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DISTRIBUTED LEADERSHIP IN INTERNATIONAL SCHOOLS ACROSS THE ASIA PACIFIC: A SEQUENTIAL EXPLANATORY STUDY

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DISTRIBUTED LEADERSHIP IN INTERNATIONAL SCHOOLS ACROSS THE ASIA PACIFIC: A SEQUENTIAL EXPLANATORY STUDY

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Education
at the University of Kentucky

By
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ABSTRACT OF DISSERTATION

DISTRIBUTED LEADERSHIP IN INTERNATIONAL SCHOOLS ACROSS THE ASIA PACIFIC: A SEQUENTIAL EXPLANATORY STUDY

This explanatory study examined how distributed leadership is practiced in international schools. This included looking at principals' readiness to practice a distributed perspective of leadership, how they practice leadership, the opportunities for teacher leadership, and the relationship between distributed leadership practices and school innovation and improvement. Principals have increasingly adopted distributed leadership, sharing responsibilities with others, in response to COVID-19 (Azorin, Harris, & Jones, 2020). However, this response was not by design but to survive (Harris & Jones, 2020). The demands of the pandemic left leaders stretched more than ever, and adopting distributed leadership practices was essential (Harris & Jones, 2020). The COVID-19 pandemic has led to an increase in distributed leadership practices, with principals drawing on the expertise of various teachers and stakeholders across their schools to address the numerous challenges brought on by the crisis.

The study espoused a theoretical framework that synthesizes and extends upon the principles of distributed leadership as articulated by Spillane (2005) and Spillane, Halverson, & Diamond (2004), including Gordon's (2005) instrument on distributed leadership readiness while also incorporating insights from O'Shea (2021) to explore the connection between distributed leadership practice, opportunities for teachers, and practices that foster innovation and school improvement.

This study used a sequential explanatory design using quantitative and qualitative data (Creswell & Plano Clark, 2017) to gain an in-depth understanding of leadership practice in international schools. A sequential explanatory design study has two distinct phases. The first is a quantitative phase, which, in the study, used the Distributed Leadership Readiness Scale (DLRS) Survey. The second is the qualitative phase, which, in the study, used interviews to hone and refine the quantitative findings (Fraenkel, Wallen, & Hyun, 2019; Ivankova, 2014; Ivankova, Creswell, & Stick, 2006).

Analysis of the data revealed that the international schools that participated in the study had positive readiness scores, indicating they are ready to practice or are actively practicing distributed leadership; however, their DLRS readiness scores were lower than prior studies in the United States. Findings revealed that international schools may need to readjust their leadership structures and development programs to create an internal pipeline of emerging leaders. The interview data revealed that numerous international schools had instituted various formal teacher and middle leadership positions alongside their executive senior leadership team. Also, the data revealed that international schools invested substantially in professional development in the study, although none of their development was specific to distributed leadership. Additionally, international schools invested in formal teacher and middle leadership positions; none of them had any training

or were equipped with any professional learning to support them. Notably, the survey revealed only one response below zero (-0.205) to the survey item: *Veteran teachers fill most leadership roles in the school*, which suggests that despite schools investing in professional development, there is more that needs to be done to support developing leadership capacity in international schools in the Asia Pacific.

KEYWORDS: Leadership Practice, Distributed Leadership, International Schools, Teacher Leadership, Sequential Explanatory Design, Mixed Methods Research

Robert Allan Appino

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April 6, 2024

Date

DISTRIBUTED LEADERSHIP IN INTERNATIONAL SCHOOLS ACROSS THE ASIA PACIFIC: A SEQUENTIAL EXPLANATORY STUDY

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To my family – past, present, and emerging.

To leaders and educators who continuously innovate and find new possibilities for learning.

To the dreamers and the crazy ones: believe you can.

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Chapter 1: Introduction

This dissertation studies principals' readiness for and practice of distributed leadership, the opportunities for teacher leadership, and the relationship between distributed leadership and school innovation and improvement in international schools in the Asia Pacific. The study used an explanatory mixed-method sequential design employing a quantitative survey and qualitative interviews. The first chapter of the dissertation presents the background of the study, describes the purpose, the problem, the significance, the research questions, and an overview of the methodology used. The chapter concludes by noting key definitions, delimitations, and a summary.

Background

Principals in P-12 international schools are required to take on more responsibilities to effectively lead and manage their schools (Hayden & Thompson, 2008). The COVID-19 pandemic heightened the demanding task of being a school head, making it more unwieldy, with leaders taking on added crisis response and safety duties. Before the COVID-19 pandemic, a school principal's vast scope of responsibilities typically included but was not limited to managing the school, designing operational systems, leadership guidance and influence, supervising and evaluating instruction, developing teacher capacity, hiring faculty, building community relationships, inspiring innovation, acting as change agents, interfacing with the board of governors or owners, and ensuring the direction of the mission and vision is carried out. At the onset of the pandemic, however, leaders needed to respond to and focus almost solely on crisis response and safety duties, as well as knowing how to uphold the well-being of their teachers and students while working out strategies to continue working with the

curriculum under extenuating, constantly shifting and highly unpredictable circumstances.

During COVID-19, educators, whether they were prepared or not, had to rely on one-to-one technology to continue schooling for their students. This worldwide swell in reliance on technology use made me curious to know about how technology-rich international schools coped with this huge shift and how leadership practices may have been enacted in schools with one-to-one device policies for teachers and students.

Current research validates that leadership matters (Leithwood & Day, 2007; Leithwood et al., 2008; Moos et al., 2011; Richardson et al., 2021; Waters & Marzano, 2007) and that it is the key lever of high organizational performance in schools (Jones & Harris, 2014; Leithwood et al., 2009). Additionally, research indicates that the two most important factors supporting student learning in schools are the quality of the child's teacher (Darling Hammond, 2000; Haycock, 2001; Marzano, 2003) and their school head (Leithwood et al., 2004; Leithwood et al., 2010). A school head's decisions are shown to impact learning, continuity, and how and what teachers teach (McLeod et al., 2015).

Technology use in schools is also related to the importance given to and implementation of the curriculum by school leadership and is predicated mainly on an institution's level of school technology leadership (Anderson & Dexter, 2005; Tan, 2010). However, not all leaders are "tech savvy" (McLeod et al., 2015, p. 107); it is shown that effective leaders cultivate leadership practices that leverage additional support from individuals to effectively lead their schools to meet the demands and navigate the 21st century (Fullan, 2009; Harris, 2013; Jones & Harris, 2014; Leithwood et al., 2008; Spillane, 2005).

Over time, teacher leadership has gained prominence in the past four decades as a critical component of school improvement (Darling-Hammond & Berry, 1988; Ginsberg & Berry, 1990; Harris & Jones, 2022; Harris & Muijs, 2005; Whitaker, 1995). Research has demonstrated that school heads gain significant benefits from the support of both their executive leadership team and the teaching faculty (Berry et al., 2005). Additionally, teacher leaders play a critical role in school improvement and are uniquely positioned to engage with colleagues because they are still in the classroom (Berry et al., 2005; Curtis, 2013; Nguyen et al., 2019; Wenner & Campbell, 2017). A compelling development is that school heads are increasingly turning to more sustainable leadership practices that are more distributed to manage their schools (Harris, 2020; Spillane et al., 2004). One emergent practice that is gaining traction is distributed leadership practice as a model in which leaders, teachers, faculty, and stakeholders share responsibility and status to support classroom instruction and governance across a school (Spillane, 2005; Trammell, 2016), thus making the demanding roles of school heads more shared. It does not come as a surprise then that, out of necessity, distributed perspectives of leadership became the default practice of leadership during the COVID-19 pandemic (Harris & Jones, 2020).

Purpose of Study

The purpose of this explanatory study is to explore how principals in international schools practice a distributed perspective of leadership. While practicing a distributed leadership perspective became principals' default leadership response during COVID-19 (Azorin et al., 2020; Harris & Jones, 2020), it is clear that turning to this practice was not a deliberately planned measure but adopted as a means to survive the multiple,

unexpected, and unplanned challenges brought on by the COVID-19 pandemic (Harris & Jones, 2020).

Statement of the Problem

The increased demands and ongoing challenges resulting from the COVID-19 pandemic have now shifted how principals practice leadership in schools. As schools adopt new technology and protocols, principals must rely on others to share leadership responsibilities. While the literature on distributed leadership in schools dates back over three decades, there is not much research on international schools or, more specifically, on distributed leadership practices in international schools in the Asia Pacific. For contextual reference, while there is no international authority that coordinates international schools globally, there are regional associations and government bodies like the Office of Overseas Schools from the United States Department of State that work with clusters of schools throughout the world.

Significance of the Study

Navigating through and managing the COVID-19 pandemic from an educational perspective was an extreme challenge for schools worldwide to find their bearings and to continue meaningful learning offerings for the community under ever-shifting conditions. During that time, schools had to rely solely on one-to-one technology to continue schooling for their students. The worldwide necessity and surged increase in reliance on technology use encouraged me to delve more deeply into some of the leadership practices that were already in place, specifically in technology-rich international schools, and the ways in which they adapted to cope with the rapid changes that occurred and bring into closer focus the way that leadership practices were enacted across schools that were able

to successfully navigate the challenges from the COVID-19 pandemic. It was not a surprise that distributed leadership practices, which share and stretch leadership expertise among staff, emerged as the default leadership practice in schools (Azorin, et al., 2020; Harris & Jones, 2020).

Research Questions

The research questions guiding the study include:

1) What is the readiness in international schools to practice distributed leadership?
2) How is distributed leadership practiced in international schools?
3) What are the leadership opportunities for teachers in international schools?
4) How do distributed leadership practices foster innovation and school improvement in international schools?

Research Design

I employed a sequential explanatory design using quantitative and qualitative data to gain a better understanding of leadership practice in international schools. A sequential explanatory design study has two distinct phases; the first is a quantitative phase followed by a qualitative phase to hone and refine the quantitative findings (Fraenkel et al., 2019; Ivankova, 2014; Ivankova et al., 2006).

This mixed-method research design allowed me to collect and analyze both quantitative and qualitative data, then combine them to gain insights into leadership practice, readiness to practice a distributed perspective of leadership, the opportunities for teacher leadership, and the relationship between distributed leadership practices and school innovation and improvement in international schools in the Asia Pacific. The quantitative phase examined how principals practice distributed leadership, their

readiness to practice, and the leadership opportunities for teachers. The qualitative phase provides an additional lens to understand how distributed leadership is practiced and how principals cultivate distributed leadership to enable leadership opportunities for teachers, and foster innovation and school improvement. The combination of quantitative and qualitative data provides a deeper understanding of how distributed leadership is practiced in international schools in the Asia Pacific.

Participants

This study's participants include 19 international schools from the Asia Pacific. In Phase One, 50 international schools from the Asia Pacific were invited to participate. 19 of the 50 international schools volunteered to participate in the survey. In Phase Two, nine participants from six schools and countries in the Asia Pacific volunteered to be interviewed. Participants included P-12 school leaders, heads of department or grade, teachers, and counselors.

Instrumentation

The sequential explanatory design started with a quantitative phase using survey methods to collect data on school leaders' and teachers' self-reported perceptions of their distributed leadership readiness. The Distributed Leadership Readiness Scale (DLRS) survey was used to understand leadership readiness across the international schools that participated in the study. This was followed by a qualitative phase, which included interviewing the nine participants who volunteered to be interviewed from the initial DLRS survey. Participants were interviewed using an interview schedule, which was created based on the initial survey data from Phase One.

Definitions

The following definitions guide this study. The literature review, Chapter 2, discusses these definitions in more depth.

International School

International schools are unique, elusive, and difficult to define (Bunnell, 2014; Hayden & Thompson, 1995, 2006, 2008; Haywood, 2007; Hill, 2006; Petersen, 1987; Watts & Richardson, 2020). ISC Research (2021), a leading provider of market intelligence on P-12 international schools, defines an international school as a school that "delivers a curriculum to any combination of preschool, primary or secondary students, wholly or partly in English outside an English-speaking country" or "if a school is in a country where English is one of the official languages, it offers an English-medium curriculum other than the country's national curriculum and the school is international in its orientation" (para 7). For the purposes of this research, the term international school is a school that offers an American or international curriculum different from the national curriculum, focusing on an international perspective; and is often, but not exclusively, an English-medium school in a non-English-speaking country.

Leadership

Definitions of leadership have been critiqued and confused over the years due to scholarly literature that makes leadership "anything to anyone" without a clear explanation of how and why it is unique (Barker, 1997; Barnard, 1948; Burns, 1978; Rost, 1991; Stogdill, 1974; Yukl, 1989). Rost (1993) defined leadership as "an influence relationship among leaders and their collaborators who intend real changes that reflect their mutual purposes" (p. 99). For the purposes of this study, the term leadership is about

initiating organizational change, which is accomplished through the intention of both leaders and collaborators (Rost, 1991; 1993; Rost & Barker, 2000) and is the ability of both formal and informal leaders (principals and teachers) to create change that develops the aligned mission of the school.

Teacher Leadership

Teacher leadership is multifaceted and has no universal definition (Clements, 2018; Cosenza, 2015; Harris & Muijs, 2005; Wenner & Campbell, 2017). The National Network of State Teachers of the Year's (NNSTOY) definition for their report to advance and elevate the teaching profession found teacher leadership is "the process which highly effective educators take on roles at the classroom, school, district, state, or national levels in order to advance the profession, improve educator effectiveness, and/or increase access to great teaching and learning for all students" (Jacques et al., 2016, p. 6). For the purposes of this study, teacher leadership is an influence relationship that reaches beyond the teacher's classroom walls, involves system-wide pedagogical change, and ultimately seeks to improve professional practice, student learning, and school-wide organizational change (Curtis, 2013; Jacques et al., 2016; Nguyen et al., 2019; Wenner & Campbell, 2017).

Distributed Leadership

Distributed leadership is not about dividing tasks to individuals who will go and carry them out; but rather, it is a dynamic interaction between leaders and individuals (Harris, 2013; Spillane, et al., 2004). Distributed leadership is important for instructional aspects of leadership and has shown that it affects programmatic and instructional change in schools (Hargreaves, 1994; Leithwood et al., 1999). A distributed perspective of

leadership practice creates interactions whereby teachers and stakeholders, through their actions and subject expertise, contribute towards a shared vision of the school to support student improvement (Harris, 2008; Murphy, 2005; Smylie et al., 2007). Positional leaders set direction and support others, and influence and responsibility are distributed across many individuals, both formally appointed and emergent (Elmore, 2000). For the purposes of this study, distributed leadership refers to practices that stretch leadership roles and responsibilities that foster interactions where teachers and stakeholders collaboratively contribute their subject expertise and actions towards a shared vision and goals for improving student outcomes and the school.

One-to-One

Schools that have one-to-one device access for every student have shown promise in creating technology-rich learning environments that support future skills and contemporary pedagogies (Hutchison & Reinking, 2011). However, for schools to fully leverage these technology-rich learning environments, leadership must be distributed to empower teachers as leaders and foster collaboration around pedagogy and technology integration (Levin & Schrum, 2013). Without distributed leadership and supportive policies, the potential of one-to-one technology-rich learning environments to support innovation and school improvement may not be fully realized (McLeod, et al., 2015). For the purposes of this study, one-to-one technology-rich learning environments will refer to schoolwide digital technology device programs whereby every student has access via a ratio of 1:1, meaning one personal digital learning device per student throughout the school day (Bebell & Kay, 2010).

Delimitations

This study focuses on international schools that are part of the East Asia Regional Council of Schools (EARCOS) in the Asia Pacific. Therefore, this study did not include international leaders and teachers outside the Asia Pacific region and EARCOS. This study also focused on technology-rich schools; therefore, schools without one-to-one technology programs in place for two or more years were not included. Schools included in the study needed to be fully P-12; therefore, schools with only a primary or secondary were not included in the study. School vision and mission statements were reviewed for the words creative, collaborative, connected, or personal, and schools that did not include these words were not included in the study.

Summary

Leadership has changed in schools. This chapter described the study that sought to understand the readiness for international schools to practice a distributed perspective of leadership, how they practice leadership, the opportunities for teacher leadership, and the relationship between distributed leadership practices and school innovation and improvement in international schools in the Asia Pacific. It began with an introduction to the research topic, background information, the purpose, the problem, the research questions and design, participants, instrumentations, and key definitions. The chapter was concluded with delimitations from the study. The next chapter, the literature review, delves into the existing research on this study.

Chapter 2: Literature Review

This review of the literature examines the multifaceted concepts and definitions surrounding international schools and leadership. The first section of the literature review begins by mapping out the landscape of international schools, delving into the implications of globalization and the role of whiteness in international schools. Subsequent sections investigate governance, associations, and accreditation of international schools, as well as their operational frameworks of management practices, values, leadership structures, and the hiring of staff. Next, instructional frameworks of the curriculum and standards, admissions, recruitment, and retention of teachers will be explored, as well as the demographics of the faculty and student population, funding for international schools, and the motivations behind parents and students choosing to go to an international school.

The second section of the literature review focuses on leadership. It begins by introducing a definition of leadership, followed by an examination of leadership in schools. Then it introduces and defines teacher leadership in schools. This is followed by an analysis of distributed perspectives of leadership, its definition, and shifting conceptions of leadership practice. Attention is then given to school technology leadership, leadership in technology-rich schools, and integrating technology in classrooms. The literature review concludes with a section on innovative school leader practices, effective leadership practices, a portrait of innovative leaders, and the underlying theoretical framework. The following section will introduce international schools.

International Schools

The term *international school* is unique, elusive, and difficult to pinpoint into a firm definition (Bunnell, 2014; Hayden & Thompson, 1995, 2006, 2008; Haywood, 2007; Hill, 2006; Petersen, 1987; Watts & Richardson, 2020). This definitional challenge is due to multiple interpretations and iterations of what constitutes an international school (Bunnell, 2006, 2008; Hayden & Thompson, 1995, 2006, 2013). There is no international authority that adjudicates this title or distinction, and, therefore, there are lots of permutations of what an international school includes (Hayden & Thompson, 2013). However, ISC Research (2021), a provider of market intelligence on P-12 international schools, defines an international school as a school that "delivers a curriculum to any combination of preschool, primary or secondary students, wholly or partly in English outside an English-speaking country" or "if a school is in a country where English is one of the official languages, it offers an English-medium curriculum other than the country's national curriculum and the school is international in its orientation" (para 7). In the past decade, there has been a rapid growth of international schools (Bunnell, 2006, 2008; Brummitt & Keeling, 2013; Hayden & Thompson, 2006) partly due to the growing number of schools calling themselves "international," which highlights the need for educational research to understand this phenomenon and the need for a more explicit definition of international schools (Bunnell et al., 2016). In this study, an *international school* is a school that offers an American or international curriculum different from the national curriculum, focusing on an international perspective and is often, but not exclusively, an English-medium school in a non-English-speaking country.

Types of International Schools

There have been numerous scholarly attempts at categorizing international schools (Hayden & Thompson, 2008, 2009; Matthews, 1989). The most widely accepted categorization divides international schools into two categories: "market-driven," created to meet the needs of increasing populations of expatriates and the newly emerging local population looking for different and advantageous educational offerings for their children, and "ideology-driven," created to further global and cultural cooperation and understanding (Hayden & Thompson, 2008).

Origins of International Schools

The origins of today's international schools emerged after the establishment of the League of Nations following the First World War (Sylvester, 2002). International School of Geneva (now known as Ecolint) and Yokohama International School were established in 1924 (Hayden & Thompson, 2008; Hill, 2012; 2014). These first international schools were founded on a value-centered, ideology-driven ethos to promote international understanding (Basel, 2016; Hill, 2012; Watts, 2018). International schools grew as overseas missionaries, diplomats, multinational organizations, and military service increased (Hayden & Thompson, 2008). These schools provided education for this transient community of expatriates with children for the duration of their contract abroad (Hayden & Thompson, 2008; Hill, 2012). By 1964, there were 50 international schools globally; today, that number has climbed to over 12,000 (Bereday & Lauwerys, 1964; ISC Research, 2021). Globalization continues to shape the current and future international school landscape (Hayden & Thompson, 2008).

Globalization and Whiteness in International Schools

There has been a growing critique of international schools as neoliberalist upholders of whiteness capitalizing on globalization (Barnard, 2022; Gardner-Mctaggart, 2021). In international schools, the faculty, curriculum, and cultural values are almost always founded on Western origins and are predominantly based on white perspectives (Bunnell & Gardner-Mctaggart, 2022; Gardner-Mctaggart, 2021). International schools have been criticized for glossing over diversity, equity, and justice issues and not teaching or connecting the curriculum with the local culture and language of the host country where the school is located (Bunnell & Gardner-Mctaggart, 2022). The popular "globally minded" curriculum from the International Baccalaureate Organization, which is widespread in international schools and growing in public schools, has been criticized for white-washing (Barnard, 2022; David, 2020; Gardner-Mctaggart, 2021). This white cultural hegemony in international schools is criticized as creating and maintaining white privilege, a relic of Western imperial colonization (Barnard, 2022; Gardner-Mctaggart, 2021). Recent efforts to employ diversity, equity, inclusion, and justice officers, a more diverse faculty, and a more inclusive curriculum are growing in several schools that are beginning to acknowledge and address some of these fundamental critiques (Naik & Brazil, 2022).

Governance, Association, and Accreditation

While there is no single international school governance authority (Hayden & Thompson, 2008; Watts, 2018), there are regional associations. For instance, the Association for the Advancement of International Education (AAIE) is a non-profit membership-based organization partnered with the United States education-based

international schools and associations to advance and improve global education. Partners include the Office of Overseas Schools from the United States Department of State, along with regional associations. These include the Association of American Schools in South America (AASSA), Association of American Schools in Central America, Colombia, the Caribbean, and Mexico (The Tri-Association), Association of International Schools in Africa (AISA), Central and Eastern European Schools Association (CEESA), East Asia Regional Council of Schools (EARCOS), European Council of International Schools (ECIS), Mediterranean Association of International Schools (MAIS), and Near East South Asia Council of Overseas Schools (NESA). These regional associations provide support and thought leadership for the education community of schools. The historical origins of EARCOS initially supported only school leaders by connecting them with a community of leaders in international schools in East Asia. Over time, this developed into professional learning and community-based opportunities through annual leadership conferences, teacher conferences, and grants to help fund school workshops and action research (EARCOS East Asia Regional Council of Schools, 2021).

International schools also seek creditability and self-improvement by applying for United States or United Kingdom-based accreditation associations. American curriculum-based schools typically apply for the Western Association of Schools and Colleges (WASC), Middle States Association of Schools and Colleges (MSA), or New England Association of Schools and Colleges (NEASC). In contrast, British curriculum-based schools typically apply for the Council of International Schools (CIS). These accreditations provide a globally recognized standard of educational credibility, which is

essential for the international school's ongoing improvement and to market to prospective parents.

Operational Frameworks of International Schools

International schools are notably distinctive from each other, unique, and complex (Blandford & Shaw, 2001). They most closely resemble private P-12 schools and function similarly to a micro-district in that they adhere to local laws yet remain independent from having the same regulations as local schools. One key contrast is that leadership in international schools is distinct in that they incorporate business and marketing into their roles and, therefore, operate quite differently from most national school districts and require a different set of skills (Fertig & James, 2016; Kelly, 2022).

Values

International schools most often communicate their values through their school vision and mission, and the difference is their added focus on internationalism. If created purposefully, the vision sets the direction for the school, and the mission guides the purpose (Blandford & Shaw, 2001). In most cases, the founding leader, owner, board of governors, or affiliate group will establish the initial vision and mission for the school, and most frequently, leaders in international schools are given responsibility for upholding and guiding the school's values, vision, and mission (Fertig & James, 2016; Lee et al., 2012b).

Management and Leadership

The role of the school head demands both leadership and management in international schools (Hayden & Thompson, 2008). The term "head" or "school head" can have different meanings and designations among international schools depending on

the school's curriculum and educational foundations (American, Australian, British, Canadian, International Baccalaureate, or other). The senior-most leader within the school includes persons with the title principal, head of school, headteacher, director, or superintendent. Heads provide leadership by setting the direction for the school, making strategic plans, inspiring, and embodying the vision for the school (Blandford & Shaw, 2001; Hayden & Thompson, 2008; Miles & Louis, 1990; Sammons et al., 1997). They provide management by creating and ensuring the direction is being carried out, designing operational systems, and providing leadership to influence the school to undertake the work (Hayden & Thompson, 2008; Miles & Louis, 1990). The role of school heads in international schools combines the responsibilities of superintendents and principals, which makes them different from national schools.

Heads are the bridge between the school and the board of governors or the parent company that owns the school. This relationship is critical for the school's success, and some heads will invest as much as 40 percent of their time in board-related activities (Littleford, 1999). Heads are most often directly accountable to the board of governors, which can create challenges for heads along with the contextual nuances of international schools (Blandford & Shaw, 2001; Lee et al., 2012b). On average, a school head serves for 3.7 years in a given school (Benson, 2011). The high turnover rate and lower tenure security for heads is a problematic phenomenon in international schools. The short tenure of heads decreases the likelihood of innovations or school improvement initiatives taking hold (Carmody, 2009; Fertig & James, 2016; Hayden & Thompson, 2006). Short terms served by heads may be related to a variety of tensions and ambiguities within a school,

including school governance and the relationship of the head with the board of governors or owners of the school (Blandford & Shaw, 2001; Keller, 2015; Littleford, 1999).

Hiring

The head also plays a crucial role in recruiting faculty. The recruitment process often involves senior leaders and teaching faculty, and its extent is typically determined by the position level and the size of the school (Blandford & Shaw, 2001). Senior leadership or middle managers will report directly to the head. This includes school-wide leaders such as Directors of Finance and Curriculum. Teachers, in turn, report to their divisional leaders.

Compared to nationally based schools, heads interact more with international school faculty daily because the senior leadership and administration team are generally on-site. School heads directly supervise the leadership and administration team, including divisional-level principals who directly supervise teachers. In these cases, the head indirectly supervises the teachers (Mancuso et al., 2010); however, everyday interactions occur between heads and teachers. It is interesting to note that these interactions are shown to be an instrumental aspect of teacher retention, directly dependent on teacher perceptions of the school head (Fertig & James, 2016; Mancuso et al., 2010). Additionally, the head is expected to regularly liaise with students, parents, and the community, which entails engaging with multiple cultures, including the host country's culture.

School head positions have historically been, and continue to be, predominantly filled by men (Bunnell & Gardner-McTaggart, 2022; Dimmock & Walker, 2005; Shaklee et al., 2019; Thearle, 1999). This gender equity gap is slowly changing, with more female

leaders taking up school headships (Bunnell & Gardner-McTaggart, 2022). Women currently comprise about 25-33% of the workforce compared with male school heads, who comprise between 67-75% (Bunnell & Gardner-McTaggart, 2022; Fox, 2022; Shaklee et al., 2019). Although the gender gap is changing, much more must be done to encourage, inspire, and mentor more female leaders to apply for headships (Fox, 2022; Shaklee et al., 2019).

Instructional frameworks

International schools often operate in isolation from each other and schools within the national education system in the host country where the school is located (Bates, 2013; Blandford & Shaw, 2001). There are various reasons for this. An international school may be the only international school in the city. Or there may be competition among existing schools that are market-driven for-profit schools competing for students. Additionally, an international school may be isolated from other schools or the national system because it provides a unique program that's distinct and unlike other schools.

Curriculum

The curriculum of international schools is at the heart of the school's offerings, and it communicates the school's strengths and values to current and prospective parents (Blandford & Shaw, 2001; Hayden & Thompson, 2013b). The curriculum offered is almost always different from the host country where the school is located and is delivered primarily through an English language medium (Hayden & Thompson, 2008). International schools choose a curriculum to fit their values, demographics, and country affiliations, for example, if they are branded as an American or British school or can be driven by market demands in the city or neighborhood (Catling, 2001). Examples of

various curriculums for secondary schools include the International General Certificate of Secondary Education (IGCSE), an international version of the United Kingdom's General Certificate of Secondary Education (GCSE), Advanced Placement (AP), which is common in American-curriculum-based international schools, or the International Baccalaureate (IB), which was developed originally for international schools, with an internationally-minded, value-driven mission to develop young people who contribute to a peaceful world (IBO, 2014). Despite the international emphasis on some of the curriculums offered, there has been a critique of the curriculums' Western-centric assumptions (Hayden & Thompson, 2008), and this will likely continue to be more problematic with time.

Admissions

Admission into international schools depends on specific requirements and regulations from an individual school, which will vary from one school to another. Entrance criteria are aligned with a school's mission and ethos, which can include screening for academic profiles, holistic profiles, language proficiency exams, learning support needs, psychology tests, recommendation letters, and other entrance deemed necessary by the school (NISTIS, 2021; SSIS, 2021; UWCSEA, 2021). In addition, ideology-driven schools create nationality caps to ensure the school is international in its student population and that one nationality does not take on a dominant culture for the school. Some governments regulate international school licenses, which restrict host country pupils from being allowed to attend. Market-driven international schools focused on the local host country pupils may apply for specific permissions that allow them to

target the local population by including some government-mandated curriculum embedded into the international school curriculum.

There are three distinct fee tiers within the international school market: premium, mid-market, and low (ISC Research, 2021b). Premium tier schools represent approximately 25% of all international schools, with fees in the 20,000 to 40,000 United States dollar range. The mid-market tier which is about 40% of all international schools, with fees of 10,000 to 20,000 United States dollars. The low tier approximately 35% of all international schools, with fees of under 10,000 United States dollars. Currently, the most significant growth sector is in the mid-market tier, a more affordable option for local families seeking international schools for their children. Unsurprisingly, challenges emerging from the pandemic have increased demand for mid-market international schools.

Recruitment and Retention

The recruitment and retention of quality teachers are critical to an international school's success (Hardman, 2001). The largest investment in a school's operating costs is its faculty, which is also its biggest selling point to prospective families because touting a high-quality faculty can help distinguish a school from other international schools and compete for student numbers within the city (Hayden & Thompson, 2008). International schools attract quality teachers by offering exciting work opportunities and financial incentives such as competitive salaries, retirement schemes, free or subsidized tuition for faculty children, a housing allowance, health insurance, annual flights to a teacher's home country, professional learning opportunities or stipends, and sometimes end of

contract or renewal bonuses (Hardman, 2001; Hayden & Thompson, 2008; Search Associates, 2018).

Schools begin the recruitment process as early as nine months before the start date for teachers and as early as eighteen months for leaders. Teacher contracts are typically a two-year commitment with the option to renew annually, assuming a new contract is offered (Hardman, 2001; Hayden & Thompson, 2008; ISC Research, 2021). Leadership contracts typically follow a 3-5-year commitment, subject to annual review. Teacher attrition rates are typically about 20% each year. Significant factors influencing teachers to join or remain in an international school are professional advancement in school, financial incentives, a happy working climate of the school, and a strong sense of job challenge (Hardman, 2001). Schools typically recruit experienced, certified, and licensed teachers from English-speaking countries; exceptions to these are mainly those teaching language subjects such as Mandarin or Spanish. American curriculum schools prefer candidates with a teaching qualification and a master's degree in their discipline. In contrast, British schools typically seek candidates with a bachelor's degree and a United Kingdom-recognized Post Graduate Certificate of Education (PGCE).

Demographics

It is predicted that by 2025, there will be over 750,000 teachers working in international schools (Brummitt, 2015). International school teachers have primarily been native English speakers educated in an English-medium country (Hayden & Thompson, 2008). While most of the teachers in international schools have been from the United Kingdom and the United States, increasing numbers of teachers are being recruited from Canada, Australia, New Zealand, Ireland, and South Africa. Language specialist teachers

(Mandarin, Spanish, French) are increasingly recruited from first-language-speaking countries. The reasons why teachers decide to work in international schools are varied; while some decide to make a career of working in international schools away from their home country, others know they will return home in due course. The three main categories of teachers in international schools are as follows: host country nationals, local hire expatriates, and overseas expatriates (Hayden & Thompson, 2008).

Regarding salary and benefits packages, expatriates recruited from overseas tend to be paid more in developing countries than their host country compatriots and locally hired expatriates. Overseas recruited faculty receive an expatriate package, which, in addition to the market competitive salary, they receive a housing allowance, moving allowance, and tuition for their children, insurance, and other perks. Expatriates who are recruited from within the country they are working in usually do not get the expatriate package and only receive a market-competitive salary and insurance, which prompts most expatriate educators to recruit overseas to receive a more generous compensation package. Moreover, expatriate teachers are often seen as desirable by the school because of the appeal it has for parents, branding the school as a mark of quality, which can cause friction in schools and add to the critique of Western-centric ideals (Hayden, 2006).

Teachers in the international school system have been known for high turnover, which averages over 20% annually, based on various reasons, for example, moving on to the next globe-trotting adventure, moving back home, or moving for career advancement. Despite all these factors, the highest deciding factor for teachers considering an extension of contract or leaving the school is the school head (Mancuso et al., 2010).

International School Students

Traditionally, international schools include a culturally diverse population of students and the parent community, which could provide grounds for a rich and fertile multicultural and intercultural community. Few schools in the United States have the range of diversity within the student, parent, and faculty populations of many international schools (Hayden & Thompson, 2008; Orloff & Escobar-Ortloff, 2001). Often, students in international schools come from above-average socio-economic backgrounds, with parents employed by government agencies, multinational corporations, and other institutions (Risch, 2008). Student nationalities can be dependent on a variety of factors, and international school students have traditionally fallen under three categories: global nomads or Third Culture Kids, the returnee, and the host country national (Hayden & Thompson, 2008).

Global nomads are considered students who live a considerable distance from their home countries while they follow their parents and occupation locations from country to country. Third Culture Kid is a term used to describe a student who does not necessarily feel as connected with their passport country or the country they are living in temporarily but a third space which is created from an amalgam of their experiences in which they feel they have relationships with all the cultures without having full ownership in any (Hayden & Thompson, 2008). Returnee refers to students who have spent a considerable amount of time living away from their passport or parental country and return. It has been found that reintegration back into their home culture can be exacerbated if the student's language is different from the one they were schooled in; in these cases, they may be disadvantaged and may decide to attend an international school

in their home country (Hayden & Thompson, 2008). The host country national has traditionally been a financially privileged student whose parents desire and can afford what they believe to be a quality education above the one offered in the national system. The hope is that this type of education will lead to increased options to attend universities worldwide and improve job prospects (Hayden & Thompson, 2008).

Funding

International schools are dependent on private tuition and endowments to operate. As a result, most schools are in big urban cities around the world to provide education for expatriate and local families looking for English-medium international curriculum schools. Many ethos-driven schools will include an alumni program that offers ongoing endowments like those of prestigious private schools in the United States.

Reasons to Go to an International School

In recent years, there have been considerable changes in the international school landscape, from catering exclusively to expatriates and more ideologically driven schools to an increasing demand that caters to more local populations that are increasingly market-driven (Pearce, 2013). Bunnell (2014) highlights that international schools have shifted mainly from "serving the children of expatriate and globally mobile business community and embassies, towards serving the local children of the wealthy and emerging middle class" (p. 1). This, he asserts, has been reflected in the shift from non-profit ownership by the school community to ownership of for-profit companies and proprietors. Brummitt and Keeling (2013) found that "local children (from the host country) fill 80% of international school places, which is a complete reversal from 30 years ago when 80% were filled by expatriate children" (p. 29). The "increasing desire of

the burgeoning middle classes to gain a Western-style education" (Richards, 2016, p. 157) has created a growing local demand for education. It has shifted the model of non-profit ideology-driven schools to commercial, market-driven for-profit models, which have now become large groups of schools such as Global Education Management Systems (GEMS), Nord Anglia Education, and Cognita. These new forms of international schools "are often operated on a for-profit commercial basis; are usually for children from the local (indigenous), wealthy population; and have been defined as international schools because they are located in a non-English speaking country, and English is the school's medium of communication" (Bunnell et al., 2016, p. 1). This shift continues to evolve the international school landscape, providing greater access to expatriate and local families worldwide. This combination of factors makes international schools an increasingly unique cross-section of schools to research and glean cutting-edge educational data.

International Schools as Research Settings

The research settings for this study are international schools in the Asia Pacific. Through working in and with international schools for over 19 years, I have been offered a unique insight into this evolving community. It is a privilege to have an opportunity to look more deeply at this uniquely emergent population, and I hope to share new insights from the study with the educational research community. Until now, research on international school research has been limited, and I look forward to the study contributing to this newly growing body of studies.

The next section focuses on leadership and begins with a definition. It explores leadership in schools, teacher leadership, distributed perspectives of leadership, and school technology leadership.

Leadership

Leadership is a critical component in organizations and is currently one of the most researched areas in the social sciences (Fullan, 2010; Streat, 2016). Definitions of leadership have been critiqued and confused over the years due to scholarly literature that makes leadership anything to anyone without a clear explanation of how and why it is unique (Barker, 1997; Barnard, 1948; Burns, 1978; Rost, 1991; Stogdill, 1974; Yukl, 1989). Over the years, scholars have made contributions to better understand and clearly define leadership (Burns, 1978; Hemphill & Coons, 1957; Richards & Engle, 1986; Schein, 1992; Yukl, 1989, 1999). Early perspectives of leadership mirror those held for industrialism, which regarded leadership as positional and authoritarian, through which followers received orders to complete tasks within the organization. Much research on leadership is, in fact, on leaders, and as a result, fails to include others within an organization who offer leadership and collaborate with leaders (Rost & Barker, 2000). In addition, leadership has historically been equated with good management, meaning the leader is a good manager, thus perpetuating the idea that any leadership is good management. This oversimplification has led to diminishing the complex role and scope of leadership.

Definition of Leadership

Rost (1991) sought to define leadership in a way that reflected a paradigm shift away from the traditional and industrial idea of being highly directive to a post-industrial

contemporary 21st-century idea co-constructed by influencing relationships of others by working with and through them. This shift in the definition of leadership was developed through an in-depth analysis of the definitions of leadership across 587 sources (including books, chapters, and journal articles) that spanned 60 years from 1931 to 1991 and ultimately suggested leadership is comprised of several properties (Rost, 1991). Rost (1993) defined leadership as "an influence relationship among leaders and their collaborators who intend real changes that reflect their mutual purposes" (p. 99). Initially, Rost (1991) used the terms *leaders* and *followers* but later replaced them with *leaders* and *collaborators* because the relationship is influencing and collaborative, not coercive or directive, based on a shared purpose (Rost & Barker, 2000). Rost (1993) described four essential elements of leadership, which include: relationships are multidirectional based on influence, leaders and collaborators are the actors, leaders and collaborators intend real changes, and leaders and collaborators develop a shared purpose. Leadership is about initiating change in an organization, which is accomplished through both the intention of leaders and collaborators (Rost, 1991, 1993; Rost & Barker, 2000). Rost's definition of leadership is applicable to the work of principals and teachers in international schools.

Leadership in Schools

In schools, leadership can take on numerous forms. Principals are often not the sole leader in their schools (Elmore, 2000; Gronn, 2002; Hulpia, Devos, & Rosseel, 2009; Lashway, 2006; Spillane, 2005). They play a vital leadership role as the senior positional leader, but schools' complex nature requires multiple players to lead (Elmore, 2000; Lashway, 2006; Leithwood & Mascall, 2008; Spillane, 2005). Scholars have found that the two most important factors supporting student learning are: the quality of the child's

teacher (Darling Hammond, 2000; Haycock, 2001; Marzano, 2003) and their school principal (Leithwood et al., 2004; Leithwood et al., 2010). Current research validates that leadership matters (Leithwood et al., 2008; Leithwood & Day, 2007; Moos et al., 2011; Richardson et al., 2021; Waters & Marzano, 2007) and that it is the key lever of high organizational performance (Jones & Harris, 2014; Leithwood et al., 2009).

Leadership in schools has changed over the 20th and 21st centuries. In the 1920s, school principals were viewed as managers who supervised the administrative duties of the school (Hallinger, 1992; Leithwood & Mascall, 2008). By the 1960s, school principals expanded their scope to oversee management and curriculum (Hallinger, 1992, 2003; Heck & Hallinger, 1999). In the 1970s and beyond, school principals continued to shift their scope focused on curriculum and instruction, which led to school reform (Hallinger, 1992, 2003). Leadership in schools has shifted from managing and maintaining the status quo to influencing relationships and change based on a shared purpose.

To best define leadership as applicable to the complex nature of principals and teachers working in international schools, I will use the rigorous, in-depth analysis from Rost (1991, 1993), which was developed for both scholars and practitioners. Leadership, as defined by Rost (1993), is "an influence relationship among leaders and their collaborators who intend real changes that reflect their mutual purposes" (p. 99). Leadership is the ability of both formal and informal leaders (principals and teachers) to create change that develops the aligned mission of the school.

Teacher Leadership

Leadership is a critical component of school improvement and is often associated with the school head; however, in contrast, more constructivist approaches suggest school improvement is co-constructed and creates opportunities for others to co-lead, demonstrating teacher leadership (Harris & Muijs, 2004). This section will explore teacher leadership, define it, and discuss its role in schools.

Teacher leadership has gained prominence in the past four decades as a critical component of school improvement (Berry & Ginsberg, 1990; Darling-Hammond & Berry, 1988; Harris & Jones, 2022; Harris & Muijs, 2005; Whitaker, 1995). Historically, teachers have done more than teach in schools; they have taken on responsibilities such as department/grade head, association/union representative, and, more recently, curriculum development, professional learning, and instructional coaching, further influencing the school beyond their classrooms (Harris & Muijs, 2005). This expanded responsibility of teachers demonstrating leadership is crucial to school leadership and student learning, which contributes to school improvement (Clements, 2018; Darling-Hammond & Berry, 1998; Berry & Ginsberg, 1990; Harris & Muijs, 2005; Harris & Jones, 2022; Wenner & Campbell, 2017).

Definition of Teacher Leadership

Teacher leadership is multifaceted, and there is no universal definition (Clements, 2018; Cosenza, 2015; Harris & Muijs, 2005; Wenner & Campbell, 2017). The criteria for a teacher leader are varied and can include anything from being an outstanding teacher, getting a high evaluation score, being collaborative, providing vision, building credibility with colleagues, mentoring new teachers, facilitating professional development, or many

other conditions that are not part of the positional school leadership organizational chart, but contribute to school change and improvement that extend beyond a teacher's classroom (Curtis, 2013; Harris & Muijs, 2004; Katzenmeyer & Moller, 2001; O'Shea, 2021). Wenner and Campbell (2017) affirm this criterion and provide a broad definition of teacher leadership as "teachers who maintain K-12 classroom-based teaching responsibilities while also taking on leadership responsibilities outside of the classroom" (p. 5). Jacques et al. (2016) use the National Network of State Teachers of the Year's (NNSTOY) definition for their report to advance and elevate the teaching profession, which found teacher leadership is "the process which highly effective educators take on roles at the classroom, school, district, state, or national levels in order to advance the profession, improve educator effectiveness, and/or increase access to great teaching and learning for all students" (p. 6). Curtis (2013) defined teacher leadership "as specific roles and responsibilities that recognize the talents of the most effective teachers and deploy them in service of student learning, adult learning and collaboration, and school and system improvement" (p. 4). O'Shea (2021) defines teacher leadership within the context of distributed leadership, emphasizing the empowerment of decision-making and how that fosters innovation in teaching practices. Nguyen et al. (2019) analyzed 150 articles on teacher leadership from 2003 to 2017 and found that although the definition and interpretation of teacher leadership varied, most of the key characteristics were similar. These characteristics included teacher leadership being a role of influence rather than authority, focused on actions and practices beyond the classroom (which included professional development and professional learning communities), being an agent of

pedagogical and systemic change, and promoting student learning and the improvement of instructional practice.

These commonalities from scholars contribute to a definition of teacher leadership. For the purposes of this study, teacher leadership is an influence relationship that reaches beyond the teacher's classroom walls, involves system-wide pedagogical change, and ultimately seeks to improve professional practice, student learning, and school-wide organizational change (Curtis, 2013; Jacques et al., 2016; Nguyen et al., 2019; Wenner & Campbell, 2017). Teacher leaders demonstrating these qualities have been given additional titles, such as coordinator, coach, specialist, lead teacher, grade leader, department/subject head, mentor teacher, and many other roles to support school improvement (Wenner & Campbell, 2017). Examining the existing literature on defining teacher leadership contributes to the role of teacher leadership in schools.

Teacher Leadership in Schools

In schools, teacher leaders play a critical role in contributing to school improvement (Nguyen et al., 2019; Wenner & Campbell, 2017). Teacher leaders have classroom responsibilities and, as a result, are uniquely positioned to engage in collaborative processes with colleagues, model pedagogical practices, and promote professional learning (Curtis, 2013; Wenner & Campbell, 2017). This unique position enables teacher leaders to have an influential relationship with teachers, which can help build a positive school culture and promote a shared vision and direction for the school (Curtis, 2013; Wenner & Campbell, 2017; Woo, 2021). Teacher leadership challenges formal organizational titles and moves away from positional leadership hierarchy structures in schools by distributing leadership across educators in the school community

(Harris & Muijs, 2003; Sergiovanni, 2005; Starratt, 2005; Silva et al., 2000). This was especially evident throughout the COVID-19 pandemic, which introduced numerous challenges for schools that they had to respond to instantly, and, as a result, distributed leadership became the default leadership response (Azorin et al., 2020; Harris & Jones, 2020).

Distributed Leadership

The concept of distributed leadership is first credited to Australian leadership theorist Gibb (1954) when he suggested that leadership can display distributed patterns amongst a group through shared tasks. However, the idea of distributed leadership did not appear in academic literature again until Brown and Hosking (1986). It began to gain more interest in the 1990s, though it was largely focused on the heroics of individuals, and in the 2000s, has focused on how leadership is enacted in schools (Bolden, 2011; Gronn, 2000). Today, a google.com search for "distributed leadership" on July 4, 2021, returned 338,000 results, which is only a small portion of the overall "leadership" literature available, which yielded 2,940,000,000 results. Looking at the academic literature in Google Scholar returned 49,400 results, which shows there is a significant body of research on distributed leadership.

Distributed leadership is often used interchangeably with shared leadership (Angelle & Teague, 2014), team leadership (Spillane, 2005), democratic leadership (Bennett et al., 2003), collective leadership (Denis et al., 2001; Leithwood & Mascall, 2008), emergent leadership (Beck, 1981), co-leadership (Heenan et al., 1999). This interchangeability, which Harris (2011, p. 11) calls "chameleon-like" and "catch-all," can be confusing but demonstrates that distributed leadership is "an emerging set of ideas that

frequently diverge from one another" rather than a "monolithic construct" (Spillane, 2005, p. 144). Scholars seem to agree on two areas of distributed leadership (Timperly, 2005). Firstly, distributed leadership is not dividing tasks to individuals who will go and carry them out; rather, it is a dynamic interaction between leaders and individuals (Harris, 2013; Spillane et al., 2004). The second point they agree on is that distributed leadership is important for instructional aspects of leadership and has shown that it affects programmatic and instructional change in schools (Hargreaves, 1994; Leithwood et al., 1999). The theoretical foundation guiding this study is based on the concept of distributed leadership. This approach posits that leadership responsibilities should be shared among different members of an educational organization rather than being centralized in a single individual. To further explore this concept and how it underpins the research, the next section investigates distributed perspectives of leadership.

Distributed Perspective of Leadership

Distributed leadership is a leadership model where leaders, teachers, faculty, and stakeholders share responsibility and status to support classroom instruction and school governance (Spillane, 2005; Trammell, 2016). Distributed leadership is not a type of leadership; it is a conceptual framework or practice for learning about school leadership (Spillane, 2005; Spillane & Diamond, 2007). Leadership in a distributed model is stretched or co-constructed across many leaders in a school (Spillane, 2005). A leader includes any stakeholder who engages in tasks regardless of whether they are a formal positional leader or not. Scholars acknowledge that principals require additional support from individuals to lead their schools effectively (Fullan, 2009; Harris, 2013; Jones & Harris, 2014; Leithwood et al., 2008; Spillane, 2005). A distributed perspective of

leadership practice creates interactions whereby teachers and stakeholders, through their actions and subject expertise, contribute towards a shared vision of the school to support student improvement (Elmore, 2000; Murphy, 2005; Smylie et al., 2007).

A distributed perspective on leadership defines the practice of leadership through "interactions between people and their situation" (Spillane et al., 2004, p. 16). This leadership practice by any stakeholder must involve leaders, followers, and situations (Spillane et al., 2004). Spillane et al. (2004) articulated the interaction of distributed leadership practice in the following Figure 1.

Figure 1

Elements of Distributed Leadership Practice by Spillane et al. (2004)

Spillane et al. (2004) identified two aspects involved in a distributed perspective on leadership: the *leader-plus* aspect and the *practice* aspect. The leader-plus is when leadership is stretched or enacted through anyone, not in a formal leadership role. An example of this could include a social studies teacher supporting the principals with school-wide decision-making on instructional practices supporting integrating technology

into the curriculum with remote learning. Leadership practice is a result of leadership interactions between leaders, followers, and their situations (Spillane, 2005). If the situation involved math assessment practices, a math teacher or a subject expert may emerge as the leader through interactions and champion what improvement could look like across the school. Leadership is enacted and consists of interactions among individuals to support school improvement (Harris, 2008). This study is based on the theoretical concept of distributed leadership practices, wherein leadership roles, responsibilities, and practices are stretched to foster interactions where teachers and stakeholders collaboratively contribute their expertise and actions toward a shared vision and goals for school improvement.

Shifting Conceptions of Leadership Practice

The advent unprecedented occurrence of schools worldwide shutting down campuses and rapidly moving to home-based learning as a result of the COVID-19 pandemic has shifted "conceptions of leadership and leadership practices" (Harris, 2020, p. 324). Consequently, school leaders are practicing leadership differently and relying on digital technology in new ways to stay connected and continue learning. Practicing a distributed perspective of leadership has now become the default leadership response (Azorin et al., 2020). This response was not by design but on the contrary, an essential measure to survive (Harris & Jones, 2020). As a result, of this necessary shift, the nature of leadership has changed, and distributed practices of leadership have emerged, stretching various teacher and organizational expertise across schools to support the immediate and numerous challenges brought about by the COVID-19 pandemic. The forced closures of school campuses, in turn, shifted schooling to continue online, which

required a myriad of immediate decision-making and a high level of expertise for school leadership to uphold the vision and mission of the school. In response to these challenges, formal and informal school technology leadership has emerged to support some of the new demands surfacing from the pandemic.

School Technology Leadership

School technology leadership (STL) is the most critical factor in the effective use of instructional technology in schools (Anderson & Dexter, 2005). STL is an emerging area of scholarship that integrates educational leadership and technology leadership (Hughes et al., 2005). As an emergent research field, with technology in classrooms for three decades, scholars assert the need for more research on principals STL, which is currently sparse (Anderson & Dexter, 2000, 2005; Cho, 2017; McLeod, 2015; McLeod & Richardson, 2011; Richardson et al., 2013). Richardson et al. (2013) note that "limited research has been done on how school administrators learn about or even navigate effective school technology leadership" (p. 147). Richardson (2020) stresses that "technology leadership is just good leadership" (p. 175).

Leaders in Technology-Rich Schools

Leadership plays a vital role in communicating and guiding the vision of a school, and this includes guiding instructional technology. Scholars agree on the importance of vision setting for instructional technology in schools (Anderson & Dexter, 2000; Cho et al., 2018; Dexter et al., 2016; Sterrett & Richardson, 2019); however, there is limited empirical literature on how leaders develop and communicate this with faculty (Dexter & Richardson, 2019). Levin and Schrum (2013) conducted a study on leaders from eight technology-rich schools and they found that the essential role of principals was

developing a clear vision and communicating that vision to all teachers to support school-wide technology integration. McLeod et al. (2015) conducted research on eleven "tech-savvy" superintendents to glean deeper insights into how they lead their technology-rich school districts. They found that leaders embraced the International Society for Technology in Education (ISTE) standards, technology-related professional learning, online networks, and building networks for professional growth. Also, they reaffirmed the need for university educational leadership programs to further address the gap of enabling leaders with the tools and knowledge to support technology integration in schools.

Principals influence instructional practice across the school, and this includes how technology is used in the classroom (Anderson & Dexter, 2005; Cho, 2017; Dexter et al., 2016; McLeod et al., 2015; Richardson et al., 2013). It is essential that they model technology use and mindsets about technology use (McLeod et al., 2015). This has never been more vital than amid campus closures due to the COVID-19 pandemic, which forced learning from in-school to online.

Integrating Technology in Classrooms

Over the past three decades, efforts from educators to integrate technology in classrooms have been mostly substitution-based or replicative, teaching the same thing as a traditional lesson does but with technology, rather than harnessing the capabilities technology affords and using technology to create more transformational learning (McLeod, 2015; Morrison & Anglin, 2006; Yates et al., 2020). Principals' instructional leadership is critical to support classroom learning and teaching initiatives across a school (McLeod, 2015). McLeod and Graber (2019) suggest the use of protocols between

principals and teachers. Supporting principals to bridge these gaps is critical. Richardson et al. (2013) affirm, "the scholarship on school technology leadership is of utmost importance as the current generation of students will encounter tremendous difficulty navigating and performing in the workforce" (p. 147). For technology to be embedded into the learning within classrooms, school leadership must see the affordances technology brings to learning, gain new skill sets, and lead technology initiatives (McLeod et al., 2015).

Innovative School Leaders Practice

Innovative school leaders exemplify effective leadership. Effective leadership is "connected, collaborative, creative, and responsive" (Harris & Jones, 2020, p. 246). Effective leaders use multiple frames to understand complex systems (Bolman & Deal, 2008). They challenge the system and do not accept the status quo (Sterrett & Richardson, 2019; Witt & Orvis, 2010). Effective leadership practice to support technology integration into instruction is critical to support the meaningful application of technology in schools (Dexter et al., 2016). Sterrett and Richardson (2017) conducted a case narrative with "tech-savvy" superintendents and found that collaborative leadership was critical to cultivating innovation. The role of principals is vital in creating the conditions to support teacher leadership (Childs-Bowen et al., 2000; Lambert, 1989). For innovation to take hold in schools, principals need to practice leadership that (1) creates opportunities for teachers to lead, (2) builds professional learning communities, (3) provides quality, results-driven professional development, and (4) celebrates innovation and teacher expertise (Childs-Bowen et al., 2000). These practices lead to improving

teacher quality, influencing teacher leadership, and fostering innovation and school improvement.

Effective Leadership Practice

Effective leadership facets have been studied as they emerge from empirical research on high-quality leadership in schools (Hitt & Tucker, 2016; Leithwood, 2012). The most comprehensive framework to identify effective leadership practices has been developed by Hitt and Tucker (2016), which is aptly called the *Unified Model of Effective Leader Practices* and combines three prominent frameworks into one unified framework to understand the effective practices of school leaders. The frameworks include the *Ontario Leadership Framework* from Leithwood (2012), the *Learning-Centered Leadership Framework* from Murphy et al. (2006), and the *Essential Supports Framework* from Sebring et al. (2006). The Unified Model of Effective Leader Practices combines over 300 studies from "highly respected scholars," which "represents both broadly and specifically what is known about effective leader practices" (Hitt & Tucker, 2016, p. 560). The framework identified 28 dimensions across 5 domains, the domains are (1) establishing and conveying a vision, (2) facilitating a high-quality learning experience for students, (3) building professional capacity, (4) creating a supportive organization for learning, and (5) connecting with external partners. The framework is applicable to school leaders, policy audiences, and researchers.

In a study on leadership that facilitates school innovation and transformation, Richardson et al. (2021) conducted interviews with leaders from 30 identified innovative schools from the United States, United Kingdom, New Zealand, and India and followed up with site visits coded to Hitt and Tucker's (2016) Unified Model of Effective Leader

Practices. The results of this study revealed that the difference between innovative school leaders and traditional schools was depth within the domains. Innovative leaders practice these domains more intentionally, which leads to deeper learning, thus facilitating school innovation and transformation (Richardson et al., 2021).

Portrait of Innovative Leaders

Richardson et al. (2021) developed a portrait of a deeper learning leader based on their findings from studying innovative school leaders from 30 different schools. The portrait shares broad leadership skills based on their findings built on Hitt and Tucker's (2016) Unified Model of Effective Leader Practices and extends the work from Cator et al. (2015) and Jobs for the Future and the Council of Chief State School Officers (2017). Richardson et al. (2021) developed the portrait of a deeper learning leader to be practical with these seven components: (1) living the vision, (2) authenticity and agency in learning, (3) trusting teachers as creative professionals, (4) openness to new approaches and tools, (5) over-communicating change, (6) restlessness towards equity, and (7) courage to live outside the norm. To further explore the concepts of leadership, innovation, and school improvement, the next section shares the theoretical framework that underpins this study.

Theoretical Framework for the Study

In this section, I examine the theoretical underpinnings and frameworks that form the basis of the study. This starts with how theory influenced the research questions, then proceeds to analyze the theoretical influence on the study's framework. Following this, it delves into the critical perspectives on the theories guiding this study and concludes with a review of additional theories that are relevant to the study.

Theoretical Influence on the Research Questions

The study espoused a theoretical framework that synthesizes and extends upon the principles of distributed leadership as articulated by Spillane (2005) and Spillane et al. (2004), including Gordon's (2005) instrument on distributed leadership readiness while also incorporating insights from O'Shea (2021) to explore the connection between distributed leadership practice, opportunities for teachers, and practices that foster innovation and school improvement. This framework served as a foundation for contextualizing the study, selecting literature to review, and deriving research questions to examine distributed leadership practices, opportunities for teachers, and the emergence of practices that drive innovation and school improvement.

The research questions for this study were developed and influenced by theories related to distributed leadership practice. The following Table 1 identifies the scholars that influenced this study.

Table 1

Research Question and Theoretical Influence

Research Question	Theoretical Influence
1. What is the readiness in international schools to practice distributed leadership?	Elmore (2000); Gordon (2005); Harris (2008, 2013, 2020); Leithwood et al., (2004); Spillane (2005)
2. How is distributed leadership practiced in international schools?	Gordon (2005); Hitt & Tucker (2016); Leithwood et al., (2004); DuFour & Eaker (1998); Spillane (2005); Spillane et al., (2004)
3. What are the leadership opportunities for teachers in international schools?	Gordon (2005); Leithwood et al., (2004), Spillane (2005); Spillane et al., (2004); O'Shea (2021)
4. How do distributed leadership practices foster innovation and school improvement in international schools?	Gordon (2005); Hallinger & Heck, (1999); Harris & Jones (2010); Hitt & Tucker (2016); Spillane (2005); Spillane et al., (2004); O'Shea (2021)

These scholars contributed to laying foundational distributed leadership and leadership practice theory to develop the study, which was largely based on Spillane (2005) and Spillane et al. (2004), Gordon's (2005) instrument, and O'Shea's (2021) development on leadership practices that lead to innovation and school improvement.

Spillane's (2005) distributed leadership framework was the most influential, and it includes three interrelated components: leadership practice, situational context, and expertise. Leadership practice is conceptualized as a collective activity, stretched over the social and situational dynamics of the organization, rather than residing solely with an individual. The situational context—embracing the diverse social, cultural, and material aspects of the educational environment—acts as a lens through which leadership is both viewed and enacted. The effectiveness of leadership practice is greatly enhanced when expertise is shared among various members of a school community.

Gordon's (2005) instrument complements Spillane's (2005) and Spillane et al.'s (2004) theoretical framework by providing a structured tool to measure distributed leadership. Gordon (2005) also emphasized the critical role of adaptability and shared responsibility within distributed leadership structures. Adaptability refers to the ability of leadership structures to respond dynamically to changing educational landscapes, while shared responsibility denotes the collaborative ownership of both tasks and accountability, which is essential for fostering a resilient and responsive educational community (Gordon, 2005; Harris, 2020; Harris & Jones, 2020).

Building on these works, this study explored how distributed leadership practices can foster innovation and school improvement, drawing on O'Shea's (2021) research

linking distributed leadership to innovative teaching practices. O'Shea's work suggests that when leadership is effectively distributed, and educators are empowered, there is a rise in innovative instructional strategies and practices that can lead to significant improvements in student learning.

Theoretical Influence on Study Framework

The design of this study was influenced by Gordon's (2005) work on distributed leadership, which initially outlined five domains of distributed leadership practice which was developed by the Connecticut State Department of Education based on scholars' work in effective school leadership (Brookover & Lozette, 1979; Edmonds, 1979; Purkey & Smith, 1983) and distributed leadership (Elmore, 2000; Lambert, 1998; Spillane et al., 2004) before he refined it to four. Gordon (2005) developed an instrument based on the domains to assess readiness for distributed leadership—which will be discussed in greater detail in the subsequent chapter.

Focusing on Gordon's (2005) refined four domains of distributed leadership practice, the first domain, Mission, Vision, and Goals were identified by scholars as critical; schools that have these clearly articulated are able to make decisions that fulfill these tenets and ultimately improve teaching and learning (Hallinger & Heck, 1999; Leithwood et al., 1999; Leithwood et al, 2004; Purkey & Smith, 1983). DuFour and Eaker (1998) emphasized that an organization's mission clarifies its purpose, its vision provides a direction to aspire to, and its goals offer tangible, measurable milestones to gauge progress toward achieving that vision. Thus, if clearly understood, the mission, vision, and goals support school improvement. The second domain, School Culture, was identified by scholars as influencing student achievement (Elmore, 2000; Reavis et al.,

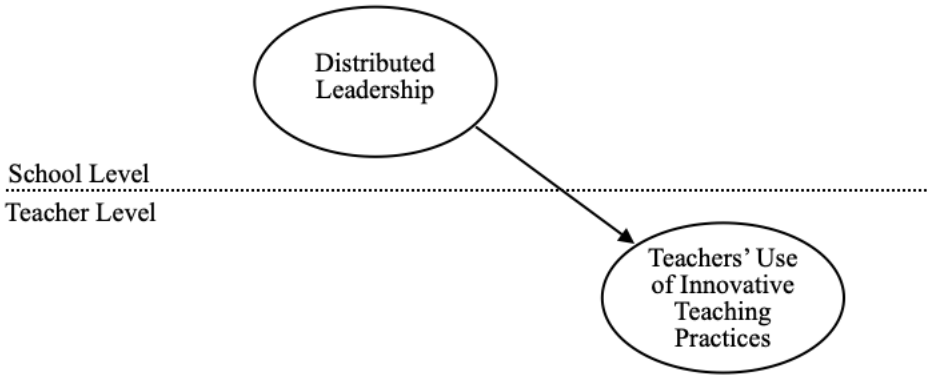
1999; Waters & Marzano, 2007; Waters et al., 2004). Culture encompasses norms, beliefs, values, and habits that can help build a positive school environment and promote a shared vision and direction for the school, which impacts student learning (Curtis, 2013; DuFour & Eaker, 1998; Waters et al., 2004; Wenner & Campbell, 2017; Woo, 2021). The third domain, Shared Responsibility, encompasses decision-making and professional development, which includes data-informed decisions and measuring success to support student learning (Elmore, 2000) and opportunities for teachers to improve practice through ongoing development, which supports school improvement (Waters et al., 2004). The fourth domain, Leadership Practice, explains how leaders interact with their faculty and lead their schools. Spillane et al. (2004) view leadership practice as a distributed interaction that is stretched across multiple individuals toward a shared vision. All four domains and the underlying theories within influenced the design of this study, which used Gordon's (2005) instrument to explore distributed leadership practice, readiness, opportunities for teachers, and school innovation and improvement in international schools in the Asia Pacific.

In addition to Spillane (2005) and Spillane et al. (2004), I was influenced by O'Shea's (2021) study on distributed leadership and its connection to innovative teaching practices. She found from utilizing data from the Organization for Economic Cooperation and Development Teaching and Learning International Survey (2013), which included 7,436 lower secondary school principals and 117,876 teachers across 32 countries, that distributed leadership practices foster innovation and are a predictor of innovative teaching practices (O'Shea, 2021). Additionally, she found that "when teachers are empowered to be decision-makers, they are significantly more likely to utilize strategies

that can prepare students for their futures" (O'Shea, 2021, p. 9). She advocates that "educational leaders interested in developing future-ready students can then look to empower their teachers through a distributed leadership approach" (O'Shea, 2021, p. 9). The distributed leadership and innovative teaching framework in Figure 2 developed by O'Shea (2021) has been integrated into the conceptual framework of my study.

Figure 2

Distributed Leadership and Innovative Teaching Practices by O'Shea (2021)



Critical Perspectives on the Theories Guiding this Study

Several scholars have criticized distributed leadership perspectives (Gronn, 2000, 2002, 2008; Harris, 2013; Lumby, 2013; Timperley, 2005). This section will share some of those critiques. Gronn (2000, 2002, 2008) constructively critiques the concept of distributed leadership due to its perceived vagueness and the practical challenges it faces in its application within educational settings. His critique of vagueness is based on the concept of distributed leadership, which does not have a clear definition which Harris (2013) has also pointed out. Additionally, Gronn (2002, 2008) critiques the practical application of distributed leadership into organizational practice, mentioning that it is conceptually ambiguous and does not acknowledge power and influence. Gronn (2008), although critical of distributed leadership, believes it has "continued potential for

understanding school-level decision-making practice" and notes that it has contributed to a "better understanding and appraising the work of organizations, especially schools, has been both insightful and productive" (p. 155). Timperley (2005) criticized distributed leadership due to it being difficult to implement and the potential dilutions of leadership. She points out that distributed leadership, especially Spillane's (2005) approach, has both potential and limitations; it has the "potential to achieve instructional improvement" (p. 830), and is limited because it is not clear how distributed leadership makes a positive difference to school improvement and student learning (Timperley, 2005). Lumby (2013) criticizes distributed leadership and builds on Gronn's (2002, 2008) critique in terms of power dynamics and says that the framework does not specifically address power and influence and can be viewed as a one-dimensional or a top-down approach where a leader distributes the power to act, which may not fully embrace the collaborative or shared ethos that distributed leadership aims to promote. She points out that research on distributed leadership often overlooks issues of exclusion and unequal access to power and leadership opportunities, which can perpetuate inequalities (Lumby, 2013). She says distributed leadership theory is an "easy target in some ways" because "its confusing overlaps with earlier theory, contradictory formulations, and utopian depictions are transparent" (Lumby, 2013, p. 592). Additionally, Lumby (2013) critiques that because distributed leadership avoids issues of power, it becomes a "profoundly political phenomenon, replete with the uses and abuses of power" (p. 592). Harris (2013) looked at the "dark side of distributed leadership" identifying that there are some disadvantages of distributed leadership (p. 65). The dark side includes diffusion of accountability, lack of clarity and directions, bias against authority, and power struggles of manipulation and

control, whereby distributed leadership is merely a way to get teachers to do more work (Harris, 2013). Harris (2013) acknowledges that there are key potential benefits of distributed leadership practice, which include increased participation and commitment, increased innovation through including differing perspectives and expertise in solving problems, developing leadership capacity, building trust and empowerment, adaptability to change and respond quickly to problems, and organizational resilience. Scholars' critiques of distributed leadership are helpful in understanding the perceived strengths and limitations this framework posits.

Additional Theories Relevant to the Study

In addition to Spillane's (2005) and Spillane et al.'s (2004) foundational work on distributed leadership, other scholars (Elmore, 2000; Hallinger, 2010; Hallinger & Heck, 1999; Harris, 2008; 2013; 2020; Leithwood et al., 2009; Murphy, 2005) contributions and theories influenced this study. Elmore (2000) posits that the purpose of leadership is to improve instructional practice and performance, regardless of a leader's role. Positional leaders establish direction and provide support to teams, while the spread of influence and accountability extends across numerous individuals, encompassing both those with formally appointed roles and those who emerge because of expertise (Elmore, 2000). This notion of shared leadership interested me more in distributed leadership, which led me to Murphy (2005), who emphasized the need for schools to shift from traditional hierarchical models for school leadership to more collective and shared forms of leadership. Hallinger (2010) emphasized that distributed leadership is a facet of shared leadership, and on its own, distributed leadership is not a single construct but includes decision-making, voting, input, delegations, and other shared approaches, which include

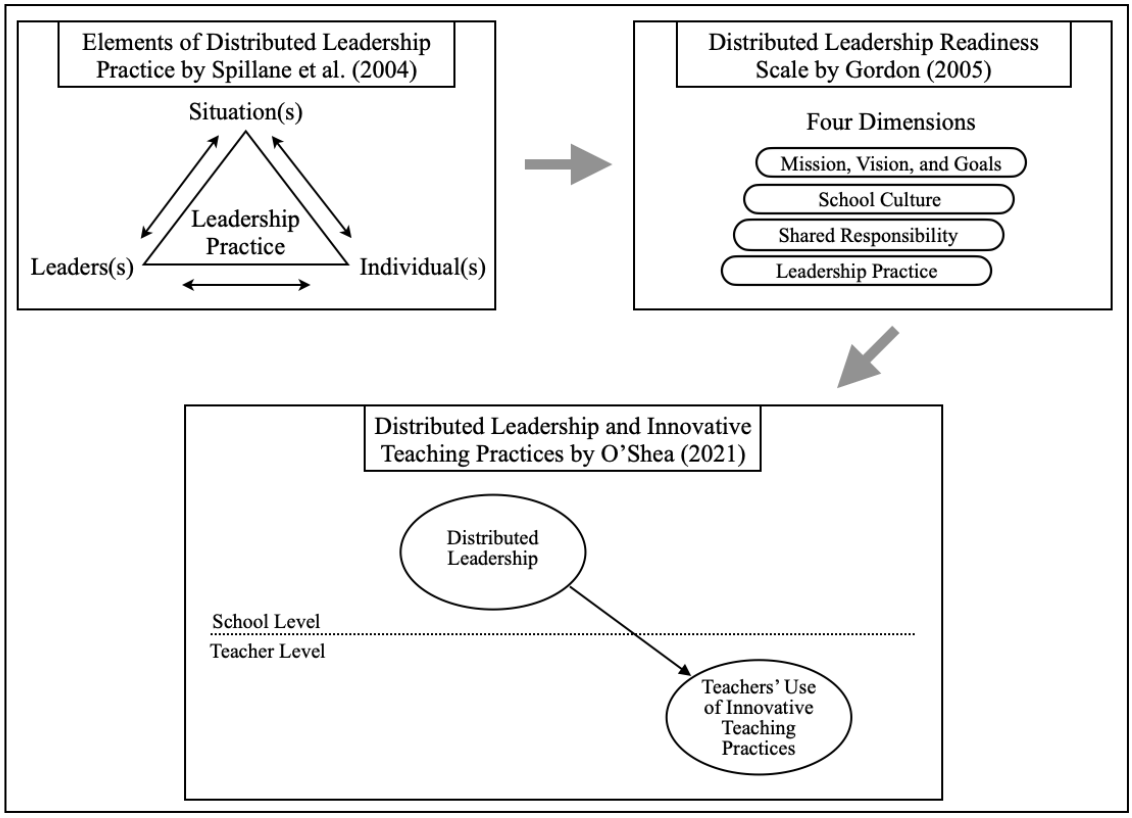
shared and collaborative leadership. Hallinger and Heck (1999) discuss the concept of distributed leadership in the context of school leadership and its effects beyond principalship. They highlight the shift from the dominant leader model to a more egalitarian model of leadership while still acknowledging the role a school leader as the positional leader of the school. They note that distributed leadership is both theoretically attractive and powerful in practice (Hallinger & Heck, 1999). Harris (2008) builds on the existing empirical evidence and highlights the positive relationship between distributed forms of leadership and learning outcomes. This suggests that distributed practices of leadership can lead to positive change and development in schools. She also found that distributed practices of leadership led to improved organizational performance (Harris, 2008). Additionally, Harris (2013) acknowledged that distributed practices of leadership increased participation, expanded diverse expertise, built more agility, built capacity, and empowered individuals. Azorin et al. (2020) noted that practicing a distributed leadership perspective was the default leadership approach for principals during COVID-19; which was not a response by design but an essential one to survive the ongoing challenges of the pandemic (Harris & Jones, 2020). Leithwood et al. (2009) explore distributed leadership through the theoretical underpinnings, empirical studies, and practical implications for schools. Their comprehensive study (Leithwood et al., 2009) helped me understand additional facets of distributed leadership by providing insight into how it is practiced in schools, what implementation looks like, and ideas for further research. Scholars acknowledge that school leaders need additional support from teachers to effectively lead (Fullan, 2009; Harris, 2013; Jones & Harris, 2014; Leithwood et al., 2008; Spillane, 2005). Distributed leadership practices foster interactions among teachers and

stakeholders who, through their actions and subject expertise, contribute to a shared school vision that supports student improvement (Elmore, 2000; Murphy, 2005; Smylie et al., 2007).

In addition to Spillane (2005), Spillane et al. (2004), Gordon (2005), and O'Shea (2021), the integration of these theories provided a framework for examining the multifaceted dynamic nature of leadership practice within international schools. The conceptual framework for this study in Figure 3 shows the connection between Spillane et al. (2004), Gordon (2005), and O'Shea (2021).

Figure 3

The Conceptual Framework based on the Elements of Distributed Leadership Practice by Spillane et al. (2004), the Distributed Leadership Readiness Scale by Gordon (2005), and the Distributed Leadership and Innovative Teaching Practices by O'Shea (2021)



This study aimed to unpack distributed leadership readiness, practices, and leadership opportunities for teachers and to investigate the conditions under which leadership practices foster innovation and school improvement. In aligning this theoretical framework with the research goals, the study aimed to contribute to a deeper understanding of how distributed leadership is practiced, the leadership opportunities for teachers, and practices that serve as a catalyst for school innovation and improvement in international schools in the Asia Pacific.

Summary

In this study, I examined leadership in international schools in the Asia Pacific. The chapter began with the relevant literature on the broad topic of international schools and leadership. It also included distributed perspectives of leadership practice, teacher leadership, and school technology leadership. The chapter concluded with innovative school leaders' practice and the theoretical framework. Chapter 3 describes the methodology for this study.

Chapter 3: Methodology

Introduction

Managing the COVID-19 pandemic was challenging for all schools worldwide to navigate. And in particular, to continue to offer meaningful learning offerings opportunities for the community. During this time, schools, whether they were prepared or not, had to rely on one-to-one technology to continue schooling their students. This worldwide surge in reliance on technology encouraged me to delve more deeply into some of the practices already in place, specifically in technology-rich international schools, and the ways in which they coped with these changes and bring into closer focus the way leadership practices were enacted in schools that use technology in a one-to-one capacity for teachers and students.

Improving student learning is a priority for leaders in schools, and scholars have found that the two most important factors supporting student learning are the quality of the child's teacher (Darling Hammond, 2000; Haycock, 2001; Marzano, 2003) and their school principal (Leithwood et al., 2010). For the latter, the school principal's decisions impact learning, continuity, and how and what teachers teach (McLeod et al., 2015). Successful integration of technology into the teaching and learning day of a school can vary greatly depending on the nature and level of school technology leadership (STL) within that school (Anderson & Dexter, 2005; Tan, 2010). Not all leaders are "tech savvy" (McLeod et al., 2015, p. 107); however, effective leaders cultivate leadership practices that require additional support through individuals to effectively lead their schools (Fullan, 2009; Harris, 2013; Jones & Harris, 2014; Leithwood et al., 2008; Spillane, 2005).

A distributed perspective of leadership practice creates interactions whereby teachers and stakeholders, through their actions and subject expertise, contribute towards a shared vision of the school to support student improvement (Murphy, 2005; Smylie et al., 2007). As the pandemic highlighted the vital importance of leveraging technology to support learning, my study aims to place the spotlight on school leaders and in what ways they have managed to use their expertise to support learning in the time since.

The purpose of this explanatory study is to explore how principals in international schools practice a distributed perspective of leadership. Practicing a distributed leadership perspective became a principal's default leadership response during COVID-19 (Azorin et al., 2020). However, this response was not by design but rather a survival measure that schools were compelled to adopt (Harris & Jones, 2020). As a result of this adaptation, leadership has changed as increased distributed leadership practices have emerged, stretching various teacher and organizational expertise across schools to support the numerous challenges brought on by the COVID-19 pandemic. The following research questions will guide the study.

Research Questions

1) What is the readiness in international schools to practice distributed leadership?
2) How is distributed leadership practiced in international schools?
3) What are the leadership opportunities for teachers in international schools?
4) How do distributed leadership practices foster innovation and school improvement in international schools?

In the following sections, I describe the study's methodology. This section begins with a description of the research design and a rationale for selecting a mixed-methods

sequential explanatory design to answer the research questions outlined above. I will then provide an overview of the research setting, data sources, instruments and procedures, data collection, data analysis, and the role of the researcher.

Research Design

This study used a sequential explanatory design using quantitative and qualitative data (Creswell & Plano Clark, 2017) to gain an in-depth understanding of leadership practice in international schools. A sequential explanatory design study has two distinct phases; the first is a quantitative phase followed by a qualitative phase to hone and refine the quantitative findings (Fraenkel et al., 2019; Ivankova, 2014; Ivankova et al., 2006).

Initially, my plan was to exclusively conduct a quantitative research design using the DLRS survey. However, it was suggested by the committee that this approach might restrict the depth of the study and fail to highlight the rich perspectives of educators. After some reflection, I shifted to a mixed-method approach, adding qualitative interviews to the study to glean a deeper understanding of distributed leadership practices in international schools. Upon delving deeper into mixed methods designs, it became evident that the quantitative survey data could inform and enhance the subsequent qualitative data. Therefore, I adopted a sequential explanatory mixed method design where the results of quantitative Phase 1, the DLRS survey, guided the questions for the interview schedule in the qualitative Phase 2, the interviews. By integrating the quantitative and qualitative data, I aimed to enrich the study and glean new insights into this phenomenon.

A mixed-method research design allowed me to collect and analyze quantitative and qualitative data and combine them to determine a deeper understanding of the study

as it emerged (Creswell & Plano Clark, 2011; Fraenkel et al., 2019). This study began with a quantitative phase to address research questions on distributed practices of leadership, readiness, and the leadership opportunities of teachers in international schools. The goal of the quantitative phase of the study was to identify, via survey methods, the salient factors related to distributed leadership practices, readiness, and opportunities for teachers among principals of international schools. The qualitative phase looked specifically at how principals cultivate distributed leadership practices to enable leadership opportunities for teachers and foster innovation and school improvement. The qualitative phase aimed to understand better the quantitative findings (Fraenkel et al., 2019). The goal of the qualitative stage of the study was to understand better the context of the salient factors identified in the first phase by conducting semi-structured interviews with a selection of school leaders and teachers and then open coding the data to explain the findings. The combination of quantitative and qualitative data generated from this study allowed for a deeper understanding of how distributed leadership is practiced in international schools in the Asia Pacific.

Rationale for the Design Approach

While conducting a mixed methods study added complexity to the design, there were specific reasons why an explanatory mixed methods design was useful in the study (Creswell & Plano Clark, 2017; Fraenkel et al., 2019). In general, the proposed design allowed me to be responsive to new insights into the phenomena studied. Specifically, these five reasons stand out (Bryman, 2006):

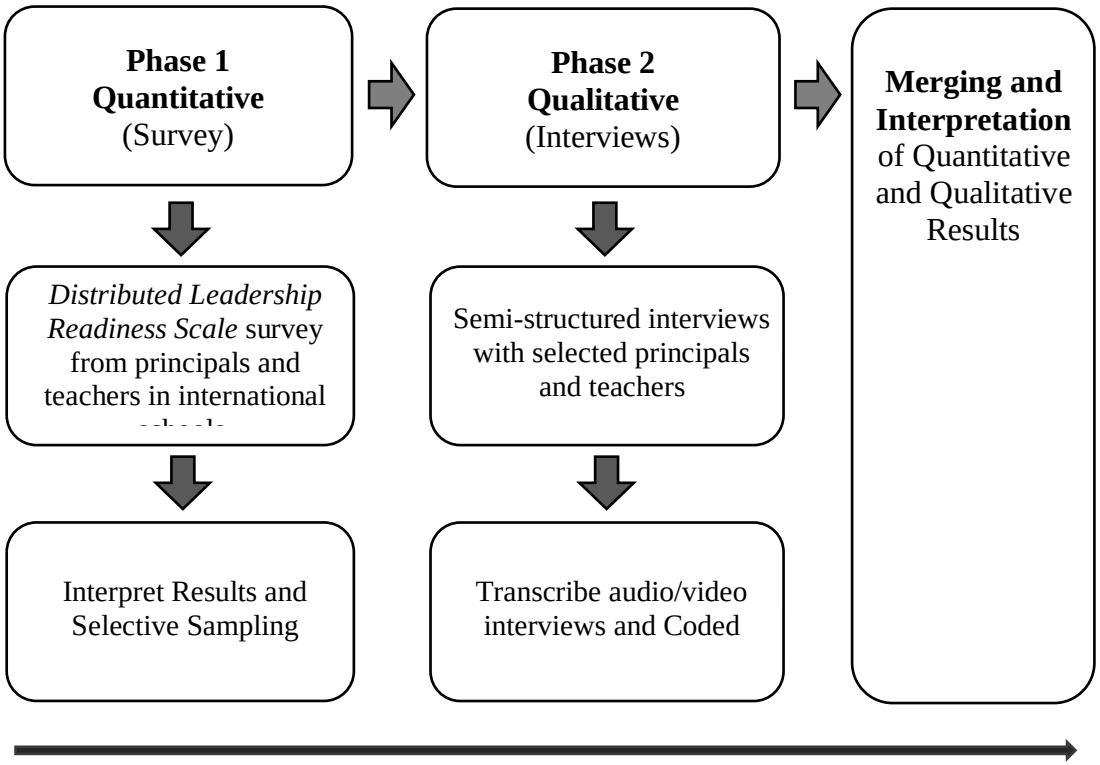
- Triangulation: The study design allowed me to combine quantitative and qualitative data to provide mutual corroboration across findings.

- Completeness: I brought together a more comprehensive account of school leader practice in the domains studied.
- Explanation: I was able to use the qualitative phase to help explain findings in the quantitative phase.
- Credibility: By employing both approaches, I enhanced the integrity of the findings.
- Context: The qualitative phase provided a contextual understanding of the relationships discovered in the survey work.

This study benefited from the combined mixed methods approach of quantitative and qualitative phases followed by merging and interpretation; the explanatory research design used for this study is illustrated below (see Figure 4).

Figure 4

Explanatory Research Design



Research Setting

The following criteria were used to determine participation from schools: (1) international schools from Asia Pacific associated with the EARCOS, (2) existing one-to-one technology program and identified as a technology-rich learning environment, (3) P-12 all through school, and (4) has the words creative, collaborative, connected, or personal in their school vision or mission statement.

EARCOS is dedicated to its mission, which "inspires adult and student learning through its leadership and service and fosters intercultural understanding, global citizenship and exceptional educational practices within our learning community" (EARCOS East Asia Regional Council of Schools, 2021, para. 3). EARCOS serves over 200 member schools across Asia. To narrow down the 200 EARCOS member schools, I used the additional selection criteria mentioned above. First, reviewed school websites for specific information about one-to-one technology programs. One-to-one technology programs provide policies wherein individual devices are assigned to students to support and extend learning (Dunleavy et al., 2007; Johnson et al., 2015; Gifford & Pyshkin, 2020). With more schools adopting one-to-one technology device policies, it is critical that school leadership teams develop professional learning programs and support the intended adoption and goals for using technology effectively in classrooms. Leadership practice on how they navigate one-to-one technology programs is crucial in supporting teachers to leverage technology in the classroom to support student learning further. This, as previously mentioned, is more prevalent now than ever as with the COVID-19 pandemic, all schooling moved online.

In addition to selecting one-to-one technology-rich P-12 schools, I reviewed the mission and vision statements indicated on the school website and selected schools that include the words creative, collaborative, connected, or personal to begin to align effective leadership practice, which Harris and Jones (2020) affirm is now "connected, collaborative, creative, and responsive" (p. 246). Lastly, I only selected schools that I did not directly work with to ensure there was no conflict of interest with my current job and the relationships I have. This approach was in line with Fraenkel et al. (2019), who caution to avoid research sites where participants may feel pressure to participate.

Research Sample and Data Sources

In this section, I share the research sample and data sources utilized in the study. Additionally, I describe the population and the measures taken to protect the rights of participants.

Sample

This study included principals and teachers in technology-rich international schools with one-to-one device programs from EARCOS that met the study selection criteria mentioned in the previous section. The term *principal* can have different meanings among international schools depending on the school's curriculum, educational foundations (American, Australian, British, Canadian, or International Baccalaureate), and local country cultural context. For this study, the term principal extends beyond the senior-most leader in the school and the senior-most building level leader and may include persons with the title principal, head of school, headteacher, director, superintendent, or anyone from the senior academic leadership team within the school. Additionally, all teachers from the school who teach classes provisioned with one-to-one

technology were invited to participate. This included those who teach Early Years (ages 2-6), who, even in technology-rich schools, may not have one-to-one technology but rather shared, were still able to support Phase 2 of the study.

Identified schools received an invitation to serve as a research site and participate in the study via an introduction to the study email sent to each head of school explaining the two-phase study and requesting formal signed consent for the school to participate (Merriam, 2009) (See Consent Form in Appendix A). If the school head agreed to allow their school to participate as a research site, they were asked to indicate a school liaison for crucial contact information and follow-up, which could be the school head but most often was another member of the leadership team. The school liaison served two purposes: first, it is a practical approach to streamline and expedite communication with the school, and not all school heads have the capacity to directly support the logistics of participating in the study. Secondly, it revealed a window into the school's leadership practice. Schools that consented to serve as research sites were included in Phase 1 of the study.

Data Sources

This study employed a sequential mixed-method design that included two distinct phases. First, the design started with collecting and analyzing quantitative data via the DLRS survey, which addressed the first two research questions: What is their readiness to practice distributed leadership? And how is distributed leadership practiced? To strengthen the analysis of the data collected, the second phase collected qualitative data via interviews from a convenience sample of participants who volunteered from Phase 1 (Creswell et al., 2011; Fraenkel et al., 2019). Once Phase 1 was complete, I contacted

volunteers who agreed to participate in Phase 2 to confirm and set up interview times and send electronic calendar invites and Zoom conferencing links to the interview.

Population

Defining the entire population was the first step in selecting a research subset, referred to as the sample (Fraenkel et al., 2019). This process was detailed in the setting and sample sections of this study. Specifically, my goal was to explore a sample within a clearly defined population. The intended population consisted of leaders and teachers from technology-rich international schools in the Asia Pacific. Initially, I targeted a nonprobability of 100 leaders and teachers from 10 international schools that fit the research setting criteria. In addition to a target population, scholars (Aurini et al., 2016; Fraenkel et al., 2019) suggest setting an accessible population that may be more feasible given practical constraints. Accordingly, for this study, the accessible population target comprised 25 leaders and teachers from 5 international schools that met the selection criteria.

Protecting Participants' Rights

Throughout the study, all data were kept private on a password-protected MacBook Pro and encrypted services. Surveys were conducted with Qualtrics, and interviews were recorded on Zoom's encrypted cloud service. Only pseudonyms are used to protect the research sites and participants. This includes the names of the schools, principals, and teachers who participated in the study. The following section details each phase of the study, including the instruments and procedures.

Instruments and Procedures

The sequential explanatory design unfolded first with a quantitative phase, which used survey methods to collect data on school leaders' and teachers' self-reported perceptions of their distributed leadership readiness. This was followed by a qualitative phase in which I interviewed a subset of the volunteer survey participants. The survey results informed the interview schedule. Mixing (Creswell & Clark, 2011; Dillman et al., 2014), or integration of the interrelating of the study's phases, took place during two phases: during data collection because the survey results supported the building of the interview schedule, and during the interpretation phase, which occurred after I collected and analyzed both sets of data (Ivankova, 2014; Ivankova et al., 2006). Mixing modes allowed the "strengths of certain modes to overcome the weakness of others in order to minimize total survey error" (Dillman et al., 2014, p. 12). The following subsections detail each phase of the study with the instrument used.

Phase 1: Quantitative Survey

The sequential explanatory design unfolded, starting with a quantitative phase to address the research questions on readiness to practice distributed leadership and distributed practices of leadership. I used survey methods to collect data on school leaders' and teachers' self-reported perceptions of their distributed leadership readiness. The goal of the quantitative phase of the study was to identify, via survey methods, the salient factors related to distributed leadership practices among principals of international schools.

Instruments

Several instruments measuring distributed leadership have been developed: Leadership Density Inventory by Smith (2001) and later refined by Smith et al. (2004) evaluates the density of leadership, the Distributed Leadership Inventory by Hulpia et al. (2009), which evaluates characteristics of leadership teams (principals, assistant principals, and teacher leaders) and the distribution of their functions, the Distributed Leadership Readiness Scale (DLRS) developed by the Connecticut State Department of Education (CSDE) and validated by Gordon (2005) which measures school readiness in distributed leadership to help principals determine shared leadership practices based on Elmore (2000) and the Distributed Leadership Survey by Davis (2009) which combines three different scales: DLRS, Teacher Leadership Survey, and the School Leader Questionnaire.

This study used the DLRS, a 40-item survey utilizing a 5-point Likert response scale (See Appendix B). The DLRS is a widely used distributed leadership instrument and has been administered to principals and teachers (Boudreaux, 2011; Christy, 2008; Davis, 2009; Gordon, 2005; Onkwugha, 2013; Phillips, 2013; Riddle, 2015; Rivers, 2010; Zinke, 2013). The DLRS was used for this study because it is designed to measure a school's involvement in shared practices and readiness for distributed leadership. Data from the DLRS provided insight into how principals from international schools share leadership across a school and the practices they enact. The DLRS was initially designed to measure distributed leadership practices across five domains: (1) mission, vision, and goals; (2) school culture; (3) decision-making; (4) evaluation and professional development); and (5) leadership practices. Gordon (2005) changed the domains slightly

when he validated the instrument using a two-phase process that used factor analysis and principal component analysis, which led to simplifying the DLRS by combining two domains together, reducing it to four domains: (1) mission, vision, and goals; (2) school culture; (3) shared responsibility (decision-making, evaluation, and professional development); and (4) leadership practices. I used the four-domain instrument (See Appendix B) as it is the most common and validated. The DLRS survey and the domains within helped reveal some rich insights into distributed leadership, glean new understanding, and inform the interview schedule for Phase 2 of the study.

Phase 2: Qualitative Interviews

In Phase 2 of the study, qualitative methods were employed to examine how principals cultivate distributed leadership practices to enable teacher leadership opportunities, foster innovation and school improvement, and provide more depth to Phase 1. Semi-structured interviews were conducted with a subset of international school leaders and teachers from technology-rich environments who indicated they were willing to participate. Interviews are an effective way to dig deeper, gain perspective, and discover thoughts, perceptions, and how participants feel (Fraenkel et al., 2019; Patton, 2002). Semi-structured interviews were selected to allow flexibility. Interview questions and prompts followed an interview schedule approach (See Appendix C), which outlined and guided the topics in advance but provided flexibility with the sequence and exact wording during the interview (Patton, 2008). This approach increased the comprehensiveness of the data and allowed the interview to feel conversational and situational. However, I limited the flexibility in sequencing the questions to ensure I did not inadvertently omit any questions and that the consistent wording of questions elicited

substantially different perspectives from participants without variation (Patton, 2008). The survey results from Phase 1 informed the proposed interview schedule. The goal of the qualitative stage of the study was to understand better the context of the salient factors identified in the first phase by conducting semi-structured interviews with a selection of school leaders and teachers and then coding the data using open coding and creating the initial set of code categories (Merriam, 2009).

Instruments

An interview schedule was developed for the qualitative phase of the study (See Appendix C). As opposed to an interview protocol, an interview schedule was used because it gave me more flexibility as a guideline rather than a more rigid interview protocol (Liem, 2018). The qualitative phase aimed to understand better how distributed leadership is practiced in international schools, the opportunities leadership practice has for teachers, and how it supports innovation and school improvement. I developed an interview schedule that combined structured questions with open-ended questions, which allowed me to probe and scope during the interviews (Brannen, 2005; Merriam, 2002). The following section details the data collection for the study.

Data Collection

For this mixed-methods explanatory design, data were collected via surveys and semi-structured interviews. School heads from the accessible population were contacted via email to introduce the study, elicit interest and consent, establish if they would appoint a school liaison, either the principal or another faculty member, and determine if they would be willing to participate. Once this was established and signed consent confirmed, the school became a research site.

Phase 1: Quantitative Survey Collection

Schools received all communication about the study via email directed to the liaison. Once consent was confirmed, participating schools had a two-week window to complete the DLRS survey (See Appendix D). The liaison was instructed to distribute the survey to teachers and leaders in the school. Clear guidelines and an electronic hyperlink, shortened URL, and a QR code to the Qualtrics survey were shared with the school liaison to ensure accessible access to the survey regardless of whether participants were completing it on a computer, phone, or iPad (Dillman et al., 2014). Additionally, the survey was optimized in Qualtrics for mobile and desktop to ensure access, accurate data collection and consistency, and a good experience (Dillman et al., 2014). Halfway through the school data collection, I updated the school liaison to share the number of respondents that had completed the survey to increase the total number of completed surveys (Dillman et al., 2014). One of the participating schools did not to send the survey to their entire faculty, instead they targeted specific faculty, departments, and grade levels; which they believed would increase completion rates of the survey, and they had the highest identified survey completion rate. Once the survey was conducted all respondents that volunteered for a follow-up interview were contacted to confirm they were still willing to participate in Phase 2 of the study (See Appendix E).

Phase 2: Qualitative Interviews

Selected participants were contacted via email about their willingness to be interviewed for Phase 2 of the study. The email to respondents confirmed consent if they were still willing to participate, outlined the interview commitment, and established a 30-to-45-minute interview time via a recorded Zoom video conference. Interviews were

semi-structured; questions and prompts followed an interview schedule approach but allowed flexibility to establish rapport and sequence questions according to the situation (Patton, 2008).

Once data collection for Phase 1 and Phase 2 was completed, the data was further analyzed, merged, and interpreted. The following section describes data analysis methods and statistical tools.

Data Analysis

After each phase of data collection, I methodically organized the gathered information, which included survey responses, interview transcripts, and field notes, to prepare for analysis as suggested by Bogdan and Biklen (2007). The quantitative data was analyzed using the Statistical Package for the Social Sciences (SPSS) and Jeffreys's Amazing Statistics Program (JASP) to perform analyses, such as generating frequency distributions, which were presented with tables and charts to illustrate the data trends clearly. The qualitative data was organized and analyzed using Dedoose, a qualitative data analysis tool. I employed a hybrid deductive-inductive coding approach (Fereday & Muir-Cochrane, 2006). Initially, four predetermined parent codes were established based on the research questions: distributed leadership definition, leadership practices, opportunities, and innovation/improvement. These codes helped organize the data. Analyzing the data using category construction and open coding was a critical process to allow the data to emerge (Meriam, 2009). Specific qualitative data analysis techniques were modeled on thematic and content analysis from Creswell and Plano Clark (2017). Using an open coding process, I examined the data line-by-line to identify concepts and label them to begin developing categories and themes (Merriam, 2009). This process of

breaking down the raw data into manageable segments and identifying them with labels was critical to open coding, developing themes, and interpreting the themes (Creswell & Plano Clark, 2017).

Phase 1: Survey Data Analysis

The DLRS was employed to assess distributed leadership readiness and practice in selected schools across the instrument's four domains. The first step in preparing the data for analysis involved converting the likert scale responses into numerical values in Excel (Creswell & Plano Clark, 2011). This was coupled with using Bebell et al. (2010) suggestion of creating a scale of -2 to 2 to see positive, neutral, and negative results more easily, rather than the more common scale of 0 to 5. The next step followed Creswell's (2012) guidance to clean the raw data and account for missing data. This process of inspecting the data included reviewing surveys for missing responses in Excel and then using SPSS and JASP to visually inspect the data (Creswell & Plano Clark, 2011). The number of valid responses varied across each DLRS survey item, and after consulting my dissertation chair, it was determined to begin by including all data responses to capture as much of the valid data to provide a fuller picture of distributed leadership practice among the international school participants who participated in the survey. After this, I explored the data further and conducted descriptive analysis, starting with examining and generating measures of central tendency (mean, median, mode) and variability (standard deviation, range, and variance) in the responses (Creswell & Plano Clark, 2011). Furthermore, I calculated the standard deviation for each domain to assess the variability of the scores (Fraenkel & Wallen, 2005). The variability showed high dispersion. Additionally, I conducted a similar process for only fully complete survey responses, and

the macro data trends, including the variability, were similar, so it was decided to use the initial data set to provide a more complete picture of the data. This was followed by conducting reliability and validity measures to check for internal consistency and ensure scale reliability. I calculated Cronbach's Alpha coefficient using factor analysis. Cronbach's Alpha is a measure of internal consistency, where values range from 0 to 1, with higher values indicating stronger internal consistency. Acceptable internal consistency is reflected by a Cronbach's Alpha between 0.60 and 0.69, good internal consistency is indicated by a range of 0.70 to 0.79, and excellent internal consistency is represented by a value ranging from 0.80 to 0.90, which signifies a highly reliable instrument (Cronbach, 1951; Fraenkel & Wallen, 2005; Fraenkel et al., 2019). Next, I computed frequency distributions of each DLRS item for each of the four domains to analyze and visualize the data further with tables, histograms, and charts. Scaled scores for each survey item were calculated across each domain. Lastly, I calculated overall composite mean scores for each domain by combining the mean scores of several related items into a single composite measure (Creswell, 2018). This was calculated by combining all items in each domain together, which created a composite mean, mode, median, and standard deviation for each domain category, as well as a composite mean score encompassing all domains. This analysis process provided a systematic way to examine and represent the data collected and interpret the results (Creswell & Plano Clark, 2011).

Phase 2: Interview Data Analysis

In Phase 2, once interviews were completed, transcripts were transcribed with Rev, verified for accuracy, and coded. I coded the data using a hybrid deductive-

inductive approach, employing first a deductive coding structure, which was followed by an inductive emergent method (Fereday & Muir-Cochrane, 2006). The deductive approach started with applying four pre-existing parent code themes: (1) distributed leadership definition; (2) leadership practice (research question 2); (3) leadership opportunities (research question 3); (4) foster innovation and school improvement (4). These parent codes were established initially to help organize data at a later stage in the coding process. Following this, I employed an inductive coding method using Dedoose and examined the interview transcripts line-by-line to identify concepts and label the data as it emerged, which served as a starting point for developing categories and themes (Merriam, 2009). This analytical approach to category construction, where data were sorted into preliminary groupings based on shared concepts, provides a structured overview of the themes present in the data (Merriam, 2009; Yin, 2011). This step was essential for reducing the volume of the data to a manageable set of categories to further analyze. Some examples of this include codes: decision-making, mutual respect, middle leadership model, curriculum, adapt to change, and autonomy. The next step involved another iterative cycle of open coding, a process where these categories were broken down into more nuanced codes, each representing a unique idea or concept, allowing for a more granular examination of the data (Creswell & Plano Clark, 2017; Merriam, 2009). Some examples of this included academic decision-making, centralized, care and trust, directive, relational respect, leadership progression, and change fatigue. Thematic analysis was then conducted, which involved reviewing the codes again to identify broader patterns and themes and weaving these into a cohesive narrative that captured the essence of the data (Creswell & Plano Clark, 2017). This involved aggregating and

organizing the themes into the initial predefined parent codes. This step was critical for interpreting the significance of the data in relation to the research questions. Not all coded themes fit into the predefined parent code categories, as other patterns emerged from the data, and as a result, a new parent code called *other* was created to include all data that did not fit thematically with the parent codes. This included codes such as DEIJ, smaller groups, community perspective, learning walks, and identity power. Finally, content analysis was applied to quantify the cadence of specific codes and themes, enabling me to measure the prevalence and significance of the patterns across the data as detailed by Creswell and Plano Clark (2017). This quantitative element enriched the qualitative insights by providing a statistical dimension to the thematic findings. Additionally, this hybrid approach of pre-defined and emergent open coding the data helped ensure nuances and perspectives were captured to provide a more comprehensive analysis of the phenomenon (Creswell & Plano Clark, 2017; Merriam, 2009). This hybrid deductive-inductive coding approach is outlined in Table 2.

Table 2

Hybrid Deductive-Inductive Coding Approach

Step	Process	Approach	Influence
1	Parent Codes: Applied four predetermined parent code themes to support organizing the data at a later stage for the Thematic Analysis.	Deductive	Fereday & Muir-Cochrane (2006)
2	Initial Category Construction: initial coding of the interview transcripts line-by-line to identify emergent categories/subcodes/subthemes.	Inductive	Creswell & Plano Clark (2017); Merriam, (2009); Yin (2011)
3	Focused Category Construction: On going iterative process of reexamining the data to further organize and expand additional nuanced codes emerging from the data.	Inductive	Creswell & Plano Clark (2017); Merriam, (2009)
4	Thematic Analysis: Reviewed the codes to identify patterns and themes; aggregated themes into initial parent codes, and created an new parent code called other, which included coded data that did not fit into the initial four parent codes.	Deductive/Inductive	Creswell & Plano Clark (2017); Fereday & Muir-Cochrane (2006)
5	Content Analysis: Applied quantitative analysis to measure prevalence of themes identified in the data.	Deductive/Inductive	Creswell & Plano Clark (2017); Fereday & Muir-Cochrane (2006)

To maintain reliability during the coding process as the sole investigator, I maintained a codebook with descriptions of each code and created an "audit trail," as suggested by Merriam (2009, p. 222). The codebook included descriptions of the codes and how the data was interpreted and categorized. The codebook was part of the documentation to track the research process, which was composed of various documents

that included iterations of the codes, reflections on the data, and the analytic processes, as well as field notes (See Appendix G).

Once Phase 2 was completed, merging and integrating the quantitative data from Phase 1 and qualitative results from Phase 2 strengthened the overall study. I initially separated the data by schools and overall respondents to provide a micro and macro view of the data interpretation of distributed leadership practices in international schools. However, because the number of respondents was different for each school, I decided to only interpret and share the macro view. The following section describes the role of the researcher.

Role of the Researcher

The researcher is currently employed to work with international schools across Southeast Asia. I have spent over 19 years working in or with international schools. I have collaborated with leaders and teachers across the globe to support contemporary learning with technology in international schools. At present, I share thought leadership on planning, designing, implementing, measuring, and innovating digital transformation in schools. While I do not work in a specific school, I am known by and work with many principals, curriculum, and instructional leaders across Asia. My relationship with schools and school leaders has perhaps been an advantage to building a broader list of accessible school sites and possibly participant interviews; however, caution and boundaries were drawn to avoid the possibility that participants might feel pressure to participate in the research study (Fraenkel et al., 2019). During the interview schedule, which was outlined and guided but intentionally flexible, I needed to be cognizant of balancing conversation and questioning to limit the degree of inadvertently omitting a

question or going overtime (Merriam, 2009; Patton, 2008). Additionally, I used a personal research journal and codebook throughout the data collection, field notes, and analysis process. It was vital that I write down observations from the interviews after each was conducted (Aurini et al., 2016; Creswell, 2009; Merriam, 2002; 2009).

Summary

This chapter described the methodological approach for the sequential explanatory mixed methods design, which investigated distributed leadership readiness, practice, opportunities for teacher leadership, and practices to support innovation and school improvement. It began by describing the proposed study and the research design. Then an explanation of the research setting, sample and data sources, instruments and procedures, data collection, and data analysis followed. The chapter was concluded with the role of the researcher.

Chapter 4: Findings and Results

Purpose of study

This explanatory study examined distributed leadership practices in international schools. It explored principals' readiness to practice a distributed perspective of leadership, how they practice leadership, the opportunities available for teacher leadership in their schools, and the relationship between distributed leadership practices and school innovation and improvement. In response to COVID-19, principals have increasingly adopted distributed leadership practices, sharing responsibilities with others (Azorin et al., 2020). However, this response was not a pre-planned strategy but rather a survival measure (Harris & Jones, 2020). The unprecedented demands of the pandemic left school leaders more stretched than ever before, and as a result, adopting distributed leadership practices became essential (Harris & Jones, 2020). This resulted in a sharp increase in distributed leadership practices being adopted across education faculties worldwide, with principals drawing on the expertise of various teachers and stakeholders across their schools to address the numerous challenges to schooling that was brought on by the crisis. This study used quantitative and qualitative data to answer the following research questions.

Research Questions

1) What is the readiness in international schools to practice distributed leadership?
2) How is distributed leadership practiced in international schools?
3) What are the leadership opportunities for teachers in international schools?

4) How do distributed leadership practices foster innovation and school improvement in international schools?

A research question table (Table 2) was created to keep the focus on the specific type of data and method during the merging and interpreting phase of the study.

Table 2

Research Question Table

Research Question	Data Type	Methodology
1. What is the readiness in international schools to practice distributed leadership?	Survey	Quantitative: DLRS Survey Descriptive Statistics: Calculate means, medians, mode, standard deviations, frequencies to describe the readiness scores Histograms to visualize the distribution of readiness scores.
2. How is distributed leadership practiced in international schools?	Survey, Interview	Qualitative: DLRS Survey, open ended question, and Interview Content Analysis: Open code qualitative data question on survey, identify recurring themes or patterns about leadership practice. Interview Questions: 1-3
3. What are the leadership opportunities for teachers in international schools?	Interview	Qualitative: Interview Content Analysis: Open code qualitative data, identify recurring themes or patterns about leadership opportunities. Interview Questions: 4-8
4. How do distributed leadership practices foster innovation and school improvement in international schools?	Interview	Qualitative: Interview Content Analysis: Open code qualitative data, identify recurring themes or patterns about leadership practices that foster innovation and school improvement. Interview Questions: 9-12

Introduction

This chapter begins with an overview of the data collection. The next section will focus on findings from Phase 1 of the study, the quantitative results from the DLRS survey. This is followed by Phase 2 of the study, which details the qualitative results from the interviews. Next, a section is presented on the integration of the quantitative data from Phase 1 and the qualitative data from Phase 2. The final section of the chapter will summarize the findings.

Overview of Findings

The results of the study begin with descriptive statistics of the participants. The schools in which study respondents worked were technology-rich P-12 international schools from the Asia Pacific. Of 50 schools invited to participate in the study, 19 schools (38%) participated from 7 countries in the Asia Pacific: China, Hong Kong, Japan, Laos, Myanmar, South Korea, and Taiwan. 135 people responded to the survey; however, participants were able to skip any question they were not comfortable answering, and as a result, not all respondents answered every question. This design choice, along with including incomplete surveys from the data, resulted in the number of valid responses varied by survey item question. The number of "valid" and "missing" responses were clearly identified in SPSS and JASP and reported in the study. The valid results of the 37 DLRS survey items constituted 60-67% of the total data, ranging from 81 to 91 completed responses, while the missing results accounted for 33-40%, ranging from 44 to 54 incomplete responses. Additionally, to ensure the reliability of the data, I conducted similar data analysis procedures to the dataset of fully complete survey responses, which had 81 respondents and the macro data trends, including the variability,

were similar, so it was decided to use the initial data set to provide a more complete picture of the data. However, the presence of missing data reduces the total sample size and the number of valid responses analyzed, thus limiting the generalizability of the findings. Of the 135 respondents, 20 volunteered to participate in a follow-up interview for Phase 2 of the study. Of the 20 volunteer respondents invited to participate in the interview for Phase 2 of the study, 9 respondents from 6 schools participated. This is a returned participation rate of 45%.

The participants who took part in the study represented various roles in schools, which I placed into five categories: leaders, heads of department/grade, teachers, counselors, and unknown (not reported). Table 3 shows the school role type, and Figure 5 shows a pie chart to indicate the roles of the survey respondents.

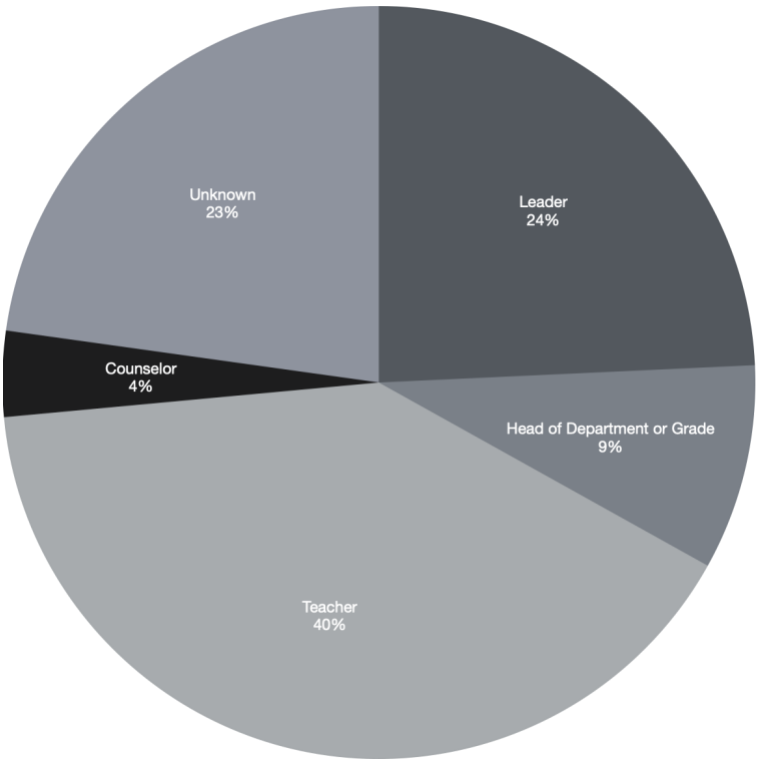
Table 3

School Role Type

	Valid	Unknown	Leader	Head Dept or Grade	Teacher	Counselor
What is your current role type in your school?	104	31	33	11	55	5

Figure 5

School Role Type



Note. This figure demonstrates the school role types participants are currently doing. Graphic created with survey data in Numbers.

Of the thirty-three leaders who participated in the study, their roles are part of the senior leadership team and vary in scope, role, and title, including principal, head of school, director, head of campus/division, deputy head, vice principal, associate head, associate principal, director of learning, director of finance, director of operations, director of technology, and director of curriculum. 55 teacher-level respondents, which included elementary, middle, and high school teachers, instructional coaches, and librarians, participated in the study. Additionally, 11 heads of department or grade from elementary, middle, and high school and 5 counselors participated in the survey. This

mixture of role types in the study provides a glimpse into multiple instructional facets of a school.

Survey respondents indicated the number of years they have been working in schools. This item contained 31 choices starting with 1 year, 2 years, incrementally each year to 30 years, and a final choice of more than 30 years. The most common duration selected was more than 30 years, with 11 respondents. Those who have worked 10 and 20 years have the second highest mentions, at 7 each. Surprisingly, 1 year was selected 4 times, which might indicate some respondents may have read the question incorrectly, thinking it was the number of years they have been in their current school, as international teachers often have teaching experience in their home countries before moving abroad, or it could mean 4 respondents were in their first year in a school. Most respondents (79) have 10 or more years of experience working in schools; the mean was 16.496 years, and the median was 15.5 years. See Table 4 and Figure 6. This indicates that the respondents are veteran teachers, which may have influenced the results of the study.

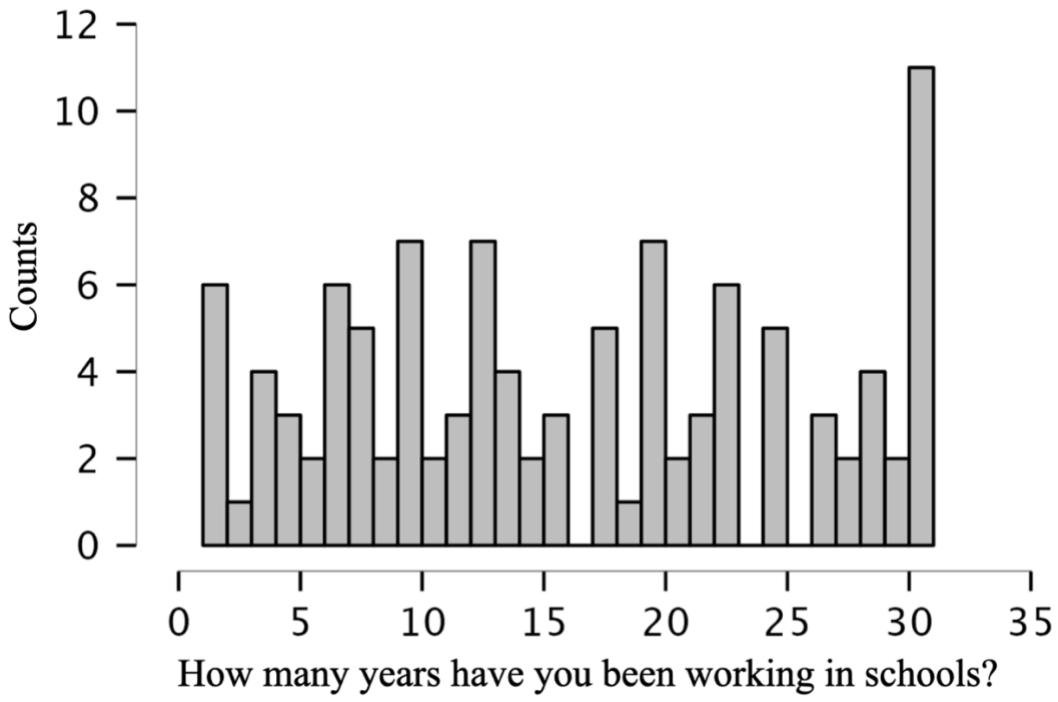
Table 4

Number of Years Working in Schools

	Valid	Missing	Mode	Median	Mean
How many years have you been working in schools?	108	27	31.000	15.500	16.491

Figure 6

Number of Years Working in School



Note. This figure demonstrates the number of years participants have been working in schools.

This Graphic was retrieved from JASP statistical analysis of the survey data.

The next section unpacks results from the quantitative phase of the study, the DLRS survey.

Phase 1: Quantitative DLRS Survey Results

In this section, I report on the results of the four domains of the DLRS, which provide insights into a leader's readiness to exhibit distributed leadership practices. The DLRS survey contains 40 questions across four domains, which include Mission, Vision, and Goals; School Culture; Shared Responsibility (decision-making, evaluation, and professional development); and Leadership Practices (See Appendix B for survey

questions). A total of 135 participants responded to 37 questions in the survey. Participants could skip any survey question they were not comfortable answering. Combined with the decision to include incomplete surveys in the analysis to provide a more complete picture of the data, led to varying numbers of valid responses for each survey item. Table 5 reports the composite domain means, standard deviation, and alpha scores of the DLRS survey combined overall and separately for each domain. The mean response items used a scale of -2 (Strongly Disagree), -1 (Disagree), 0 (Neither Agree or Disagree), 1 (Agree), and 2 (Strongly Agree), which was to differentiate negative, neutral, and positive survey responses (Bebell et al., 2010).

Table 5

All Domains / Cronbach's Alpha

	Mean	SD	Cronbach's α
Overall - All Domains	0.493	1.142	0.958
Mission, Vision, and Goals - Domain	0.552	1.119	0.958
School Culture - Domain	0.456	1.205	0.957
Shared Responsibility - Domain	0.532	1.161	0.957
Leadership Practices - Domain	0.295	1.095	0.959

The composite mean values show composite scores overall and separately. This was calculated by combining all items in each domain, which created a composite mean, standard deviation, and alpha score. The means are positive (above zero), indicating readiness to practice distributed leadership across all domains. The standard deviation scores, all above 1.095, indicate significant variability in the data, reflecting a high level of dispersion.

The reliability of the survey data was evaluated using Cronbach's alpha, an internal consistency measure. The Cronbach's alpha for all 37 survey items across all 4 domains was 0.958, which shows high internal consistency. An alpha score of .70 or more shows high internal consistency (Fraenkel et al., 2019). The Mission, Vision, and Goals domain, with 11 survey items, has an alpha score of 0.958, which shows high internal consistency. Next, the School Culture domain, which has 3 survey items and an alpha score of 0.957, shows high internal consistency, and shared responsibility, which was the domain with the greatest number of survey items at 17, has an alpha score of 0.957, which shows excellent internal consistency. Last, the Leadership Practices domain, with 6 of 9 measured survey items, has an alpha score of 0.959, showing high internal consistency.

Distributed Leadership Readiness (Research Question 1)

To understand international school leaders' readiness to practice distributed leadership (Research Question 1), I used Creswell's (2018) method of quantitative analysis of creating composite scores by combining mean scores of several related items in a single composite measure. I did this first by combining all survey items across all domains, creating an overall composite score for the mean, mode, median, and standard deviation, which is represented in the All Domains scores in Table 6. Second, for each of the four distinct domains, I found a separate domain-specific composite mean by averaging all the items associated with that specific domain. Scores can range from -2 to +2. The domain mean values ranged between 0.295 and 0.552, indicating positive scores (above zero) related to leadership readiness in each domain. However, the average standard deviation values range between 1.095 and 1.205 across the four domains,

indicating variability in participant responses. The data suggest a wide variation in responses and a lack of agreement among the survey participants. See Table 6, which shows composite domain scores across the four domain categories.

Table 6

Distributed Leadership Composite Domain Scores

	Valid	Missing	Mode	Median	Mean	SD
All Domains	85	50	0.970	0.733	0.458	1.145
Mission, Vision, and Goals	89	46	1.000	0.727	0.552	1.119
School Culture	87	48	1.000	1.000	0.456	1.205
Shared Responsibility	83	52	0.882	0.706	0.532	1.161
Leadership Practices	83	52	1.000	0.500	0.295	1.095

The average composite mean scores for the DLRS survey showed that overall, the domain category of Mission, Vision, and Goals (0.552) was ranked the highest on the Likert scale in the survey by participants, with Shared Responsibility (0.532), then School Culture (0.456), followed by Leadership Practices (0.295). The domain on Leadership Practices had the lowest average readiness (0.295) and the lowest standard deviation (1.095), suggesting less variability than other domains and that some leaders are perceived by respondents as well-prepared to practice distributed leadership, while others might not. Interestingly, these findings of standard deviation scores, which range from 1.095 to 1.205 from international schools in the Asia Pacific, are higher than previous DLRS studies conducted in the United States of America (Christy, 2008;

Gordon, 2005; Pierro, 2020; Zinke, 2013), indicating a greater variability. See Table 7 for a comparison of standard deviation scores across DLRS survey studies.

Table 7

Standard Deviation Scores across DLRS Survey Studies

	Appino, 2023	Christy, 2008 (Elementary)	Christy, 2008 (Middle)	Gordon, 2005 (High-Performing)	Gordon, 2005 (Low-Performing)	Pierro, 2020	Zinke, 2013
Mission Vision Goals	1.119	0.4137	0.3832	0.11	0.34	0.45	0.48
School Culture	1.205	0.5072	0.5514	0.11	0.37	0.58	0.59
Shared Responsibility	1.169	0.4379	0.4065	0.04	0.35	0.45	0.46
Leadership Practice	1.095	0.5949	0.4925	0.17	0.30	0.55	0.51
Study Participants included	*Teachers and Leaders*	*Teachers, Support Teachers, Leaders*	*Teachers, Support Teachers, Leaders*	*Teachers*	*Teachers*	*Leaders*	*Leaders and Teachers*

For instance, the standard deviation on the domain Mission, Vision, and Goals was 1.119, which is visibly higher than Christy (0.413 and 0.383), Gordon (0.11 and 0.34), Pierro (0.45), and Zinke (0.48). The standard deviation on the domain School Culture (1.205) in this study was markedly higher than all previous studies Christy (0.507 and 0.551), Gordon (0.11 and 0.37), Pierro (0.58), and Zinke (0.59), which may imply that there is something unique about international school culture and the readiness of leadership to practice distributed leadership within it or that each international school is quite unique and there may be more variability, which is different from schools in the United States of

America. The School Culture domain had the highest standard deviation across all studies, including one of two samples from Christy and Gordon. The standard deviation on the domain of Shared Responsibility in this study was 1.205, whereas previous studies were in the 0.35 to 0.46 range (Christy, 2008; Gordon, 2005; Piero, 2020; Zinke, 2013). The standard deviation on the domain Leadership Practice in this study was 1.095, which was higher than the range of 0.17 to 0.59 in previous studies (Christy, 2008; Gordon, 2005; Piero, 2020; Zinke, 2013). These variances may be due to the difference in school types among international schools compared to the United States of America or because this study included not only leaders but also teachers, which only Zinke (2013) included. Her study results showed a positive standard deviation and had lower score differences, which indicates the results were less variable. This may imply that understanding the readiness of distributed leadership practice in schools varies among leaders and teachers and the participants included in the study. The data shows that international schools had higher standard deviation scores across all domains and, as a result, were more ready to practice distributed leadership. Educators who participated in the survey believed that distributed leadership is often practiced in their schools. The average readiness mean scores for international schools range from 0.295 to 0.552, indicating a positive relation above zero.

Distributed Leadership Practice in the DLRS Survey (Research Question 2)

This section looks at the ways that leaders practice distributed leadership in international schools (Research Question 2) through the DLRS survey data. As mentioned previously, the Leadership Practices domain, with 6 of 9 measured survey items, has an alpha score of 0.959, showing good internal consistency. Of the 6 measured

survey items, 5 of 6 had a score of above zero. Survey respondents ranked the highest category, *New teachers are provided opportunities to fill some school leadership roles*, with a mean score of 0.759. The second highest ranked category was *The school has expanded its capacity by providing professional staff formal opportunities to take on leadership roles,* with a mean score of 0.655. The third-ranked category was *Teachers who assume leadership roles in the school have sufficient resources to be able to make meaningful contributions to the school* with a mean score of 0.265. The fourth-ranked category was *Teachers are interested in participating in school leadership roles*, with a mean score of 0.253. The fifth-ranked category was *Teachers who assume leadership roles in the school and have sufficient school time to permit them to make meaningful contributions to the school*, with a mean score of 0.048, which may highlight the challenges schools have with providing ample release time to teachers that are also taking on leadership roles in addition to teaching. The lowest-ranked category was *Veteran teachers fill most leadership roles in the school* with a mean score of -0.205, which was the only category with a negative correlation. Additionally, 79 of the 135 respondents had 10 or more years as teachers and would be considered *veteran* teachers. Table 8 shows the 6 measured survey items in the leadership practices domain from the results of the DLRS survey.

Table 8

Leadership Practices 6 Measured Survey Items

	Valid	Missing	Mean	SD
Leadership practices - The school has expanded its capacity by providing professional staff formal opportunities to take on leadership roles.	84	51	0.655	1.114
Leadership practices - Teachers who assume leadership roles in the school have sufficient school time to permit them to make meaningful contributions to the school.	83	52	0.048	1.147
Leadership practices - Teachers who assume leadership roles in the school have sufficient resources to be able to make meaningful contributions to the school.	83	52	0.265	1.180
Leadership practices - Veteran teachers fill most leadership roles in the school.	83	52	-0.205	1.045
Leadership practices - New teachers are provided opportunities to fill some school leadership roles.	83	52	0.759	0.932
Leadership practices - Teachers are interested in participating in school leadership roles.	83	52	0.253	1.157

In addition to the 37 DLRS items, the survey included a single voluntary open-ended question about leadership practice. The question specifically asked: *What, if any, comments or thoughts would you like to share about leadership practice in your school?* The data from the results returned a response rate of 43 out of 135, which is a rate of over 31%. The data was coded, and the following four themes emerged with the highest frequency, which is indicated: vision and direction (7), leadership development (6), decision-making (6), and professional development (6). These themes highlight the key areas that participants highlighted as comments and thoughts on leadership practice.

In Phase 1, the quantitative study, participants responded to the DLRS survey, and data from the results were collected and analyzed from 19 international schools in the

Asia Pacific. The next section will share the results of Phase 2, the qualitative interview data collected and analyzed from 9 leaders and teachers from 6 of 19 international schools in the Asia Pacific that volunteered to participate in the study.

Phase 2: Qualitative Interviews

Overview

Nine interviews were conducted with participants from 6 schools in 5 countries. Participants included 4 leaders and 5 teachers. The leaders include 3 deputy principals and a director of learning. The teachers include 2 elementary, 2 secondary, and 1 instructional coach. Table 9 shows the interview participant profiles, which include their pseudonyms, roles, role categories, grade levels, divisions, and years they have worked in schools.

Table 9

Interview Participant Profiles

Pseudonym	Role	Role Category	Grade Level	Division	Years in Schools
Bon	Teacher	Teacher	11-12	High School	7 Years
Clyde	Teacher	Teacher	11-12	High School	15 Years
Erli	Teacher	Teacher	4	Elementary School	4 Years
Gigi	Divisional Leadership Team	Leader	6-9	Middle School	30+ Years
Gilbert	Assistant or Deputy Principal	Leader	K-12	K-12	23 Years
Lily	Director of Digital & Innovative Learning	Leader	K-12	K-12	22 Years
Shan	Instructional Coach	Teacher	Pre K-2	Early Years / Elementary School	10 Years
Sher	Assistant or Deputy Principal	Leader	K-6	Elementary School	20 Years
Winnie	Teacher	Teacher	1-2	Elementary School	1 Year

As outlined by Creswell and Plano Clark (2017), interviews followed an interview schedule, which developed interview questions influenced by the Phase 1 results of the DLRS survey to illuminate the quantitative results and further explore the research questions. After each interview was conducted, the audio transcripts were transcribed using Rev, a speech-to-text transcription solution, and open coded using Dedoose, a

qualitative and mixed-methods analysis tool. The process of open coding the interview data allowed me to consolidate and categorize tags of the interview data into smaller themes (Creswell & Plano Clark, 2011, 2017; Merriam, 2009). This process analyzed the data using category construction and open coding to allow the data to emerge followed by thematic and content analysis (Creswell & Plano Clark, 2017; Meriam, 2009). There were 77 unique sub codes initially identified, which were categorized under four parent code categories: distributed leadership definition, leadership practices (Research Question 2), leadership opportunities (Research Question 3), and foster innovation and school improvement (Research Question 4). The most frequent parent code was *leadership practices*, with a frequency of 201, followed by *foster innovation and school improvement*, with a frequency of 117, and lastly, *leadership opportunities*, with a frequency of 67. The *distributed leadership definition*, with a frequency of 17, was also a parent code category but not part of a specific research question, so it was coded as a separate parent code category. Table 10 shows the frequency of the parent codes, their sub codes, and which research question they are contributing to answering.

Table 10

Interview Parent Code Frequency, Sub Codes, and the Research Question it Answers

Parent Code	Frequency	Sub Codes	Research Question
Distributed Leadership Definition	13	0	All
Leadership Practices	201	35	2
Leadership Opportunities	67	12	3
Foster Innovation and School Improvement	117	30	4

The following sections describe the findings contained within the distributed leadership definition, leadership practices (Research Question 2), the most frequently coded category, leadership opportunities (Research Question 3), foster innovation and school improvement (Research Question 4), and summarize Phase 1 and 2 findings.

Distributed Leadership Definition

Understanding distributed leadership in schools starts with how it is understood among faculty and how it is defined by those practicing it in international schools. To gain different perspectives, the interview excerpts were analyzed from the 9 participants (which included 3 deputy principals, a director of learning, 2 elementary teachers, 2 secondary teachers, and 1 instructional coach) regarding their definitions of distributed leadership. Several consistent themes emerged across the definitions, which were coded with a frequency of 13 times. Although definitions were varied, specific themes surfaced, which included sharing leadership tasks such as responsibility and decision-making, representing diverse groups and perspectives, empowering and entrusting others, and collective effort for shared goals.

Sharing responsibility and decision-making

Participants emphasized that the saw distributed leadership involving sharing responsibility, having decision-making power, and accountability being shared across multiple individuals rather than having it centralized in one person, namely the principal. As Bon, a teacher, believed that distributed leadership is about "sharing that responsibility of leadership and not just having it centralized." Sher, a deputy principal, highlighted that for them, it means sharing on many levels, including "sharing the responsibility, the vision setting, the strategy work, the thinking, planning and the actions

taken as well as the responsibility for the outcomes of that for the school." This distribution of sharing both the responsibility and part of the decision-making, to an extent, was a key theme that emerged in this study.

Representing diverse groups and perspectives

Several definitions focus on the importance of representing different parts of the school, including the divisions, departments, and stakeholder groups within a school's leadership structure. This helps incorporate diverse voices and perspectives into decision-making. Gigi, a deputy principal, discussed the challenge of representing all stakeholders and mentioned and highlighted the difference between representation and being part of the decision-making:

> it's definitely shared, and I feel like there's representation of all the areas or designated representation of all the areas, distributing leadership, though I'm not sure that, as a school, we necessarily distribute the decision-making.

Winnie, an elementary teacher, defined distributed leadership as well as highlighting what was most important to bring to the fore. To her it was "incorporating many different and diverse backgrounds underneath them or to surround them [the leadership team] with lots of different valued perspectives." Gigi and Winnie both, viewed distributed leadership as representing and sharing their perspectives by having a place within the leadership team, participating in school-wide initiatives, and being included in ground-up task forces.

Empowering and entrusting others

Empowering and entrusting others has emerged as a crucial aspect of effective distributed leadership. The respondents frequently discussed matters related to delegating

roles and responsibilities to empower others and doing so in a trusted way with the input and buy-in of others. Gilbert, a deputy principal, defined it as "delegating roles and responsibilities to other people in a […] healthy and trusted way." Trust was highlighted as critical to being able to authentically delegate work to others. This points to an emphasis on empowering individuals, which he underscored by sharing that teachers must feel "empowered and authorized" to do their best work. Shan, an instructional coach, also stated empowering and entrusting others requires "a conscious decision on the part of those who have been given positional authority to not always use it." This points to empowering others through delegation and trust, but also shares the positional authority of the traditionally discreet roles of a leader and a teacher.

Collective effort for shared goals

A few respondents defined distributed leadership as a collective effort whereby people have different but interconnected roles working towards common goals within the school. Erli, an elementary teacher, shared a metaphor of a community working together around a fire. She said,

> I think of a community fire, and I think of being gathered around a focal point, the [actual] fire. So the fire can burn and cause harm, and the fire can also cook things and help sustain us, and it can also keep us warm. That's the mental image and mode that's coming up for me. And so distributed [leadership] would mean that we are not necessarily equal in the space, in the circle, but that we each have a role, and we know what that role is, and it's for the collective good of whatever we're trying to do around the fire.

This conceptualizes distributed leadership as a team-oriented and collaborative approach rather than solely as delegated tasks. It also portrays distributed leadership as interconnected roles that colleagues share, working towards a common purpose rather than isolated tasks assigned to individuals. Gilbert defined it as delegating roles "in a way that is good for the stakeholder's concern, it's going to be good for the kids, it's good for their team, it's good for parents." This highlights that distributed leadership can contribute to working towards common purposes, like student and stakeholder success, rather than isolated tasks that does not contribute to the scenario around the campfire.

Distributed leadership definition summary

The interviews revealed that defining distributed leadership involves four key components. First, it entails sharing responsibility for leadership tasks and decision-making power, which includes accountability across multiple individuals rather than concentrating it within a single role or staff member. Second, it aims to represent diverse groups and perspectives within a school by incorporating voices from different divisions and backgrounds. Third, distributed leadership requires empowering and entrusting others, which several interviewees defined in terms of delegating roles legitimately and relinquishing absolute authority. Fourth and finally, distributed leadership aims to achieve common organizational objectives through collective effort and cooperation among teams working interdependently towards shared goals, as reflected in the metaphor of a fire, which demonstrated roles supporting a central purpose and collectively pooling ideas together to develop the school in a coordinated fashion.

The interviews portray distributed leadership as participative, inclusive, empowering, and collaboratively oriented around joint objectives. Scholars agree that

distributed leadership is a dynamic interaction between leaders and individuals (Harris, 2013; Spillane et al., 2004) and that it is important for instructional aspects of leadership and has shown that it affects programmatic and instructional change in schools (Hargreaves, 1994; Leithwood et al., 1999), which is congruent with much of themes from the participant interviews.

Leadership Practices (Research Question 2)

This section aims to help answer Research Question 2: *How is distributed leadership practiced in international schools?* The key themes from the coded interview data include decision-making, mutual respect, and teachers' support of leadership roles. Table 11 shows the frequency of the parent code and sub codes, which were most frequently tagged to contribute to answering the research question.

Table 11

Leadership Practices Parent Code Frequency and Sub Codes

Code	Type	Frequency
Leadership Practices	Parent	201
Decision-making	Sub	66
Mutual Respect	Sub	74
Teachers Support of Leadership Roles	Sub	27

Decision-making

All participants identified that decision-making was supported by distributed leadership practice in their schools. Decision-making was coded 66 times, including interconnected sub codes: centralized (14), confirming decisions (6), positional leadership practice (10), teacher input (5), academic (8), autonomy (9), and with no sub codes decision-making had a frequency of 22 times separately as a code category.

Centralized decision-making was coded 14 times, and teacher input 5 times. While teacher input is solicited and leadership aims to understand classroom perspectives, the final say and direction reside at the senior leadership level rather than through shared or distributed governance. Sher noted that at their school, "teacher leaders serve [...] more of a role of advising, helping the leadership team understand the feel on the ground." They went on to explain that leadership is "investing in the mission," and as a result, they set specific schoolwide initiatives and spend professional learning money to support that. Clyde highlighted that during the pandemic, one of the centralized decisions the leadership team made in his school was to put a "pause on initiatives" and focus "100% on crisis control [...] they did a fantastic job of that." This was done so well that "other schools essentially adopted [their] COVID plan and policies."

Participants also illustrated examples of centralized models in which leadership maintained ultimate decision-making authority and control over strategic planning, goal setting, and resource allocation. This concentration of control allowed for effective crisis management but could potentially limit teacher agency and autonomy, according to Clyde and Sher. Sher highlighted the role that "teachers play in that they provide [...] more input for how [leadership] might carry out the strategy, but it's not [in actuality,] setting the strategy." They mentioned that as deputy principal, they also provide input to the senior leadership team, but sometimes, it is a mandate, so as a leader, they have to decide how to share that with their team. They said, "sometimes it comes from the head of school to us [...] here's your mandate. You got to do this [...] and then the teacher leader team is providing insight, providing perspectives, helping give input, but not necessarily changing the big thing."

In contrast, some teachers were supported with decision-making power by their leaders. For example, Winnie shared that she had academic decision-making ability, which gave her "freedom in order to change the curriculum," She just needed to "propose [her] ideas to the curriculum director." Recently, she cited that she did this with her science classes and that it resulted in making a significant curricular revision of three grade levels of elementary science at her school. In Bon, Sher, Winnie, Shan, and Gilbert's examples, they all shared that curricular decision-making is up to the heads of departments and that teachers need to follow their directives, but the ways in which the curriculum is delivered are up to the teacher. Academic decision-making is primarily the role of the heads of departments, who are the middle leaders in the school in conjunction with the curriculum director or senior leader responsible for curriculum. Bon underscored that heads of departments cover "curriculum and assessment" decisions. Sher combined academic decision-making and reporting together and said, "it is awful, but it is true that the report card often drives what people do," they also mentioned that in their school, teachers follow the curriculum, "but how you deliver instruction and the curriculum is entirely up to you" which gives teachers a lot of freedom and to set the "expectations […] that you are not going to stand in front of [the students] and talk for 45 minutes."

Mutual Respect

Establishing mutual respect and trust between stakeholders necessitated continual effort, according to interviews, and often included open communication. Mutual respect was coded a frequency of 74 times, with open communication being the largest sub code, with a frequency of 19. Sher expressed their school has not prioritized "intentionally doing things to build" connections among the faculty and believed they "need to be more

intentional in building that culture of respect." Lack of "relational respect" in some divisions fostered an "us vs. them" dynamic, as noted by Clyde. Winnie highlighted their principal's vulnerability through staff surveys as unique, "showing that vulnerability with your staff as a leader" builds trust. Erli credited the early demonstration of vulnerability through openness with the head of the school as the basis for her own role as a teacher leader. She mentioned that,

> the number one way that I was able to trust the leaders in my organization in order to embark on a very difficult middle leadership role was because they matched my vulnerability instantly. I'm a very open person at the beginning, and then I figure out whether or not it's reciprocated, and then I'll back off, which [...] doesn't always work, but that's just how I roll. And that vulnerability was matched, and [it] cultivated a deep sense of, […] mutual respect, because I was able to see the connection and humanity between us all.

Transparency emerged as an area for growth, yet also as a value that was increasingly emphasized. Lily explained that multi-directional sharing of information aimed to counter separation between groups and build trust and respect in the school. She shared,

> we walk the talk [...] I think that helps to build that initial foundation of trust. Other things that add to it [...] is employee surveys trying to be as transparent as possible about communication and sharing information with everybody. We've created a communication hub where everybody has access [...] including staff.

Bon affirmed seeing "genuine opportunities for people to participate and share their voice" in decision-making across the school. She explained that by

> reiterating the point that having open lines of communication and really not just offering teachers the superficial buy-in because we all know what that looks like. So really being genuine in terms of offering teachers a voice and a say in things. And I think the administrators are actually doing a really great job at that.

Bon also highlighted that it is "really just being genuine about wanting people to participate and be part of that decision" and cited an example of how the head of school does not make all the decisions; they trust divisional leaders, teacher leaders, and teachers to do that. She explained in relative detail,

> I love that I've actually seen this. The director of the school delegates, he would say, this is a high school matter, and I really think that the high school principal should be the person that deals with it. So it's not like I'm the director, and I want to be in charge of everything. Knowing the different responsibilities and allowing people to act in their position and really [do], so it's not just a cap that you're wearing. You're really responsible for these things and delegating those responsibilities.

The integrity of the authentic distribution of roles in schools was recognized and respected, which showed how mutual respect and open communication support the ways in which participants experience leadership practices that support distributive perspectives of leadership.

Teachers are Vital to Supporting Leadership Roles

The theme, Teachers are Vital to Supporting Leadership Roles, was coded a frequency of 27 times across all interview participants. Bon stated that "teachers generally play a major role in terms of supporting leadership because of the way that the

school is organized." She went on to share, "last year, they were doing a program where they had teacher leaders," and they decided to formalize it for this year, "and they've hired heads of departments for each department so that teachers can really play a role in terms of the decision with administration." This also included financial compensation and additional responsibilities being included in their contracts. Sher also commented that teacher leaders are so important that they have a "structural leadership role" for them, and within the elementary school, there are typically two teacher leaders "depending on the size of the grade," and teacher leaders work closely together specifically "so the administrators and the teacher leaders support lots of big decision-making kinds of things." Gigi affirmed that teachers are "vital, and [she] feel[s] as though [her] voice is heard." While Shan shared that she is "part of the teacher team lead group, and we meet with [the] principal once a week, and all of us together collectively make decisions." Lily mentioned that it is somewhat "hard to differentiate between leader and teacher" because all senior leaders teach, which keeps their "foot in the door" and "supports the decision-making process" and keeping leadership aligned with what is important and vital to teachers. While Sher further affirmed that "teacher leaders are pretty vital" in their school. Gilbert commented that "people who are put into leadership roles or raise their hand for them or are tapped on the shoulder, whatever, they're all quite different from each other," and often what drives them into that position is a passion for a specific area that they think they can improve. He mentioned that as a leader, he created these opportunities for teachers to develop future teacher leaders and significantly help with improving the school. He said,

> sometimes you get the [person] where you tap their shoulder and say, Hey, would you like to work on this thing here? I noticed you're really good at that. You have a little bit of extra time for the next six months. And so that person will be surprised and honored, like, oh, thanks. Yeah, yeah, I'll do it. And they'll do it. They're just fine, and they learn something from the experience you wanted them to, and it opens their eyes to possibly taking on other leadership roles, but they've never really put themselves forward. They don't have the confidence to do it themselves. So, it's good to tap shoulders sometimes.

Additionally, Sher commented that in an "ideal world […] we would be training our teacher leaders to be able to do systems thinking and look at the system more, […] so they can have […] a bigger vision and would be able to make even better-informed decisions." Among the interviews, a pattern emerged that highlighted multiple examples of teachers being vital to supporting leadership roles in schools.

Leadership Opportunities (Research Question 3)

This section looks to understand leadership opportunities in international schools. It will highlight the themes that emerged from the interview participants. This section aims to help answer Research Question 3: *What are the leadership opportunities for teachers in international schools?* The key themes and codes that emerged from the data include formal middle leadership roles, curriculum development, and shared responsibility. Table 12 shows the frequency of the parent code and sub codes, which were most frequently tagged to contribute to answering the research question.

Table 12

Leadership Opportunities Parent Code Frequency and Sub Codes

Code	Type	Frequency
Leadership Opportunities	Parent	67
Formal Middle Leadership Roles	Sub	34
Curriculum Development	Sub	6
Shared Responsibility	Sub	8

Formal Middle Leadership Roles

Many schools established a multitude of formal leadership roles in addition to the executive senior leadership team. Winnie shared that her school had department heads that changed annually, providing ample opportunities for multiple staff members to be in a formal leadership role over time. Like many other schools, in this study, her school includes a stipend with the leadership opportunity because of the added responsibilities they have agreed to take on. She also included that there was not any formal training, which she thought would better support new leaders "in order to understand the dynamics of being a leader and how you navigate so many different diverse voices, and how you feel as though you are being a moderator and balancing and allowing for your implicit bias not to show." Bon mentioned heads of departments were hired for each subject area, including specific roles for their Middle Years and Diploma level International Baccalaureate program. Clyde explained that leadership roles at his school proliferated, with three new director-level positions added in five years, and as a result, they needed to hire a "director of directors." Lily affirmed that regular turnover allowed different teachers to apply annually for middle leadership roles. As Gilbert explained, "I think probably somewhere in the range of about 25-33% of your staff, if you can have them involved in meaningful leadership roles," helped to support continuous innovation across the school. These formalized positions provided structured avenues for teachers to work

towards and lead. One example Gigi described, was role of a director of learning support being added to better facilitate inclusive technology practices. Winne, Bone, Clyde, Lily, Gilbert and Gigi identified that formal leadership positions created more leadership opportunities in their schools.

Curriculum Development

Ongoing development of the curriculum is essential to support "institutional sustainability," as Erli mentioned, and new opportunities for teachers to lead. All participants shared that they have or have had active roles in developing the curriculum in their schools and commented that the leadership model in the school encourages this. Erli observed that she played a lead role in building curricular resources from scratch when she arrived at the school because

> there was nothing, no ManageBac stuff, no Google Drive things, nothing. And I was like, oh my goodness. So, we're starting from the ground up. Okay. Four years later, the school has transformed.

She shared that until then, she had "never been at a school where there has been no written curriculum" but that it was empowering to be trusted to develop it. Gilbert shared that the school he is at has a well-articulated scope and sequence and a clear set of "non-negotiables […] like key concepts, the enduring understanding, the standards being taught;" however, the curriculum development model encourages teacher teams to collaboratively modify resources accordingly. Gilbert commented that this "teacher-driven" curriculum development enables teachers to create and share more resources and further enhance the curriculum. It was also noted that informal leadership influences

curriculum development decisions because teachers feel empowered and trusted even though they might not formally be the curriculum, department, or grade-level leaders.

Shared Responsibility

The teachers interviewed in the study, felt a sense of shared responsibility from the curriculum to school policies which added to creating a sense of community building, of being valued and being trusted to contribute to the school in meaningful ways. Bon explained, the sense of responsibility she felt regarding the attendance policy in her school, "the way I see it is if I'm involved, then I can put my ideas into whatever eventually becomes the attendance policy. And it's not just something that's imposed on me." As a leader, Sher found that teachers who expected leadership to have a plan or a fix for everything were unrealistic and that leadership needed to be shared,

> the teachers who are super gung-ho to really push forward the change and carry it out tend to be teacher leaders, and then other members of the team tend to be like, yep, okay, got it. We're going to do this thing. I'm not out there in front leading it, but I'm happily part of the majority. It's kind of like on the change curve.

Gilbert explained how he responds to shared leadership responsibility through a curricular change example. He said,

> sometimes teachers will come to me, and they'll say, [Gilbert], is it okay if I change this? And I think my immediate thought is, you don't have to ask me for that. You can just ask your team lead, or you can just do it. I am not going to tell you how to modify your curriculum. You do that, but I just kind of nicely say, okay, let's take a look at it. Yeah, yeah. It seems reasonable. Is that going to work? Is everybody on board with this? Okay, do it. So yeah, I like that. And so, I

know in the background, most people are just doing those things like this, and I want that to happen. I can't keep an eye on all that we do. We have something like 286 units throughout the school. It's crazy, right? There's no way!

Gilbert also underscored the importance of shared responsibility and that in times of "crises or rapid change," schools need a "flexible organizational structure" because "strong centralized organizational structures don't work in times like that," which is likely why there was an increase in leadership opportunities during the pandemic.

Fostering Innovation and School Improvement (Research Question 4)

This section aims to understand how international schools foster innovation and improvement; through exploring the themes that emerged from the interview participants. This section looks to provide a better understanding of Research Question 4: *How do distributed leadership practices foster innovation and school improvement in international schools?* The key themes that were coded and emerged from the data include professional learning, adapting to change, autonomy, and the culture of the school. Table 13 shows the frequency of the parent code and sub codes, which were most frequently tagged to contribute to answering the research question.

Table 13

Foster Innovation and School Improvement Parent Code Frequency and Sub Codes

Code	Type	Frequency
Foster Innovation and School Improvement	Parent	117
Professional Learning	Sub	33
Adapting to Change	Sub	17
Autonomy	Sub	7
Culture of School	Sub	16

Professional Learning

In this study it is important to note that all participants' schools provide substantial professional learning opportunities to nurture continuing growth. This is a feature of the international schools that were included in this study. It is acknowledged that not all schools would have this type of stipend or opportunity for professional development. All schools had detailed on-site professional learning for faculty to access, some mandatory and some optional. Additionally, most schools, except for one, offered faculty professional learning funding to support their continued growth beyond the arranged professional learning opportunities offered at school. Sher described how their school formed an in-depth partnership with an organization that aligned with the school's goals, arranging training for all faculty and teacher leaders, "everybody [at the school] had common training from [the organization]" that focused on moving the school's goals forward with the faculty. Bon noted that each teacher receives an annual budget for their developmental needs, emphasizing that "every teacher has a professional development budget." Individual professional learning budgets for each teacher are common practice in international schools and often range from 750 to 1500 United States dollars per year. Teachers needed to apply to access them, but typically, if the professional learning aligned with the school's and the individual's goals, leadership often approved faculty to either take part in an external professional learning course or conference off-site or online. Several participants, including Gilbert, Winnie, and Bon, highlighted that teachers in their schools often propose new learning initiatives and have autonomy in how they apply their budgets. Clyde commented that post-pandemic, the professional learning funds at the school he works in "have significantly shrunk," and approval is almost

nonexistent because the school is heavily invested in on-site, online, and in-house professional learning that achieves the school's singular goal, which he believes is not necessarily congruent with individual faculty needs or development. Overall, participants highlighted that their schools invested significantly in sustaining teachers' professional learning aligned with their school goals and mostly felt like it prepared them to continuously improve and innovate as teachers and leaders.

Adapting to Change

From the literature on international schools and as emergent from this study, international schools continually foster innovation by constantly adapting to change. To what extent they do this well, is also very changeable and can be due to a variety of factors. These changes include staff turnover, which is typically, on average, around 20% annually. Sher shared that new local laws have impacted staffing, and the school is expecting an even higher turnover than usual, prompting a recruitment change. They explained signaling a desire for adaptability: "We've sort of signaled the culture of continuous change [...] in our recruiting process," and so new candidates coming into the school understand that the school is headed in a specific direction, and it is not debatable, and they buy-in to this vision and direction. They mentioned that prospective candidates "have to do a 3-minute video introduction [which is] screened for particular characteristics, one of them being your willingness to [adapt to] change."

Sher commented on a specific program around inquiry mindsets, saying that not all faculty embrace change readily and that "not everybody's under the umbrella of inquiry-based yet." Her experience in supporting shifting mindsets over time, along with the average staff turnover, helped the school smoothly adopt innovations. By thoughtfully

navigating change fatigue and faculty resistance, schools fostered sustainable evolution. According to Erli and Sher, proactively addressing change through staffing and recruitment, emphasizing adaptability, and pacing initiatives mitigated challenges to productively innovating over time.

Autonomy

Teacher and middle leadership autonomy emerged as another important theme of the study. Bon, Gilbert, Gigi, and Winnie emphasized that teachers have independence within their classrooms and can propose curriculum changes. Gilbert stated, "if I've introduced this idea where I want to bring it into the school, I know that I will be heard." Erli also mentioned that in her school, middle leaders are given autonomy and some decision-making responsibilities but still have check-ins with the positional leader for support. Gigi stated that within her school, "there's a lot of support for taking risks and trying new things," which encourages teachers to improve continuously. Teacher and middle leadership calibrated autonomy empowers and supports more bottom-up approaches, which can spawn new ideas leading to continuous innovation and school improvement.

Culture of the School

The participants had quite mixed experiences with the culture of their schools, though most were positive. Erli emphasized the importance of culture and being authentic and revealed,

> we just got our accreditation reports back, and we sat around; we got a glowing culture report about how wonderful and warm and welcoming our culture is and how everyone seems to be vulnerable and trustworthy and honest with each other.

> And all of this. We, the leadership team plus middle-level leaders, we sat around, and we literally went, okay, who's going to call the bullshit? Honestly, who's going to call the bullshit? That's the dog and pony show. What's happening underneath is not; there's a current underneath all of this with regards to culture, and we're not, okay.

She mentioned how this is an aspect they are aware of as it stems from post-pandemic challenges but found it interesting that from an outside perspective, the culture seemed very different from the inside. She also noted that the culture of the school is positive, but there are a lot of issues the school is dealing with, mostly to do with wellbeing. That said, she commented that everyone was also honest about where they believe they are currently at and ways they need to improve. Interestingly, Clyde also said post-pandemic that his school culture has changed and that previously, it was more open to criticism than it is now, where some people are being "labeled as cynics" but are not; they are "just being critical" in an authentic sense and want to share their professionalism and experience. Conversely, Sher's school sought to build "a culture where people are driven to do what they think is best for kids." They aimed for mutual understanding even when ideas and directions differed. They also noted the importance of intentionally building "respect, connections, and trust" to empower a more collaborative culture.

Among the interviews, it was evident that teachers play a multifaceted and evolving role in school leadership. Their insights and experiences reflect a spectrum of involvement, from significant autonomy in decision-making to structured leadership roles. The journey towards fully integrating teachers in leadership roles is ongoing. This section highlighted the critical importance of teacher involvement in leadership practice,

the challenges and opportunities in this journey, and the dynamic, evolving nature of distributed leadership in schools.

Integration: Mixing and Merging Phase 1 and 2 Summary

In this study, a sequential explanatory research design was applied, integrating the quantitative and qualitative data, which is the culmination of the data interpretation (Creswell & Plano Clark, 2011). The following section will share insights from mixing and merging the quantitative and qualitative data. As an explanatory sequential design, the quantitative trends from the DLRS survey form the basis of the findings, which are illuminated by mixing and merging with convergent or divergent findings in the qualitative interviews.

Research Design

This study used a sequential explanatory design using quantitative and qualitative data (Creswell & Plano Clark, 2017) to gain an in-depth understanding of leadership practice in international schools. A sequential explanatory design study has two distinct phases; the first is a quantitative phase followed by a qualitative phase to hone and refine the quantitative findings (Fraenkel et al., 2019; Ivankova, 2014; Ivankova et al., 2006).

This mixed-method research design approach allowed me to collect and analyze both quantitative and qualitative data and combine and integrate them to glean a deeper understanding of the study as it emerged (Creswell & Plano Clark, 2011; Fraenkel et al., 2019). The study began with Phase 1, a quantitative phase, to address the research questions on distributed practices of leadership, readiness, opportunities for teachers, and how distributed leadership fosters innovation and school improvement in technology-rich international schools. This was followed by Phase 2, the qualitative phase, which looked

specifically at how principals cultivate distributed leadership practices to enable leadership opportunities for teachers and foster innovation and school improvement. The qualitative phase aimed to understand better and illuminate the quantitative findings (Fraenkel et al., 2019). The quantitative phase of the study aims to identify, via survey methods, the salient factors related to distributed leadership practices among principals of international schools. The qualitative stage aimed to understand better the context of the salient factors identified in the first phase by conducting semi-structured interviews, which involved an interview schedule developed after reviewing the initial Phase 1 survey results. The data from the survey informed the interview schedule questions for Phase 2 of the study. The qualitative interview data was open coded to explain the findings.

This study adopted a sequential explanatory design, integrating quantitative and qualitative data through a process of mixing and merging. This approach not only deepened the understanding of the initial datasets but also enabled the generation of meta-inferences about leadership practice in international schools. By first identifying trends in the quantitative DLRS survey data and then using qualitative insights for further interpretation and explanation, this methodology provided a comprehensive analysis as described by Creswell & Plano Clark (2017). Creswell and Plano Clark (2017) recommend examining extremes in the quantitative survey data to help identify strong patterns, surprising deviations, or contradictory results and then mixing that with the qualitative findings to provide explanatory perspectives and further illuminate the results from the data collected. In the following four sections, I further interpret the data from each domain: (1) Mission, Vision, and Goals; (2) School Culture; (3) Share

Responsibility; and (4) Leadership Practice. Using Creswell and Plano Clark's (2017) approach, I examine extremes in the highest and lowest results of the quantitative survey data and mix and merge that with the qualitative data to provide a more complete understanding of the data.

Mixing and Merging: Mission, Vision, and Goals

The results from the DLRS survey provide one lens into how participants think about the mission, vision, and goals. This section will share the quantitative survey data pertaining to Mission, Vision, and Goals in Table 14 and then mix and merge the highest and lowest item results with the qualitative findings from the interviews, which examine extremes in the quantitative survey data and help identify patterns, deviations, and possible contradictory results (Creswell & Plano Clark, 2017). Given that this study has employed a sequential explanatory design, weight will be emphasized on the quantitative data trends, and the qualitative data will help interpret these trends (Creswell, 2009).

Table 14

Mission, Vision, and Goals Survey Results

	Valid	Missing	Mode	Median	Mean	SD
Mission, Vision, and Goals - The school has clearly written vision and mission statements.	91	44	2.000	2.000	1.319	0.917
Mission, Vision, and Goals - Teachers and administrators understand and support a common mission for the school and can describe it clearly.	91	44	1.000	1.000	0.747	1.111
Mission, Vision, and Goals - If parents are asked to describe the school's mission, most would be able to describe the mission clearly.	89	46	1.000	0.000	0.292	0.920
Mission, Vision, and Goals - If students are asked to describe the school's mission, most would be able to describe the mission generally.	89	46	1.000	0.000	0.079	1.047
Mission, Vision, and Goals - School goals are aligned with its mission statement.	90	45	1.000	1.000	0.800	1.220
Mission, Vision, and Goals - The school uses a school improvement plan as a basis to evaluate the progress it is making in attaining its goals.	88	47	1.000	1.000	0.705	1.146
Mission, Vision, and Goals - Teachers and administrators collectively establish school goals and revise goals annually.	89	46	1.000	1.000	0.270	1.286
Mission, Vision, and Goals - The school's curriculum is aligned with the state's academic standards.	87	48	0.000	0.000	0.207	1.202
Mission, Vision, and Goals - Teachers and administrators have high expectations for students' academic performance.	89	46	1.000	1.000	1.000	0.977
Mission, Vision, and Goals - Teachers and administrators share accountability for students' academic performance.	89	46	1.000	1.000	0.551	1.206
Mission, Vision, and Goals - School and district resources are directed to those areas in which student learning needs to improve most.	87	48	1.000	0.000	0.103	1.285
Mission, Vision, and Goals - Average Domain Score	89	46	1.000	0.727	0.552	1.119

Mission, Vision, and Goals: Highest and Lowest Mean Scores from Survey Mixed with Interviews

The mean scores for the domain Mission, Vision, and Goals were positive, with an average composite domain mean score of 0.552 on a scale of -2 to 2. The three highest item scores were:

1) *The school has clearly written vision and mission statements* (1.319),
2) *Teachers and administrators have high expectations for students' academic performance* (1.000), and
3) *School goals are aligned with its mission statement* (0.800).

This indicates that most respondents agreed that their schools have clearly defined vision and mission statements and that school-wide goals align with the mission. It also shows that there is a high degree of expectation for students to perform academically among teachers and leaders.

The three lowest mean score items for Mission, Vision, and Goals were:

1) *If students are asked to describe the school's mission, most would be able to describe the mission generally* (0.079),
2) *School and district resources are directed to those areas in which student learning needs to improve most* (0.103), and
3) *The school's curriculum is aligned with the state's academic standards* (0.207).

This suggests that although teachers and leaders embed the vision and mission into their work, it does not necessarily translate to students, as the lowest mean score (0.079) shows that some students may know and some may not know the school's mission generally.

Also, it may suggest school resources are not necessarily harnessed to improve student learning or there is a misalignment with resource allocation related to student learning. The schools that took part in the study have varied international curricula, but interestingly, the third lowest mean score shows that many believe their school curriculum is equivocal with their academic standards or that it might not align with the international and local culture of the school.

The qualitative interviews provide additional understanding of the quantitative trends. There were varying degrees of the vision being known and aligning with the reality of practice in schools.

In talking about vision and goals, Erli highlighted, "ever since the first day I arrived as a new faculty member, it was clear to me what the vision was. It was clear what the strategic plan was in terms of what they called destiny planning and the dreams. So, there are five strategic goals." Clyde agreed that the vision is clear at the school where he works, and there are high expectations and alignment. However, he believed that the school was not fully fostering a culture of innovation. While everyone is on board with the vision and mission, there is a hierarchy that does not necessarily demonstrate a readiness to practice distributed leadership. In some areas, leadership is concentrated at the top rather than distributed throughout the organization. Overall, the school has a strong alignment around its direction but could improve at empowering innovation from all levels; as Clyde inferred,

> there is a sense that the people up here [in leadership] are the only visionaries, and the people down below [the teachers], you just need to enact our vision. And that

> just rubs me the wrong way because I work with incredibly talented educators whose ideas don't find a voice outside of their classroom.

Clyde believed that the teachers at his school were highly talented, which contributed to high expectations and strong academic performance from students. However, he also noted that there was some misalignment between the school's leadership and the teachers. On the other hand, Sher's experience was that the mission and vision were set clearly and helped move the school into a new, singular, and focused direction;

> the school mission and vision has really [...] been set, in order to push into this very different paradigm of what education is. It basically means that in our strategizing and [...] strategic planning, we don't do what a lot of schools do in terms of - here are 82 strategic goals and how we're going to measure them.

Sher went on to explain that the school uses a "clearly defined strategic design framework that sets the vision, the tone, the priorities, the values of the school" but that it comes from the leadership and was initially co-created with teachers, but more recently, teachers have not been really involved. These insights provide an additional layer of understanding that, although the mission and vision are clear to faculty and high expectations for academics are in place, they still have challenges in some schools and do not always practice distributed leadership.

Mixing and Merging: School Culture

The results from the DLRS survey provide one lens into how participants think about school culture. This section will share the quantitative survey data on School Culture in Table 15 and then mix and merge the highest and lowest results with the qualitative findings from the interviews, which examine extremes in the quantitative

survey data and help identify patterns, deviations, and possible contradictory results (Creswell & Plano Clark, 2017). Given that this study has employed a sequential explanatory design, weight will be emphasized on the quantitative data trends, and the qualitative data will help interpret these trends (Creswell, 2009).

School Culture: Highest and Lowest Mean Scores from Survey Mixed with Interviews

Table 15

School Culture Survey Results

	Valid	Missing	Mode	Median	Mean	SD
School Culture - The school is a learning community that continually improves its effectiveness, learning from both successes and failures.	87	48	1.000	1.000	0.552	1.189
School Culture - There is a high level of mutual respect and trust among the teachers and other professional staff in the school.	87	48	1.000	1.000	0.460	1.189
School Culture - There is mutual respect and trust between the school administration and the professional staff.	87	48	1.000	1.000	0.356	1.239
School Culture - Average Domain Score	87	48	1.000	1.000	0.456	1.205

The mean scores for the domain School Culture were positive (above zero), with an average composite mean score of 0.456 on a scale of -2 to 2. The highest score item in this domain was *The school is a learning community that continually improves its effectiveness, learning from both successes and failures* with a mean score of 0.552. This indicates that most respondents believe the schools they work in continually improve, and there is a level of learning from both success and failure. It also shows that many see their schools as learning communities. The lowest mean score item for School Culture was *There is mutual respect and trust between the school administration and the professional*

staff, with a mean score of 0.356, which is positive but that this may be an area to improve further. Erli revealed that not everyone in her school community is open to change and that a "group of the school community embraced change with arms wide open" while others felt "threatened or that they do not welcome change." She explained that this might be because change has happened so frequently over the past few years and that, as a result, the community, although they are on board with continuous improvement, are exhausted from all the "change fatigue" and are more resistant now. Sher believed that one way her school continually improves is through "engag[ing] our parent community better in understanding the direction" the school is headed and why. Bon emphasized that improvement with assessment comes down to shared responsibility, which is possible because, as a team, "we come together as heads of department and we discuss all those ideas, and we look at how we can improve, whether it be assessment or policies."

Issues of trust across both the survey and interviews were varied. Winnie shared that her principal builds trust by being visible, and her principal does learning walks around campus, which she finds

> really valuable in that my students know who she is; they know when she comes into the classroom, they feel comfortable. So, I feel comfortable with her, even if it's informal, where she's just peeking in to see what we're doing instead of a formal observation.

She mentioned that she also finds that "it's very beneficial for me as a teacher in order to see her taking that time and space and for the students as well. I think it shows the level of relationship and commitment that she's instilled." In contrast, Clyde highlighted that

trust is hard to calibrate because he “feels increasingly there’s a great deal of micromanagement at the school, and the classroom is becoming less and less of the teacher’s domain” because teachers have less say in the curriculum, which is a shift from the past as the school embarks on its strategic goals to move to a new learning paradigm.

Erli shared that everyone at the school is on board, but because it is a “small school, I’m realizing that so many people are wearing so many different hats, and burnout is real, and that affects culture and that affects the energy.” This suggests that even though trust is highlighted at her school, the school culture emphasis for school improvement and innovation can create fatigue, which may indicate the positive though slightly lower mean scores for the School Culture domain.

Mixing and Merging: Shared Responsibility

The results from the DLRS survey provide one lens into how participants think about shared responsibility. This section will share the quantitative survey data Shared Responsibility in Table 16 and then mix and merge the highest and lowest results with the qualitative findings from the interviews, which examine extremes in the quantitative survey data and help identify patterns, deviations, and possible contradictory results (Creswell & Plano Clark, 2017). This study has employed a sequential explanatory design so that weight will be emphasized on the quantitative data trends, and the qualitative data will help interpret these trends (Creswell, 2009).

Table 16

Shared Responsibility Survey Results

	Valid	Missing	Mode	Median	Mean	SD
Shared Responsibility - The school administrator(s) welcome professional staff members input on issues related to curriculum, instruction, and improving student performance.	83	52	1.000	1.000	0.723	1.140
Shared Responsibility - The school supports using new instructional ideas and innovations.	83	52	1.000	1.000	0.916	1.118
Shared Responsibility - The school's daily and weekly schedules provide time for teachers to collaborate on instructional issues.	83	52	1.000	1.000	0.566	1.212
Shared Responsibility - School professionals and parents 1 on the most effective roles parents can play as partners in their child's education.	81	54	1.000	0.000	0.259	0.891
Shared Responsibility - The school clearly communicates the 'chain of contact' between home and school so parents know who to contact when they have questions and concerns.	82	53	1.000	1.000	0.659	1.114
Shared Responsibility - The school makes available a variety of data (e.g. student performance) for teachers to use to improve student achievement.	83	52	1.000	1.000	0.747	1.124
Shared Responsibility - Decisions to change curriculum and instructional programs are based on assessment data.	83	52	0.000	0.000	0.084	1.242
Shared Responsibility - There is a formal structure in place in the school (e.g. curriculum committee) to provide teachers and professional staff opportunities to participate in school-level instructional decision-making.	83	52	1.000	0.000	0.108	1.334
Shared Responsibility - The principal actively encourages teachers and other staff members to participate in instructional decision-making.	83	52	1.000	1.000	0.590	1.148
Shared Responsibility - Professional staff members in the school have the responsibility to make decisions that affect meeting school goals.	83	52	1.000	1.000	0.470	1.086

Table 16 (continued)

	Valid	Missing	Mode	Median	Mean	SD
Shared Responsibility - The school provides teachers with professional development aligned with the school's mission and goals.	83	52	1.000	1.000	0.819	1.049
Shared Responsibility - Administrators participate alongside teachers in the school's professional development activities.	83	52	1.000	1.000	0.639	1.235
Shared Responsibility - The principal actively participates in his/her own professional development activities to improve leadership in the school.	83	52	1.000	1.000	0.651	1.163
Shared Responsibility - My supervisor and I jointly develop my annual professional development plan.	83	52	1.000	0.000	0.205	1.403
Shared Responsibility - My professional development plan includes activities that are based on my individual professional needs and school needs.	83	52	1.000	1.000	0.639	1.235
Shared Responsibility - Teachers actively participate in instructional decision-making.	82	53	1.000	1.000	0.732	1.055
Shared Responsibility - Central office and school administrators work together to determine the professional development activities.	83	52	0.000	0.000	0.253	1.198
Share Responsibility - Average Domain Score	83	52	0.882	0.706	0.532	1.161

Shared Responsibility: Highest and Lowest Mean Scores from Survey Mixed with Interviews

The mean scores for the domain Shared Responsibility were positive (above zero), with an average composite mean score of 0.532 on a scale of -2 to 2. The three highest score items were:

1) *The school supports using new instructional ideas and innovations* (0.916),
2) *The school provides teachers with professional development aligned with the school's mission and goals* (0.819), and

3) *The school makes available a variety of data (e.g. student performance) for teachers to use to improve student achievement* (0.747).

This indicates that the majority of respondents agreed that their schools support new instructional ideas and innovations, provide aligned professional development with the mission and vision of the school, and improve student achievement by making various student data available to teachers. It also shows a positive indication for teachers, connecting with leadership practices that support innovation and school improvement. Erli expressed, "I have the freedom in order to change the curriculum; I have just to propose my ideas to the curriculum director. And I recently did that actually," and she has been able to improve the existing curriculum with new instructional ideas to improve the school's science curriculum. Winnie sensed she had changed and had become more vocal about sharing new ideas in the school with leadership through quick emails or text messages, "I've learned over the years that if I don't say it and I know it's necessary and I need to say it, there's got to be some way." She pointed out that she feels it is necessary to share to improve and "that I just know it would help, so I can't hold back." Gilbert shared the importance of learning from others and that the school he is at realize and leverage data for all kinds of decision-making to improve teacher practice and student learning and achievement. He said that "one of the favorite things [he and the leadership team] like to do is look at individual teachers who had particularly high growth compared to other teachers who were teaching exactly the same thing and looking at the students [in the same cohort]" and work out how they can learn from it. He said they do this quite extensively and look at,

> what's that teacher doing that's working so well? Do you guys do that? Maybe you could try a couple of these strategies or whatever. So, just to keep those conversations going. So, we have a lot of, throughout the year, there's a lot of opportunity for teachers to talk about how they're using data, what data they're looking at, and teachers keep it in a bunch of different ways. We have some that they're just keeping it in Google Sheets, a variety of different stuff. Sometimes, they can look at perspective; sometimes, they look at the MAP data. Sometimes, they're relying quite a bit on just observational data and conferring with each other and comparing assessment results and stuff like that. Common assessment results. And so, there's a big focus on using data to inform instruction, and teachers have almost endless opportunities to look at data, identify some gaps, propose some actions to help fix those gaps, share that with other teachers, so forth and so on.

He mentioned it is a great way for other teachers to learn from one another and for the leadership team to make adjustments to enable all teachers to better support students, ultimately improving teacher practice and student achievement.

The three lowest mean score items for shared responsibility were:

1) *Decisions to change curriculum and instructional programs are based on assessment data* (0.084),
2) *There is a formal structure in place in the school (e.g. curriculum committee) to provide teachers and professional staff opportunities to participate in school-level instructional decision-making* (0.108), and

3) *My supervisor and I jointly develop my annual professional development plan* (0.205).

This suggests that although teachers share responsibility for changing the curriculum, instructional decision-making, and professional development, there is a lot of variation. According to the survey, these decisions are not as often based on assessment data, which is surprising given what Erli mentioned about changing the science curriculum, although it was mentioned that schools were building Diversity, Equity, Inclusion, Justice (DEIJ) modules for faculty and new units into the curriculum. Also, none of the educators interviewed mentioned jointly developing a professional development plan; they did indicate that they had access to schoolwide professional development and that many could go on a course to improve but that they had to go through an approval process to be able to travel to professional learning training or conference. Gigi believed that the educators she works with have autonomy with professional time and are encouraged to take risks, "I can choose my goal, which is to use technology more meaningfully in the classroom, and I show evidence of that and explore and share back." Consequentially, although one the lowest mean score in the Shared Responsibility domain was *My supervisor and I jointly develop my annual professional development plan* with a score of 0.205, the interviews indicated that teachers share responsibility for professional development, though perhaps it does not always happen jointly with their supervisor.

Mixing and Merging: Leadership Practice

The results from the DLRS survey provide one lens into how participants think about leadership practice. This section will share the quantitative survey data on Leadership Practice in Table 17, and then mix and merge the highest and lowest results,

which examine extremes in the quantitative survey data and help identify patterns, deviations, and possible contradictory results along with the results of the open-ended survey question (Creswell & Plano Clark, 2017). The study employs a sequential explanatory design, as outlined by Creswell (2009), which prioritizes the analysis of quantitative data from the DLRS items and uses qualitative insights from the open-ended survey question and interviews to further interpret and integrate these patterns. This approach allows for an initial focus on quantitative data trends, while the qualitative data provides depth and context to these findings.

Table 17

Leadership Practices Survey Results

	Valid	Missing	Mode	Median	Mean	SD
Leadership Practices - The school has expanded its capacity by providing professional staff formal opportunities to take on leadership roles.	84	51	1.000	1.000	0.655	1.114
Leadership Practices - Teachers who assume leadership roles in the school have sufficient school time to permit them to make meaningful contributions to the school.	83	52	1.000	0.000	0.048	1.147
Leadership Practices - Teachers who assume leadership roles in the school have sufficient resources to be able to make meaningful contributions to the school.	83	52	1.000	1.000	0.265	1.180
Leadership Practices - Veteran teachers fill most leadership roles in the school.	83	52	-1.000	0.000	-0.205	1.045
Leadership Practices - New teachers are provided opportunities to fill some school leadership roles.	83	52	1.000	1.000	0.759	0.932
Leadership Practices - Teachers are interested in participating in school leadership roles.	83	52	1.000	0.000	0.253	1.157
Leadership Practices - Average Domain Score	83	52	1.000	0.500	0.295	1.095

Leadership Practices: Highest and Lowest Mean Scores from Survey Mixed with Interviews

The mean scores for the domain Leadership Practices were all positive (zero and above) except for one item: *Veteran teachers fill most leadership roles in the school,* with a score of -0.205 (below zero). The average composite mean score for Leadership Practices was 0.295 on a scale of -2 to 2, which is positive and lower than the other domain categories. The highest score items were:

1) *New teachers are provided opportunities to fill some school leadership roles* (0.759),
2) *The school has expanded its capacity by providing professional staff formal opportunities to take on leadership roles* (0.655), and
3) *Teachers who assume leadership roles in the school have sufficient resources to be able to make meaningful contributions to the school* (0.265), which is below the overall domain category average.

The lowest score item was *Veteran teachers fill most leadership roles in the school* (-0.205).

The survey results indicate that respondents agree that new teachers are provided with more opportunities to fill leadership roles than veteran teachers. This was also apparent from the interviews, with Clyde being the most vocal and expressing frustration over this. However, Erli, Winnie, Shan, Bon, Sher, and Lily were all teachers who had applied for middle leadership roles, and while most received a stipend, none of them indicated whether veteran or new teachers occupied the middle leadership roles. Clyde believed that much of the change in the school he was working in was due to the current

head of school, who joined the school a year after him, so his first year was what he thought he signed up for, and his second year was "discombobulating" because the new head of school had a very different direction, he wanted to move the school towards. This reflects an age-old challenge in international schools where, as previously mentioned, the average tenure of a head of school is just 3.7 years before moving on to another institution (Benson, 2011). The short duration that leaders serve in a school, means that leaders often implement change quickly, as Clyde had experienced in his school. It also means they sometimes hire experts from outside to achieve their goals and direction in each school, which might be why many survey respondents indicated that they disagreed that veteran teachers fill most leadership roles.

In the open-ended survey, respondents emphasized the importance of leadership development and the need to build greater leadership capacity. However, as one anonymous respondent noted, individuals in new leadership roles are "still learning how to be good administrators." Interestingly, no respondents discussed professional learning specifically tailored to leadership or the cultivation of leadership skills within the school. Instead, all comments related to professional learning focused on topics like the science of learning, curriculum, and well-being. This lack of focus on leadership development could potentially restrict leadership opportunities and success for teachers aspiring to leadership roles and contribute to greater variation in leadership practices across international schools.

Summary

The purpose of this chapter was to provide the results of the sequential explanatory mixed methods design investigating distributed leadership readiness and

practice in international schools to support innovation and school improvement. The analysis began with Phase 1, which involved examining the quantitative data from the DLRS survey and the responses to the open-ended questions collected from 19 international schools in the Asia Pacific region. This was followed by Phase 2, where I analyzed qualitative interview data from 9 leaders and teachers across 6 of the 19 schools. Following the methods outlined, I analyzed the results, summarized the data, integrated the data, and presented the findings. In the next chapter, I will discuss the findings of these results from the literature review, propose recommendations for further studies, share possible limitations to this study, and final conclusions.

Chapter 5: Discussion and Conclusions

In this section, I present the major findings from the study. These findings share data from the DLRS survey from the four domains: (1) mission, vision, and goals; (2) school culture; (3) shared responsibility; and (4) leadership practice, as well as interviews with leaders and teachers from participant international schools. This section starts with an overview of the study, then discusses the results and implications, limitations, recommendations for future research, and finally, a summary of the study.

Overview and Purpose of Study

In this study, I explored how distributed leadership is practiced in international schools in the Asia Pacific. This included looking at principals' readiness to practice a distributed perspective of leadership, how distributed leadership is practiced, the opportunities for teachers in international schools, and how distributed leadership practices foster innovation and school improvement. Practicing a distributed leadership perspective became principals' default leadership response during COVID-19 (Azorin et al., 2020). This default leadership response was not by design, but instead, a survival measure (Harris & Jones, 2020). Leadership practices since then have subsequently changed, as increased distributed leadership practices have emerged, stretching various teacher and organizational expertise across schools to support the challenges that were brought about by the COVID-19 pandemic.

Distributed leadership can take on numerous forms in schools. From school heads formally encouraging faculty to take on leadership duties and empowering specific faculty with decision-making responsibilities to teachers informally creating opportunities to lead (Harris, 2008; Harris & Muijs, 2004). As a result, leadership has

changed, and now more than ever before, school leaders are co-constructing both formal and informal leadership responsibilities across the wider faculty, which is based on a shared vision and ultimately supports school improvement (Harris, 2020; Murphy, 2005; Smylie et al., 2007).

Research Design

This study used a sequential explanatory design using quantitative and qualitative data (Creswell & Plano Clark, 2017) to gain an in-depth understanding of leadership practice in international schools. A sequential explanatory design study has two distinct phases; the first is a quantitative phase followed by a qualitative phase to hone and refine the quantitative findings (Fraenkel et al., 2019; Ivankova, 2014; Ivankova et al., 2006). This mixed-method research design approach allowed me to collect and analyze both quantitative and qualitative data and combine and integrate them to glean a deeper understanding of the study as it emerged (Creswell & Plano Clark, 2011; Fraenkel et al., 2019).

The study began with Phase 1, the quantitative phase, to address the research questions on distributed practices of leadership, readiness, opportunities for teachers, and how distributed leadership fosters innovation and school improvement in international schools. This was followed by Phase 2, the qualitative phase, which looked specifically at how principals cultivate distributed leadership practices to enable leadership opportunities for teachers and foster innovation and school improvement. The qualitative phase aimed to understand better and illuminate the quantitative findings (Fraenkel et al., 2019). The quantitative phase of the study aimed to identify, via survey methods, the salient factors related to distributed leadership practices among principals of international

schools. The qualitative stage aimed to understand and explain the quantitative trends identified in the first phase by conducting semi-structured interviews, which involved an interview schedule developed after reviewing the initial Phase 1 survey results. The data from the survey informed the interview schedule questions for Phase 2 of the study. In analyzing the qualitative interview data, I employed a hybrid deductive-inductive coding approach (Fereday & Muir-Cochrane, 2006). This approach involved using a combination of pre-determined codes derived from the research questions (deductive) and codes that emerged from the raw data during the analysis process (inductive) (Fereday & Muir-Cochrane, 2006). In addition to explaining the quantitative and qualitative data collected, Creswell and Plano Clark (2017) highlight the hallmark of a sequential explanatory design is integrating the data by mixing, merging, and drawing metainferences that provide additional insight beyond the initial quantitative and qualitative data. This combination of mixing and merging the quantitative and qualitative data generated from this study provides a deeper understanding and metainferences of how distributed leadership is practiced in international schools. The approach used to mix and merge begins with identifying trends gleaned from the quantitative DLRS survey data and using the qualitative data to interpret further and explain (Creswell & Plano Clark, 2017). Data were collected and analyzed to answer the following research questions.

Research Questions

1) What is the readiness in international schools to practice distributed leadership?
2) How is distributed leadership practiced in international schools?

3) What are the leadership opportunities for teachers in international schools?

4) How do distributed leadership practices foster innovation and school improvement in international schools?

Review of the Methodology

There is limited research on distributed leadership in P-12 international schools and even less on distributed leadership in international schools in the Asia Pacific. This study used a sequential explanatory design that employed a mixed-methods approach, which began with a quantitative phase that used the DLRS survey to determine readiness to practice distributed leadership in schools. 50 international schools in the Asia Pacific met the criteria for the study, and 135 educators from 19 international schools participated in the survey. The final question in the survey asked participants whether they would be willing to volunteer for a follow-up interview. This was followed by a qualitative phase, which interviewed 9 volunteers from the initial survey to better understand how educators who completed the initial survey experienced distributed leadership practice in the international schools they worked in and the leadership opportunities they had access to in their international schools.

Major Findings

The major findings from this study add to the research literature on distributed practices of leadership. These include: (1) understanding of distributed leadership; (2) readiness for distributed leadership; (3) disagreement among participants that veteran teachers should fill most leadership roles; (4) schools had well-articulated vision and mission statements; (5) formal teacher leadership positions; (6) teachers sense of shared

responsibility; (7) school investments in professional learning; (8) academic decision-making; (9) mutual respect and trust; (10) multifaceted leadership roles of teachers.

Understanding of Distributed Leadership

I found most interview participants understood what distributed leadership was and provided examples of what it looked like in their schools. This included teachers feeling empowered to step in to take on leadership roles and schools creating structures of middle leadership to encourage more leadership across the faculty.

Readiness for Distributed Leadership

International schools in the Asia Pacific both display readiness and already practice distributed leadership; however, despite this, their readiness scores were lower than prior studies previously undertaken in the United States.

Disagreement that veteran teachers should fill most leadership roles

Within the Leadership Practice domain of the DLRS survey, one item out of 37 received a score below zero: *Veteran teachers fill most leadership roles in the school*, which scored -0.205. This negative score, which indicated stronger disagreement, could potentially reflect the transient nature of staff at international schools, which experience higher annual staff turnover possibly affecting traditional pathways to leadership. Alternatively, it might reveal an underlying bias that inadvertently sidelines the contributions and potential of long-serving teachers, or it could reflect a deliberate strategy that allocates leadership based on factors other than tenure. This finding also raises the question of whether there is a gap in professional development opportunities that adequately equip veteran teachers for leadership positions. The implication is that international schools may need to reassess their leadership structures and development

programs to ensure they recognize and utilize the full range of talents within their teaching staff.

Schools had well articulated vision and missions

The survey item with the highest positive score was within the Mission, Vision, and Values domain, which stated *The school has clearly written vision and mission statements,* that received a score of 1.319. Follow-up interviews confirmed that all schools had well-articulated mission and vision statements, along with defined values and goals, which were integral to their decision-making processes.

Formal Teacher Leadership Positions

The analysis of interview data revealed that numerous international schools had instituted various formal teacher leadership positions alongside their executive senior leadership teams. These schools offer compensation and allocate time for teachers to undertake additional leadership responsibilities. The formalization of teacher leadership roles plays an essential part in the practice of distributed leadership. While leadership within these schools manifested in both formal and informal capacities, the continuous evolution and sophistication of leadership necessitated the development of more structured teacher leadership roles.

Teachers Sense of Shared Responsibility

The data revealed that teachers felt a sense of shared responsibility in their schools, from the curriculum to policies. Teachers were encouraged to develop and modify the curriculum. When situations emerged about policies, instructional data, best practices, and other areas, teachers felt like they had an active role, were responsible, and were encouraged to lead in various situations.

School Investments in Professional Learning

The participants expressed that their schools made substantial investments in professional development that aligned with their institutional objectives, which they believed equipped them for ongoing improvement of their teaching and leadership skills. Despite this, the data from the study did not indicate a corresponding increase in the number of veteran teachers assuming leadership positions, which would expand internal leadership capacity. Notably, the survey revealed a response below zero (-0.205) to the survey item, *Veteran teachers fill most leadership roles in the school*. This finding suggests that despite intentional focus on professional development, the lower representation of veteran teachers in leadership roles may compel middle leaders to seek promotional opportunities outside their current schools.

Academic Decision-making

All participants identified that decision-making was supported by distributed leadership practice in their schools. The data suggest that academic decision-making was done primarily through the heads of departments, who are middle leaders, and that they build, design, and upgrade the curriculum with other teachers and then connect back with the curriculum director or senior leader responsible for schoolwide learning. These interactions enacted from building curriculum and empowering teachers to make decisions to support school improvement were shown to be critical.

Mutual Respect and Trust

According to interviews, establishing mutual respect and trust between stakeholders necessitated continual effort and often included creating more avenues for open communication, especially in rapidly changing school environments. Transparency

in communication emerged as an area for growth for schools, yet also a value increasingly emphasized.

Multifaceted Leadership Roles of Teachers

Among the interviews, it is evident that teachers play a multifaceted and evolving role in school leadership. Teachers' insights and experiences reflect a spectrum of involvement across the school, from significant autonomy in decision-making to structured leadership roles. All schools involved in the interviews mentioned that teachers support different aspects of leadership roles formally and informally in their schools.

Discussion of the Results

This study examined distributed leadership practice, where multiple leaders across a school contribute to leadership, regardless of formal position (Spillane, 2005). Scholars recognize that effective school leadership requires support from various stakeholders (Fullan, 2009; Harris, 2013; Jones & Harris, 2014; Leithwood et al., 2008; Spillane, 2005). A distributed leadership approach fosters interactions where teachers and stakeholders use their expertise to advance a shared vision for enhancing student and school improvement (Elmore, 2000; Murphy, 2005; Smylie et al., 2007). The results of this study are organized by the distributed leadership definition followed by the four research question themes: (1) readiness to practice distributed leadership; (2) distributed leadership practice; (3) leadership opportunities for teachers; and (4) distributed leadership practices that foster innovation and school improvement.

Distributed Leadership Definition

Distributed leadership is a leadership model where leaders, teachers, faculty, and stakeholders share responsibility and status to support classroom instruction and school

governance (Spillane, 2005; Trammell, 2016). Distributed Leadership is not a type of leadership; but is a conceptual framework or practice for learning about school leadership (Spillane, 2005; Spillane & Diamond, 2007). Leadership in a distributed model is stretched or co-constructed across many leaders in a school (Spillane, 2005). A leader includes any stakeholder who engages in tasks regardless of whether they are a formal positional leader or not. Scholars acknowledge that principals require additional support from individuals to effectively lead their schools (Fullan, 2009; Harris, 2013; Jones & Harris, 2014; Leithwood et al., 2008; Spillane, 2005). A distributed perspective of leadership practice creates interactions whereby teachers and stakeholders, through their actions and subject expertise, contribute towards a shared vision of the school to support student improvement (Murphy, 2005; Smylie et al., 2007). A distributed perspective on leadership defines the practice of leadership through "interactions between people and their situation" (Spillane et al., 2004, p. 16). This leadership practice by any stakeholder must involve leaders, followers, and situations (Spillane et al., 2004).

Interview participants have diverse understandings of what distributed leadership is and how it is enacted in their schools. A notable theme that surfaced from the interviews centered on the idea of shared leadership responsibility and the distribution of decision-making authority. This concept of distributed leadership, which emerged in the interviews, is characterized by a variety of definitions, with several focusing on how leadership is dispersed across different divisions, departments, and stakeholder groups within the school's organizational framework. This helps incorporate diverse voices and perspectives into decision-making. Additionally, those interviewed mentioned that distributed leadership is about delegating roles and responsibilities to empower others.

Overall, participants highlighted the delegation of roles and responsibilities, which also included doing so in a trusted way with input and buy-in, which recurred across definitions. A few definitions framed distributed leadership as a collective effort where people have different but interconnected roles working towards common goals. This conceptualizes distributed leadership as a team-oriented and collaborative approach rather than solely as delegated tasks. It also portrays distributed leadership as interconnected roles working towards a common purpose rather than a set of isolated tasks. This understanding of distributed leadership is in alignment with what scholars have proposed (Murphy, 2005; Smylie et al., 2007; Spillane et al., 2004).

Readiness to Practice Distributed Leadership (Research Question 1)

Research Question 1: *What is the readiness in international schools to practice distributed leadership?*

The data from 36 of 37 measured DLRS survey items showed positive (above zero) results, indicating high readiness for distributed leadership across the 19 international schools surveyed in the Asia Pacific. One survey item was below zero in the Leadership Practice domain, indicating that *Veteran teachers fill most leadership roles in the school,* with a score of -0.205. The average mean score for each domain was between 0.295 and 0.552, which is positive (above zero) on a scale of -2 to 2. However, compared to most prior studies (Christy, 2008; Pierro, 2020; Riddle, 2015; Terrell, 2010; Zinke, 2013) conducted in the United States, which range from 0.210 to 1.463 on a scale of -2 to 2, it is lower, which may indicate that either international schools are less ready than United States schools to practice distributed leadership. Alternatively, the interviews suggest that while distributed leadership is routinely practiced, the variations observed in

data from the 19 school sites might stem from differences in curriculum (such as American, British, or International Baccalaureate programs), country-specific contexts, or other variables. Furthermore, discrepancies could also arise from the different Likert scale responses recorded in the DLRS survey, especially when compared to prior studies conducted in the United States by predominantly American educators. The standard deviation showed higher dispersion than prior studies (Christy, 2008; Gordon, 2005; Pierro, 2020; Riddle, 2015; Terrell, 2010; Zinke, 2013), confirming the variation in the international school leader and teacher respondents to the DLRS survey. According to the survey and interview data, new teachers are provided more opportunities to fill leadership roles rather than veteran teachers, which may be part of the transient nature of international schools and the larger annual attrition of teachers and leaders in a post-pandemic era, especially in Asia. Bunnell and Poole (2023) conducted a study on increased international school teacher attrition rates, which have risen post-pandemic. They found from their interview participants that turnover is a "promotion strategy" for some international school teachers; however, in the interviews conducted for this study, none of the participants mentioned this being a factor. The collected data for the study indicates that international schools' readiness to practice distributed leadership is positive.

The DLRS domain of Mission, Vision, and Goals received the highest mean score, underscoring the importance of fostering a shared purpose, a foundational element of distributed leadership (Nadeem, 2024). This collective vision and purpose are crucial as they align the efforts of all stakeholders—including the board, owners, leadership team, teachers, parents, and students—toward the school's goals. Such alignment is

instrumental for distributed leadership to effectively contribute to school improvement and innovation (Nadeem, 2024). Additionally, a study by Zinke (2003), which surveyed leaders and teachers with the DLRS, similarly found that Mission, Vision, and Goals were rated the highest, further supporting the significance of a shared purpose in educational settings.

The data from the survey items within the Mission, Vision, and Goals domain revealed that the item *The school has clearly written vision and mission statements* scored the highest mean (1.319) across all domain items. This suggests a strong awareness and articulation of the shared mission among teachers and leaders, who not only understand it but also actively contribute to it. Moreover, the mission is generally understandable to parents and students. Schools are noted for strategically aligning their objectives with their mission and strategically planning for improvement to monitor progress. Participants indicated that there is a sense of accountability and high expectations set by leaders and teachers, particularly concerning curriculum and academic standards. It was also observed that schools invest many resources towards enhancing student learning and overall school performance. These findings were consistently supported by the interviews conducted across all schools. However, one participant, Clyde, expressed a diminished enthusiasm regarding the enactment of the vision by school leadership despite acknowledging the high expectations and alignment of the mission with the school's goals.

The DLRS domain School Culture had consistently positive mean scores. The data showed that respondents work in schools with learning communities and continually improve from successes to failures and that there is a high level of mutual respect and

trust among the leaders, teachers, and professional staff. Bon and Erli however, mentioned that change was difficult for some members of their school community, and although most were on board with change, some were exhausted from all the constant change over the past few years.

Distributed Leadership Practice (Research Question 2)

Research Question 2: *How is distributed leadership practiced in international schools?* I analyzed the data for leadership practice trends in international schools. The following key themes emerged from the coded data: decision-making, mutual respect, and teachers as being vital to supporting leadership roles.

Decision-making

All participants identified that decision-making was supported by distributed leadership practice in their schools. This is consistent with Harris's (2013) and Nadeem's (2024) findings on decision-making, which stated that it promotes empowerment and is core to distributed leadership. The data showed that academic decision-making was done primarily through the heads of departments, who are middle leaders, and who build, design, and upgrade the curriculum with other teachers and connect back and then liaise with the curriculum director or senior leader responsible for schoolwide learning. According to Gilbert, these interactions enacted from building curriculum and empowering teachers to make decisions to support school improvement are critical, a viewpoint which is affirmed by Harris (2008, 2011, 2013).

Mutual Respect

According to interviews, establishing mutual respect and trust between stakeholders required continual effort and often included creating more avenues for open

communication, especially in school environments that were changing rapidly. The need for improved transparency in communication was identified as an area of growth for schools and is also recognized as a value of growing importance. Lily described how her school's practice of openly sharing information in multiple directions was designed to bridge divides between groups and foster trust and respect among colleagues. Erli mentioned that as a middle leader, her experience has taught her to over-communicate so faculty feel they are well-informed and there are fewer surprises for them to adapt to. References to practices of mutual respect and open communication support how participants positively experience leadership practices in their schools.

Teachers are Vital to Supporting Leadership Roles

The interview findings suggest teachers play a multifaceted and evolving role in school leadership. Their insights and experiences reflect a spectrum of involvement, from significant autonomy in decision-making to structured leadership roles. The journey towards getting more teachers involved in leadership roles is ongoing. Teacher involvement in leadership practice is of critical importance for schools to flourish post-pandemic because practicing a distributed perspective of leadership has become the default leadership response (Azorin et al., 2020). The data revealed that there are challenges and opportunities for leaders to create the conditions for more distributed leadership practices in schools. All schools involved in the interviews mentioned that teachers support different aspects of leadership roles formally and informally in their schools.

Leadership Opportunities for Teachers (Research Question 3)

Research Question 3: *What are the leadership opportunities for teachers in international schools?* I analyzed the interview data for leadership opportunities using open coding and found three major themes that came to the fore: formal middle leadership roles, curriculum development, and shared responsibility.

Formal Middle Leadership Roles

The findings suggest many international schools have established a multitude of formal leadership roles in addition to traditional executive senior leadership team roles. This provides opportunities for multiple staff members to be in a formal leadership role over time. Teachers in formal middle leadership roles often have classroom responsibilities, uniquely positioning them to regularly engage in collaborative processes with colleagues, model pedagogical practices, and promote professional learning (Curtis, 2013; Wenner & Campbell, 2017). This unique position enables teacher leaders to have an influential relationship with teachers, which can help build a positive school culture and promote a shared vision and direction for the school (Curtis, 2013; Wenner & Campbell, 2017; Woo, 2021). Bonin (2018) found that teacher leaders increase leadership capacity, contributing to the school's mission and strategic goals. Many schools include a stipend for formal teacher leadership roles and opportunities because of the added responsibilities. However, Bonin (2018) found that incentives for middle leaders create disincentives because they are often inadequate and do not compensate enough for the added time and demands. The interview participants highlighted that teacher leader stipends and additional time for the additional workload that comes with the additional leadership responsibilities were appreciated. They commented that having formalized

paid positions provided structured avenues for teachers to lead and valued the added time commitment involved. Participants identified that formal leadership positions created more explicit leadership opportunities in their schools.

Curriculum Development

The interview data suggests the ongoing development of the curriculum is essential to supporting sustainability and new opportunities for teachers to lead in schools. All participants shared that they have or have had active roles in developing the curriculum in their schools and commented that their school's leadership model encourages this. It was also noted that informal leadership influences curriculum development decisions because teachers feel empowered and trusted even though they might not formally be on the curriculum department team or the grade-level leader.

Shared Responsibility

The data revealed that teachers felt a sense of shared responsibility in their schools, from the curriculum to policies. Rost and Barker (2000) indicated that shared purpose and responsibility are key tenets of leadership. Gilbert mentioned that in times of "crises or rapid change," a "flexible organizational structure" is essential for schools because "strong centralized organizational structures don't work in times like that," which is likely why there was an increase in leadership opportunities to share the burden and responsibility of schooling during the pandemic. Leadership in schools has shifted over the 20th and 21st centuries from managing and maintaining the status quo to influencing relationships and change based on a shared purpose. Sharing responsibility helps build a positive school culture, as the survey data showed, and promotes the shared

mission and vision that guide the direction of a school (Curtis, 2013; Gordon, 2005; Wenner & Campbell, 2017; Woo, 2021).

Distributed Leadership Practices that Foster Innovation and School Improvement (Research Question 4)

Research Question 4: *How do distributed leadership practices foster innovation and school improvement in international schools?* I analyzed the survey data for leadership practice trends and interview data for leadership opportunities that foster innovation and school improvement. The following themes emerged from the data: professional learning, adapting to change, autonomy, and school culture.

Professional Learning

The data found that all the participants' schools provide substantial professional learning opportunities to nurture continuing growth and align with the school's mission and goals. This is consistent with literature findings that suggest for innovation to take hold in schools, school heads need to practice leadership that (1) creates opportunities for teachers to lead, (2) builds professional learning communities, (3) provides quality, results-driven professional development, and (4) celebrates innovation and teacher expertise (Childs-Bowen et al., 2000). Quality and results-driven professional learning are critical. All participants' schools offered comprehensive on-site professional development for faculty, with both mandatory and elective options. Participants highlighted that their schools invested significantly in sustaining teachers' professional learning aligned with their school goals. They mostly felt like it prepared them to continuously improve and innovate as teachers and leaders.

Adapting to Change

International schools prioritize innovation by adapting to changes, including managing the typical annual staff turnover rate of about 20%. They counteract change fatigue and faculty resistance to ensure sustainable progress. By focusing on strategic staffing and recruitment, valuing adaptability, and pacing new initiatives, these schools navigate obstacles to continuous innovation. Notably, in the schools studied, leadership roles are seldom filled by veteran teachers. Leadership recruitment prioritizes candidates' fit with the school's vision and desired qualities over tenure. As Hayden (2006) points out, effective leaders and teachers are vital to sustaining and enhancing education in international schools. Despite significant investment in professional development, these schools appear to struggle with developing internal leadership capacity. This is highlighted by the survey's sole negative (below zero) finding (-0.205), indicating a lower proportion of veteran teachers in leadership positions and suggesting that middle leaders might need to depart their current schools to advance in their careers.

Autonomy

The data found that autonomy for teachers and middle leadership emerged as another theme. Teacher and middle leadership calibrated autonomy empowers and supports more bottom-up approaches, which can spawn new ideas, leading to continuous innovation and school improvement. Most of the participants indicated that they felt empowered; however, Clyde mentioned that he felt that leadership was giving teachers less autonomy, which could explain some variation in the data collected. Encouraging autonomy and reducing barriers influence teacher opportunities to lead (Childs-Bowen et al., 2000).

Culture of School

The data suggests that the school learning community continually improves its effectiveness and learns from success and failure. Innovative schools cultivate entrepreneurial cultures, take risks, embrace successes and failures, and adapt accordingly to support their mission (Nadeem, 2024; Rashid et al., 2011). Mutual respect and trust emerged as the theme that cultivated a culture of innovation and school improvement, which is discussed more in the following section. Also, being in a positive environment with staff addressed the growing concerns of wellbeing. Culture is important to student learning, and prior studies have shown that school leaders influence and shape the culture of the school, especially with collaboration and teamwork among the faculty (Leithwood et al., 2008; Leithwood & Jantzi, 1990).

Implications

This section explores the implications of the study's findings for the practice of distributed leadership in international schools. It discusses how these insights can enhance leadership strategies, contribute to more effective school management, and improve student learning.

Implications for Theory

The study's theoretical framework drew from the existing distributed leadership literature, specifically drawing on the work of Spillane (2005) and Spillane et al. (2004), including Gordon's (2005) instrument on distributed leadership readiness while also incorporating insights from O'Shea (2021) to explore the connection between distributed leadership practice, opportunities for teachers, and practices that foster innovation and school improvement. Through empirical investigation within the context of international

schools in the Asia Pacific, this research has contributed to new insights that support and refine the continued study of distributed leadership and its influence on school innovation and improvement.

The findings reinforce Spillane's (2005) work on distributed leadership practice as group interactions among leaders, teachers, and their situations. Leadership practice is situational and involves expertise, which emerged in the interviews. Distributed perspectives of leadership involve multiple individuals within a school, not an individual leader (Spillane, 2005; Spillane & Diamond, 2007; Spillane et al., 2004). The study found that formal and informal teacher leadership enabled schools to build more robust curricula and stretch expertise across the school aligned to a shared purpose, leading to school improvement. This shared responsibility and empowerment to be decision-makers enabled more teachers to lead. This is congruent with O'Shea's (2021) findings that distributed leadership practices foster innovation and are a predictor of innovative teaching practices.

The dynamic nature of international school environments necessitates a high degree of adaptability, especially during the COVID-19 pandemic, and findings in this study suggest when leadership structures are adaptable and responsively designed, schools are better positioned to change and adapt to innovative practices or a crisis. This affirms Gordon's (2005) findings, which include adaptability and shared responsibility as themes that emerged in the qualitative interviews in the study. Additionally, the study affirmed O'Shea's (2021) work, suggesting that distributed leadership practices empower more educators across a school to lead, which fosters instructional innovation and improvements in student learning.

Implications for Practice

The study results showed that international schools are ready to practice distributed leadership, and many actively practice distributed leadership. None of the participants had experienced any professional learning associated specifically with distributed leadership but mentioned that formalized leadership roles, especially middle leadership, cultivated opportunities for distributed leadership.

To enhance school improvement and innovation, international schools must prioritize professional learning that develops leadership skills among faculty. Building leadership capacity is critical due to the cyclical nature of senior leadership in international schools, with a school head's tenure averaging only 3.7 years (Benson, 2011; Bunnell, 2021). Establishing robust development opportunities is essential to embed distributed leadership within the school's culture, thereby ensuring stability that withstands leadership changes over time.

Teachers should be provided with increased opportunities to assume leadership positions. Formal middle leadership roles, such as department heads, grade-level coordinators, committee chairs, and leaders of initiatives and accreditation processes, represent a growing array of possibilities for teachers to lead. Beyond these structured roles, fostering an environment of mutual trust and respect is essential for nurturing informal leadership. This allows teachers to address and influence areas that may be overlooked by senior leadership yet have a profound effect on learning.

Limitations

There were numerous limitations encountered during this study, providing insight into the challenges and constraints that may have influenced the outcomes. The specific limitations are detailed in the subsections below.

Missing Responses in the DLRS Survey from Participants

The DLRS had a total of 135 responses; however, not all respondents answered every question. This was a deliberate choice to ensure participants' comfort when taking the survey, allowing them to skip any question they were not comfortable answering. As a result of this design choice, rather than omitting any survey that was not fully complete, I chose to have SPSS and JASP filter and flag this as "valid" and "missing" in the data results. The valid results of the 37 DLRS survey items ranged from 81 to 91, which is 60-67% of the total data, and the missing results ranged from 44 to 54, which is 33-40% of the total data. The missing data reduces the total sample size and valid responses that could be analyzed, which limits the generalizability of the results. Although I compared the data from this study's valid and missing responses to fully completed survey responses, the results were slightly different. For instance, the score for the domain Mission, Vision, and Values was 0.552, including missing responses, compared to 0.523 from fully completed surveys. Despite these differences, the overall trends remain consistent.

DLRS Survey Missing Items

The DLRS survey is a 40-question Likert-scale survey; however, when moving the initial survey from a 3rd party platform to the University of Kentucky's student account of Qualtrics, I mistakenly omitted three of the Likert statements under

Leadership Practice. Only 37 of the 40 question statements were collected from participants. While this does not invalidate the results, as the majority of data was collected, it does make it harder to generalize some of the results with other studies.

Hybrid Coding Approach

I employed a hybrid deductive-inductive coding approach (Fereday & Muir-Cochrane, 2006). In a hybrid approach, one uses a combination of pre-determined codes derived from existing theory or research (deductive) and data-driven codes that emerge from the raw data during the analysis process (inductive). Initially, four predetermined parent codes were established based on the research questions: distributed leadership definition, leadership practices, opportunities, and innovation/improvement. These codes helped organize the data. Next, I conducted line-by-line inductive coding of interview transcripts in Dedoose to identify emerging concepts and develop preliminary categories and themes (Merriam, 2009). Through iterative coding cycles, more nuanced subcodes were developed representing the data as it emerged (Creswell & Plano Clark, 2017; Merriam, 2009). Thematic analysis followed, aggregating codes into the initial predetermined parent codes, with one added parent code “other” - for any data not fitting the initial parent code themes. Finally, content analysis quantified theme prevalence to provide statistical insights enriching the qualitative findings (Creswell & Plano Clark, 2017). Employing both deductive parent codes and inductive emergent coding ensured a comprehensive analysis capturing diverse perspectives (Creswell & Plano Clark, 2017; Merriam, 2009).

The Role of the Researcher

In my role as a Leadership and Learning Executive at a major technology company, I deliberately chose not to include schools in this study that I directly work with to maintain objectivity and avoid potential conflicts of interest. This decision may have contributed to a response rate that was 30% lower than anticipated. This is due to having longstanding relationships and working directly with schools in Southeast Asia, which were omitted from being included in the study. However, ensuring the integrity of the research was paramount, and the exclusion of these schools was a necessary measure to uphold the highest ethical standards.

School Selection Criteria

Additionally, this study limited the participant schools according to a selection criterion of being members of EARCOS, which has 200 member schools and additional criteria of existing one-to-one technology schools and identified as technology-rich, P-12 all through schools, include the works creative, collaborative, connected, or personal in their vision or mission statement, and not schools I directly work with. This selection criteria although target only include 50 international schools out of the over 8,300 in Asia. Being less selective may have provided a wider group of participating schools.

School Survey Distribution

School heads who received the survey were asked to distribute the survey via email to all faculty members. However, one school deviated from this protocol by sending targeted emails to specific faculty, departments, and grade levels, believing this approach would increase the survey's completion rates. Indeed, this school reported the highest survey completion rate among all participating institutions. Despite this deviation,

and although the school consulted with me beforehand, more rigorous guidance on my part could have ensured consistency in data collection across all schools. Reflecting on this experience, I would consider targeting specific faculty in future surveys to potentially enhance response rates. Nevertheless, adherence to standard data collection procedures is crucial to avoid introducing bias (Creswell, 2001). In the next sections, I will discuss the recommendations for school leaders and future research on this study's findings.

Recommendations

This section presents recommendations based on the study's findings for school leaders, future practice, and future research. These suggestions aim to enhance leadership effectiveness, improve everyday practices, and guide subsequent scholarly exploration in the field of distributed leadership.

Recommendations for School Leaders

The largest investment in an international school's operating costs is the faculty it employs (Hayden & Thompson, 2008). The study's findings suggest that schools invest significant resources in professional learning to support schoolwide goals that align with the vision and mission. While the study did not investigate the specific professional learning opportunities, it was illuminating to learn that most leadership positions were not filled by veteran teachers, given that schools in the study had opportunities for teachers to assume more middle leadership responsibilities. Based on this, I suggest schools build more internal leadership capacity by creating clear leadership pathways for teachers to assume middle leadership positions and, over time, fill senior leadership roles within the same school. The findings imply that international schools may drain resources and risk

program continuity by frequently recruiting leaders externally rather than developing internal leadership pathways for teachers to advance to senior positions.

Continuous school improvement is a priority for school heads in the international schools that participated in the study. Based on the findings, none of the interview participants who took part in teacher leader roles had any formal training from their schools. In addition to having clear leadership pathways, I suggest leaders design or adopt a formal program for their teacher leaders and prioritize professional learning on distributed leadership practices. This would enhance internal capacity, optimize teamwork, espouse more distributed leadership practices across the school, and set teacher leaders up to succeed, which may result in more of them taking on leadership roles in the future.

Participants in the study placed great value on school cultures characterized by high levels of trust and mutual respect. The findings highlighted transparency not only as a crucial value but also as a key area where schools can improve. To enhance trust and respect, I recommend that leaders adopt distributed leadership approaches that empower middle leaders to facilitate multidirectional communication with the senior leadership team. This strategy can also help to reinforce and align strategic priorities across the school, ensuring that all stakeholders are working collaboratively towards common goals. The next section will discuss recommendations for future research.

Recommendations for Future Practice

This study shows that the international schools that participated in the study are ready or are already practicing distributed leadership. Regional support from EARCOS or other organizations on implementing distributed leadership would be beneficial to

schools. Professional development opportunities focusing on leadership practice are needed, as this was the lowest domain in the study findings. Professional development can increase leadership capacity across the schools, which would also support more veteran teachers to lead. This needs to include professional learning for teachers that have formal leadership responsibilities, such as head of grade of department, to build and support building wider leadership capacity and enabling more emerging leaders to lead.

Recommendations for Future Research

This is the first study using the DLRS survey with P-12 international schools; the first area for further research would be to replicate this study to be a more focused approach rather than an expansive one. Scholars acknowledge that principals require additional support from individuals to effectively lead their schools (Fullan, 2009; Harris, 2013; Jones & Harris, 2014; Leithwood et al., 2008; Spillane, 2005). Further research could benefit from an in-depth study of leadership within a single school or a concentrated examination of schools within a specific city, country, or smaller regional context. Such studies would provide richer, context-specific insights that would complement the findings of the current study. Delving into the distinct environments of elementary, middle, and high schools could also yield valuable data on how leadership dynamics vary across different educational divisions and the roles of their respective leaders. Alternatively, a targeted study of a single private school network with multiple campuses could help identify effective leadership practices unique to that group and pinpoint specific areas where leadership development should be further cultivated.

This study includes P-12 international schools that are in the Asia Pacific region. It included British, American, and International Baccalaureate curriculum schools. Future

research could investigate if variations in leadership practices exist, particularly in relation to how changes in curriculum influence the implementation of distributed leadership within a school. Additionally, a study on schools that are not identified as would provide insights into whether technology influences distributed leadership practices in schools.

The DLRS survey has been used in several prior studies (Christy, 2008; Gordon, 2005; Pierro, 2020; Riddle, 2015; Terrell, 2010; Zinke, 2013). It would be illuminating to conduct a sequential explanatory mixed method design, which begins with collecting survey data from principals and asking them to recommend three teachers from their school to interview. Although principals would have more perceived control, I think this would enable a practical way to efficiently provide a snapshot of distributed leadership practice for a school group with multiple campuses, which might span several countries.

As available times in my schedule shifted and changed, as well as the time taken to obtain IRB approval, the distribution of the DLRS survey for schools to complete was also pushed back. Consequently, the survey was sent to schools only a few months before the end of the academic school year. Timing is a critical factor for schools as there are so many moving parts to coordinate; therefore, it is advisable to administer surveys and conduct interviews earlier in the school year to ensure higher participation rates and enable schools to allocate the necessary attention to them.

Finally, this study collected demographic data on the number of years working in schools, current role, and divisional year/grade level responsibility, but the scope of this study did not utilize the divisional data. Future research could investigate years of experience and include collecting gender identity to understand if these demographics

influence distributed leadership readiness and practices. Understanding these demographic factors could provide valuable insights and inform the development of future leadership programs in universities and within P-12 schools.

Conclusion

This study contributes to the limited body of knowledge in the field of international schools and contributes to the field of distributed leadership practices within them. The study was specifically designed to understand more about the under researched area of distributed leadership practices in international schools. The elements of distributed leadership practice from Spillane et al., (2004) were chosen along with Gordon's (2005) DLRS survey instrument and O'Shea distributed leadership and innovative teacher practices framework to understand distributed leadership readiness, leadership practices, opportunities for teachers, and practices that foster innovation and improvement. The findings in this study help school leaders and teachers understand ways to improve schooling. Schools exhibit multiple forms of leadership, and examining distributed leadership practices in more detail through this study has revealed several ways in which it supports school innovation and improvement.

The results of this study show that international schools that participated, practiced, and are willing and ready to practice distributed leadership. Although there was variation in the data, and the number of valid responses, which limits the generalizability of the findings, the readiness scores were positive, and the interviews highlighted that schools actively practice and foster distributed leadership. Most interview participants understood what distributed leadership is and could cite examples of how it is practiced in their schools. The international schools in the Asia Pacific that participated in this

study are ready to practice and are practicing distributed leadership; however, their readiness scores were lower than prior studies in the United States.

Among the 37 DLRS survey items, only one was below zero in the Leadership Practice domain, indicating that *Veteran teachers fill most leadership roles in the school,* with a score of -0.205. This is unique and may be due to the transient nature of international schools. The highest positive survey item was in the Mission, Vision, and Values domain, indicating that *The school has clearly written vision and mission statements,* with a score of 1.319. The interviews confirmed this alignment with the mission, vision, values, school goals, and decision-making. The interview data found that many international schools established multiple formal teacher leadership roles in addition to their executive senior leadership team. Many schools provided stipends and time for additional leadership duties beyond their teacher roles. Formalizing teacher leadership roles is critical to distributed leadership. Although leadership occurred in these schools formally and informally, sustaining required more formalized roles to emerge.

Teachers in the study felt a sense of shared responsibility in their schools, from the curriculum to policies. Participants highlighted that their schools invested significantly in sustaining teachers' professional learning aligned with their school goals. They mostly felt like it prepared them to continuously improve and innovate as teachers and leaders. However, based on the data available from the study, this investment does not add more veteran teachers to leadership positions to build more internal leadership capacity because the only survey item below zero (-0.205) was that *Veteran teachers fill most leadership roles in the school.* This lower percentage of veteran teachers filling leadership roles indicates that middle leaders often must leave a school to get promoted.

Teacher and middle leadership autonomy emerged as another theme in the study. Most of the participants indicated that they felt empowered; however, it was mentioned that in one example, leadership was giving teachers less autonomy, which could explain some variation in the data collected.

All participants identified that decision-making was supported by distributed leadership practice in their schools. Academic decision-making was done primarily through the heads of departments, who are middle leaders, and they build, design, and upgrade the curriculum with other teachers and connect back with the curriculum director or senior leader responsible for schoolwide learning. These interactions enacted from building curriculum and empowering teachers to make decisions to support school improvement are critical. According to interviews, establishing mutual respect and trust between stakeholders necessitated continual effort and often included creating more avenues for open communication, especially in school environments that were changing rapidly. Transparency in communication emerged as an area for growth for schools, yet also a value increasingly emphasized.

It was shown that teachers play a multifaceted and evolving role in school leadership. Their insights and experiences reflected a spectrum of involvement, from significant autonomy in decision-making to structured leadership roles. All schools involved in the interviews mentioned that teachers support different aspects of leadership roles formally and informally in their schools. School leaders have adapted to the unprecedented challenges of the COVID-19 pandemic by adopting more distributed leadership practices. This shift has leveraged diverse teacher and organizational expertise to meet the daily challenges faced by international schools in the Asia Pacific. It will be

valuable to observe how leadership continues to develop and evolve in international schools and beyond, given more distributed leadership practices have emerged and taken shape in these schools as what began as a response to schools surviving during the global pandemic.

APPENDICES

Appendix A

Informed Consent for Leaders – School Participation as a Research Site

Dear International School Leader,

I hope this finds you well. My name is Robert Appino. I am a doctoral candidate at the University of Kentucky, working under the supervision of Dr. John Nash. You and your school are being asked to kindly participate in my dissertation research that will examine distributed leadership practices in international schools.

If you would kindly ask your leaders and teachers to take part in my study, I would greatly appreciate it. It will take about 15 minutes to complete the online survey, and we recommend either you send the sample email included below or delegate a school liaison to do this. Many thanks for considering participating in this meaningful research focused on leadership practices in international schools.

Please let me know if you are willing to include your school as a research site and distribute the below email text to your faculty to participate in this study.

Kind regards,

Robert Appino

Dear International School Educators,

My name is Robert Appino. I am a doctoral candidate at the University of Kentucky, working under the supervision of Dr. John Nash. You are being asked to kindly participate in my dissertation research that will examine distributed leadership practices in international schools.

Participation
As a participant in the first phase of this study, you are asked to complete an online survey that will take approximately 15 minutes to complete. You do not have to answer any question you feel uncomfortable answering. You may choose not to participate in this research, and you have the right to withdraw consent at any time without consequence. The survey's final question will ask if you would like to participate in an optional interview for the study's second phase.

Benefits and Risks
There are no known risks to completing this survey, nor are there any direct benefits or compensation to participants. However, by participating in this study, you have the indirect benefit of improving leadership practice within the international schools context.

Confidentiality
Your responses will be analyzed and reported anonymously to protect your privacy. The results of this survey will be compiled so that no one is individually identifiable. The results may be published in scholarly journals, books, or presented at professional conferences and meetings. By continuing into this survey, you are acknowledging that you understand what this study is for and that you are agreeing to participate.

Contact
Research at the University of Kentucky is conducted under the oversight of the Office of Research Integrity through the Institutional Review Board. If you have questions about your rights as a research participant, you may contact the University of Kentucky Institutional Review Board (IRB), which is concerned with the protection of volunteers in research projects. You may reach the board office between 8:00 AM - 12:00 PM and 1:00 PM - 5:00 PM, Monday through Friday, by calling +1 (859) 257-9428 or by writing: Institutional Review Board, Office of Research Integrity, University of Kentucky, Lexington, KY, 40506-0057. You may also email the UK IRB office via email at humansubjects@uky.edu. Please reference IRB #77101.

If you have any questions or comments about this research study, please contact Robert Appino at robertappino@uky.edu; you may also contact my dissertation chair, Dr. John Nash at john.nash@uky.edu.

Thank You
This survey is structured as an online survey, and you can begin the survey below once selecting your consent. To make sure that you have completed the survey and you press "submit," you will see a final confirmation page that acknowledges the submission provided by the survey operator.

Thank you very much for taking the time to support my research.

Sincerely,

Robert Appino

Electronic Consent
Please select your choice in the survey. You may print a copy of this consent letter for your records. Selecting on the "Agree" button indicates that:

- You have read the above information
- You voluntarily agree to participate in this research study
- You are 18 years of age or older

Participate in the Leadership Practice in International Schools Survey >

Full URL to participate in the Leadership Practice in International Schools Survey: https://uky.az1.qualtrics.com/jfe/form/SV_aYtfFVRNwHyEjEW

Appendix B

Distributed Leadership Readiness Scale

The following self-evaluation scale has been designed to provide a school readiness profile in distributed leadership practices. The scale is based on current leadership research designed to improve school capacity to increase student academic achievement (Elmore, 2000).

The Distributed Leadership Readiness Scale (DLRS) will use a 5-point Likert scale to record responses and is organized into five domains of instructional leadership: Mission, Vision, and Goals; School Culture; Decision-Making; Evaluation and Professional Development; and Leadership Practices.

Domain	**Survey Items for Domain**
Mission, vision, goals	1. The school has clearly written vision and mission statements. 2. Teachers and administrators understand and support a common mission for the school and can describe it clearly. 3. If parents are asked to describe the school's mission, most would be able to describe the mission clearly. 4. If students are asked to describe the school's mission, most would be able to describe the mission generally. 5. School goals are aligned with its mission statement. 6. The school uses a school improvement plan as a basis to evaluate the progress it is making in attaining its goals. 7. Teachers and administrators collectively establish school goals and revise goals annually. 8. The school's curriculum is aligned with the state's academic standards.

	9. Teachers and administrators have high expectations for students' academic performance. 10. Teachers and administrators share accountability for students' academic performance. 11. School and district resources are directed to those areas in which student learning needs to improve most.
School culture	12. The school is a learning community that continually improves its effectiveness, learning from both successes and failures. 13. There is a high level of mutual respect and trust among the teachers and other professional staff in the school. 14. There is mutual respect and trust between the school administration and the professional staff.
Shared responsibility (decision-making, evaluation, and professional development)	15. The school administrator(s) welcome professional staff members input on issues related to curriculum, instruction, and improving student performance. 16. The school supports using new instructional ideas and innovations. 17. The school's daily and weekly schedules provide time for teachers to collaborate on instructional issues. 18. School professionals and parents agree on the most effective roles parents can play as partners in their child's education. 19. The school clearly communicates the 'chain of contact' between home and school so parents know who to contact when they have questions and concerns. 20. The school makes available a variety of data (e.g. student performance) for teachers to use to improve student achievement. 21. Decisions to change curriculum and instructional programs are based on assessment data. 22. There is a formal structure in place in the school (e.g. curriculum committee) to provide teachers and professional staff opportunities to participate in school-level instructional decision-making.

	23. The principal actively encourages teachers and other staff members to participate in instructional decision-making. 24. Professional staff members in the school have the responsibility to make decisions that affect meeting school goals 25. The school provides teachers with professional development aligned with the school's mission and goals. 26. Administrators participate alongside teachers in the school's professional development activities. 27. The principal actively participates in his/her own professional development activities to improve leadership in the school. 28. My supervisor and I jointly develop my annual professional development plan. 29. My professional development plan includes activities that are based on my individual professional needs and school needs. 30. Teachers actively participate in instructional decision-making. 31. Central office and school administrators work together to determine the professional development activities.
Leadership practices	32. The principal is knowledgeable about current instructional issues. 33. The principal's practices are consistent with his/her words. 34. Informal school leaders play an important role in the school in improving the performance of professionals and the achievement of students. 35. The school has expanded its capacity by providing professional staff formal opportunities to take on leadership roles.

	36. Teachers who assume leadership roles in the school have sufficient school time to permit them to make meaningful contributions to the school. 37. Teachers who assume leadership roles in the school have sufficient resources to be able to make meaningful contributions to the school. 38. Veteran teachers fill most leadership roles in the school. 39. New teachers are provided opportunities to fill some school leadership roles. 40. Teachers are interested in participating in school leadership roles.

Appendix C

Interview Schedule for International School Educators on Distributive Perspectives of Leadership in their School

[Participant Name],

Thank you for agreeing to speak with me today/tonight. I appreciate your willingness to take time away from your day to participate in this research.

For ease of notetaking, at this time I would like to ask permission to record our conversation. The recording from this interview will be kept confidential and in a safe place. If at any time you would prefer that I turn the recording off, please let me know and I will do so immediately. Do I have your permission to begin recording our discussion?

[Start recording if applicable]

Thank you. I have several questions to ask you. As we talk, I may think of some follow-up questions as well. If at any time you do not wish to answer a question, or would like to end the interview, please let me know. I anticipate that our conversation will take no more than 30-45 minutes and it may be shorter than that.

1. As we get started here, will you orally confirm that you received the consent form that was sent to you and that you recognize that this interview will be recorded, so I can transcribe the interview later? [If form was not received, read consent form to the participant at this time.]

2. Do you give your consent at this time to participate in this study?

3. Do you have any questions for me at this time?

4. Would you confirm that you have given permission for me to record this conversation?

5. May I also confirm that you are currently employed as an educator at your school?

6. Thank you. Now let's begin with the first question.

The initial findings from the survey indicated that:

1. Teachers and administrators generally understand and support the school's mission and goals and share accountability for students' academic performance.
2. School culture is generally positive, with mutual respect and trust among teachers, administrators, and professional staff.
3. Teachers and administrators have a shared responsibility in decision-making, evaluation, and professional development.

4. Schools support using new instructional ideas and innovations and provide teachers professional development aligned with the school's mission and goals.
5. Teachers and staff have opportunities to take on leadership roles, and the school makes an effort to include new and veteran teachers.

Opening Questions (these questions establish rapport and gather background information on their role in the school)

1. To what extent are teachers vital to supporting leadership roles in your school?
2. How would you define distributed leadership in your own words?

Focus Questions (focused on answering the research questions from the study)

Research Question 2: How is distributed leadership practiced in international schools?

1. To what extent do teachers and administrators collaborate to set or revise school goals?
2. Can you describe how the school is organized to give teachers and professional staff chances to be involved in making decisions about how the school approaches instruction?
3. How does the school build mutual respect and trust between the school administration and professional staff?
    a. Can you give an example of how the school promotes mutual respect and trust among teachers and professional staff?

Research Question 3: What are the leadership opportunities for teachers in international schools?

4. How does the school support the use of new instructional ideas, innovations, and improvement initiatives?
5. Can you give an example of how the school welcomes professional staff members' input on curriculum, instruction, and improving student performance?
6. Can you describe the opportunities available at your school for teachers and staff to participate in decision-making processes and take on leadership roles?
7. In your experience, how has the school encouraged a diverse range of staff members to contribute to decision-making and assume leadership positions?
8. How do you feel the distribution of leadership opportunities has influenced collaboration and communication among staff at your school?

Research Question 4: How do distributed leadership practices foster innovation and school improvement in international schools?

9. How would you describe the ways the school fosters a culture of continuous learning and improvement?
10. How would you describe the ways the school adapts to change? What do the people in the school do?

11. How are decisions to change curriculum and instructional programs made?
    a. Can you describe the extent to which the school directs resources to areas where student learning needs improvement?
12. To what extent would you say the school ensures teachers receive professional development aligned with the school's mission and goals?

Closing Questions (these questions wrap up the interview and gather any final thoughts from educators)

13. Reflecting on our conversation today, is there anything else you want to share about your experiences or insights regarding distributed leadership practices, innovation, or school improvement?
14. Are there any other final thoughts you would like to share regarding the topics we have covered in this interview?

Wrap Up:
Thank you for your time. Again, is there anything else you want to say on the topic of distributive leadership practices? What should we have discussed but didn't ask about? What else does this conversation make you think of?

Again, I appreciate your time today. After I look over the transcript of our conversation, may I contact you if I have further questions? Thanks again. Be safe and well.

[End call and check that the recording was saved]

Appendix D

Informed Consent for Educators and Leadership Practice in International Schools (DLRS) Survey

Dear International School Educators,

My name is Robert Appino. I am a doctoral candidate at the University of Kentucky working under the supervision of Dr. John Nash. You are being asked to kindly participate in my dissertation research that will examine distributed leadership practices in international schools.

Participation
As a participant in the first phase of this study, you are asked to complete an online survey that will take approximately 15 minutes to complete. You do not have to answer any question you feel uncomfortable answering. You may choose not to participate in this research, and you have the right to withdraw consent at any time without consequence. The survey's final question will ask if you would like to participate in an optional interview for the study's second phase.

Benefits and Risks
There are no known risks to completing this survey, nor are there any direct benefits or compensation to participants. However, by participating in this study, you have the indirect benefit of improving leadership practice within the international schools context.

Confidentiality
Your responses will be analyzed and reported anonymously to protect your privacy. The results of this survey will be compiled so that no one is individually identifiable. The results may be published in scholarly journals, books, or presented at professional conferences and meetings. By continuing into this survey, you are acknowledging that you understand what this study is for and that you are agreeing to participate.

Contact
Research at the University of Kentucky is conducted under the oversight of the Office of Research Integrity through the Institutional Review Board. If you have questions about your rights as a research participant, you may contact the University of Kentucky Institutional Review Board (IRB), which is concerned with the protection of volunteers in research projects. You may reach the board office between 8:00 AM - 12:00 PM and 1:00 PM - 5:00 PM, Monday through Friday, by calling +1 (859) 257-9428 or by writing: Institutional Review Board, Office of Research Integrity, University of Kentucky, Lexington, KY, 40506-0057. You may also email the UK IRB office via email at humansubjects@uky.edu. Please reference IRB #77101.

If you have any questions or comments about this research study, please contact Robert Appino at robertappino@uky.edu; you may also contact my dissertation chair, Dr. John Nash at john.nash@uky.edu.

Thank You
This survey is structured as an online survey, and you can begin the survey below once selecting your consent. To make sure that you have completed the survey and you press "submit" you will see a final confirmation page which acknowledges the submission provided by the survey operator.

Thank you very much for taking the time to support my research.

Sincerely,

Robert Appino

Electronic Consent
Please select your choice below. You may print a copy of this consent for your records. Selecting the "I Agree" button indicates that:

- You have read the above information
- You voluntarily agree to participate in this research study
- You are 18 years of age or older

If you select "I do not agree", please close your web browser.

Participate in the Leadership Practice in International Schools Survey >

Full URL to participate in the Leadership Practice in International Schools Survey:
https://uky.az1.qualtrics.com/jfe/form/SV_aYtfFVRNwHyEjEW

Leadership Practice in International Schools Survey

Description and Informed Consent

Dear International School Educators,

My name is Robert Appino. I am a doctoral candidate at the University of Kentucky, working under the supervision of Dr. John Nash. You are being asked to kindly participate in my dissertation research that will examine distributed leadership practices in international schools.

As a participant in the first phase of this study, you are asked to complete an online survey that will take approximately 15 minutes to complete. You do not have to answer any question you feel uncomfortable answering. You may choose not to participate in this research, and you have the right to withdraw consent at any time without consequence.

The survey's final question will ask if you would like to participate in an optional interview for the study's second phase.

There are no known risks to completing this survey, nor are there any direct benefits or compensation to participants. However, by participating in this study, you have the indirect benefit of improving leadership practice within the international schools context. Your responses will be analyzed and reported anonymously to protect your privacy. The results of this survey will be compiled so that no one is individually identifiable. The results may be published in scholarly journals, books, or presented at professional conferences and meetings. By continuing into this survey, you are acknowledging you understand what this study is for and you are agreeing to participate.

Research at the University of Kentucky is conducted under the oversight of the Office of Research Integrity through the Institutional Review Board. If you have questions about your rights as a research participant, you may contact the University of Kentucky Institutional Review Board (IRB), which is concerned with the protection of volunteers in research projects. You may reach the board office between 8:00 AM - 12:00 PM and 1:00 PM - 5:00 PM, Monday through Friday, by calling +1 (859) 257-9428 or by writing: Institutional Review Board, Office of Research Integrity, University of Kentucky, Lexington, KY, 40506-0057. You may also email the UK IRB office via email at humansubjects@uky.edu. Please reference IRB #77101.

If you have any questions or comments about this research study, please contact Robert Appino at robertappino@uky.edu; you may also contact my dissertation chair, Dr. John Nash at john.nash@uky.edu.

This survey is structured as an online survey and you can begin the survey below. To make sure that you have completed the survey and you press 'submit' you will see a final confirmation page which acknowledges the submission provided by the survey operator.

Thank you very much for taking the time to support my research.

Sincerely,

Robert Appino

Please select your choice below. You may print a copy of this consent for your records. Selecting the “I Agree” button indicates that:
• You have read the above information
• You voluntarily agree to participate in this research study
• You are 18 years of age or older
If you select "I do not agree", please close this tab on your web browser.

- ○ I Agree
- ○ I Do Not Agree

Demographics

Which country is your current school located in?

- ○ Australia
- ○ Brunei
- ○ Cambodia
- ○ China
- ○ Hong Kong
- ○ Indonesia
- ○ Japan
- ○ Laos
- ○ Malaysia
- ○ Myanmar
- ○ New Zealand
- ○ Philippines
- ○ Singapore
- ○ South Korea
- ○ Taiwan
- ○ Thailand
- ○ Vietnam

How many years have you been working in schools?

- ○ 1 Year

- ○ 2 Years
- ○ 3 Years
- ○ 4 Years
- ○ 5 Years
- ○ 6 Years
- ○ 7 Years
- ○ 8 Years
- ○ 9 Years
- ○ 10 Years
- ○ 11 Years
- ○ 12 Years
- ○ 13 Years
- ○ 14 Years
- ○ 15 Years
- ○ 16 Years
- ○ 17 Years
- ○ 18 Years
- ○ 19 Years
- ○ 20 Years
- ○ 21 Years
- ○ 22 Years

- ○ 23 Years
- ○ 24 Years
- ○ 25 Years
- ○ 26 Years
- ○ 27 Years
- ○ 28 Years
- ○ 29 Years
- ○ 30 Years
- ○ More than 30 years

What is your current role in your school? (Select all that apply)

- ☐ Principal
- ☐ Assistant or Deputy Principal
- ☐ Head of Department or Grade
- ☐ Instructional Coach
- ☐ Teacher
- ☐ Assistant Teacher
- ☐ Other _____

What grade/year levels are you responsible for? (Select all that apply)

- [ ] Pre-Kindergarten / Reception
- [ ] Kindergarten / Year 1
- [ ] Grade 1 / Year 2
- [ ] Grade 2 / Year 3
- [ ] Grade 3 / Year 4
- [ ] Grade 4 / Year 5
- [ ] Grade 5 / Year 6
- [ ] Grade 6 / Year 7
- [ ] Grade 7 / Year 8
- [ ] Grade 8 / Year 9
- [ ] Grade 9 / Year 10
- [ ] Grade 10 / Year 11
- [ ] Grade 11 / Year 12
- [ ] Grade 12 / Year 13

What is the name of the school you currently work in?

_____

Mission, Vision, Goals

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
The school has clearly written vision and mission statements.	○	○	○	○	○
Teachers and administrators understand and support a common mission for the school and can describe it clearly.	○	○	○	○	○
If parents are asked to describe the school's mission, most would be able to describe the mission clearly.	○	○	○	○	○
If students are asked to describe the school's mission, most would be able to describe the mission generally.	○	○	○	○	○
School goals are aligned with its mission statement.	○	○	○	○	○
The school uses a school improvement plan as a basis to evaluate the progress it is making in attaining its goals.	○	○	○	○	○
Teachers and administrators collectively establish school goals and revise goals annually.	○	○	○	○	○
The school's curriculum is aligned with the state's academic standards.	○	○	○	○	○

Mission, Vision, Goals (Continued)

Teachers and administrators have high expectations for students' academic performance.	○	○	○	○	○
Teachers and administrators share accountability for students' academic performance.	○	○	○	○	○
School and district resources are directed to those areas in which student learning needs to improve most.	○	○	○	○	○

School culture

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
The school is a learning community that continually improves its effectiveness, learning from both successes and failures.	○	○	○	○	○
There is a high level of mutual respect and trust among the teachers and other professional staff in the school.	○	○	○	○	○
There is mutual respect and trust between the school administration and the professional staff.	○	○	○	○	○

Shared responsibility (decision making, evaluation, and professional development)

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
The school administrator(s) welcome professional staff members input on issues related to curriculum, instruction, and improving student performance.	○	○	○	○	○
The school supports using new instructional ideas and innovations.	○	○	○	○	○
The school's daily and weekly schedules provide time for teachers to collaborate on instructional issues.	○	○	○	○	○
School professionals and parents agree on the most effective roles parents can play as partners in their child's education.	○	○	○	○	○
The school clearly communicates the 'chain of contact' between home and school so parents know who to contact when they have questions and concerns.	○	○	○	○	○

Shared responsibility (decision-making, evaluation, and professional development)

The school makes available a variety of data (e.g. student performance) for teachers to use to improve student achievement.	○	○	○	○	○
Decisions to change curriculum and instructional programs are based on assessment data.	○	○	○	○	○
There is a formal structure in place in the school (e.g. curriculum committee) to provide teachers and professional staff opportunities to participate in school-level instructional decision-making.	○	○	○	○	○
The principal actively encourages teachers and other staff members to participate in instructional decision-making.	○	○	○	○	○
Professional staff members in the school have the responsibility to make decisions that affect meeting school goals.	○	○	○	○	○
The school provides teachers with professional development aligned with the school's mission and goals.	○	○	○	○	○

Shared responsibility (decision-making, evaluation, and professional development)

Administrators participate alongside teachers in the school's professional development activities.	○	○	○	○	○
The principal actively participates in his/her own professional development activities to improve leadership in the school.	○	○	○	○	○
My supervisor and I jointly develop my annual professional development plan.	○	○	○	○	○
My professional development plan includes activities that are based on my individual professional needs and school needs.	○	○	○	○	○
Teachers actively participate in instructional decision-making.	○	○	○	○	○
Central office and school administrators work together to determine the professional development activities.	○	○	○	○	○

Leadership practices

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
The school has expanded its capacity by providing professional staff formal opportunities to take on leadership roles.	○	○	○	○	○
Teachers who assume leadership roles in the school have sufficient school time to permit them to make meaningful contributions to the school.	○	○	○	○	○
Teachers who assume leadership roles in the school have sufficient resources to be able to make meaningful contributions to the school.	○	○	○	○	○
Veteran teachers fill most leadership roles in the school.	○	○	○	○	○
New teachers are provided opportunities to fill some school leadership roles.	○	○	○	○	○
Teachers are interested in participating in school leadership roles.	○	○	○	○	○

Further Study

What, if any, comments or thoughts would you like to share about leadership practice in your school?

_____

If you are interested in participating in a 30-45 minute interview on leadership practices in the future, please add your full name and email address:

_____

Appendix E

Consent for Interview

Name of International School Educator
Email Address:
Country:

Dear International School Educator,

Thank you for being interested and willing to take part in my dissertation research. As you know from participating in Phase 1, I am a doctoral candidate at the University of Kentucky working under the supervision of Dr. John Nash. You indicated that in addition to the survey you previously completed, you would be willing to participate in a 30–45 minute interview conducted virtually. The purpose of this study is to examine distributed leadership practices in international schools.

If you are still willing to participate in this dissertation research, please confirm your participation by replying to this email and suggesting some possible windows of time you would be available for a 30-45 minute interview. Please use the email address: robertappino@uky.edu

Interviews will be conducted via Zoom and recorded for the purposes of the study to review and ensure the accuracy of the notes taken.

Sincerely,

Robert Appino

Appendix F

IRB Approval

University of Kentucky | Office of Research Integrity
IRB, RDRC

EXEMPTION CERTIFICATION

IRB Number: 77101

TO:	Robert Appino, PhD in Educational Leadership Educational Leadership Studies PI phone #: 006596355273 PI email: robertappino@uky.edu
FROM:	Chairperson/Vice Chairperson Nonmedical Institutional Review Board (IRB)
SUBJECT:	Approval for Exemption Certification
DATE:	3/28/2023

On 3/27/2023, it was determined that your project entitled "*Distributed Leadership Practices in Technology-rich International Schools*" meets federal criteria to qualify as an exempt study.

Because the study has been certified as exempt, you will not be required to complete continuation or final review reports. However, it is your responsibility to notify the IRB prior to making any changes to the study. Please note that changes made to an exempt protocol may disqualify it from exempt status and may require an expedited or full review.

The Office of Research Integrity will hold your exemption application for six years. Before the end of the sixth year, you will be notified that your file will be closed and the application destroyed. If your project is still ongoing, you will need to contact the Office of Research Integrity upon receipt of that letter and follow the instructions for completing a new exemption application. It is, therefore, important that you keep your address current with the Office of Research Integrity.

For information describing investigator responsibilities after obtaining IRB approval, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" available in the online Office of Research Integrity's IRB Survival Handbook. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at 859-257-9428.

seeblue.
405 Kinkead Hall | Lexington, KY 40506-0057 | P: 859-257-9428 | F: 859-257-8995 | www.research.uky.edu/ori/
An Equal Opportunity University

Gmail **Robert Appino <rappino@gmail.com>**

Automated eIRB Message

1 message

No Reply <noreply@uky.edu> Fri, Feb 3, 2023 at 9:55 PM
Reply-To: rs_ori@uky.edu
To: john.nash@uky.edu, robertappino@uky.edu

Dear Researcher,

A new application for a study entitled "Distributed Leadership Practices in Technology-rich International Schools" has been successfully submitted to the Office of Research Integrity (ORI) for processing and has been assigned an Institutional Review Board (IRB) protocol # 77101. Please retain this IRB number for your records and reference this number in all future correspondence and communications concerning this protocol.

No further action is needed at this time. You can check on the status of your application by looking under the "Submitted" folder and/or "Inbox" in E-IRB while approval is pending.

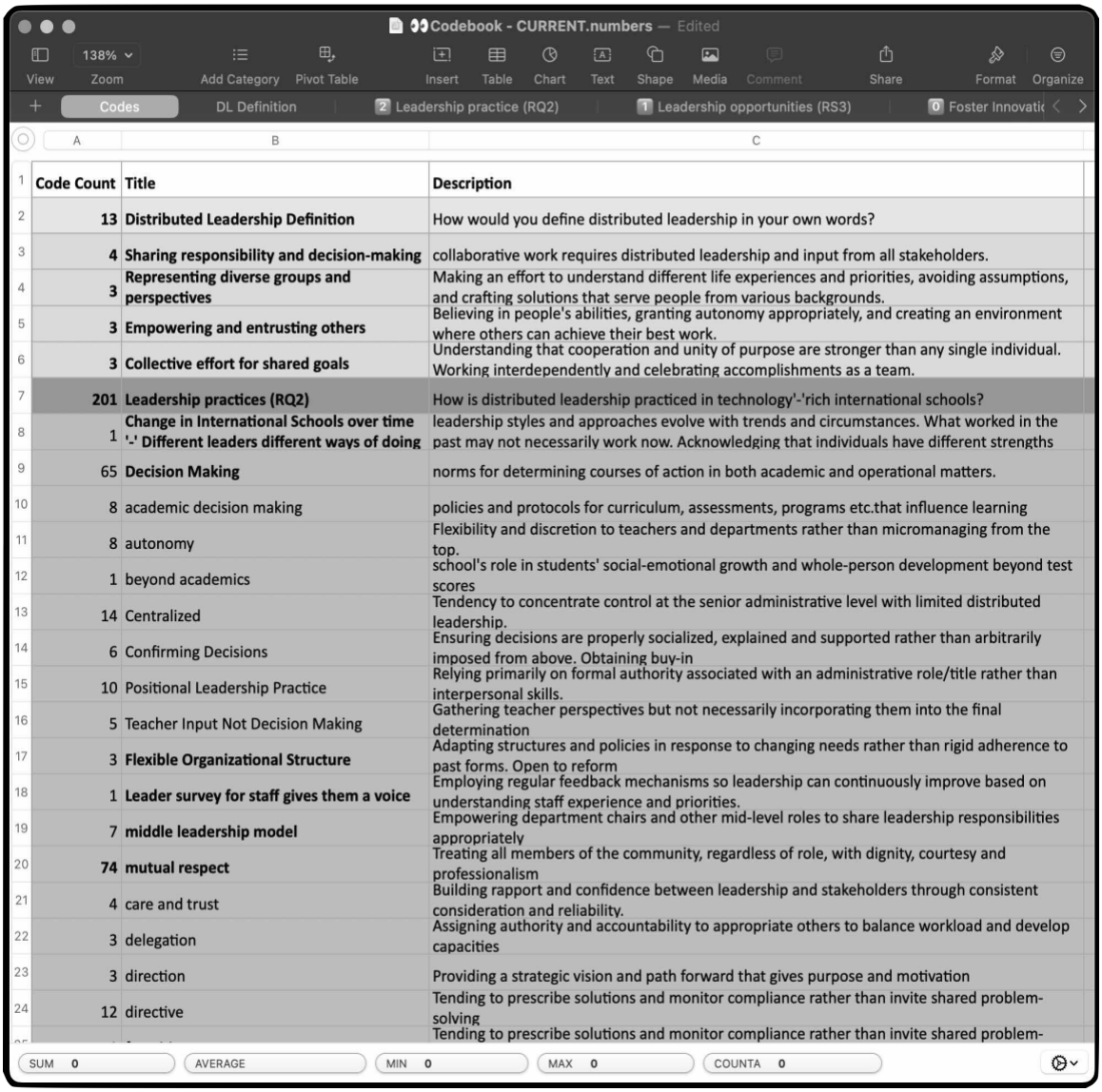
Thank you!

Do not reply to this automated email. If you have any questions, please contact ORI at (859) 257-9428 or IRBsubmission@uky.edu.

Appendix G

Codebook

The codebook facilitated the organization and tracking of the hybrid coding process, ensuring consistency and transparency in combining parent codes and subcodes. It also allowed for deeper exploration of the data. Below is a sample from the codebook interview data, including an overview of its structure, codes, frequency, and descriptions. The complete 40-page codebook is available upon request, as it is too extensive to include in full.



Code Count	Title	Description
13	**Distributed Leadership Definition**	How would you define distributed leadership in your own words?
4	**Sharing responsibility and decision-making**	collaborative work requires distributed leadership and input from all stakeholders.
3	**Representing diverse groups and perspectives**	Making an effort to understand different life experiences and priorities, avoiding assumptions, and crafting solutions that serve people from various backgrounds.
3	**Empowering and entrusting others**	Believing in people's abilities, granting autonomy appropriately, and creating an environment where others can achieve their best work.
3	**Collective effort for shared goals**	Understanding that cooperation and unity of purpose are stronger than any single individual. Working interdependently and celebrating accomplishments as a team.
201	**Leadership practices (RQ2)**	How is distributed leadership practiced in technology'-'rich international schools?
1	**Change in International Schools over time '-' Different leaders different ways of doing**	leadership styles and approaches evolve with trends and circumstances. What worked in the past may not necessarily work now. Acknowledging that individuals have different strengths
65	**Decision Making**	norms for determining courses of action in both academic and operational matters.
8	academic decision making	policies and protocols for curriculum, assessments, programs etc.that influence learning
8	autonomy	Flexibility and discretion to teachers and departments rather than micromanaging from the top.
1	beyond academics	school's role in students' social-emotional growth and whole-person development beyond test scores
14	Centralized	Tendency to concentrate control at the senior administrative level with limited distributed leadership.
6	Confirming Decisions	Ensuring decisions are properly socialized, explained and supported rather than arbitrarily imposed from above. Obtaining buy-in
10	Positional Leadership Practice	Relying primarily on formal authority associated with an administrative role/title rather than interpersonal skills.
5	Teacher Input Not Decision Making	Gathering teacher perspectives but not necessarily incorporating them into the final determination
3	**Flexible Organizational Structure**	Adapting structures and policies in response to changing needs rather than rigid adherence to past forms. Open to reform
1	**Leader survey for staff gives them a voice**	Employing regular feedback mechanisms so leadership can continuously improve based on understanding staff experience and priorities.
7	**middle leadership model**	Empowering department chairs and other mid-level roles to share leadership responsibilities appropriately
74	**mutual respect**	Treating all members of the community, regardless of role, with dignity, courtesy and professionalism
4	care and trust	Building rapport and confidence between leadership and stakeholders through consistent consideration and reliability.
3	delegation	Assigning authority and accountability to appropriate others to balance workload and develop capacities
3	direction	Providing a strategic vision and path forward that gives purpose and motivation
12	directive	Tending to prescribe solutions and monitor compliance rather than invite shared problem-solving
		Tending to prescribe solutions and monitor compliance rather than invite shared problem-

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