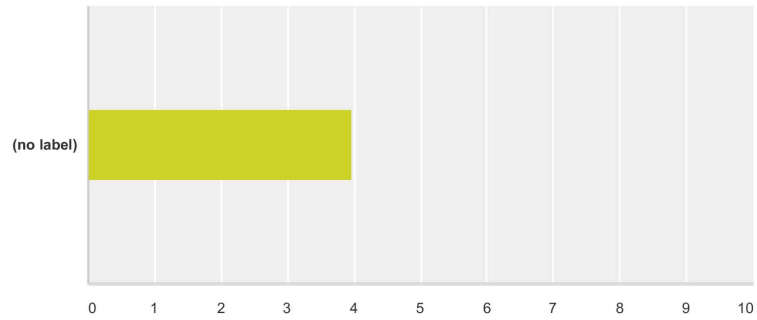
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	4.24% 5	13.56% 16	50.00% 59	31.36% 37	118	4.07

Q18 Deep knowledge of curriculum development

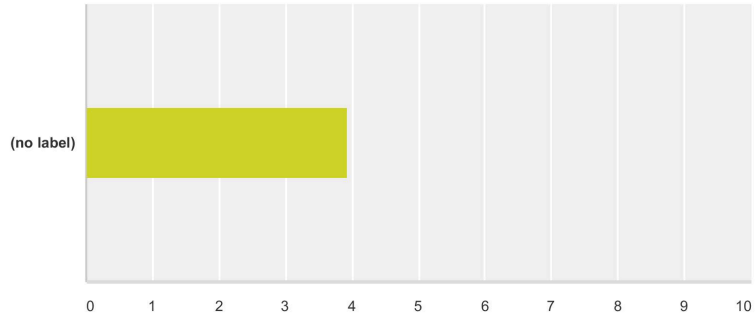
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	5.08% 6	21.19% 25	41.53% 49	31.36% 37	118	3.97

Q19 Deep knowledge of using assessment data to make decisions

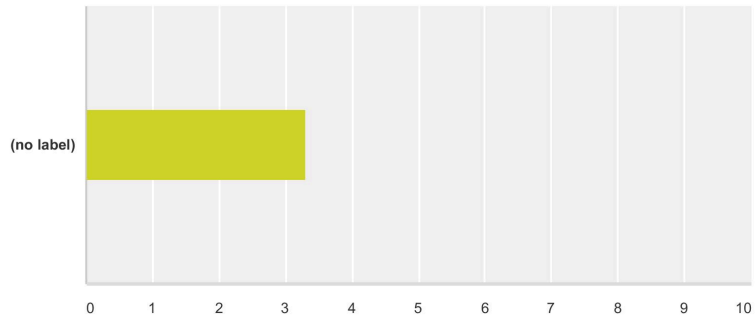
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	0.85% 1	24.58% 29	51.69% 61	22.03% 26	118	3.93

Q20 An understanding of how to manage a budget and instructional resources

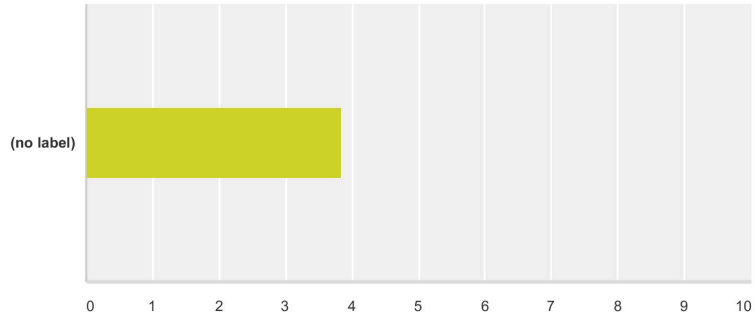
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	4.24% 5	15.25% 18	38.98% 46	30.51% 36	11.02% 13	118	3.29

Q21 An understanding of the organizational structure and reporting lines

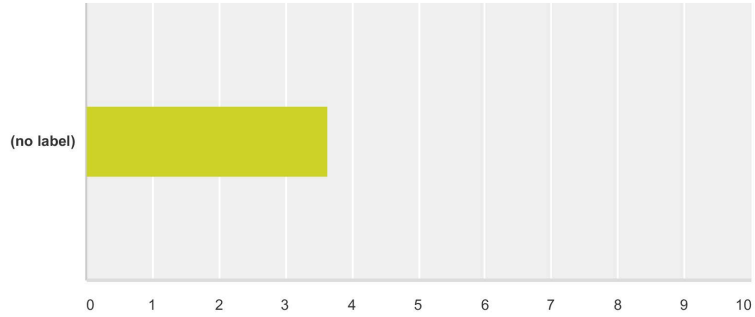
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.69% 2	6.78% 8	22.88% 27	42.37% 50	26.27% 31	118	3.85

Q22 An understanding of the range of stakeholder interests in the school community

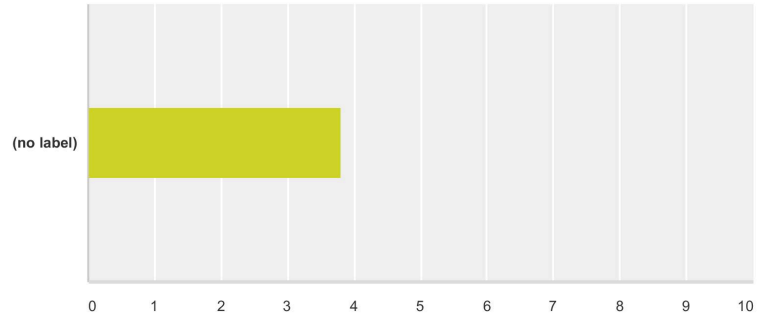
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	1.69% 2	7.63% 9	33.90% 40	39.83% 47	16.95% 20	118	3.63

Q23 An understanding of how to initiate school improvement

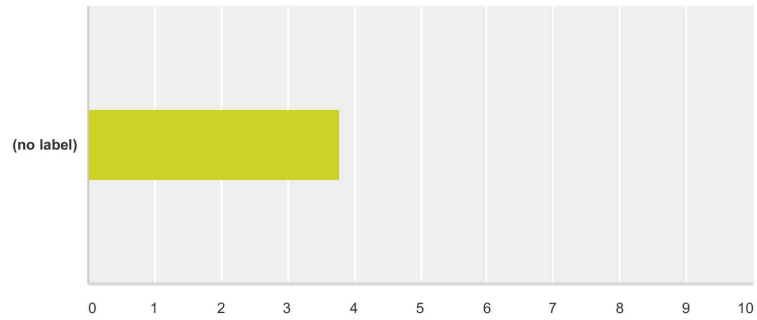
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	6.78% 8	22.03% 26	53.39% 63	16.95% 20	118	3.79

Q24 An understanding of how to sustain school improvement

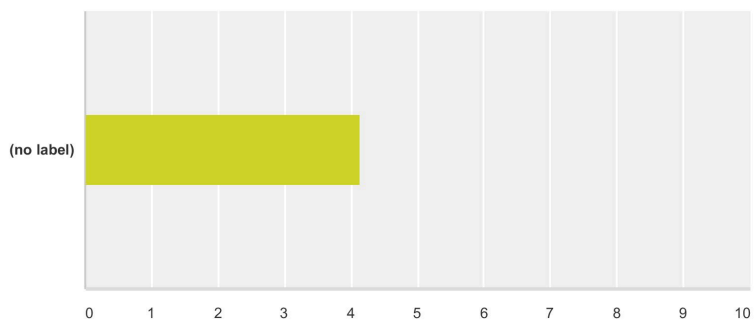
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	7.63% 9	23.73% 28	51.69% 61	16.95% 20	118	3.78

Q25 An ability to accurately assess interpersonal dynamics

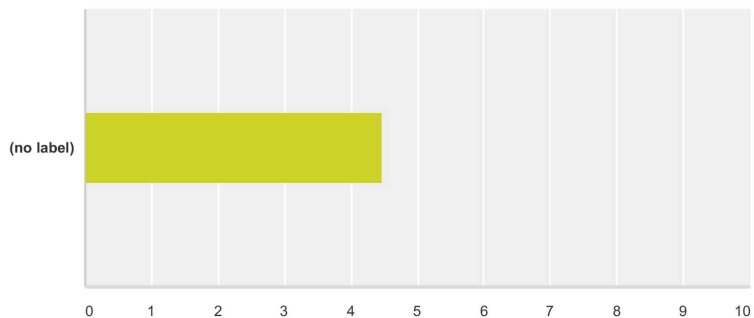
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	3.39% 4	13.56% 16	50.00% 59	33.05% 39	118	4.13

Q26 An ability to build strong collaborative relationships

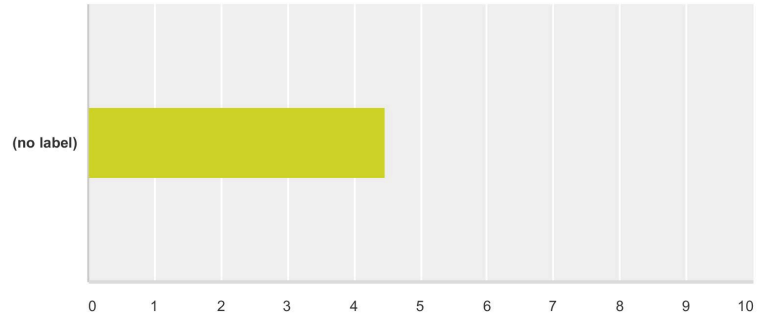
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.85% 1	4.24% 5	43.22% 51	51.69% 61	118	4.46

Q27 An ability to grow professionally through reflection on experience

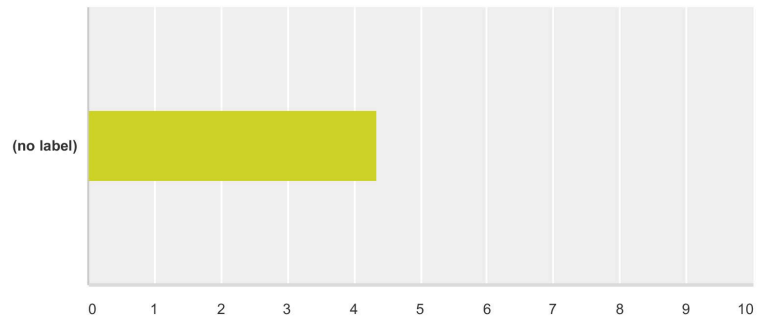
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	6.78% 8	40.68% 48	52.54% 62	118	4.46

Q28 An ability to act productively in response to constructive feedback

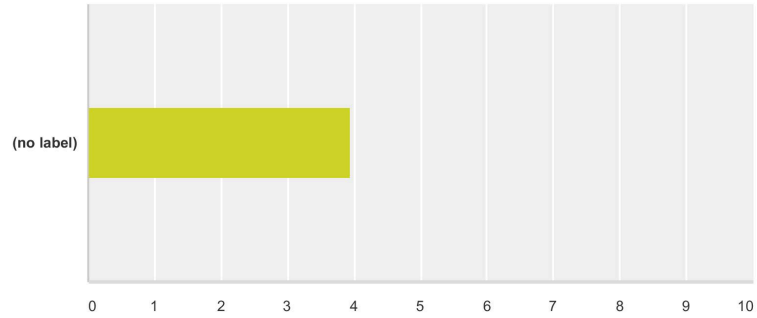
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	6.78% 8	52.54% 62	40.68% 48	118	4.34

Q29 An ability to make difficult decisions under pressure

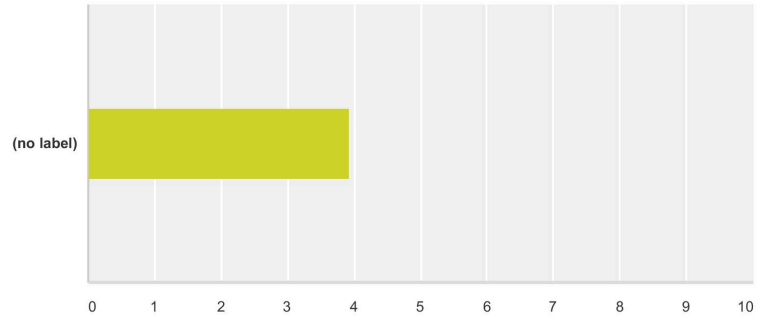
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.85% 1	4.24% 5	22.88% 27	43.22% 51	28.81% 34	118	3.95

Q30 An ability to cope with ambiguity

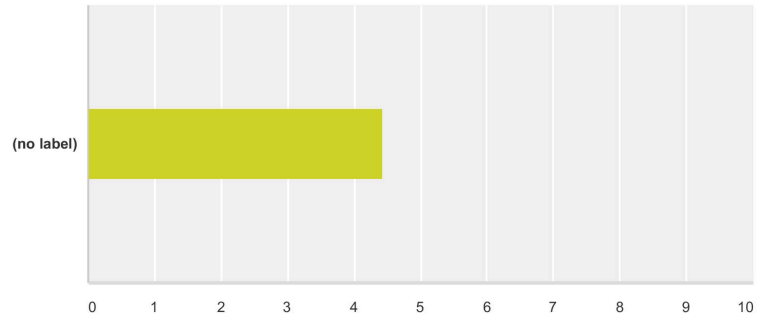
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	1.69% 2	21.19% 25	60.17% 71	16.95% 20	118	3.92

Q31 An ability to persist when facing challenges

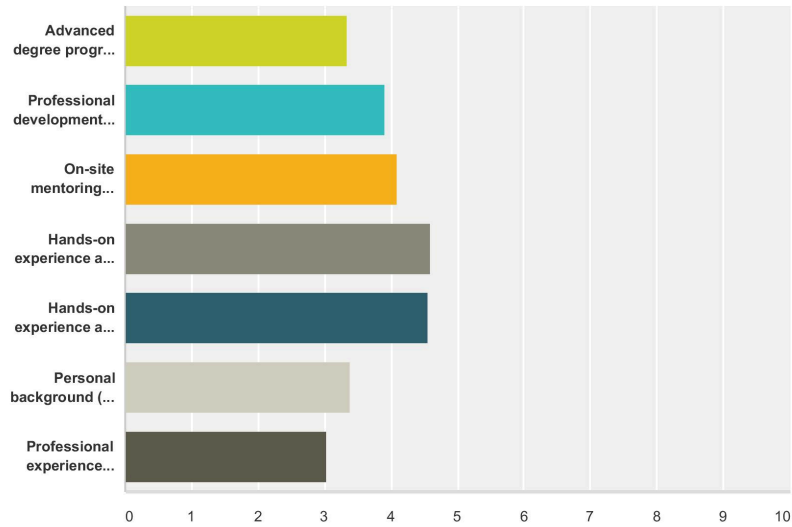
Answered: 118 Skipped: 3



	Not Important	Slightly Important	Moderately Important	Very Important	Essential	Total	Weighted Average
(no label)	0.00% 0	0.00% 0	3.39% 4	50.85% 60	45.76% 54	118	4.42

Q32 Please rate the value of any the following programs or activities in helping you acquire attributes necessary to be an effective teacher leader. Please select all the apply.

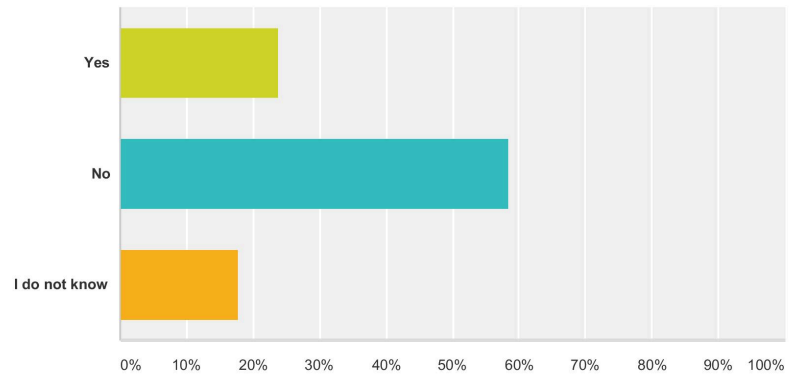
Answered: 118 Skipped: 3



	Not Valuable	Slightly Valuable	Valuable	Very Valuable	Extremely Valuable	N/A	Total	Weighted Average
Advanced degree programs focused on leadership	4.24% 5	12.71% 15	28.81% 34	24.58% 29	11.86% 14	17.80% 21	118	3.33
Professional development (such as conferences or workshops) in the area of leadership	1.69% 2	5.08% 6	21.19% 25	38.98% 46	27.97% 33	5.08% 6	118	3.91
On-site mentoring and/or specific feedback related to work as a teacher leader	0.85% 1	5.13% 6	16.24% 19	36.75% 43	37.61% 44	3.42% 4	117	4.09
Hands-on experience as a teacher	0.00% 0	1.71% 2	3.42% 4	27.35% 32	63.25% 74	4.27% 5	117	4.59
Hands-on experience as a teacher leader	0.00% 0	1.75% 2	4.39% 5	29.82% 34	60.53% 69	3.51% 4	114	4.55
Personal background (ex. parenting, volunteering, playing on a sports team, etc.)	3.39% 4	13.56% 16	37.29% 44	29.66% 35	14.41% 17	1.69% 2	118	3.39
Professional experience outside of education (ex. running a business, working in a restaurant, etc.)	5.13% 6	23.93% 28	35.04% 41	17.95% 21	9.40% 11	8.55% 10	117	3.03

Q33 Is it a requirement for formal teacher leaders at your school to receive specific training and/or professional development directly related to the leadership role?

Answered: 118 Skipped: 3



Answer Choices	Responses	
Yes	23.73%	28
No	58.47%	69
I do not know	17.80%	21
Total		118