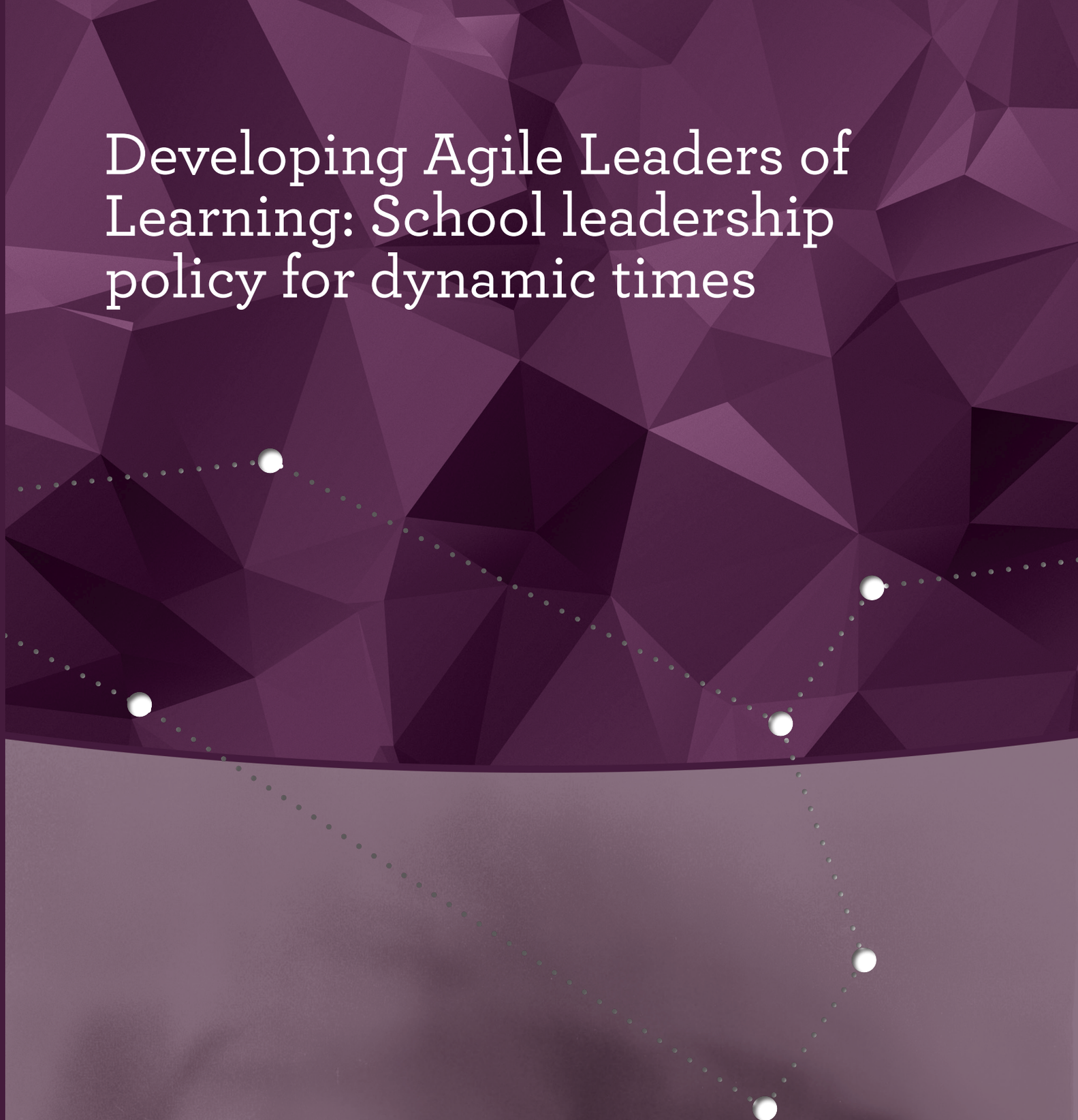
Developing Agile Leaders of Learning: School leadership policy for dynamic times



wise
world innovation summit for education
مؤتمر القمة العالمي للابتكار في التعليم
An Initiative of Qatar Foundation

learnlabs

Simon Breakspear
Amelia Peterson
Asmaa Alfadala
Muhammad Salman B. M. Khair

Developing Agile Leaders of Learning: School leadership policy for dynamic times

RR.7.2017

RR.7.2017

Developing Agile Leaders of Learning: School leadership policy for dynamic times

Simon Breakspear
Amelia Peterson
Asmaa Alfadala
Muhammad Salman B. M. Khair

Contents

Foreword

From the earliest communities, people have been preoccupied with discovering traits and skills of leadership. The quest has continued in many forms through the ages, led by great sages from Socrates to Confucius. If the debates on what makes a good leader seem to surge in times of crisis, uncertainty, and change, then our current world is well-primed for a fresh look at leadership fundamentals. Education has served historically as the preeminent crucible of leadership. Yet in our own time education systems have faced intense scrutiny and doubt around their effectiveness and relevance in preparing our young people for a world in flux and inspiring new leadership for emerging 'knowledge societies'.

Educators have long struggled to meet changing student needs and to address issues of access, diversity and inequality. Today they must engage vaulting technology advances, and even re-envision and redesign learning environments themselves. Such turbulence calls for dynamic, flexible leaders capable of seizing the creative imagination of youth, as well as their teachers, to regain relevance for education systems. For this research report, Asmaa Alfadala, Director of Research at WISE, has led a fruitful collaboration with Simon Breakspear, Executive Director of Learn Labs. With colleagues, they have framed an approach to effective school leadership through team-building, agility, and a devotion to trying out new ideas. The report springs partly from an intensive workshop series called Empowering Leaders of Learning, an ongoing collaboration with Qatar Foundation's Education Development Institute, Qatar's Ministry of Education and Higher Education, and Learn Labs. While the ELL program has already benefited a growing number of school leaders in both private and public schools here in Doha, the model is easily adaptable to diverse school systems globally.

The report counters the status quo of conventional management approaches in education leadership, and provides a framework to encourage leadership capabilities with deeper, direct impact on student learning outcomes. When school leaders empower their teachers and staff, they create a cohesive team ethos that can most effectively drive change and support lasting student engagement. Developing 'agile leaders of learning' enables improved understanding of complexity, and helps leaders—whether principals or teachers—to adapt to changing demands, and seek unique solutions in partnership with colleagues and peers.

WISE is a 'thinking and doing' community of collaboration dedicated to evidence-based action in education for empowerment and change. This WISE research report reflects our efforts to link policy and practice as a key objective. We are confident that the report, in concert with others, will help build effective, forward-looking school leadership everywhere.

Stavros N. Yiannouka
CEO
WISE

Preface

The OECD's Beatriz Pont, a leader in the study of school leadership over the last decade, recently concluded "school leadership has not been a policy priority in itself". Then along came Simon Breakspear and his colleagues, who laid out this comprehensive policy on school leadership. Good timing, and much needed!

The authors nail the essence of the matter when they write at the outset of this WISE Report, "The core capacity of leaders is to increase teacher capacity". And they mean it comprehensively to include collective as well as individual capacity. They then spend the rest of the report on the 'Who, What, and How of leadership'.

Breakspear and his co-authors rightly conceptualize leadership policy as part of a coherent system. As they put it: It's a system thing. Think of it holistically across the system and the career. Make it work in your context. The report makes very clear at the beginning that current approaches to leadership are insufficient. The authors then spell out what it would take to 'design a system' that would continually generate more and better leaders over time.

Breakspear and colleagues hit all the right buttons from my experience. They make the case that credentials are not competencies; that leadership development must be embedded in day-to-day experiences; that formal leadership programs are only a small part of learning the ropes; and that the whole matter is one of purposeful experiential learning.

Each chapter around the Who, What and How contains a set of investigative questions that enables the reader to systematically assess her or his own situation. These questions and the format enable groups to analyze their own systems and to develop lines of action for definable improvement in their own settings.

With all the books on school leadership available, it is surprising how little systematic treatment the topic has received. What Breakspear, Peterson, Alfadala, and Khair have done is to provide a comprehensive yet succinct account of what has been missing in treatments of school leadership, and above all what will be required to address the matter. This report fills a policy vacuum, bringing together in one place what we know about the nature and development of school leadership and how it must become a force for developing and supporting the teaching profession. Most importantly, the authors have set the table for accelerated action on the critical matter of school improvement whose potential has been undercut by the failure to develop and leverage leading learners. This report is a call to new action on the policy front for school leadership.

Michael Fullan, O.C.
Professor Emeritus
OISE, University of Toronto

Executive Summary

School leadership policies are key to improving the quality of teaching and learning within a school, and they also impact student achievement and wellbeing outcomes. Despite a flurry of activity in the area of leadership development, there are few examples of coherent systemic approaches to leadership policy. We present existing empirical evidence on the impact of leadership on student outcomes, the need to better develop leadership for learning and the emerging global activity in leadership development to underline our claim that leadership policy is an area worthy of additional focus and investment. We then draw on existing research and cases to propose how a jurisdiction might develop a systemic strategy for developing leadership capability, focusing on the key questions of **who** to develop, **what** capabilities to develop, and **how** to design effective development.

This paper focuses on leadership policies designed to develop leadership for learning capabilities across an education system. Too often leadership policy has been limited to principal preparation. While the development of principals must be a core component of a leadership development strategy, we also examine the under-explored area of how to develop leadership capabilities across a broader range of educators—both those in formal leadership positions and teachers. We argue for a holistic, consistent and system-wide strategy designed to attract, retain, develop and enable leaders of learning. Furthermore, we believe that this strategy should not only create more leaders, but will also develop **agile** leaders of learning. To shape changing conditions into a positive impact on students, the ability to be agile—responsive, quick to spot emerging problems or opportunities, and able to work in short-iterative cycles of adaptation, learning, and improvement—will be critical.

In investigating the impact of leadership on student outcomes, we highlight that the type of leadership practices matters. Syntheses of empirical studies consistently find a link between quality **leadership for learning** practices—in particular developing teacher individual and collective expertise—and student learning outcomes. Crucial to this work, is for leaders to have an understanding of how to design and participate in teacher professional learning approaches that can have a positive impact on student outcomes. A second key task for leadership is to help their schools to make sense of a policy direction and to create a culture of trust and readiness for change. Lastly, we present how leadership is the driver for improvement in conditions of increased school autonomy. School autonomy as a policy is not equally effective across all contexts, and relies on investment in building leadership capabilities at the school level.

Research into the current state of educational leadership indicates that many systems are struggling with a shortage of school leaders, but also that current leaders have room to develop as more effective leaders of learning. Systems also vary greatly in the extent to which teachers and assistant-level administrators are expected to take on leadership for learning roles and activities. Therefore, there is considerable room for more systemic approaches to developing leadership capabilities across every level of schools.

Systemic approaches are required to focus the surge of new activity in the area of leadership development into impact. Some jurisdictions have instigated strategies that include creating national or system-wide standards for leadership development, or working on building a "pipeline" of emerging leaders through identification and training programs. But many questions remain about the focus, content, location and efficacy of actual leadership development. It is unclear to what extent development activities are designed in ways that actually impact the daily practice of leaders, and connect to student outcomes.

The first key question in creating a strategy is to ask **who** should be the target for leadership development? Schools cannot deliver a full range of education outcomes for diverse learners under the direction of a single individual, no matter how capable. The concepts of middle and teacher leadership can help to designate additional individuals who can develop the capabilities to shape and improve teaching and learning. But this "distributed" approach to leadership is about more than roles. The goal of distributing leadership should be to ensure that individuals direct and guide others as and when appropriate in order to pass on, or maximize, the impact of their particular knowledge and expertise.

One aspect of a leadership development strategy must be concerned with how to sustain the motivation of educators to take on higher-levels of responsibilities in a system, while increasing their capabilities. A necessary step for leadership policy is to create clear and compelling career pathways in leadership. These may be multi-levelled pathways, which lead to the school principal position through a linear set of roles, or branching pathways which lead to different positions of influence, for example specializing in pedagogy, curriculum professional learning or management.

Some leadership roles require formal selection processes, and these can create an opportunity to identify and promote candidates with particular capabilities. Involvement of accomplished existing leaders, competency-based interviews (when questions are carefully designed and tested), and creating talent pools are potential ingredients of a well-functioning selection process that is cost effective. Extended selection processes can also be an opportunity to actively encourage applicants who might otherwise be overlooked.

A second key question in any strategy design process is **what** key capabilities need to develop? To coordinate leadership development across a jurisdiction, government leaders, in deep partnership with the profession, need to make explicit what leaders need to be able to know, do and be in order to have an impact on teaching and learning. Some elements of any framework will be jurisdiction, or place-specific, but common themes in research indicate that two capabilities are vital for agile leadership for learning across contexts.

The first is the ability to develop teacher capabilities. For this, a leader of teacher learning needs to have knowledge of the teaching and learning evidence base; knowledge of particularities of adult learning; inquiry skills; and social and communication skills. Key tools and routines can support leaders to sustain ongoing professional learning and develop collective efficacy in their teams.

The second core capability is that of managing complex change. Leaders today face demands to deliver new sets of learning outcomes and new practices and learning designs. Therefore, the ability to lead *disciplined collaborative inquiry* is becoming a key ability in order to steer the collection of, and response to, evidence of impact throughout a change process. To push the boundaries of current practice, leaders may benefit from becoming skilled in processes and mindsets of *design thinking*, to focus on rethinking the physical and social design of schools in line with new research on learning.

Once a jurisdiction constructs its set of desired capabilities for leaders of learning, it needs to translate that **what** into a well-designed **how**. To develop these core capabilities in a way that actually impacts on leaders' professional practice, leadership development needs to be: **embedded** (happening within the context of work); **personal** (owned and driven by the leader while impacting on mindsets and identity); and **continuous** (so there is no end to leadership growth). Leadership development needs to be designed into a system of offerings, routines and networks that leaders can identify and embed into their work, and a range of policies that incentivize ongoing development by giving recognition and opportunities to expert leaders.

In seeking to enact their who, what and how, the key message for government is not to aim to provide all inputs from the centre, but to act as a platform. Government bodies cannot hope to provide the quality, range and scale of capacity-building activities that are needed to shift leadership for learning across a jurisdiction. Instead, governments must act to help other actors to co-ordinate their activities; help leaders and aspiring leaders to connect with opportunities; and align the system in ways that enable and motivate effective leadership at all levels. In embarking on a new strategy, there are four vital principles to bear in mind:

- Deeply engage with the profession in order to ensure ownership
- Realize the agency of other system actors, and create cohesion
- Start small, evaluate, and expand
- Enable leadership by putting in place the enabling policy conditions

In bringing these principles to bear, we hope system leaders can model the spirit of focused, impactful experimentation and improvement which are the hallmark of agile leaders of learning.

List of Figures

Figures

Introduction

Dynamic times call for effective leaders who can create progress in the face of complexity, ambiguity and resistance. Around the world, schools are pressed to deliver new and broader learning outcomes to prepare students for uncertain work and life futures, to harness new research and technologies to redesign learning, and to engage students in learning that is meaningful and deep. Working out how to meet these demands in ways that serve the best interests of diverse students and communities will require agile leaders of learning with the capabilities to improve learning and teaching, and navigate change, within the complex-relational environments of contemporary schools (Breakspear, 2016; Lichtenstein et al., 2006). As a consequence, the success of education reform is inextricably linked to the capabilities of educators at the school level to lead learning improvement and innovation.

Education systems everywhere acknowledge the need for more leaders, and the need to support current leaders to more effectively improve learning and lead complex change. Over the last decade, leadership development, as a lever for system change, has become an increasing priority across many countries, yet it has not received the same level of focus, investment or systemic action as teacher policy. Thus, leadership policy presents a major opportunity for further system-wide improvement.

This paper focuses on leadership policies designed to develop leadership for learning capabilities across an education system. Too often leadership policy has been limited to principal preparation. While the development of principals must be a core component of a leadership development strategy, this paper also examines the under-explored area of how to develop leadership capabilities across a broader range of educators—both those in formal leadership positions and teachers. We argue for a holistic, consistent and system-wide strategy designed to attract, retain, develop and enable leaders of learning. Furthermore, we believe that this strategy should aim not only to create more leaders, but to develop *agile* leaders of learning with the ability to translate challenges and opportunities into effective educational practice that has a sustained positive impact on students.

This report draws on international research, interviews with leading thinkers in the field and global case studies to inspire and guide system leaders to intentionally develop agile leadership for learning capabilities across schools and throughout their jurisdictions.

In some jurisdictions, leadership policies are still overlooked and underfunded. This is a major impediment to implementing other reforms. Without effectively attracting, training, retaining, and the continuing development of leaders it is unlikely that systems will achieve the substantial improvement in student outcomes they seek.

In other jurisdictions, there is an increasing amount of energy and focus being placed in a myriad of programs and courses designed to lift the quality and quantity of leaders available, with an emphasis on selecting and certifying principals (Harris, Jones, & Adams, 2016). While these efforts must be applauded, there is often a lack of a coherent systemic approach, and as yet, there is minimal evidence that they are achieving impact at scale. Moreover, given rapid changes inside and outside of education, the paradigm of leadership development underlying these approaches may no longer be fit-for-purpose.

Governments and system leaders must ask themselves whether their current school leadership policies are shaped to develop the agile leadership for learning capabilities that are needed throughout the education system to enable continuous improvement and innovation. Our assertion is that if schools are to improve overall achievement, develop young people's capabilities across a broader range of valued outcomes, and ensure equity, leadership policy must re-orient. Developing leadership must go beyond a series of small-scale sporadic 'programs and courses' and move toward a career-long growth of individual and collective leadership practices, much of which will be embedded within the daily work of schools. The goal must be to build, enhance and sustain effective leadership at every level of an education system.

1. Agile Leadership for Learning

Historic changes in our societies, economies and environment mean that all jurisdictions are under pressure to raise levels of student learning. The best available evidence makes clear that school leadership is the second most important in-school factor that predicts student outcomes, after quality of teaching (Hattie, 2008). If jurisdictions are to improve student outcomes they must systematically develop the expertise of school leaders (Kenneth Leithwood & Seashore-Louis, 2011; V. Robinson, 2011).

From the outset, our paper makes four important distinctions about leadership, beyond the traditional view of education administration.

First, a relentless focus on learning. Leadership of learning must build on the competent completion of administrative tasks and place heightened focus on those activities that can have a substantial and sustained impact on student learning experiences and outcomes within a school. In times of change, leaders can find themselves distracted by a plethora of external and internal demands. The evidence is clear, however, that leaders who focus on student learning and teacher practice—sometimes called 'instructional leadership'—have considerably more impact (Hattie, 2015a; V. M. J. Robinson, Lloyd, & Rowe, 2008).

Focusing on leadership for learning also has the potential to multiply the impact of current investments in teacher policies around the world. In recent years, teacher policy—the recruitment, development and retention of skilled teachers—has been a major focus of many national systems (OECD, 2011; Tang, 2015). We argue that while the investment in teacher recruitment, initial training, and ongoing professional learning is to be applauded, an under investment in leadership for learning may dampen the overall impact of these teacher policies. Teachers are constrained or enabled in their daily practice by the work of school leaders. Effective leaders can build the improvement cultures in which effective educators make sustainable changes in routine professional practices and learn to lift student outcomes.

Second, we view **leadership as a practice.** Leadership policy should not be restricted to the specific roles of principals or school administrators; rather, it should be focused on developing leadership capabilities and practices of multiple actors across a school. Leadership policies should be designed to encompass all those who support the development of teacher practice, team and organizational culture, and the progress of all students in learning (see Box 1). While roles and titles are important for endowing authority, it is more important that educators master the effective use of leadership practices that positively influences the quality of teaching and learning

Third, the **need for agility**. Leaders of learning work in conditions of growing ambiguity and uncertainty. They need to become expert at designing, integrating, and refining school practice in spite of these conditions. The ability to be agile—responsive, quick to spot emerging problems or opportunities, and able to work in short-iterative cycles of adaptation, learning, and improvement—will be critical for this future focused work. Today, ongoing changes in the nature and purpose of schools heightens the need for agility in leadership. (Caldwell & Spinks, 2013; Hannon & Peterson, 2017; Walsh, 2015). Many jurisdictions are raising the expectations for schools to deliver on deeper and broader learning outcomes for larger and more diverse populations of children (Malone, 2013; Reimers & Chung, 2016a). As a consequence, systems require leaders that are not only perpetuating the status-quo, but also pioneering new approaches that could create better and different outcomes for young people. Schools must work to create new curricula, models of assessment and professional development approaches. This work will require agile leaders who, individually and collectively, have the responsive capabilities to gain the impact they are seeking, even if multiple paths must be explored and tested (OECD, 2013; Stoll, 2015). Adaptiveness and agility are central to leadership practice (Heifetz, 1994; Lichtenstein et al., 2006), but remain under-explored in the field of education.

Finally, we hold that leadership is most effectively exercised through **the work of teams**. The leadership of learning is a shared responsibility of a team of leaders, of which the principal serves as the 'lead learner'. While the development of individual leadership capabilities can be powerful, it is the development of collective capabilities, routines and processes that can

dramatically accelerate improvement and innovation within a school and across a system (A. Hargreaves & Fullan, 2012; Hattie, 2015b). Consequently, in this report we focus on the development of teams of leaders within a school who collectively bring their collaborative expertise to bare on the improvement challenges faced. Furthermore, we place particular emphasis on the routines and tools that support leaders and their teams to spread and sustain innovation and improvement. These tools include high quality curriculum materials, assessments, or student information systems. Routines include organizational processes such as meeting protocols focused on making sense of student data and experiences, or structured opportunities for teachers to seek help with deliberately improving their practice (Spillane, Parise, & Sherer, 2011). Leaders can greatly expand the scale and sustainability of their impact by the choice of tools and routines they make available to their teams—and it is the responsibility of system leaders to ensure they have access to high quality options.

Box 1. The Leadership Practice Perspective

In this report, we refer to leadership as a set of practices, following in particular the detailed studies of education leadership led by sociologist Jim Spillane (Spillane, 2006; Spillane, Halverson, & Diamond, 2001). Spillane (2006) defines leadership as "activities tied to the core work of the organization that are designed by organizational members . . . or that are understood by organizational members as intended to influence their motivation, knowledge, affect, or practices" (pp. 11–12). The value of a practice perspective is to emphasize that effective leadership exists not in the actions of any one individual, but in the interactions between people. As Spillane describes, just as a successful dance requires two people whose actions are in sync, so leadership relies on at least two people who act and respond to each other in supportive ways (Spillane, 2015). For example, one well-evidenced leadership for learning practice is when principals take part in professional learning with their teachers. This practice is not just the choice of the principals, but relies on teachers responding to and welcoming their participation and involvement. Leadership expert Barbara Kellerman describes this as focusing on "followership", and stresses that understanding the conditions for effective followership are just as important as studying leadership (Kellerman, 2008, 2016). Effective conditions for followership can be supported by tools and routines. When schools use their professional learning time to work through action research cycles, for example, the process provides steps and actions that can help administrators and teachers productively learn together.

2. Coherent System-wide Reform

There is a renewed consensus that in order to achieve a step-change improvement in our education systems, systemic reform and building leadership for learning capabilities must go hand in hand (Earley & Greany, 2017, pp. 222–228; R. Elmore, 2000; Malone, 2013; Wiliam, 2016, pp. 177–184). Systemic change cannot occur without stronger leadership development. Likewise implementing a leadership development strategy will not create real and lasting change unless other system features and policies change as well.

Leadership development needs to be considered in relation to the rest of the education system, and as an integral part of other key policy drivers. There are no generic international 'plug and play' solutions that apply across diverse school systems. Effective leadership depends on the particular cultures, policies and resources of a jurisdiction. In addition, jurisdictions are trying to achieve different outcomes, and thus will need different forms of leadership investment in order to be successful.

Jurisdictions across the world have unique conditions and face a wide array of specific challenges. The aim of this report is to help diverse education systems, wherever they are, to refocus their efforts and gain practical lessons for initiating, refining or radically redesigning their own school leadership policies. While some common elements of such a strategy may be appropriate across educational jurisdictions, we suggest that governments employ a design-led approach (see Box 2 below). A design-led approach to creating an effective leadership strategy aims to see all parts together in relation to a jurisdiction's conditions and purpose. Also, a design-led approach emphasizes that in order to be effective, leadership policies must be envisioned and enacted within a coherent and aligned broader policy context including teacher policy, accountability policies and school governance. Attempts to improve system performance purely by increasing the capacities of leaders without also attending to the broader context in which this leadership is enacted are likely to have disappointing outcomes.

Box 2. Three key principles for designing school leadership policy

It's a system thing. Leadership policy should be designed and implemented as part of a coherent strategy for system reform. Leadership development strategies must be coupled with curriculum, resource, evaluation and governance policies which provide support and motivate leaders.

Think holistically. Rather than focusing on a particular stage of leadership or program, think holistically about the attraction, selection, development and ongoing growth of leadership throughout and across your jurisdiction. Aim to build leadership capabilities at all levels of the system rather than just train or certify new principals.

Make it work for your context. Learn from examples around the world, but ensure the approaches are appropriate and can be adapted to your conditions, cultural norms and goals.

3. Designing Your Approach

Thinking creatively about the kind of attraction, selection, development and retention approaches that can be created is clearly needed to deliver on the scale and quality of leadership that jurisdictions need. We have thoroughly examined the academic literature, international reports in the field and selected case studies of emerging and innovative leadership policy and practice. Throughout the report, we draw from this body of theory, empirical research findings and frontier practice.

This report aims to support and accelerate efforts to build effective leadership capabilities through five chapters. It proceeds in five sections. Section one outlines the case for the influence of leadership on student learning and highlights the substantial opportunity for further investment. In Chapters two, three, and four, we outline three key areas for consideration when designing or refining coherent systems of leadership policies, structured by three guiding questions.

Chapter 2. **Who** — Who are the leaders in the system?

Chapter 3. **What** — What should leaders be able to know, be able to do and be?

Chapter 4. **How** — How should leadership development opportunities be designed?

Rather than prescribing a blueprint for 'best-practice' polices we seek to enable readers to draw on the best available international evidence and experiences, and then adapt this information in a way that is contextually appropriate.

In chapter five, we summarize four key principles for action that can guide system leaders who are working to increase school leadership capabilities across their jurisdiction:

- First, we highlight the need to deeply engage with the education profession, and school leader associations in particular, in the design of leadership development strategies.
- Second, we recommend against trying to set and implement an entire strategy from a central department, and instead focus on creating cohesion across the work of many actors, who can contribute to and drive leadership improvement efforts.
- Third, we suggest that governments should adopt a 'start small, evaluate and learn' strategy as they invest in new or redesigned approaches to leadership development.
- Finally, we emphasize the importance of changes to the broader policy context, including curriculum and assessment, school accountability, and teacher professional learning development, in order to better support the work of leaders of learning.

Chapter 1

The Leadership Imperative: The big opportunity for achieving a step-change in learning

The past decade has seen a growing focus on education leadership in many jurisdictions around the world (Harris & Jones, 2015; UNESCO, 2015). However, while there has been interest in the potential of leadership, this potential is still underutilized across the vast majority of educational jurisdictions.

This section focuses on the existing empirical evidence that underlies our claim that leadership policy is an area worthy of additional focus and investment. This section is divided into three key parts:

- The impact of leadership on student outcomes.
- The need for further investment in leadership policy.
- The emerging global activity in leadership development.

1.1 How Leadership Matters for Student Learning Outcomes: The empirical evidence of its impact

1.1.1 Leadership for learning matters

Numerous syntheses of empirical studies have identified a link between quality leadership practices and student learning outcomes (Hallinger, 2010; Kenneth Leithwood & Seashore-Louis, 2011; Marzano, 2005; V. Robinson, 2011). According to a meta-analysis of factors that impact student learning outcomes, school leaders and their teams are second in impact to teaching quality (Hattie, 2008). The International Successful School Principals Project[1] draws similar conclusions. This project is a collaboration among eight international jurisdictions to identify the features and impacts of effective school leadership. Their mixed methods research illustrates how leadership influences the organization, culture and capabilities of schools and teachers (C. Day et al., 2009; Christopher Day, Gu, & Sammons, 2016). Leadership—whether good or bad—can have a large impact.

How exactly leaders matter is a more complex question. Leaders are one step removed from impacting students directly and this impact is mediated by teachers. Consequently, contemporary work on educational leadership emphasizes that leaders achieve their greatest impact by developing the capabilities of teachers (Dinham, 2016; Wiliam, 2016). The research base for this work documents the links between leadership practices that allow for focused, continuous improvement of teacher practice and its impact on student outcomes. This includes a vision for teaching and learning, keeping professional conversations focused on student learning, and supporting teachers as they work on their practice (Kenneth Leithwood, Seashore-Louis,

1.http://www.uv.uio.no/ils/english/research/projects/isspp/

Anderson, & Wahlstrom, 2004; Supovitz, Sirinides, & May, 2010). Creating an environment of trust where professionals can learn, change and improve their practice is also a particularly well-evidenced contributor to better student outcomes (A. Bryk & Schneider, 2002; Supovitz et al., 2010).

In a synthesis involving an analysis of 134 studies, Robinson, Hohepa and Lloyd (2009) identified five key leadership dimensions and empirically identified the corresponding impact on student outcomes, calculated as an effect size. Critically, they showed that the leadership dimension associated with the promotion and participation in teacher learning and development was the most impactful type of activity on learner outcomes (see Figure below). Leaders must not only support but also actively participate in professional learning for their teachers, as thus become the 'lead learners' of their teams and communities (Fullan, 2014).

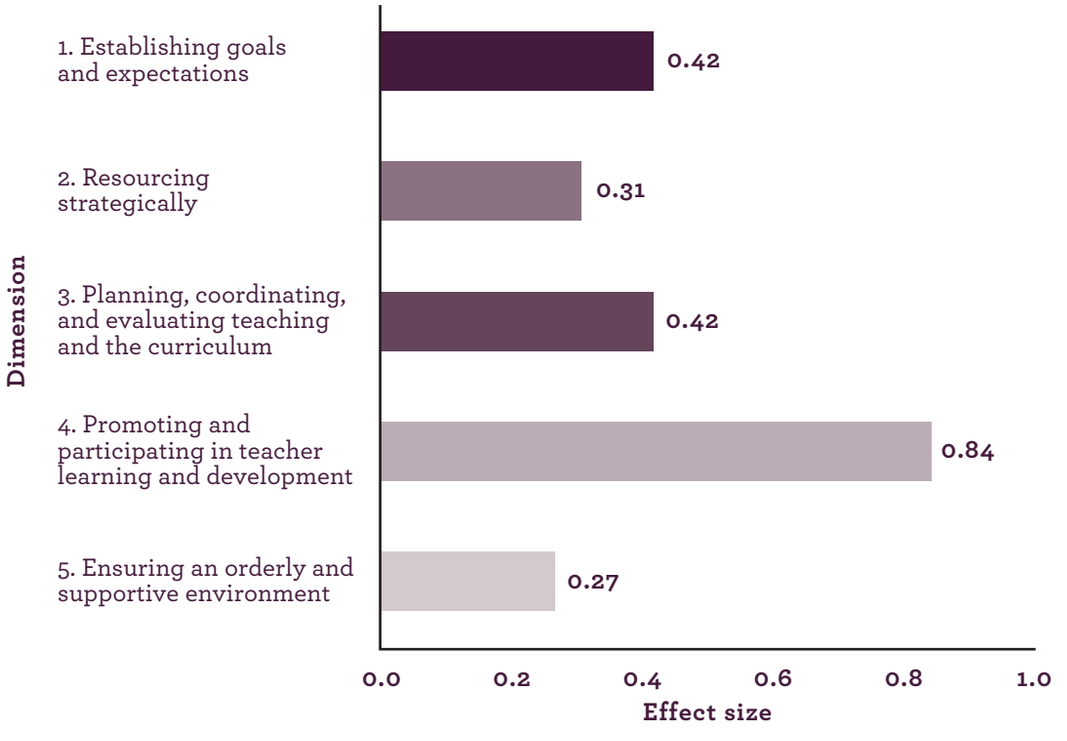


Figure 1: Relative impact of five leadership dimensions on student outcomes (Source V. Robinson, Hohepa, & Lloyd, 2009)

1.1.2. Leadership for learning enables teacher learning and development

The most important leadership practices develop and promote teacher (and teacher team) learning and development. As outlined in Figure 1, the focus of leadership policies should be to equip leaders with the practices and priorities to develop teacher capabilities and mindsets, so that teachers can more effectively promote student learning. Hargreaves and Fullan argue in their book *Professional Capital* that "leaders who are closely connected to student learning and their teachers' learning have the greatest positive effects on student achievement" (A. Hargreaves & Fullan, 2012, p. 166). Every leadership development strategy should be analyzed in terms of how it will feed through this chain of connections to impact student outcomes.

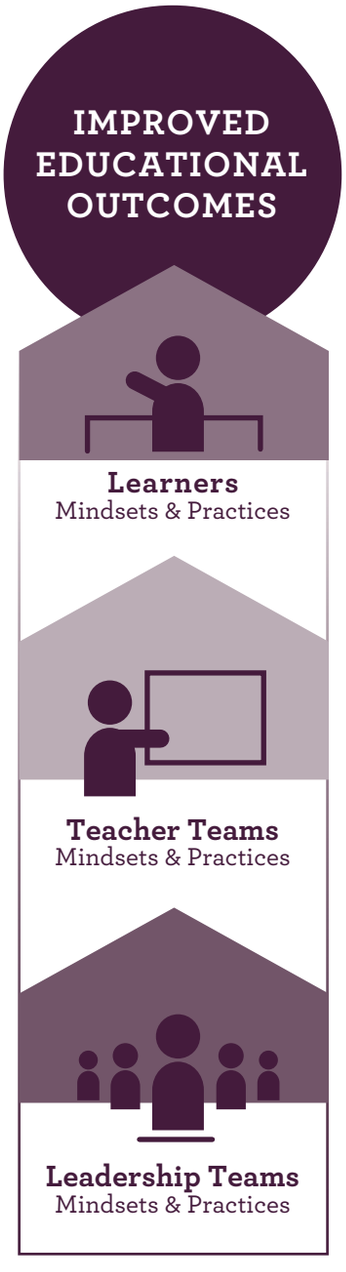


Figure 2 The impact of leadership practices on learning outcomes.

To support teachers to continually enhance their teaching practices, leaders require an understanding of how to design and lead professional learning approaches that can have a positive impact on student outcomes (Mayer & Lloyd, 2011; Timperley, 2008). Leaders can build teacher capabilities by engaging teachers in an ongoing inquiry into the impact of their teaching on student learning. Leaders must create an environment of 'supportive accountability': creating the time, tools, supports and safety for teachers to try out new things in their practice, while keeping a rigorous focus on observing the impact of practice on student learning (Wiliam, 2016, pp. 177–184). We detail the knowledge and skills, as well as the tools and routines, leaders need to do this in section 3.2.

Leaders should not only focus on building individual teacher capabilities, but also on collaborative expertise and a sense of collective efficacy (Donohoo, 2017; Goddard, Hoy, & Hoy, 2004). There are substantial benefits to teachers feeling that they are part of a strong team. As a group, the team has professional capital: the added value that arises from working with and alongside other experts (A. Hargreaves & Fullan, 2012). Moreover, their sense of collective efficacy is motivating and sustains hard work over long periods of time (Rew, 2013).

Building teacher capabilities goes hand in hand with promoting learning mindsets (Kaser & Halbert, 2009; V. Robinson, 2011; V. Robinson, 2001). It is only recently that jurisdictions have expanded the goals of education to aim for *all* students to have the kind of broad and deep education once reserved for the few (Reimers & Chung, 2016b). Both teachers and students raised under assumptions of fixed and stable intelligence and capabilities can struggle to believe in their potential for continual growth and development (Dweck, 2006). Effective leaders ensure that their teachers believe in everyone's potential for growth (including their own), and that they communicate this belief in their words and actions to students (Wiliam, 2016, p. 203).

1.1.3. Leadership for learning enables effective local change

Trying to raise learning outcomes from an education ministry or a central government department is difficult and often frustrating due to the distance between central government and the classroom. Strategies such as the promotion of evidence-informed practices are dependent on the quality of leadership within each school (Louis & Robinson, 2012). Through decades of well-intentioned top-down reform, system leaders have learned that no policy, no matter how well designed, can be effective without high quality implementation led at the local level (Durlak & DuPre, 2008; R. F. Elmore, 1979).

Qualitative research studies in schools indicate that leadership can influence the quality of implementation in many different ways. One very important aspect is how leaders communicate a system policy to their teams, shaping how others make sense of it (Coburn, 2005; Tuytens & Devos, 2010). Leaders also influence the site-based reception of a new policy or directive; schools with a strong culture of trust are much more capable of responding well and achieving improvements (A. S. Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010).

1.1.4. Leadership is the driver for improvement when schools have more autonomy

School leadership is becoming even more important as the structure of education decision-making changes (Earley & Greany, 2017, pp. 1–6; Schleicher, 2012). In many education jurisdictions around the world, schools are being given greater autonomy (Woessmann, Luedemann, Schuetz, & West, 2009) with the result that, to varying degrees across jurisdictions, school leadership teams making key decisions about improvement strategies, recruiting and developing staff, designing and adapting curriculum and effectively allocating resources (Schleicher, 2012, pp. 15–17). But school autonomy as a policy is not equally effective across all contexts and relies on strong teacher and leader capabilities (Hanushek, Link, & Woessmann, 2013).

Where jurisdictions have strong teacher and leader capabilities, leaders can be particularly effective where they have the autonomy to make decisions about what is best for their school (D. Hargreaves, 2012a). Effective leaders of learning can act more strategically when they have control over whom they hire, how they design the curriculum, and how they allocate their professional learning budgets (Caldwell & Spinks, 2013, pp. 134–163).

1.2 International Studies on Leadership Capabilities

Each jurisdiction has slightly different needs when it comes to leadership for learning, based on their educational goals and the responsibilities of leaders in that jurisdiction. This is why it is important that jurisdictions continue to support their own research into leadership for learning (Walker & Hallinger, 2015). Likewise, most current studies focus only on school principals and there is a clear need for more research on the development of leadership practices at all levels within schools.

From the existing research, however, we find a clear message of need for both more and better leaders: a leadership development imperative.

1.2.1. There is a need for more leaders across many jurisdictions

Expert school leaders are vitally important to achieving education outcomes. But many jurisdictions struggle with shortages of school leaders. In a 2008 OECD study with 22 participating education jurisdictions, 15 reported shortages in suitable school leader candidates (OECD, 2008a, p. 158). These countries reported difficulties recruiting for positions, having to re-advertise available posts, or having a very low number of applicants per post. There is a clear trend across many jurisdictions about the lack of attractiveness to the higher leadership roles. Any policy response will require careful attention to both supply side elements (developing more leaders) and demand side (ensuring that leadership roles are attractive, supported and not overwhelming).

In emerging economies, the expansion of education provision and the aim to raise the quality of schooling has created a pressure to supply qualified school leaders at great pace. Systems of leadership development are struggling to keep up with demand (UNESCO, 2016). Studies of resource-poor jurisdictions highlight the lack of development opportunities for leaders (Vaillant, 2015). In jurisdictions that have established credential programs for principals, often only a small proportion of the system's acting principals have been through the program, leaving many current leaders untouched by leadership policy (Harris et al., 2016).

Likewise, many established education systems are facing shortages of school leaders as the "baby boomer" generation of leaders reaches retirement and the school-age population continues to grow (Pont, Nusche, & Moormon, 2008). Particularly in big cities with other work opportunities, many emerging "Generation X" leaders do not see school leadership as a lifelong career and only stay in the role for a short period (Edge, 2015). These factors can combine to produce widespread recruitment challenges. In England, for example, a quarter of schools are projected to experience leadership shortages in coming years, at multiple levels of leadership (Teach First, 2016). These shortages arising primarily from demographic factors may be exacerbated by increased rates of school leader burnout. In the U.S. state of Texas, for example, studies of principal turnover found that half of new principals do not stay on for more than three years (E. O. Fuller, 2008).

Across a wide range of systems, leader shortages may be related to a gender imbalance. On average across OECD countries, women make up the majority of teachers, but the minority of school leaders (OECD, 2014, pp. 66–67). Similar patterns are found in non-OECD countries (UNESCO, 2015). These patterns are particularly concerning given that in many national contexts female leaders are more likely to show a tendency towards leadership for learning practices; in a survey of OECD countries (described in full below), female leaders are more likely to use more instructional leadership practices than males, including supporting teachers' cooperation to develop new practices, and ensuring that teachers feel responsible for learning outcomes (OECD, 2016, p. 63). Leadership policies need to be reviewed to ensure they are oriented toward promoting and developing leadership for learning first and foremost, and understanding sources of gender imbalances in any jurisdiction.

Likewise, as in many sectors, members of minority groups may face additional barriers in achieving leadership positions. System leaders can play an important role in promoting and enabling diverse representations of leadership in those they choose to elevate to visible roles.

1.2.2. Current leaders have room to develop as leaders of learning

Large-scale studies of existing leadership capabilities find that current school leaders are not uniformly focused on learning and teaching in their daily practice. The OECD Teaching and Learning International Survey (TALIS), carried out in 2013, surveyed principals and lower secondary level teachers

across 38 countries. The survey asked about their teaching practices and their experience of school leadership. From these results, TALIS provided information on how leadership prioritizes "instructional leadership" in their schools (see box 3 below). An analysis of the survey results indicates that there is still a substantial need to promote leadership for learning; currently, on average across countries, one third of principals do not focus on instructional leadership in their schools (OECD, 2016, p. 62). Thus, even before taking into account the over-reporting common in administrative surveys, a substantial proportion of school leaders are not engaging in foundational practices for building professional practices and collective efficacy of their teachers.

Box 3. International definitions of leadership for learning

The OECD defines "leadership for learning" in relation to two leadership approaches identified in the research literature: instructional leadership and distributed leadership. In brief, instructional leadership refers to practices aimed at improving the quality of teaching and learning, while distributed leadership refers to practices that expand the number of professionals and stakeholders involved in improvement efforts. We provide more expanded descriptions of the practices involved below (see sections 2.1.2 and 3.1.2).

The 2013 Teaching and Learning International Survey (TALIS) distinguished these two leadership approaches through targeted questions (OECD, 2016, p. 61, p. 69). Instructional leadership was measured by asking principals how frequently they engaged in each of the following activities:

- Actions to support cooperation among teachers to develop new teaching practices
- Actions to ensure that teachers take full responsibility for improving their teaching skills
- Actions to ensure that teachers feel responsible for their learning outcomes

Distributed leadership was measured by asking principals how much they agreed or disagreed with the following statements about their schools:

- This school provides staff with opportunities to actively participate in school decisions
- This school provides parents or guardians with opportunities to actively participate in school decisions
- This school provides students with opportunities to actively participate in school decisions

More in-depth studies of leadership for learning also raise cause for concern. In a study of leadership in seven education systems, Alma Harris and Michelle Jones sought to understand how leaders approached leadership development and what impact this was having on teaching practice (Harris et al., 2016). Their study included diverse jurisdictions: two very large systems (Russia and Indonesia), three medium-sized systems (England, Australia and Malaysia) and two smaller systems (Singapore and Hong Kong). They found that all of these jurisdictions were, across the board, making substantial investments in leadership development. Their interviews with school leaders, however, indicated that while leaders found their development opportunities interesting and stimulating, they did not frequently as a result of those inputs substantially change their daily practice or the way they interacted with teachers.

TALIS and the seven-system study only considered principals, whereas this report is concerned with leadership for learning at all levels. Here, too, it appears that there is substantial room for development. While almost all school leaders across OECD countries say that their teachers have the opportunities to participate in school decisions (OECD, 2016, p. 71), it is much less clear whether teachers are well-prepared to take on leadership for learning roles. There is great variation by jurisdiction in the extent to which teachers and assistant-level administrators are expected to take on leadership for learning roles. In some systems, experienced teachers take on leadership roles in curriculum development and professional learning (Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016; Kiat, Heng, & Lim-Ratnam, 2016). Yet many jurisdictions do not have established models for these kinds of 'middle' leadership roles that support improvements in teaching and learning, but sit between classroom teachers and senior administrators in the traditional school hierarchy (Berry, Zeichner, & Evans, 2015; Supovitz, 2014).

When leadership is defined as influencing the motivation, knowledge, affect, or practices of others in a school (see Box 1), it is evident that teachers have an important role to play as leaders. However, current modes of professional learning for teachers — often involving one-off workshops or learning days — are at-odds with the kind of work-embedded, ongoing learning required to develop 'teacher leaders' (Frost, 2011, p. 47). Moreover, in most countries teachers often do not have opportunities to show leadership, or even identify themselves as a potential leader (ibid, 48). We explore this issue in more depth in Chapter 2.

1.3 International Studies on Current Approaches to Leadership Development

Developing quality leadership for learning happens when jurisdictions systematically support the qualities of teacher practice that lead to improved student outcomes. While there has been a growth of activity around leadership development, few jurisdictions have managed to implement a strong system. Governments need to consider ways to design systems that can deliver expert leadership of learning at scale.

1.3.1 Evidence on developing leadership capabilities

Evidence suggests that individuals can improve the complex combination of personal attributes and practices required for quality leadership. Although researching the impact of leadership development efforts is challenging due to the complex causal chains that link leadership activities and student learning outcomes, a range of qualitative and quantitative research points to examples in which leadership development activities have altered and improved the daily practice of leaders.

School leaders in the International Successful School Principalship Project (ISSPP), a decade-long investigation in seven countries, reported that activities conducted as part of problem-based, field-based or team-based learning activities did change their daily practice in how they approached problems and coordinated their teams (Ylimaki & Jacobson, 2013). While most leadership development is likely to take a long time, studies of particular approaches to leadership development in the fields of education and of business find that through facilitated, intensive experience participants can learn how to be better at the complex activities of leadership (O'Brien, 2016; Parks, 2005), in ways that impact student outcomes (Orr & Orphanos, 2011; V. M. J. Robinson & Timperley, 2007) .

Large-scale correlational studies also suggest that leadership development activities can have an impact on daily practice. The TALIS analysis, for example, found that principals who had taken part in training on instructional leadership were more likely to report activities promoting teacher development and focus on student outcomes in their school (OECD, 2016, pp. 66–67). Of course, this result may reflect that knowledge of instructional leadership may make principals more likely to report engaging in those practices without necessarily doing so. However, there is evidence that the principals' self-reported activity is related to what teachers report about the principals' activities in their school. At the national level, there is a relationship between a principals' use of instructional leadership and level of collaborative activity teachers report (ibid, p. 99-101).

Moreover, these relationships are also found in country studies that consider the impact of leadership training on teachers' perceptions of their leaders' actual practice. Orphanos & Orr (2014) found that teachers whose principals were prepared in an innovative program, focused on leadership for learning, rated their principals' leadership practices more highly and reported higher levels of collaboration and professional development.

1.3.2 A survey of activity on leadership development strategies

Over the last decade, as the impact of school leadership has become better understood, there has been growing interest and investment in approaches to developing and improving leadership for learning. In an OECD review of 24 countries, 20 provided some kind of pre-service training for principals. Eight of these provided a fuller combination of pre-service qualifications, induction programs and in-service training (Schleicher, 2012, p. 26). Several key research syntheses have helped to draw international attention to the potential of leadership, including work commissioned by the Wallace Foundation (Kenneth Leithwood, et al., 2004), McKinsey & Company (Barber, Whelan, & Clark, 2010) and the OECD (OECD, 2008a, 2008b, 2016; Schleicher, 2012).

Some jurisdictions have moved toward more systemic approaches to preparing school leaders, including creating national or system-wide standards for leadership development (Harris et al., 2016; Shelton, 2012) or working on building a "pipeline" of emerging leaders, with sufficient numbers at each stage of development to ensure an appropriate supply (Mendels, 2016).These strategies begin to create an integrated system for building and sustaining leadership capabilities. But they are only a first step; many questions remain about the focus, content and site of actual leadership development, as well as the range of additional strategies needed to support in-service learning. It is these substantive questions that we address in this report.

1.4. Summary & Key Questions

While some governments have engaged in systemic efforts for some time, there are other jurisdictions where school leadership has not yet been a central reform focus. We argue that wherever leadership policies are currently in place, it is critical to review, reflect and analyze such policies and the investments in them. The critical question to consider is: If we continue to pursue the current policies and initiatives, are we likely to develop the leadership for learning capacities required across the system?

To provide governments with support in creating or refining their approach, in the next three chapters we provide guidelines and examples for designing leadership policies

Box 4. Review the 'state of leadership' across your jurisdiction

To begin we introduce a set of questions readers can use to review what is already present in their jurisdiction.

1. **Who** — Who are the leaders in the system?

- Who gets to see themselves as a leader in your system?
- Who becomes a leader and who decides?
- What are the opportunities for educators at many levels to positively impact learning outcomes?
- What are the pathways for experienced teachers and leaders to continue learning and progressing in their careers, growing in their impact on learners and learning outcomes?

2. **What** — What should leaders be able to know, do and be?

- Does our system need a capability framework for leadership? If one exists, to what extent does it align with the capabilities experienced leaders say they need?
- When we develop leaders in this system, in what ways are we developing them to focus on impacting teaching and learning?
- In what ways are our leaders in schools prepared to manage improvement and meet new demands?

3. **How** — How should leadership development opportunities be designed?

- What are the ways leaders engage in learning and development in this system?
- How could one adapt the role of an expert leader so he or she can play a mentoring role for others?
- What venues and opportunities are there for emerging leaders to socialize with the most effective leaders in the system? Could more of these opportunities be created?

Designing a system for leadership development

Overview of Chapters 2, 3, & 4

We know that leadership matters, and that there is growing interest in developing leadership for learning capacity. Many more jurisdictions will likely invest in development efforts in coming years. Simple investment of resources or the initiation of a program, however, will not be sufficient. It is vital that jurisdictions have a coherent strategy for leadership capacity building that is relevant to the specific needs and opportunities of their unique context.

In the next three chapters we introduce a guiding framework for designing a systematic approach to the development of leadership capacity. This framework is based around three core areas of who, what and how. For each chapter we provide guiding principles gleaned from the research and existing examples to inspire a locally appropriate approach.

For those jurisdictions that are in the early stages of the journey to systematically develop leadership capacity, we hope this framework provides a helpful foundation for directing new initiatives and investment. For those jurisdictions that have progressed further, the three areas may serve as a useful framework for review, refinement and even spark elements of redesign to achieve greater levels of alignment and impact.

Box 5. Methodology

Our process for this paper began with an extensive search through the international literature on leadership at the school level and leadership for learning (instructional leadership). As there have been several papers synthesizing research on principal leadership in recent years, we did not want to repeat those efforts, but focused instead on a) highlighting key conclusions from those works for a new audience, and b) drawing attention to emerging areas of practice, including those on different leadership roles and leadership in teams. We also focused more extensively on research into how individuals and teams develop practices of strong leadership.

To supplement our literature review, we conducted interviews with international experts on school leadership. A full list of interviewees is included in Appendix A. All interviews were conducted in person or via videoconference. Insights and quotes taken from these interviews are referenced as such with the date of interview.

To illustrate potential ways forward, we feature case studies from a range of jurisdictions that have made school leadership a focus in different ways. To select our case studies, we mapped examples mentioned in existing literature against their focus (type and level of leadership) and geographical location. These cases, while some have been profiled before, offer examples of established approaches that are longer running. Our

goal is to offer a more detailed example of various types of approaches and point out concrete contexts that readers can learn from.

We also included some examples that have not yet been featured in systematic research, but which indicate the direction of leadership policies and approaches in different contexts. Some are examples of relatively new approaches that have shown promise in responding to the demands placed on school leadership. Some are approaches that have emerged from alternative providers, or are examples from outside education. We see these cases as important to substantiate some of the emerging ideas in leadership development and expand the range of examples systems on which leaders can draw.

Chapter 2

Who Are the Leaders in the System?

"The biggest pitfall I see is systems which don't think of leadership as a continuum...principals are expected to do everything"

Louise Stoll
UCL Institute of Education

In this chapter, we make the argument for expanding the usual targets for leadership development beyond the principal and toward a broader range of leaders who function across various levels of the system, and from individuals toward teams. To produce the range and quality of leadership needed in schools, jurisdictions need to develop the ability to identify promising individuals, offer a broad range of interconnected development opportunities, and encourage more educators to take on the identity and practice of leadership, whether through formal roles or not.

This chapter is divided into three key parts:

- Activating leadership at all levels of the school
- Creating compelling leadership pathways
- Attracting and selecting school principals

2.1. Activating leadership at all levels

Schools cannot deliver a full range of education outcomes for diverse learners under the direction of a single individual, no matter how capable. When leadership policies focus too much on the school principal, that individual can quickly become a bottle neck in efforts to innovate practice and improve learning for all students (Bangs & Frost, 2015). Principals especially can become over-burdened by handling too many policy changes and demands, which can contribute to high turnover (Boyce & Bowers, 2016). Moreover, in many educational change processes, the school leader cannot have a detailed enough perspective on all aspects of change to know fully what is needed. In studies of implementing school-based innovations, researchers have found that school leaders and teachers differ significantly in their views on how much support is needed. Teachers tend to believe more than leaders that teacher expertise is not being incorporated sufficiently into the process of school improvement (Hofman, Jansen, & Spijkerboer, 2011).

To truly increase the teaching and learning capacity of a school, more people need to have the knowledge, judgment and skills required to shape and guide learning. Moreover, to deliver on the holistic student learning and wellbeing outcomes that governments, citizens and employers demand, leaders and teachers need to work together as teams of professionals, engaging in complex, daily decision-making for the benefit of their students. Creating systems of self-improving schools, rather than systems that require only compliance with minimum accountability standards, will spread capable leadership at all levels (D. Hargreaves, 2011).

2.1.1 Who can view themselves as a leader?

Growing the pool of individuals who consider themselves potential leaders is a crucial step in creating a leadership for learning system at all levels. We call this *activating* the leadership potential in a jurisdiction.

In many jurisdictions, only school administrators are typically seen as leaders. In others, teachers feel comfortable attending leadership workshops and expect to take on additional responsibilities and decision-making roles. The first aspect of activating leadership is to spread understanding that leadership is not exclusive to any one role or position, but is a set of practices that can be shared and practiced simultaneously by individuals and teams in the whole school.

Creating a language around leadership opportunities across a jurisdiction can help to expand the identity of leadership and motivate individuals who are leading learning from different vantage points. Some jurisdictions have developed a language of teacher leaders, middle leaders and senior leaders, all of which are roles distinct from the principal.

- **Teacher leadership** refers to educators whose primary responsibility is in the classroom, but who can lead learning through modeling best and innovative practice, and building the capacity of colleagues.
- **Middle leaders** will often have specific roles to support a teacher team within a grade, department or other section of a school. Other roles support a range of different teacher teams through instructional coaching and pedagogical support.
- **Senior leaders** often work at the whole school level, and share more responsibilities of a principal. They may be in positions including deputy, vice, or assistant principals or other senior director roles.

System leaders should consider how schools can offer more educators the opportunity to adopt the identity of a leader, and pursue the practices of leadership of learning. When teachers and other school professionals can engage in leadership activities from their current role, they bring diverse perspectives to the work of improvement. Moreover, these educators become better prepared to lead change and improvement, and to take on further formal leadership roles in the future. Consequently, this approach of distributing leadership can help develop the pool of potential school principals, as well as build leadership across schools to support the efforts of current principals.

Some education systems have now developed leadership programs for teacher leaders, middle leaders, and senior leaders. In this way, the principal is no longer the sole locus of change. For example, Queen Rania Teacher Academy in Jordan offers leadership programs to enable all educators to have a

positive influence on future generations, while also being an institution that spearheads education policy reform and teacher professional development.[2] The Scottish College for Educational Leadership, established in 2014, has leadership development opportunities at four levels: teacher leadership, middle leadership, school leadership and system leadership.[3] In the figure below we outline a range of jurisdictions that offer leadership development opportunities at various levels.

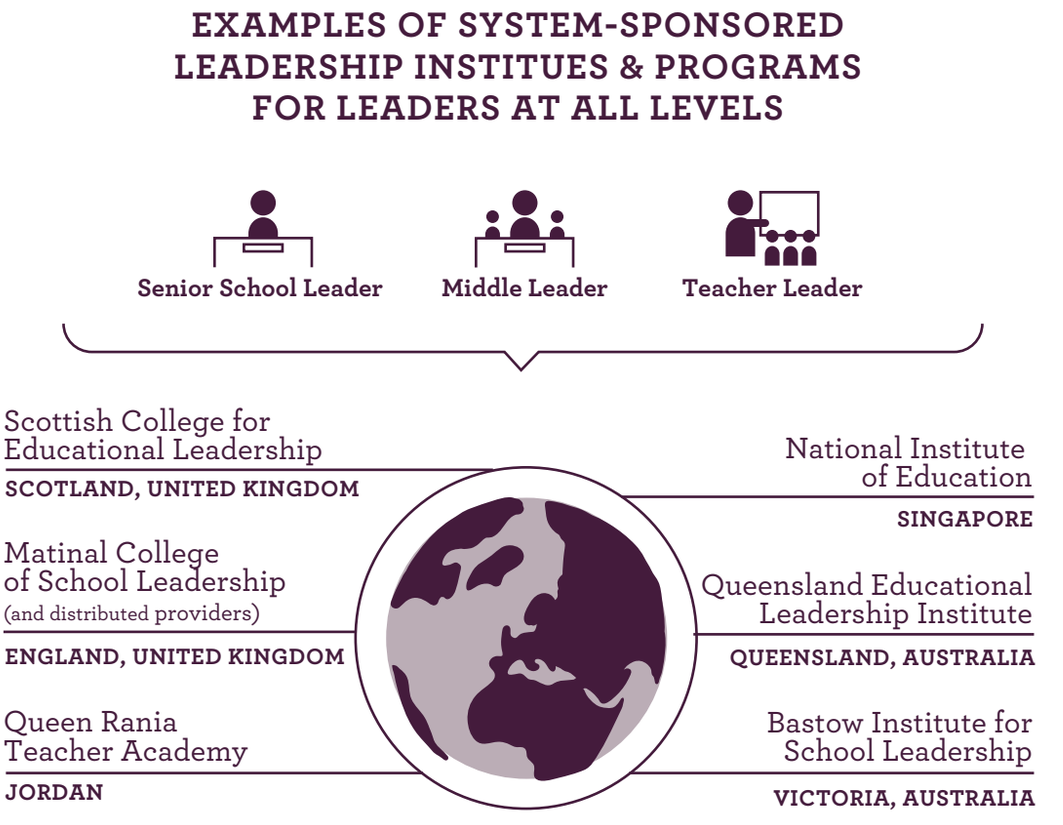


Figure 3: Examples of system-sponsored leadership institutes and programs for leaders at all levels.

2.1.2. Distributed leadership

Schools and systems have increasingly adopted a practice of "distributed leadership", in which a range of staff share the principal's traditional responsibilities (OECD, 2016, pp. 69–85; Spillane, 2006). While the concept of distributed leadership was developed in the 1950s, it has spread in education in the past two decades following major studies of leadership in schools (Gronn, 2002, 2008; Spillane et al., 2001).[4] During this recent period, the concept has been understood in various ways (Harris, 2009). Some studies of distributed leadership focus on the allocation of decision-making in a school. For example, studies of U.S. schools have found that on average, schools in which responsibility and decision-making were shared more widely produce

2. http://www.qrta.edu.jo

3. http://www.scelscotland.org.uk

4. For full details of the projects carried out as part of the Distributed Leadership Study at Northwestern University (Spillane et al) see http://www.distributedleadership.org

better student learning outcomes (Kenneth Leithwood & Mascall, 2008). Other argues that distributed leadership is more importantly about organizing a school to enable individuals at all levels to influence improvement as a whole (Harris, 2008, pp. 173–4; Spillane & Diamond, 2007). A study of organizations in education, sport and business suggests that organized (carefully designed and executed) shared leadership leads to high performance, not a free-for-all of leadership (A. Hargreaves, Boyle, & Harris, 2014). A school can organize itself for distributed leadership by delegating responsibilities for various decision-making domains and enabling teachers to initiate important projects.

Too often distributed leadership — formally shared responsibility — does not include the authority for teachers to influence and develop each other's practice or capacity (Supovitz et al., 2010). An organization and community in which different individuals can influence each other's practice is a crucial part of ensuring the impact of distributed leadership, but trying to distribute that leadership formally through the creation of too many decision-making roles can quickly lead to "anarchic misalignment" (Harris, 2008, p. 182). A key point of distributed leadership is in highlighting leadership as a practice that exists in the interactions between and among individuals in schools, rather than as embodied in a particular role or title (Harris & DeFlaminis, 2016; Spillane & Mertz, 2015). A distributed leadership approach enables more educators to use their expertise to build the capabilities of other teachers across a school or system.

2.1.3. The benefits of activating teacher and middle leadership

Teacher leadership has recently gained significant traction across the profession in many jurisdictions. Where distributed leadership focuses on the arrangement and quality of leadership interaction in an organization, teacher leadership draws attention to the potential of classroom teachers as key agents of change and improvement (Evers, 2015; Lieberman & Miller, 2004). Teachers spend every day engaged with students; their perspectives and expertise are invaluable in the design and implementation of change and improvement in schools (Buck, 2016) and systems (Evers, 2015).

Middle leadership, in addition to teacher leadership, offers a structure to cultivate leadership within a subject, age or stage specialty. Middle leaders can play an important role in circulating knowledge and skills within a school; individuals with leadership roles are more likely to be sources of advice and information in teachers' social networks. But teachers also typically seek information from teachers with students at the same grade-level (Spillane & Kim, 2012; Spillane, Kim, & Frank, 2012). Giving certain individuals more responsibility and authority within a subject area also makes it easier to create the more concerted forms of teacher collaboration that are associated with improved student learning outcomes; without some kind of formal leadership, collaboration efforts risk being directionless and lacking impact (Coburn & Russell, 2008; Ronfeldt, Farmer, McQueen, & Grissom, 2015).

Developing the identity and skills of teacher leaders and middle leaders can create more points of support for school improvement and change agendas (Buck, 2016). Teacher leaders often have close relationships with their colleagues and can influence change through embedded practice support in classrooms and informal conversations in the staffroom. Sometimes, middle leaders may be best placed to lead a pedagogical reform or redesign, because they have the most granular knowledge of specific subject areas. There is strong evidence that where schools are joined together in a municipality, district or network, middle leaders or instructional coaches who move between various environments play a key role in spreading new knowledge and skills as part of larger improvement and change efforts (Matthews, Higham, Stoll, Brennan, & Riley, 2011; Spillane, Hopkins, & Sweet, 2015).

Lerndesigner: Creating new roles for teacher leaders

In 2008, the Austrian Ministry of Education created a new teacher leadership role: the "Lerndesigner" (Westfall-Greiter, 2013). The role was created as part of a reform in the lower secondary school education. Lerndesigners were teachers with specifically developed expertise in curriculum and instructional design, with a particular emphasis on equity. The goal of the initiative was for these teacher leaders to network to support the transition to the new lower secondary school model, *Neue Mittelschule*. Lerndesigners took part in a two-year qualification program made up of symposia and national networking events. The aim of the program was to prepare these new leaders for their roles in creating new pedagogical models at the middle school level. The name "Lerndesign" also got picked up by the media and quickly became part of how people talked about teacher roles both within and outside schools. After an initial pilot phase, Lerndesigners became a formal part of the school system in 2012, with the mandate of designing policies around the *Neue Mittelschule*. Today, they continue to work together on refining models and practice in middle schools. Lerndesigners have access to a private online space, the "Meta-Course", where they can exchange ideas and receive feedback on their pedagogical designs.

The language of teacher and middle leadership can also help facilitate connections between educators in similar roles within and among schools. For example, in England, many professional associations, school chains and local areas have dedicated networks for middle leaders.[5] Likewise, the labels can help draw attention to development opportunities. On the other hand, system leaders must understand that creating these labels cannot be a substitute for genuinely cultivating distributed leadership (J. Spillane, interview, 4 April 2017).

5. For example:29http://www.ascl.org.uk/about-us/regions-and-groups/ahead-middle-leaders-network.html

2.2. Compelling Leadership Pathways

Leadership selection should not be a process that occurs just once in an educator's career. A key step for leadership policy is to create clear and compelling career pathways in leadership. Career advancement is fundamental to keeping skilled professionals engaged in their work; without a new "sense of success" the most driven teachers may seek opportunities in other fields (Johnson & Birkeland, 2003).

2.2.1. Multi-level and branched pathways

In conventional systems, the trajectory from trainee teacher to senior school leader may be long. As outlined above, one way to support pathways to leadership is to recognize the potential of teacher and middle leadership. This kind of multi-level pathway can create more opportunities for leadership, but may still imply a single trajectory toward principalship. Expertise in education can come in many forms, and systems require a way to cultivate as many of those forms as possible. An alternative to multi-level pathways is therefore to create branching pathways where professionals can progress to various senior roles.

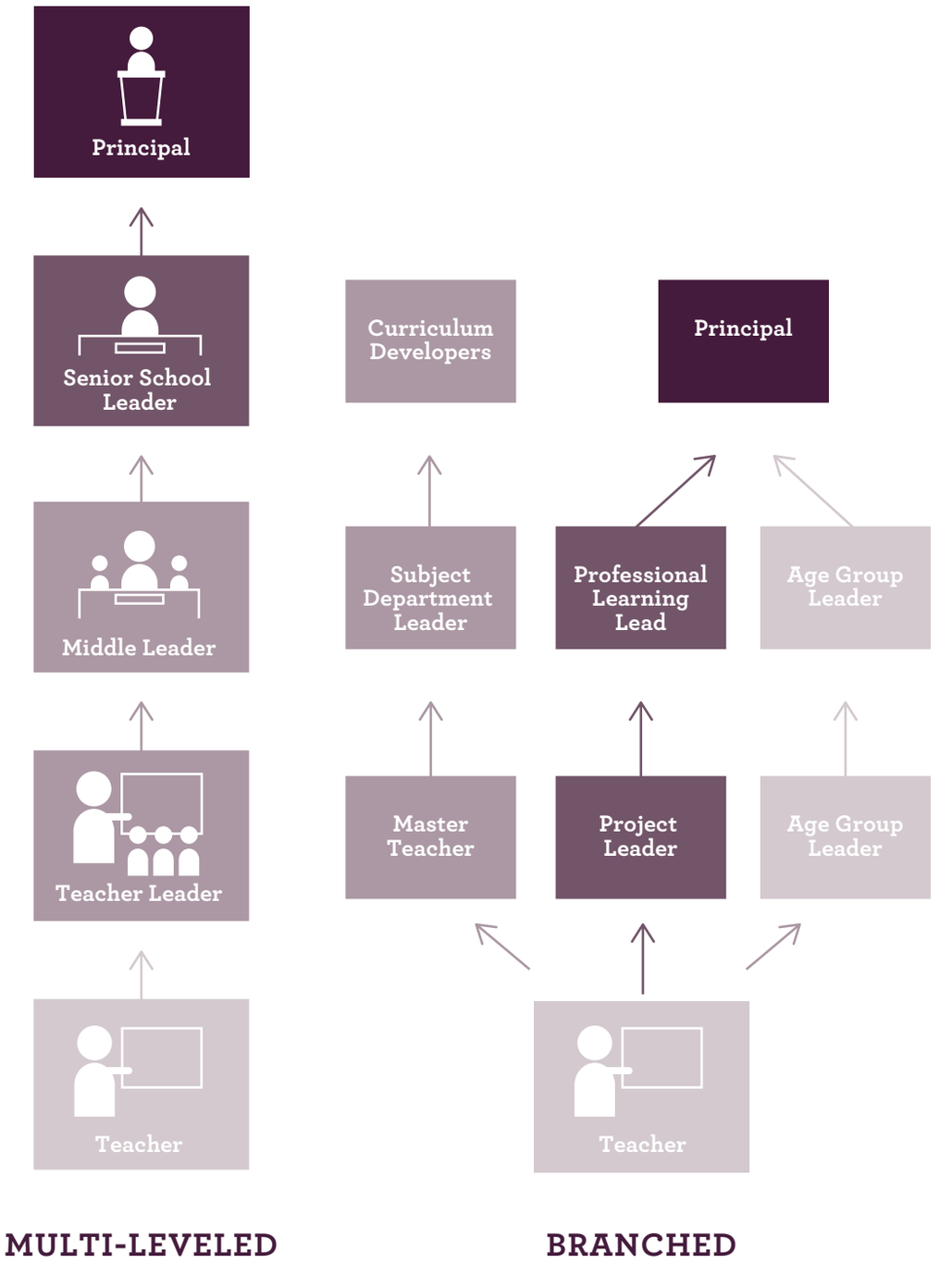


Figure 4: Examples of career pathway designs

One of the most compelling examples of branching pathways is the system in Singapore, which features three distinct tracks through which teachers can progress over their career. Teachers who show management potential enter the leadership track, which progresses through stages toward the position of principal. Individuals on this track may be seconded to the Ministry of Education to build their knowledge of systemic strategies and policies. Thus, school leaders are also prepared to be system leaders, and are in a position

to co-create the system with the ministry (D. Ng, interview, February 1, 2017). Before becoming a principal, all individuals on the leadership track have to complete the Leaders in Education program at the National Institute of Education, a six-month full-time program.

Teachers who would rather specialize in pedagogy can access either the track to become a master teacher or principal master teacher, or to become a specialist or senior specialist. Master teachers work primarily within their school or a cluster of schools, and lead others in professional learning and development of practice. Specialist teachers work both within their school and potentially at the ministry, developing new subject-specific approaches and materials.

The articulation of clear pathways does not mean that leadership career paths will be linear, with a movement through the stages of leaders at a standardized rate. Some leaders may not desire a principalship and may wish seek to lead from a teacher or middle leadership level for a longer period. Yet early leadership experiences can also be important in inspiring future leaders. An in-depth study of racial minority principals in the U.S. found that most did not plan to become a senior leader, and it was the mentoring and experiences of leadership that influenced them to pursue the role later in their careers (Martinez, 2015, pp. 85–96). We could also imagine pathways where leaders choose to move from senior roles back to a full-time focus on leading from the position of a classroom practitioner again.

2.2.2. Strengthening formal and informal teacher leadership

A jurisdiction does not produce compelling leadership pathways simply by creating titles and structures. To give meaning to roles such as teacher leadership, other changes are necessary. Most schools already have a few teachers who informally lead initiatives and have developed the necessary skills to do so (Danielson, 2006). Policies designed to instigate or further strengthen teachers' leadership skills can tap into this potential and direct it in productive ways. They can also enable more teachers to take their first steps into leadership.

A good example of new opportunities for those educators leading from the classroom level is the Ontario Teacher Learning and Leadership Program.[6] The TLLP is an annual initiative supporting teachers to initiate and lead projects in curriculum or pedagogical development. Teachers wishing to apply to the program submit proposals for teacher-led projects, and each year between 75 and 100 projects receive funding from the Ontario Ministry of Education. Teachers can submit proposals individually, or as a team. The one criterion of a successful project is that it must offer some way to develop the practice of other teachers. The target group of teachers may vary depending on the project; it may be all of the other history teachers within a school district, for example, or all early grade teachers within a small family of schools.

6. http://www.edu.gov.on.ca/eng/teacher/tllp.html

Projects mostly involve teachers engaging in a period of research and inquiry to develop new practices or tools. They identify the impact of their new practice through pre-designed assessment tools, and use a variety of methods to share their learning with fellow staff and the teaching profession more widely. Project outputs have included professional development workshops, magazine articles and online resources. The goal of TLLP, however, is not only to support the creation of these outputs, but also to foster the skills and identity of teacher leadership, and help expert teachers to influence the practice of others.

Each year the Teacher Learning and Leadership Program hosts a summit, which brings together all funded teachers to share the output of their projects and socialize with other teacher leaders. TLLP has been operating since 2007; over 800 individuals and teams have participated. While this is only a small fraction of teachers in Ontario —there are over 100,000– it means that at least one in every 150 teachers has been through this leadership development experience, creating a wide distribution of leadership for learning capacity in the province.

Another practical step toward building leadership density is to seed the creation of specific but informal leadership roles. Individuals who take on more informal roles as “innovation champions” or “research leads” can help to sustain the practices necessary to develop and improve learning in a school.

Spreading the practice of leadership helps to support improvement across a jurisdiction and can also help to build a pipeline of future school principals with strong knowledge of how to lead teacher learning. In one example from Chicago, a change in the way the city school district used instructional coaches inadvertently led to a new and stronger pool of candidates for the principalship (A. Bertani, interview, March 22, 2017). Principals in Chicago are hired by a board, which typically hired former assistant principals. A limitation of this approach was that assistant principals often had many administrative or management responsibilities and were not focused on teacher or student learning. In the early 2000s, Chicago began to create positions for many literacy and numeracy coaches, taking the best content teachers and supporting them to work across a whole school or small group of schools. These coaches received training in how to support the work of other teachers and became school-based leaders. Soon, boards began to see instructional coaches as viable candidates for principal positions and the number of new principals who came from positions other than that of assistant principal increased from one in ten to seven in ten. Many of the instructional coaches from the early 2000s are now in principal roles, bringing deep content knowledge and also knowledge and experience of supporting teacher development.

researchED: Growing new leadership through informal networks

ResearchED[7] was founded in 2013 by teacher and writer Tom Bennett as a response to gaps between quality research and practice in education. It is a "grass-roots" community with no formal government backing, although Bennett has held several positions on Department for Education panels in England. The organization is now sponsored by the Education Development Trust, an education charity, and connects to the professions via a magazine and strong social media profile. Most importantly, researchED holds regular educator-led conferences around England and beyond, that aim to spread understanding of how to evaluate and use research and evidence amongst the education profession, as well as to showcase high-quality school-based research. There have now been researchED gatherings in the Netherlands, Sweden, and New York City.

From its inception, researchED has developed the concept of the "Research Lead": an individual within a school who oversees its approach to the use of evidence and acts as a resource for other teachers and leaders. As Bennett emphasizes, the Research Lead may look very different depending on the school and the individual, but the common thread is that they act as an "interface between the two domains of school and research."[8] This kind of liaison can help a school to utilize research without requiring all staff to become experts in sourcing and evaluating empirical research. In this way, some of the expert knowledge that might otherwise be held only by the Principal is held by another staff member, allowing for more dispersed decision-making and support for other teachers.

In England, the notion of a Research Lead has spread with the support of the Education Endowment Foundation, a government-sponsored body which is evaluating the impact of Research Leads on learning outcomes.[9] In this way a leadership role that emerged organically from school needs is beginning to take on more of an official status within the system.

2.2.3. Focusing middle-leadership on teaching learning and development

Middle leadership roles in a school may take the form of subject or age group leads. Traditionally, these roles have comprised primarily administrative and line management duties, but increasingly they are designed as instructional leadership roles. To play this role as leaders of learning, middle leaders need to be given sufficient time and development opportunities to improve their expertise in curriculum and coaching in their domain. A lack of middle leaders may contribute to gaps in leadership for learning in different subject areas. Work in the United States finds that, particularly at the primary level, leaders are better equipped with knowledge to guide instructional improvement in English language and arts, and less for mathematics and science (Burch and Spillane, 2003; Hayton and Spillane, 2008).

7. http://www.workingoutwhatworks.com

8. https://www.educationdevelopmenttrust.com/~/media/EDT/Reports/Research/2016/r-the-school-research-lead-2016.pdf

9. http://www.riseresearchproject.com/ and https://educationendowmentfoundation.org.uk/our-work/projects/the-rise-project-evidence-informed-school-improvement

Across a few Australian jurisdictions, there has been an investment in new middle leadership roles with a focus on building teacher capacity and applying evidence-informed approaches to improvement. In the jurisdiction of New South Wales, for example, a new position of Instructional Leader was created in 2012 to support the Early Action for Success reform that focused on targeted improvement in literacy and numeracy skills during the early years of schooling.[10] This new role focuses on building the capacity of individual and teams of teachers in collecting data to identify student learning needs and then intervene with research-based teaching strategies. The program was launched with 50 instructional leaders and has now been scaled to over 350 people in the role. In 2015, the Department of Education and Training in Queensland created a Master Teacher position that aimed to improve and enhance teaching practice for all staff by researching and modeling quality teaching.[11] The master teachers are involved in coaching, collaborative planning and ongoing action-research projects. In 2017 there were 300 master teachers supporting schools across the state.

2.3. Attracting & Selecting School Principals

While broadening the range of educators who develop leadership capabilities, a system also needs to identify and attract promising individuals for the key position of school principal. The selection processes present an opportunity to prioritize leadership of learning capabilities, whether through required qualifications or carefully designed hiring criteria.

2.3.1. Selection through qualifications

Formal qualifications for leadership roles vary across jurisdictions, but studies show that many countries have some pre-service training for school leaders (Schleicher, 2012). In 1997, England was one of the first countries to establish a national qualification for school principals, the National Professional Qualification for Headship. The NPQH requires study over approximately 12 months, and is completed by experienced teachers or assistant principals before taking up a role as a school leader. Since 1997, many countries have followed suit in developing national-level qualifications (Harris et al., 2016). In some jurisdictions the qualification is not mandatory for principals, but is held by the majority of acting principals. For example, in England the NPQH is no longer compulsory but because the bar for entry to the program is high, it is still perceived as a valuable qualification for aspiring leaders (T. Greany, interview, February 2, 2017).

Many large jurisdictions that invested in leadership development only recently are now in a position where a younger generation of school leaders has qualifications, but an older generation does not. Nevertheless, a qualification remains a feasible way to raise the entry standards to important leadership roles. Qualifications also offer an individual the means to improve coherence

10. http://www.dec.nsw.gov.au/about-the-department/our-reforms/early-action-for-success
11. http://education.qld.gov.au/staff/development/employee/teachers/master-teachers.html

in a system by ensuring that leaders gain knowledge and skills that are aligned with system goals and structures. For example, jurisdictions where schools have autonomy over their curriculum or budget need to select for or be prepared to develop a range of capacities in school leaders. Moreover, where qualifications require leaders to show impact on student learning outcomes as part of capstones or projects, they combine selection processes with opportunities to concertedly develop leadership for learning practices.

2.3.2 Competitive selection into qualifying programs

One way to upgrade the skill levels and status of school leaders is to require educators to go through a competitive selection process before they can begin qualification programs. However, selection into programs can become an expensive burden if all applicants have to go through many days of assessment center-style exercises, and there is no established evidence that extensive qualifying assessments lead to better recruitment (French & Rumbles, 2010, pp. 179–180; Turnbull, Riley, & MacFarlane, 2015, pp. 45). There may be ways to isolate the most valuable aspects of extended selection processes. Toby Greany, who oversaw the evolution of England's National Professional Qualification for Headship, noted that the most valuable part of the selection process for them was to include former expert principals in making selections (T. Greany, interview, February 2, 2017). With their expertise and experience of the role, these leaders were best placed to help identify new cohorts. To ensure that selectors are having an objective discussion and are not simply prioritizing applicants who "look like them", selection processes should balance incorporating the judgments of expert former leaders with some use of competency profiles and assessments (Greany, see also Turnbull et al., 2015, pp. 41–42). Hiring that uses competency-based interviewing is becoming an increasingly common practice and, when questions are carefully designed and tested, seems to yield good results in other fields (see Box 3).

The Leaders in Education Programme, offered by the National Institute of Education in Singapore focuses on building the school leadership capacity of vice-principals and the ministry's education officers to prepare them for the new school postings upon graduation (National Institute of Education [NIE], 2013b). These leaders are selected and fully-sponsored based on their past record of appraisals and a set of situation tests and interviews (NIE, 2013a). The program also seeks to identify leaders whose qualities reflect strategic capacities in leading schools to take on future challenges (D. Ng, interview, February 1, 2017).

BOX 6. Competency-based hiring and promotion

Traditionally, hiring practices have focused on identifying the personal qualities and qualifications individuals have that prepare them for a job. A competency-based approach to hiring recognizes that these indicators can be misleading and can overlook candidates who may have developed their skills through a unique path or may have more unusual approaches but can still be very effective at their job. A competency-based approach focuses only on whether a candidate has the capabilities to do a job well (French & Rumbles, 2010, p. 180).

Competency-based interviewing involves asking candidates to respond to structured questions about hypothetical scenarios (sometimes called "situational interviews") or past situations they have faced ("behavioral interviews"). Responses are then scored against the relevant competencies using a consistent rubric. This step is important to minimize biases in the interpretation of responses (Bock, 2015, p. 96).

Competency-based interviewing is valuable not only from a fairness perspective but also in evaluating performance. Google carried out large studies of its hiring practices and found that structured interviewing was much more predictive of future performance than looking at CVs or asking abstract problem-solving questions (Bock, 2015, pp. 94–95). To ensure that interviewers use well-developed questions, Google maintained a centralized bank of validated questions, sorted by competency (ibid, 95). Having a large pool of potential questions that is regularly updated so that candidates do not practice for specific questions in advance, ensures stronger predictive validity.

2.3.3. Talent pools for senior roles

Talent pools are a means of providing more time for selection processes and ensure a steady "pipeline" of emerging leaders. Building a talent pool involves creating a local level selection process to which teachers can apply to prepare for leadership (Turnbull et al., 2015, pp. 41–42). The selection process requires applicants to complete projects in their schools to demonstrate readiness. Once they enter the talent pool individuals gain access to specialized development opportunities. Schools in the network, municipality or district that support the talent pool can draw from this pool to fill vacancies.

System leaders need to consider the talent pool carefully to ensure it does not become too large — implying a low barrier to entry — or so small that there are not enough leaders to fill gaps in different types of schools or roles (ibid, p. 43). One way of ensuring that a pool has enough individuals with different skills, and specialisms is to create "talent puddles": smaller pools of individuals with particular expertise. This notion was developed by the global food company Nestle to ensure a sufficient supply of specialized applicants for hard-to-fill skilled roles (French & Rumbles, 2010, p. 182).

Talent pools may be particularly valuable when larger numbers compete for leadership roles. In shaping the selection design, whether for the talent pool, a qualification or role, jurisdictions also need to consider the number of motivated aspiring leaders. This factor highly impacts the design of the attraction and selection processes. For example, in large urban U.S. districts, there is intense competition for school leader positions. There are approximately five assistant principals to each principal; 80 percent of them aspire to become a principal (Mendels, 2016). Here, the biggest challenge is to ensure that the individuals with the highest potential make it through a selection process to receive additional investment and development opportunities.

Other jurisdictions face the challenge of low aspirations. As noted, over half of jurisdictions in the 2008 OECD study of school leadership reported challenges in finding qualified candidates (OECD, 2008, p. 158). An Australian synthesis of research on the disincentives to entering leadership identified factors such as time demands, concerns about accountability pressures, and highlighted the perception that the principalship is increasingly a managerial role (N. Jackson, Payne, Fraser, Bezzina, & McCormick, 2010, pp. 4–5). Each jurisdiction should consider its unique context in assessing what, if any, leadership roles are desirable and why. If educators have misperceptions about what leadership involves, a talent pool can engage strong teachers in opportunities for leadership development, and stimulate interest.

2.3.4. Surfacing high potential candidates

Most selection processes expect that only individuals with the most potential will put themselves forward. But there are many reasons why this might not be the case. Here, the selection design needs to merge with activating leadership to ensure that selection processes actively encourage applicants who might otherwise be overlooked. In the business context, the consulting firm McKinsey & Company, describes this as a shift from "harvesting" leaders — assuming the best will come forward, ready to be plucked — to "hunting", "fishing" or "trawling" for leaders (Lane, Larmaraud, & Yueh, 2017). In education, these metaphors could cover a range of activities from using data to identify promising teachers or team leaders; encouraging a wider range of aspiring leaders to the fore with "bait" such as awards or competitions designed to recognize leadership potential; or asking existing leaders to scrutinize their organizations and identify promising candidates. Denmark, and the Netherlands, among others, offer "taster courses" for teachers to learn about leadership and management and to assess their appeal (Schleicher, 2012, p. 25).

As with efforts to encourage leadership, selection processes need to take into account the social factors that may hold back aspiration or opportunity such as race, gender or class. Some jurisdictions have created structures dedicated to promoting and supporting leaders from minority groups, which may be particularly important in contexts where the school population is changing demographically faster than the teaching population. In England, the BAMEd network was formed in 2016 to provide support to Black, Asian and minority ethnic teachers as they navigate through selection processes toward leadership roles.[12]

12. https://bameednetwork.com/about

2.4. Summary & Key Questions

Leadership for learning is an activity and not simply a job title. As such, it can be exercised by many individuals in a school, occupying different roles. But acting as a leader and having the authority to change practice requires expertise. To ensure that only well-prepared, competent individuals hold the most leadership responsibility, a system needs thoughtful selection processes that combine standardized competency frameworks — minimizing biases — with expert senior judgment.

To promote development throughout a career and retain the most enthusiastic individuals, systems require leadership 'pools' and pathways that may be linear and emergent. This diversification of leadership can also support the development of strong horizontal and vertical leadership teams.

Reflection and discussion questions for designing the **Who** of leadership policy

- Who gets to see themselves as a leader within your jurisdiction?
- What are the opportunities for educators at many levels to create positive change for learners?
- What are the pathways for experienced teachers and leaders to continue learning and progressing in their career?

Chapter 3

What Should Leaders Know, Be Able to Do & Be?

"Too often, there is a disjuncture between attending a leadership course and changing leadership practice."

Alma Harris & Michelle Jones
University of Bath

To underpin a policy design, government leaders, in deep partnership with the profession, need to make explicit what leaders need to know, be able to do and be, to have an impact on teaching and learning. As observed in the opening quote (A. Harris and M. Jones, interview, February 7 2017), too often leadership policies focus on creating preparation courses, but with no equivalent focus on how that preparation is impacting learning. Moreover, jurisdictions need to shift from a focus on leadership credentials or years of experience toward a focus on an individual's capabilities, and what they are able to do with their knowledge.

Leading improvements in learning is a complex task. The outcomes of student learning rely on a great many interdependent factors: teachers, students, system requirements, resources, stakeholders, and social and cultural conditions. A leader is responsible for bringing together all of these elements to create impact.

In describing the focus of leadership capacity building, we intentionally avoid creating another framework of core capabilities for leadership. There are an increasing number of such models, many of which share a similar emphasis on leading teacher learning, and each of which may be ideal for a specific location or need (e.g. Fullan, 2014; Kaser & Halbert, 2009; V. Robinson, 2010). We have not selected one of these lists to present because we want to avoid implying that such a list could ever be final, comprehensive or appropriate across diverse education contexts. While there is some core knowledge of schools and learning that applies across locations, aspects of the relevant knowledge may be specific to a place, taking into consideration the knowledge of the people and behaviors needed to solve problems and build trust in that particular environment. In this chapter, we highlight that the capabilities to lead teacher learning, and lead complex change are likely to be required across diverse systems, yet the ability to execute effectively will require nuanced approaches that are context specific.

The critical question that system leaders must ask is what capabilities are required for a leader to have impact on student learning within this system? The answer should be based on the specific goals and design of their system, the empirical evidence of leader effectiveness, and the study of effective leaders in their context. Yet, irrespective of the current answer, continual revisions are required as the capabilities for a leader of learning will evolve as the nature of schooling shifts.

This chapter is divided into four key sections

- The potential benefits of articulating leadership capability frameworks
- Leading teacher learning
- Leading change through disciplined inquiry
- Specific capabilities required for the unique context of leadership

3.1. Articulating Leadership Capabilities

While there is no single definitive list of capabilities for leadership of learning, the development of a system-specific framework can assist in creating a coherent language and focus.

3.1.1 Leadership Standards

In the early 2000s, the National College for School Leadership, in England, working with a non-profit organization called Social Partnership, created a set of National Standards for School Leadership. The standards aimed to cover the knowledge and skills required for five key areas of school leadership: leading strategically, leading teaching and learning, leading the organization, leading people, and leading in the community. Since then, many jurisdictions around the world have created national standards for leadership or at least standards for school principals.

Standards can provide a common language and be a useful way to promote alignment in development offerings (Taylor et al., 2012). Standards can also act as a signal of the current direction, as long as they are accompanied by a dynamic system for being reviewed and updated (Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2011, pp. 148–149). An analysis of frameworks across jurisdictions shows many similar dimensions. What may be different is the content of those dimensions and how they are attuned to the particular goals, values and circumstances of the jurisdiction.

For example, the Professional Standards for School Leaders in Qatar, comprise seven career-long standards that address the key requirements of school leaders working in schools. The first and core standard focuses on the school leaders' role in leading and managing learning and teaching within the school community. The remaining six standards focus on other aspects of leadership and management to support this core standard, including developing and managing school-community relations, reflecting on, evaluating and improving leadership and management performance.

Some countries represent standards in terms of frameworks that articulate strong leadership, creating a vision to aspire to. In Chile, in 2005 the Ministry of Education created a *Good School Leadership Framework*, which also followed the development of a *Good Teaching Framework*. The framework includes four key dimensions: leadership, curriculum management, resource management and management of the organizational and social climate (Vaillant, 2015, pp. 6–7). The recently formed Scottish College for Educational Leadership has developed a dynamic framework that aims to evolve as leaders use it, connecting capabilities to learning opportunities.

The Australian Institute for Teaching and School Leadership: From baseline standards to a developmental pathway

In 2011, the Australian Institute for Teaching and School Leadership (AITSL) developed and released the Australian Professional Standard for Principals and Leadership Profiles. The goal of the "Standard" is to describe what principals need to know, understand and do, to be effective in the modern work of leading Australian schools. The accompanying set of "leadership profiles" details the actions and behaviors of leaders at different levels of proficiency along a developmental pathway.

AITSL created standards for school principals in a similar process to its creation of teacher standards. This involved extensive consultation with professional bodies, each of the state and territory systems and their different school sectors (independent, Catholic and government). The final document, The Standard, is based around three dimensions, or "requirements", that underpin leadership practice: vision and values; knowledge and understanding; and personal qualities, social and interpersonal skills. The Standard describes these in terms of five key leadership practices (see figure 5).

By bringing these dimensions together, The Standard aims to provide a complete model of leadership that can scaffold personal and professional development. The accompanying Leadership Profiles help to make this model concrete, describing in terms of actions what effective leadership looks like. Importantly, the profiles take into account that leadership develops over time and so describes different stages of proficiency and career progression. Thus, The Standard and Leadership Profiles together provide a common platform to coordinate and align developmental activities within schools and opportunities offered by different organizations.

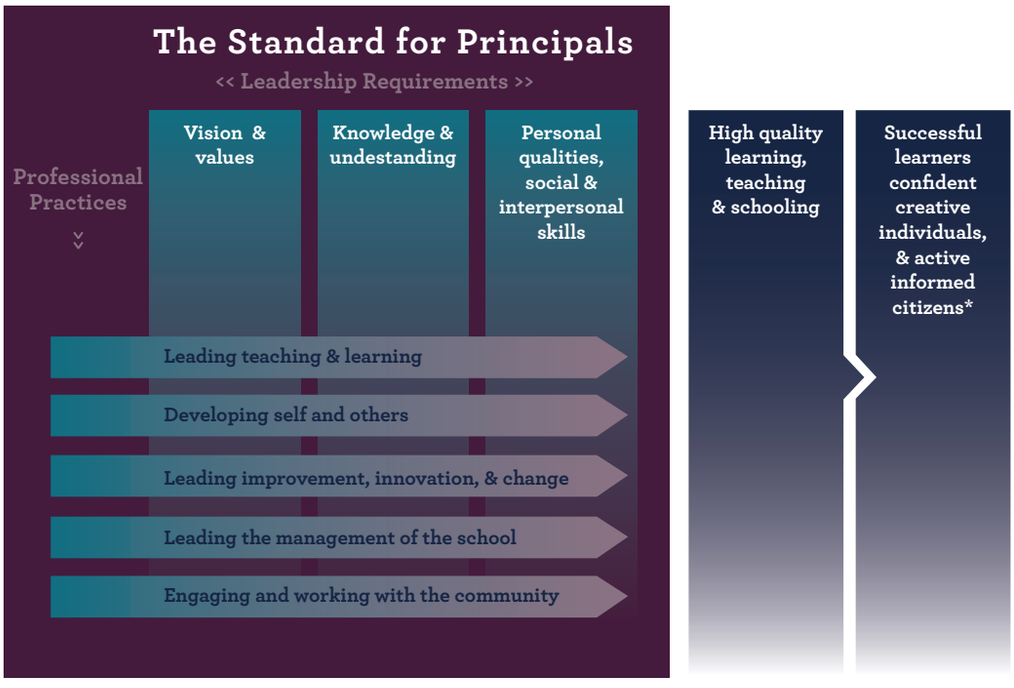


Figure 5: The Australian Standard for Principals (AITSL, 2014)

3.1.2. Harnessing the profession to craft standards

Many of these sets of standards or frameworks are created through collaboration between professional and government bodies. In Denmark in the early 2000s, head teacher organizations worked together with the Ministry of Education to provide a small book that sets out the profession's perspective on good school leadership. The five areas included in this booklet were: overall leadership, education policy leadership, pedagogical and academic leadership, administrative and financial leadership, and personnel policy leadership.

One powerful method for developing standards is to interview current outstanding leaders. This process can provide system leaders with a new understanding of what knowledge and skills leaders of learning need, and has been found to be surprisingly enlightening (Mendels, 2016). Researchers have successfully interviewed and surveyed leaders to understand the persistent dilemmas leaders face, which can inform what knowledge and understanding they need (Wildy & Louden, 2000).

With a better understanding of what leaders grapple with in their work, jurisdictions can then review their development offerings to highlight where they are coming up short. For example, studies of principal preparation pipelines in U.S. districts conclude that existing formal programs did not answer a "need" around developing high-level social and emotional skills:

> *Despite being well prepared in other ways, new principals sometimes proved weak in what leaders in one district described as 'emotional intelligence' and what leaders in another called 'micro-political skills.'* (ibid, p. 19)

Being able to identify these gaps and translate them into standards or frameworks of competencies can help to ensure that these essential soft skills are not overlooked.

3.1.3. Attending to personal, social and emotional dimensions

Traditionally, research into effective leadership focused on what leaders know and can do. Likewise, standards and frameworks are often devised in terms of knowledge and skills. More recent studies of leadership highlight the importance of individuals' identifying *who they are*, their sense of self, identity and how they communicate that to others. These dimensions are challenging to articulate, but including them in leadership frameworks goes some way to ensuring that they are brought forward in the process of leadership development.

The Ontario Leadership Framework: Creating a holistic leadership framework

The Ontario Leadership Framework is a system-level document setting out the key competencies for principals and for district-level leaders.[13] The first framework was developed in 2008 by the Ontario Institute for Educational Leadership, a body founded with support from the Ministry of Education in 2006. IEL is made up of top-level academics and representation from Ontario's principals' associations, supervisory officers' associations, councils of directors of education, and the Council of Senior Business Officials.

The framework is based on the work of Kenneth Leithwood, of the Ontario Institute for Studies in Education at the University in Toronto and one of the foundational researchers studying the impact of leadership on student learning. The framework also draws on the decades of work carried out by OISE faculty members, including Michael Fullan, who studied school and system change and improvement.

The standards provide a robust research foundation for a common language and understanding for leaders to engage in discussions about effective practice. The framework also underscores the Ontario Leadership Strategy,[14] which aims to foster leadership of the highest possible quality in schools and school boards.

This framework acknowledges leadership as a behavior, not a position, and highlights a number of key principles:

13. www.education-leadership-ontario.ca, http://www.edu.gov.on.ca/eng/policyfunding/leadership/framework.html
14. http://www.edu.gov.on.ca/eng/policyfunding/leadership/actionPlan.html

- Context is important
- Leadership and management are integrated
- Formal leaders enact practices directly and indirectly
- Leadership is best shared in a planned and coordinated way
- System leaders and districts add significant value to the learning of students beyond the contribution of schools and classrooms

The frameworks present the primary role of leaders as "creating the conditions for change", recognizing that the way leaders impact on student learning is primarily indirectly, through their impact on teacher learning and practice.

Ontario's Leadership Framework (OLF) aims to describe a set of core leadership competencies and effective practices for principals, vice-principals and supervisory officers (system leaders). The framework is divided into two parts: 1) the leadership framework for principals and vice-principals; 2) and the leadership frameworks for supervisory officers.

The framework was revised in 2013 to include an additional dimension focused on "personal leadership resources", or the personal capacities to be an effective leader. The OLF includes only those capacities for which there is a strong research base, including personal characteristics such as optimism, emotional intelligence and problem-solving abilities. These dispositions and skills are seen as critical to the way leaders enact others' competencies in the framework.

The Ontario Leadership Framework also provides the underlying framework for the International School Leadership (ISL) program, which is offered through a subsidiary of the Ontario Principals Council.[15] This program includes the key expertise learned through the principals' qualification program for Ontario educators, while adapting the leadership training to the local context (J. Robinson, interview, 25 May 2017).

For examples of how leaders can come to understand self and identity, we can look to other sectors. Leadership expert Scott Snook developed a model known as 'be-know-do' through his work with the U.S. Army, studying what it took to transform an individual into a capable leader (Snook, 2004). He found that it took as much effort for leaders to undergo the transformation to become a leader and feel confident in their work, as it did for them to master the knowledge and skills to carry out the tasks of a leader. Leadership theorists describe this as 'identity work'; in order to transition from the role of teacher to that of leader — providing direction, guidance and support — an individual has to undergo a shift in the way they think about themselves and their confidence in their skills and abilities (Ibarra, Wittman, Petriglieri, & Day, 2014).

15. http://internationalschoolleadership.com

The broader leadership literature highlights how developing a strong sense of self requires a careful balance. It is important for an aspiring leader to understand how their beliefs are shaped by their own experiences and be open to changing their beliefs if new experiences or perspectives call for it (Khurana & Snook, 2011). Learning to be a leader is therefore in part about being able to let go of things that might hold you back from being effective in a particular context or task. This ability to scrutinize and evaluate one's own perspectives is often called "reflexivity", or what adult development theorist Robert Kegan describes as developing a 'self-authoring' perspective (Kegan, 1982, 1998).

To develop a strong sense of self but also reflexivity, leaders need to become better at taking a distanced perspective on themselves and their perspectives. Leadership expert Ron Heifetz describes those who are able to stand back from a situation as having moved 'up to the balcony'. They are able to view the scene not as a participant 'on the stage' but from above, reading the social situations and working out why they are producing certain outcomes. This skill is crucial in being able to intervene and change course (Heifetz, 1994).

Part of developing a reflexive or self-authoring perspective is coming to understand oneself in a more objective way. To continue to develop and improve as a leader, individuals need to be able to undergo change to their own mindsets and behaviors. However, adults can suffer from an 'immunity to change', where an entrenched sense of self and commitments to certain underlying beliefs prevent an individual from achieving what they believe is a desired change (Kegan & Lahey, 2009). For example, someone might think that they have a strong desire to become more patient and the will to do so. But they might also be committed to a perception of themselves as an instigator of activity and an efficient and swift person. This belief might work against them when they try to enact more patient behaviors, such as waiting to fully understand a situation before acting, or not rushing an activity that requires time to unfold.

Individuals with a self-authoring perspective have the tools to scrutinize their own beliefs and assumptions, eliminating ones holding them back. They are also better equipped to support others — most importantly teachers — in the identity work involved in evolving one's practice.

3.2. The Core of Leadership for Learning: Leading teacher learning

Leaders are one step removed from impacting students directly; they achieve impact by ensuring that students have access to great curricula and great teachers. Most decisions concerning curriculum and pedagogy are too specific to be made by the leader; therefore the core capability of leaders is to improve teacher capacity. Leaders must have the adequate depth of knowledge, skill and fluency that allows them to lead the learning and development of diverse groups of teachers, thereby ensuring that all teachers in a school are equipped to improve their practice and impact on students.

3.2.1. The research supporting effective teacher learning

The ability to improve teacher capacity is the core capability of a leader of learning, whether they are a school principal, a middle or teacher leader. A review of the best evidence on school leader practices found that of all evaluated practices, promoting and participating in professional learning with staff has the largest impact on student outcomes (V. Robinson et al., 2009). This finding, combined with the substantial research literature outlining effective approaches to teacher professional learning and development, provides a strong empirical basis to guide leadership action (CUREE, 2011; Learning Forward, 2011; Timperley, Wilson, Barrar, & Fung, 2007; Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009). Leaders of learning need to place a particular emphasis on what the research suggests about the forms of professional learning that can improve professional practices and lift student outcomes.

3.2.2. Effectively leading teacher learning

While there are many other things that a successful leader may need to do, if a leader cannot influence the skills, knowledge and expertise of the teachers whom they support, then their impact is severely limited.

Improving teacher capacity involves a range of knowledge and skills. A leader of teacher learning needs to have:

- **Knowledge of the teaching and learning evidence base** and an understanding of empirical research to guide teachers in identifying informed approaches and being wary of false promises (Bennett et al., 2015, pp. 2–3, 53–63; Timperley, 2011)
- **Knowledge of adult learning** and how to design and implement learning experiences that help teachers acquire new knowledge and change behaviors (Fullan, 2016, pp. 9–14; V. Robinson, 2011, pp. 17, 103–124; Wiliam, 2016, pp. 185–205)

- **Inquiry skills** to investigate what is happening with student learning in their context, and guide teachers on targeting their improvement efforts (Kaser & Halbert, 2009, pp. 61–78; V. Robinson, 2011, pp. 83–101).
- **Social and communication skills** to cultivate trusting relationships and ultimately strong teams of teachers who are collectively developing and benefitting from each other's expertise (A. S. Bryk et al., 2010, pp. 138–139; A. Hargreaves et al., 2014, p. 5; Kaser & Halbert, 2009, pp. 44–59).

Along with developing teachers' knowledge and skills, leaders also need to provide tools and supports for teachers to develop their own practice. This includes ensuring that:

- Teachers have tools such as shared standards or assessments, and feedback or observation protocols that allow them to see their teaching practice and see the impact of their teaching on students
- Teachers have time and routines to work with others teaching a similar subject or developmental stage to learn from their peers, refine their own practice and where necessary develop new approaches
- Teachers have access to resources or communities to keep developing their content and pedagogical knowledge

Academic studies in a range of contexts have established the importance of leading teacher learning.

Helen Timperley, studying the practice of school leaders in New Zealand whose students achieved three times the rate of progress typical of other schools in the country, found that what distinguished these principals was the unusual degree to which they acted as a knowledge resource for their teachers (Timperley, 2011). These leaders achieved their impact by translating their own expertise in teaching and learning to their teachers, thereby improving teachers' knowledge and skills levels. In doing so, a leaders own knowledge of core academic content plays an important role in their ability to guide teachers, and should not be taken for granted (Stein & Nelson, 2003).

Viviane Robinson, whose work helped establish a research base on the impact of leadership on student outcomes, positions leading teacher learning at the heart of leadership of learning (V. Robinson, 2011). The ability to lead teacher learning relies on a strong degree of pedagogical knowledge as well as knowledge in and of key content areas, although existing research has yet to establish what level of content knowledge is necessary (V. Robinson, 2010).

Dylan Wiliam also focused on leading teacher learning as the key capability of effective school leaders (Wiliam, 2016). He emphasized that leading teacher learning involves both designing learning for knowledge acquisition and for behavior change. A leader first has to work out what kind of learning is going to be most important for a given teacher or group of teachers: does this teacher need to understand more about how students learn science concepts? Or does this teacher have all the relevant knowledge but is struggling to consistently deploy good practices? (D. Wiliam, interview, February 21, 2017). To lead either of these types of learning, leaders themselves must have adequate knowledge of the practice area they are working to improve. Wiliam finds that when leaders with deep knowledge of learning, teaching and assessment practice focus on effectively spreading this knowledge to their teachers, they can transform student outcomes. Without a leader with deep knowledge, formative assessment risks being shallow and having little real impact on learning (Wiliam, 2011).

Despite this strong research base on the importance of leading teacher learning, there is evidence from a range of OECD countries that many school leaders are not enacting practices which promote teacher learning, such as encouraging reflective dialogue and collaboration (OECD, 2016). Moreover, as knowledge about effective professional learning and student learning advances, it is unclear how many leaders are up to date and have the depth of knowledge about learning and teaching to effectively support teacher development.

3.2.3. Developing collaborative professionalism

In leading teacher learning, the goal for leaders should be to build a culture of collaborative professionalism that cultivates both individual and collective efficacy (A. Hargreaves & Fullan, 2012). Collaborative professionalism refers to a culture in which teachers are continuously working with each other to learn and improve the learning of their students. This culture is therefore a step beyond professional development that merely "happens to" teachers periodically; it is instead a culture of consistent, day-to-day engagement. Teachers feel responsible to each other, are engaged together in ongoing learning to continuously improve practice, and can see each other as valuable resources of knowledge and learning (Fullan & Hargreaves, 2016).

Collaborative professionalism relies on and helps to sustain collective efficacy. Levels of collective efficacy in a school are significant predictors of positive student outcomes (Goddard, Hoy, & Hoy, 2000). A school's teachers experience collective efficacy when they are conscious of a shared belief that together they can have a positive impact on the learning of all their students. Collective efficacy overcomes the kind of "collective action problems" that can stymie change: in situations where group effort is necessary to create impact, individuals can hesitate to act. Only when a whole team believes their colleagues will also make the effort — because they believe in their collective power to make change — does each individual have a compelling incentive to make the effort. Leaders play a key role in creating collective efficacy by shaping opportunities for teams to have impact and helping them see when and how that impact is occurring.

Agile Schools: Building teacher collective efficacy through Learning Sprints

Agile Schools is an organization which supports networks of schools with processes and tools to enable collaboration professional learning and the development of collective efficacy.[16] Teams of educators work through rapid, focused cycles of work called Learning Sprints. The Learning Sprints process brings together the best of evidence-informed action research with elements of agile development approaches (see diagram below). School teams shape the improvement and innovation agenda around challenging areas of student outcomes that require focused attention. By working through precise and intentional cycles of improvement educators' teams can readily design, test and analyze the impact of evidence-informed teaching strategies. Simple tools and group protocols are provided to support educators' teams at each stage of the process. There are networks of Schools in Australia, Canada and Qatar utilizing the Learning Sprints approach.

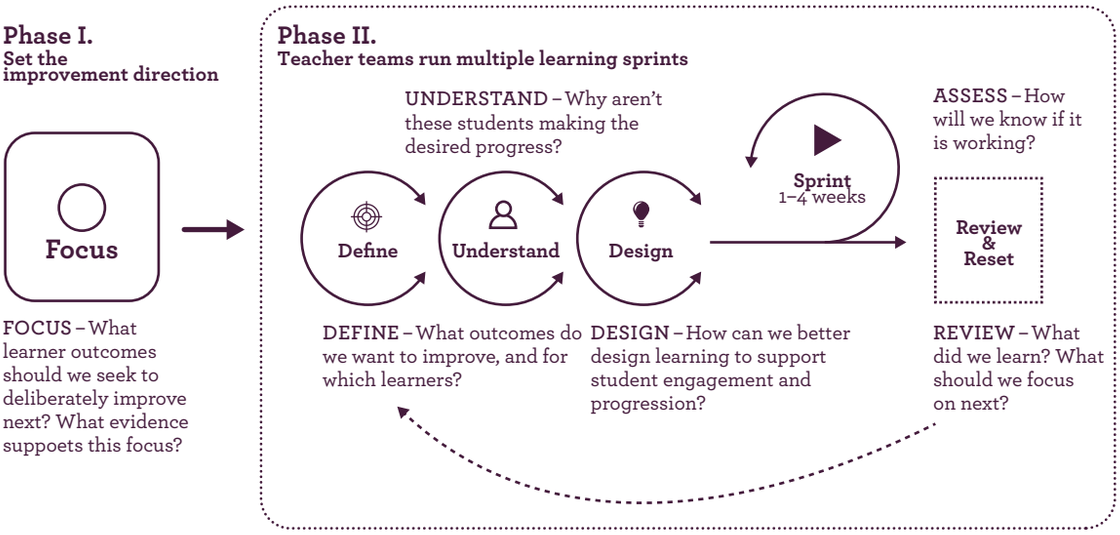


Figure 6: Agile Schools Learning Sprints Methodology

3.3. The core of Agile Leadership: Leading complex change processes

If we could be confident that the demands on any given school would be exactly the same in ten years as they are today, we might feel safe in developing codified leadership programs that train leaders in precisely the routine expertise they will need to lead those environments. We cannot predict that stability, however (Caldwell & Spinks, 2013, pp. 10–15). In fact, when we consider how the social and technological environments around schools are changing, all we can safely predict is that leaders of learning will face significant changes over their careers. New societal conditions create unpredictable, daily challenges (Walsh, 2015). These include challenges that can arise from working in global environments that are increasingly complex —

16. http://www.agileschools.com (Note: one of the authors is the founder of this organization)

where interdependencies can give rise to unpredictable new demands. For example, increasing mobility, both voluntary and forced, means schools have to be ready to respond to populations of children from different cultural background; or changes in local labor markets put pressure on secondary school skill programs.

The complexity of leadership for learning increases when system goals include a demand for change in the kind of learning outcomes leaders are responsible for delivering and the related practices and learning designs that educators will need to employ. The shift from maintaining day-to-day activity to leading change is the key difference that calls for qualities of leadership beyond "routine control" (Heniks & Scheerens, 2013, p. 390) In many jurisdictions, leaders face increased demands to support deeper and broader learning, for more diverse groups of children, to higher standards than ever before (Malone, 2013). Even when they are not under pressure from a system to change, leaders may seek independently to adapt their schools to serve a new generation of young people. As a result of these ongoing challenges and opportunities, according to Spillane, we need to prepare leaders "to be designers not implementers, because the challenges leaders face are about designing and redesigning educational infrastructures" (J. Spillane, interview, April 4, 2017). Infrastructures can here refer to elements such as school design, the use of time, space design, and hiring and teacher development processes.

Transformation to new learning designs and dramatically better learning outcomes is not a one-time occurrence. Managing complex and ambiguous change requires different approaches to leading improvement to traditional step-by-step educational planning and implementation. More promising are agile approaches to improvement that support change through iterative cycles of designing, testing, learning and scaling rather than engaging in efforts to create perfectly detailed plans and then seeking to implement with fidelity the preformed strategy (Breakspear, 2016).

3.3.1. Leading disciplined collective inquiry: seeing, acting, reflecting

For leaders working to develop and improve teaching and learning in their schools, disciplined collaborative inquiry is a key tool, process and mindset to approach change. Inquiry describes both a mindset and a process for leading complex change work (Breakspear, 2016; A. S. Bryk, Gomez, Grunow, & LeMahieu, 2015; Kaser & Halbert, 2009). First, it is a disposition toward understanding the system and situations that one is trying to change by rigorously seeking evidence of one's impact. Second, it is a means for working systematically through the steps of a change process. As a process, inquiry allows for collective action as different actors become familiar with the steps and the improvement of practice becomes routinized in the daily work of the school (V. M. J. Robinson & Timperley, 2007).

The disciplined inquiry process is steered by the collection and response to evidence throughout the change process (Breakspear, 2016; Earl & Timperley, 2015). Earl and Timperley (2015), have described this process:

> *Having a continuous cycle of generating hypotheses, collecting evidence, and reflecting on progress allows … opportunities to try things, experiment, make mistakes and consider where they are, what went right and what went wrong, through a fresh and independent review of the course and the effects of the innovation* (p. 8).

There are many forms of disciplined inquiry in operation within and outside of education. PDSA cycles (plan, do, study, act) are a common approach to evidence-based learning cycles in health and other industries including education (Langley et al., 2009). During this process, leaders plan for a new intervention, carry out a new action, study its effect, and then decide on a course of action, such as revision, adaptation, or expansion. A PDSA cycle provides a simple format for how leaders can approach the work of improving practice, team and organizational dynamics.

Inquiry processes are well-suited to managing high-impact change in complex relational environments. Leadership specialist Ron Heifetz, of Harvard's Kennedy School of Government, developed the concept of "adaptive leadership" to describe the skills necessary to manage the unpredictable dynamics of organizations and social systems navigating uncertainty (Heifetz, 1994). Sharon Parks, in her multi-year study of what students of leadership learned from Heifetz, summarizes the key capacities of a leader as "a seeing heart", "an informed mind" and "a little courage" (ibid, p. 244). This balance between observation (seeing, listening and understanding a situation), knowledge (drawing on or seeking the best that is known about an issue) and action (trying things out and learning from feedback) mirrors the key pieces of inquiry processes.

The Networks of Innovation and Inquiry: Spreading transformative inquiry routines

The Networks of Innovation and Inquiry[17] are a series of informal networks in the province of British Columbia in Western Canada, developed by practitioner-researchers Linda Kaser and Judy Halbert. The network emerged around the use of a method for improving teaching and learning in schools, known as 'Spirals of Inquiry'. There are now Spirals networks in Australia, England and New Zealand.

The spiral of inquiry was developed as a process for teachers to investigate and improve their practice, and has evolved into a leadership practice supporting leaders in approaching significant change to curriculum, teaching and learning. Leaders and teachers in British Columbia currently have the opportunity to rethink all their practices in line with a new curriculum and assessment program in the province, aligned with a more personalized and more expansive vision for student learning. In line with this new policy direction, whole districts have undertaken inquiry processes to understand the educational aspirations of their communities and their social, economic and environmental realities, and identify ambitious goals for innovating the student learning experience.[18] They are now continuing to use the inquiry process to develop specific practices to reach these goals. Thus, leading inquiry has become a core leadership competency.

Many of the leaders and teachers working with Kaser and Halbert voiced their struggle to find existing courses or programs to provide the knowledge and skills that they felt they needed to carry through their ambitions for change. Consequently, Kaser and Halbert founded the Transformative Educational Leadership Program[19] (TELp), a year long blended learning course at the University of British Columbia. TELp aims to provide leaders at any level — whether teachers, principals, superintendents or other education stakeholders — with the knowledge and approaches necessary to begin transforming their school and system.

TELp was launched in 2015, and is currently supporting its second, larger cohort. In line with its focus on transformative leadership for an unknown future, the core learning experiences take the form of dialogues between the group and visiting practitioners and policymakers working in education innovation, who bring outside perspectives and new thinking for the cohort to consider. All participants complete an inquiry project over the course of the year in which they implement substantial transformation in their schools.

17. http://noii.ca
18. http://noii.ca/wp-content/uploads/2014/05/Inquiry-and-Innovation.pdf
19. http://telp.educ.ubc.ca

The capacity a leader needs to develop is not only personal, but emerges from their social context and relationships (Kellerman, 2016). In recent years, studies of leadership in fields such as business, politics and healthcare have defined effective leadership in this new way. Having seen the limitations of defining leadership as a set of an individual's attributes, these studies describe leadership as an outcome of creating supportive relationships or social dynamics that can effect change (Haslam & Reicher, 2016). In other words, a leader is only as effective as the followers they inspire (Kellerman, 2008).

3.3.2. Enabling adult behavior change

Leading change in schools is a social process; it requires winning and sustaining the trust and buy-in of the educators and students who make up a school's culture and its daily practices (A. Bryk & Schneider, 2002; Moolenaar & Daly, 2012). The importance of trust in change processes cannot be over-stated. Google's data-based studies of leadership qualities in its own organization found that high-impact managers were distinguished by the extent to which their teams saw them as consistent and trustworthy (Bock, 2015, pp. 187–195). These qualities are key for team members to feel that they have freedom to innovate safely. To develop trust, leadership for learning requires highly developed emotional and social skills (K. Leithwood, 2012). These include not only skills such as reading social situations and communicating clearly, but also dispositions such as an inclination to deeply empathize with others, and to consider a broad range of perspectives.

Some of these skills and dispositions are linked to personality types and arise from formative experiences (Bono, Shen, & Yoon, 2014). But all individuals can become better at intervening in social dynamics provided that they understand more about what drives other people's behavior (Kegan & Lahey, 2009). Dylan Wiliam advises that leaders think about leading change in terms of Jonathan Haidt's analogy of "the rider and the elephant" (Haidt, 2006; Wiliam, 2016, pp. 188–200). All individuals have a rational mind—the rider—who thinks he is in charge of our behavior. But we are also driven by our emotions—the elephant—and the rider cannot get anywhere unless the elephant is willing to move. To introduce new routines and practices into a school, a leader needs to think in terms of motivating the elephant as well as directing the rider. Thus, providing advice and tools needs to be combined with emotional support and the inspiration to sustain inquiry and making changes to practice.

Building on the work of Chip and Dan Heath (Heath & Heath, 2010), Wiliam adds that the role of the leader is also to "shape the path" (ibid, p. 189). That is, while the elephant is strong and willful, it can be constrained by its environment as well as by the rider. A leader can change the social environment around teachers by creating new cues and norms. For example, starting each meeting by discussing an individual child's holistic progress sends a signal about what is most valued at the school, as well as modeling skills of observation and use of evidence.

3.3.3. Applying design thinking to accelerate change

In recent years, some educators and observers have begun to seriously examine the core tenets of learning, questioning the assumption that it should happen exclusively in classrooms and school buildings, or whether learning must be divided into subjects and lessons, or that students should be divided by age group (Hannon, 2015; OECD, 2015; K. Robinson & Aronica, 2015). If a jurisdiction gives school-based leaders some autonomy over the curriculum, leaders need particular knowledge to use this well, including knowledge of technology-enabled learning and of emerging trends in new subject matter (Caldwell & Spinks, 2013, pp. 179–192; Jameson, 2015). Even if leaders have limited control over curriculum, they can benefit from developing the knowledge and skills of a learning designer — rethinking the physical and social design of schools in line with new research on learning (Dumont, Istance, & Benavides, 2010).

In many countries where these questions are raised, educators have turned to design thinking as a process that can enable them to design new school models and approaches that meet learning needs[20] (AITSL, 2014; Flatt, 2016; Kaospilot, 2016; Lahey, 2017).

Like inquiry, utilizing design thinking involves both adopting a process and embracing a new mindset (IDEO, 2013). As a process, the Design Thinking for Educators toolkit involves five core steps: Discovery (find inspiration through empathy); Interpretation (uncover patterns and insight); Ideation (generate ideas); Experimentation (fast and iterative learning by doing); Evolution (refine a concept over time) (IDEO, 2013). As a mindset, design thinking represents a disposition toward taking a human-centered perspective, seeing problems in different ways, collaborating, trying out ideas and seeking feedback, all for achieving a desired outcome. Where design thinking differs from a typical inquiry process is in its effort to promote more expansive thinking. When it comes to imagining and implementing new practices that go beyond the existing evidence base design thinking is a highly valuable process.

Design thinking is often applied to the creation of new products or processes, but it can also be adapted into an approach to changing social dynamics and cultures. For example, School Retool[21] is a professional development program aimed at design thinking for school leaders. The program introduces leaders to a design thinking process developed by the design firm IDEO[22] and the Stanford d.School[23] (the graduate school of design). The aim of the program is to equip individual schools to 'hack' their way to creating a culture and practices for 'deeper learning' that is lasting and develops the full breadth of students' cognitive, interpersonal and intrapersonal capacities.[24] The program is structured as a fellowship which school leaders take part in over the course of three and half months, attending four workshops and using the intervening time to implement short experiments of new approaches called "design hacks".

20. You can read more about School Retool in the recent WISE Research report, Thinking and Acting Like A Designer: How Design Thinking Supports Innovation In K-12 Education.

21. http://www.schoolretool.org/

22. https://www.ideo.com/

23. http://dschool.stanford.edu/

24. http://deeperlearning4all.org/about-deeper-learning

In some sectors, design thinking is often practiced as "co-design", which represents a more collaborative version of design thinking (Hampson, Baeck, & Langford, 2013). Co-design was developed by designers working in social and public service innovation and embodies important leadership practices such as collaborating with a team and responding to the needs of a specific community (Bason, 2014). Co-design captures the mindset and some of the steps of design thinking while incorporating users into the process so that they become the designers. For example, in co-designing a more flexible approach to school scheduling, a facilitator would work with teachers, parents and other who would be affected by the new approach to carry out empathy processes with each other or with their students. The facilitator then would create workshop-like environments where participants can make sense of what they have found and come up with potential new models to try out together.

In some jurisdictions, leaders may have the opportunity to start entirely new schools, calling for even more sophisticated design skills to integrate all the many different aspects that shape the learning culture of a school (D. Jackson & Riordan, 2016).

IBM Design Thinking: Home-grown design thinking

IBM's Design Thinking[25] framework and approach was created by the dedicated design studio within the technology company. They have revised the steps of design thinking to create a process attuned to their type of design problems. The framework involves three principles: "a focus on user outcomes"; "restless innovation"; and "diverse empowered teams". It has three "keys" for team alignment. The process is then driven by a central "loop" of observation, reflection and making. This refined model is better adapted for use in a large company where many of the employees are not trained designers. The aim is to support them in focusing on iterating toward improvements rather than generating new ideas. The approach emerged in 2014, while the company was in the process of developing a new platform for cloud computing and has now been applied to over 100 other products.[26]

Design thinking is now a required competency for all employees at IBM. To build capacity to use their framework across the company, all employees join a design thinking bootcamp. So far 10,000 employees have been trained. To support the spread of the competency, IBM has rapidly shifted the ratio of designers to coders it employs, from one for every 80 coders, to one for every 20.[27]

25. http://www.ibm.com/design/thinking

26. https://www.ibm.com/blogs/think/2016/01/ibm-design-thinking-a-framework-for-teams-to-continuously-understand-and-deliver

27. https://www.wired.com/2016/01/ibms-got-a-plan-to-bring-design-thinking-to-big-business

3.4. System-specific Leadership Capabilities

Not all leadership policies aim to develop the same core competencies. In any jurisdiction, there will be additional capabilities. Some leaders need to develop more specific roles relevant to their location. Recognizing this is a crucial part of a design-approach to school leadership policy. In honing in on a set of leadership capabilities, system leaders need to start from a complete picture of the policy agendas in their jurisdiction and the demands these make of school-level leaders.

This picture must include available tools and routines. As stated at the outset, leaders make an impact on learners not only through their own behavior, but also through the tools and routines they bring into schools. Tools such as high quality curriculum materials, assessments, student information systems, and organizational routines, including formats for professional learning, are key elements of a strong school infrastructure. These elements rely on system level enablers, such as stable, high quality curriculum standards, technology, and scheduled time dedicated to teacher collaboration. This is why "the system infrastructure and school infrastructure are interdependent" (J. Spillane, interview, April 4, 2017).

A jurisdiction that can implement these enablers can specify leadership capabilities in terms of a particular curriculum and expectations around time and technology. Having these shared understandings and expectations can create a more powerful platform for developing leadership.

3.4.1. Aligning outcomes with the design of national systems

Leaders' learning and development can be shaped by a range of policies and offerings. For leadership development to contribute to the overarching goals of an education system, policies and offerings need to be actively aligned to the conditions of that system. This is essentially about ensuring that the design of the 'How' derives directly from the 'What'.

To help create this alignment, some jurisdictions have moved to establish national or state-level centers, institutes or partnerships with university providers. This approach helps to ensure alignment between the capabilities that are being developed through programs and offerings and the capabilities necessary to lead within the current system architecture. For example, in 2009 the state of Victoria in Australia established the Bastow Institute for Educational Leadership as a training center aligned with the direction of system reform.[28] As the founding Director of Bastow, Bruce Armstrong, explained:

28. http://www.bastow.vic.edu.au

> *Bastow pays close attention to understanding and developing essential educational leadership capabilities at each level of the system: system leaders, principals and teachers. This has been essential to the overall success of Bastow as it acts as a pivotal point for the development and exchange of best practice within and across schools, nurturing and building the momentum for system improvement.* (B. Armstrong, interview, June 9 2017).

The Bastow Institute is a branch within the Regional Services Group of the Department of Education and Training, and therefore the courses offered are designed to build individual and collective leadership capabilities aligned with the current system reform agenda. For example, as part of the extensive 'Education State' reforms from 2015 onwards, the department has introduced a new Framework for Improving Student Outcomes and a set of policies to support the development of professional learning communities within schools and communities of practice across schools, to enable the sharing of expertise, experience and resources. Bastow's suite of professional learning opportunities has been reshaped to directly support the effective understanding and implementation of the Education State agenda[29]. This alignment between leadership professional learning content and design, and system reform design is crucial. The goal of government leaders should not be to offer a broad range of general leadership development opportunities, but rather specific forms of capability development that enable understanding and school-based adaptation of a jurisdictions key frameworks and policies. Victoria's Bastow Institute is a strong example of such an approach.

Singapore's National Institute of Education provides another example. The NIE faculty work in close partnership with the Ministry of Education in both the selection of participants and the design of the courses. One goal of the Leaders in Education Programme is for principals to be able, "to understand the policy intent from the ministry but then have the confidence and competency to tactically adapt the policy within their unique school context" (P. T. Ng, interview, January 2017). One way this is achieved is through 'management dialogue sessions' with senior government officials. Participants have the opportunity to make sense of how his/her actions and decisions in the school should stay in tandem with the foundational organizing principles of Singapore and the MOE (NIE, 2013a).

Likewise, the Queen Rania Teachers' Academy in Jordan, which runs several leadership programs, has aligned itself to the overarching goals of the Jordanian Ministry of Education. In recent years, it has used this relationship to support the creation of more effective policies, building on its international partnerships with leading research universities including Columbia University's Teachers College and the Middle East Research Center, the Institute of Education at University College London, and the University of Connecticut (QRTA, interview, April 13, 2017). Thus, the QRTA not only

29. http://www.bastow.vic.edu.au/about-us/education-state

ensures that the 'How' derives from the 'What', but also plays a role in refining the overarching 'What' so that it stays abreast of the internationally-acclaimed teaching and learning policies and practices applicable to Jordan.

3.4.2. Supporting school networks and collaborations

Some jurisdictions offer opportunities for school-to-school learning or support. In these contexts, a leader may need to be a network leader, who supports teachers to learn with and from teachers in other schools, not just their own. Building and sustaining these partnerships calls for specific kinds of leadership knowledge and skills. If a jurisdiction is asking its leaders to play this role, it has to make sure that it provides sources of guidance and advice as leaders build this new set of capabilities.

Communities of Learning: Growing network leadership capacities

Communities of Learning are a new system structure in New Zealand that bring together groups of schools in a local area with a focus on engaging with and working for their community. Each Community of Learning is formed of roughly ten schools, usually including one or more secondary schools and any feeder primaries and early childhood centers in the area. Thus, a Community of Learning encompasses the full 'learning pathway' of children and young people in that area. When a CoL forms, the schools and community partners work together to identify particular 'achievement challenges' that the schools are facing and establish goals. They define achievement challenges in relation to the goals of New Zealand curriculum, which aims to develop all young learners to be confident, connected, actively involved and lifelong learners.

Through the government initiative, "Investing in Educational Success", a Community of Learning receives funding to support three full time positions for teachers and leaders which support the work on the chosen achievement challenges. The funding covers time for a leadership role, for one or more teachers working across the community, and time for teachers to work within specific schools. The time of these leaders is committed to securing and allocating resources toward the achievement challenges, including both human and material resources.

The leader of the Community of Learning is appointed from within the group of schools, and is typically one of the current principals. The role is positioned as a new step in career progression. For example, a primary principal must already have reached the stage of an 'experienced' principal before taking on the role. The CoL creates a selection panel and works with an external advisor to appoint an individual to assume this role. The New Zealand Education Council aims to provide a platform for Leaders of CoL to share learning and develop in their new roles. The council

is currently coordinating a nationwide effort to create a strategy for developing leadership at all levels, synthesizing the nationwide knowledge base and learning from leading examples within New Zealand.[30]

Communities of Learning make use of 'cycles of inquiry', using a similar method to the 'Spiral of Inquiry' process developed by Judy Halbert, Linda Kaser and Helen Timperley (see 3.4.1.). The appointed teachers' and leaders' roles of the CoL can access dedicated resources to support "inquiry time", equivalent to 50 hours for every ten full-time teaching staff, to support other teachers in their inquiries.[31]

3.4.3. Leading in challenging contexts

Sometimes leadership policies need to be specifically designed for particular challenges, such as low resources, high student mobility, or physical danger. In these contexts, it is even more important to identify the key competencies that leaders need, and to ensure that these are emphasized in the design of all leadership policies.

Leading for the Future: Adapting leadership knowledge to challenging circumstances

Leading for the Future[32] is a professional development program designed for Head Teachers and Principals in UNRWA schools, (the United Nations Relief and Works Agency for Palestinian refugees). UNRWA supports around five million registered Palestinian refugees in Jordan, Lebanon, Syria and the occupied Palestinian territories, providing education, health care, social safety-net, camp infrastructure and improvement, community support, micro finance and emergency response. UNRWA schools range from temporary establishments to more permanent institutions, but all aim at UNRWA's goal of providing high quality education for all pupils.

Leading for the Future focuses on providing head teachers and principals with the knowledge, understanding, ideas, and practical skills essential for the successful and sustainable improvements for pupils and staff in their schools, as well as practical tools and techniques to lead and manage sustainable improvement in their schools. Additionally, the program focuses on promoting inclusivity for leaders, teachers, and students.[33] The philosophy of inclusive education refers not only to children with special needs or to remedial education, but is an approach that aims to meet

30. https://educationcouncil.org.nz/content/leadership-strategy

31. http://www.education.govt.nz/assets/Documents/Ministry/Investing-in-Educational-Success/Communities-of-Schools/Communities-of-Learning-Guide-for-Schools-and-Kura-web-enabled.pdf

32. https://www.unrwa.org/userfiles/201208024147.pdf

33. https://www.unrwa.org/who-we-are/reforming-unrwa/education-reform

the learning, health and psychosocial needs of all children. The Leading for the Future program and the accompanying school-based principal development program aim to equip leaders to develop teachers' capacity by training them to use learning approaches that include all children.

3.4.4. Managing resources

Jurisdictions differ in the extent to which school-level leaders are responsible for managing budgets, buildings and personnel. In some jurisdictions, the vast majority of these decisions are made at the district level, while in others, school-level leaders make most of these decisions. Pak Tee Ng, of the National Institute of Education, Singapore, emphasized that leadership policies need to be designed to take account of the role of leadership in the system and the kind of decisions and actions for which leaders are responsible (Pak Tee Ng, interview February 1, 2017). Where education leaders are responsible for all the management of buildings and budgets, it is important that they are well prepared to use their resources effectively. As noted above (Section 1.1.4.), relationships between school-based decision-making and better student outcomes are conditional on specific kinds of leadership capacity.

To build this capacity, a few university education faculties have combined elements of management and business courses with educational leadership courses, to offer degrees such as the MBA in educational leadership and management at the Institute of Education in London.[34] While these courses are designed for leaders who may go onto manage several schools, there are important questions about how the relevant skills could be distributed to a wider range of school-level leaders. Leaders at all levels can have a great impact when they can use resources efficiently and imaginatively. There are many online courses that can provide certain relevant knowledge, such as training in creating budgets, but these could be too limited for some and irrelevant to others. Leadership policy can help to ensure leaders also have access to just-in-time resources on topics such as budget management or effective hiring practices, to ensure leaders can develop these capabilities only as and when they need to.

34. https://www.ucl.ac.uk/prospective-students/graduate/taught/degrees/educational-leadership-international-mba

3.5. Summary & Key Questions

Leadership policy needs to shift from a focus on credentials toward ensuring the development of capabilities: what people are actually able to do with their knowledge and cerfications. The core competency of school-level leadership is to lead the improvement of teaching and learning. Leading this improvement is complex and requires social skills and knowledge of adult learning and the keys to motivate behavior change.

In leading more transformative change, leaders need to balance observation with action. A variety of specific processes can support transformative change, including inquiry cycles and design thinking. Furthermore, to develop the personal presence and values necessary to lead change in schools, leadership policies must also include a focus on leaders' self-development.

Key questions for designing the **What** of leadership policy:

- Does our jurisdiction need a capability framework for leadership? If one exists, to what extent does it align with the capabilities experienced leaders say they need? To what extent does it align with the evidence-base on effective leadership?
- When we develop leaders in this jurisdiction, in what ways are we developing them to focus on impacting teaching and learning?
- In what ways are our leaders in schools prepared to manage improvement and meet new demands for education?

Chapter 4

How Should Leadership Development Be Designed?

"If you want students to finish a long cross-country race, you cannot just send them off and only provide support and refreshment at the finishing line. You need to ensure there is water, first-aid and clear direction every few kilometres. The same is true for school leadership development."

Pak Tee Ng
National Institute of Education, Singapore

Once a jurisdiction constructs its set of desired capabilities for leaders of learning, the success of development efforts will be dependent on how well the jurisdiction translates that WHAT into a well-designed HOW. Too often, jurisdictions have answered the question of 'how should leadership development be designed?' by commissioning or supporting a range of sporadic, short-term programs that are available to some leaders at a particular point in their careers. It is crucial to carefully consider the development opportunities and conditions that are required if leaders are to sustainably change their practices and positively impact teaching and learning. As we observed in chapter 1, unfortunately, short-term programs removed from the daily work of schools have typically failed to create the capabilities for leaders to apply what they know across real-world contexts. Such approaches to development will not successfully build the scale nor quality of leadership expertise necessary across a jurisdiction.

To create agile leaders of learning who are prepared to enact their knowledge and skills, leadership policies need to be designed with the goal of developing 'adaptive expertise' that can be applied fluently and intelligently in real contexts. Adaptive expertise requires time, practice in context and feedback to develop, and thus to be successful all development initiatives need to be aligned with the principles of effective adult learning (Snook, Nohria, & Khurana, 2011).

System leaders need to shift from thinking in terms of one-off leadership preparation programs to designing leadership development into a platform for career-long growth in expertise. This approach to development may incorporate a formal program but must also include ongoing job-embedded learning within their school, supportive developmental relationships, and be accelerated through open learning experiences that individuals engage in voluntarily.

This chapter is divided into four key sections:

- From leadership programs to development platform
- Embedded leadership development
- Intensive leadership programs
- Enabling networks and platforms for ongoing learning

4.1. From Leadership Programs to Development Platform

4.1.1. Developing adaptive experts

Any system leader would agree that the goal of leadership policies is not increased course completion but the development of better leadership capabilities.

We have set out that leadership capacity is a form of 'adaptive expertise', defined in contrast to routine expertise. Routine expertise allows one to carry out a particular procedure or task accurately and efficiently; an individual with adaptive expertise has the conceptual knowledge and breadth of skills to adapt actions to new situations (Hatano & Inagaki, 1986). Like routine expertise, adaptive expertise develops in a domain, which may be defined by a particular profession, cultural practice or social context. Whatever it is, the adaptive expert has familiarity and fluency with a sufficient range of aspects of that domain that they can solve emerging problems quickly or come up with new ideas and solutions not visible to others. Consequently, adaptive experts have high capabilities in problem-solving and innovation in their domain of expertise (Schwartz, Bransford, & Sears, 2005).

As we have established in Chapter 3, the research literature on school leadership indicates a growing consensus that great leadership is not only a particular set of knowledge and skills, but in the capability to enact these skills appropriately in a specific context and under changing conditions. Louise Stoll, synthesizing studies of school leadership in the UK, finds that a common—if unsurprising—finding is simply that leaders need to be "flexible and adaptable" (Stoll, 2015). A leader of learning who has developed adaptive expertise is fluent in the particularities of their environment, their teams, and how to carry out the precise features of their role. They can then use that knowledge and their skills to respond to situations and shape the direction of change. Adaptive expert leaders can be outward-facing to their environment because they can manage multiple problems simultaneously. They can read and respond to changes in their environment quickly and effectively without risk of losing momentum in a process of change and improvement.

Thus, adaptive expertise describes the additional level of fluency necessary for leaders to translate their knowledge and skills into real impact. This is no different to the development we have seen in our understanding of teaching expertise: great teaching lies in no specific set of knowledge or behaviors, but in the fluency that allows teachers to respond effectively to the complex and constantly changing needs of students (Fairbanks et al., 2010; Hattie & Timperley, 2007).

So how does a system develop adaptive expertise?

4.1.2. Principles for designing a development platform

The literature on leadership development and professional learning indicates that many efforts fall short of effectively leading to fluency and change in leadership practice. We suggest three key qualities for impactful leadership learning.

- Embedded — so that most of the learning happens within the context of work
- Personal — is owned and driven by the leader (rather than the system)
- Continuous — there is no end to leadership learning

Embedded: Learning happens within the context of work

Developing adaptive expertise calls for a combination of learning experiences. Some experiences aim to provide new knowledge and perspectives, but most importantly, extended experiences allow emerging leaders to practice and refine their skills in a real context. Extended experiences are crucial. Studies of where and why leadership development fails to create impact find that the most common reason is that leaders are not prepared in the real context of their work (Beer, Finnström, & Schrader, 2016). Thus, while they may develop great new ideas and capabilities while on a special development program, once they return to work they find they cannot adapt their new skills to the routines and conditions of their context (Eisenstat, Spector, & Beer, 1990).

Studies of adaptive expertise emphasize that the key factors in its development are time, practice and feedback — and practice needs to take place in real environments. In order to direct and sustain improvement in schools, leaders need to be able to read complex situations, understand how others are viewing situations, and continually reflect on their approach and alter it when necessary (Heifetz, Linsky, & Grashow, 2009). Developing this set of capabilities is not the same as teaching the content or procedural knowledge of a discipline. It calls for ongoing learning through which leaders can practice and refine their observational, interpretive and social skills to the point where they develop adaptive expertise.

Personal learning is owned and driven by the leader

The most powerful learning is personal. Across all levels — students, teachers and leaders — literature on learning design emphasizes this principle (Dumont et al., 2010; Ericsson, 2009). This is not to say that learners should always be the ones choosing what they learn — typically learners at all levels need guidance and direction on what they should learn and how, particularly when mastering a new domain (Kirschner, Sweller, & Clark, 2006; Wiliam, 2016; Willingham, 2010). Nor does it mean that learning should be carried out individually — other people can play a key role in motivating and scaffolding our learning (Dumont et al., 2010; Kyndt et al., 2013). What it means is that to have impact, learning processes have to be meaningful to an individual. The individual has to feel a need for new learning, has to connect new knowledge

or experiences to what they already know, and, where behavior change is the goal, has to feel sufficiently motivated to practice and refine new skills (Bransford et al, 2000; Wiliam, 2016; Willingham, 2010).

Making learning personal is also about attending to the social and emotional work of becoming a leader (Gronn & Lacey, 2004). As we saw above (section 3.1.3) leadership involves shifts in a person's identity and capabilities for reflection. These shifts can be supported by particular learning designs which take participants through intensive experiences and then help them to reflect on and scrutinize their own other's behavior in those experiences (Parks, 2005).

Continuous learning: Maintaining engagement and progression

Leadership development is often undertaken as preparation for a specific role, most notably the principalship. But leaders do not stop developing once they assume a position. Some of the most powerful opportunities for development come when leaders have some experience of their role and feel confident enough to develop new capacities. In the best conditions, engaging with continuous learning becomes an integral way in which the leader operates. Studies of teacher professional learning in high-performing systems find that where schools create time and routines for adults to work together, educators engage with new learning as part of their regular work (Jensen et al., 2016). System leaders have to cultivate these same conditions for their school leaders. Developmental progression as a leader is also vital for continued engagement and job fulfillment; in studies of U.S. systems, principals with access to developmental opportunities are less likely to want to leave the profession (Tekleselassie & Villarreal, 2011).

If leaders stop learning it will be very difficult for them to be the 'lead learners' of their community (Fullan, 2016). Thus leadership policies need to be designed with an eye to the needs of experienced leaders as well as new leaders. Systems that have been designed to improve the performance of struggling leaders may inhibit the impact of expert leaders (Fullan, 2013; D. Hargreaves, 2012b). To incentivize leaders to engage in further learning, it is important that they have opportunities to use and demonstrate their additional expertise. Leaders should be given the flexibility to take on additional responsibilities as and when they demonstrate that they can handle them.

By looking to these three qualities—embedded, personal, and continuous—the design of a systemic approach to development begins to take shape: a range of opportunities that leaders can identify and embed into their work, and a range of policies that incentivize ongoing development by giving recognition and opportunities to expert leaders.

What might these opportunities look like?

4.2. Embedding Leadership Development: Organizing for sustained learning

Some jurisdictions spend a considerable time and funds developing leaders in formal programs, but professional development situated within schools themselves is often overlooked.

Embedded workplace leadership development relies on organizational routines to build feedback and opportunities for deliberate practice into the workflow of current and aspiring leaders at all levels of the school. It also relies on relationships that allow leaders to draw on the expertise of more experienced peers. As John Bransford and Dan Schwartz conclude from their studies of adaptive expertise, "it takes expertise to make expertise" (Bransford & Sears, 2009). It is very difficult to become an expert in something without guidance from an existing expert, someone who can cut through a morass of information to provide the essentials, correct misconceptions, and advise on novel situations. Expert peers pass on tacit knowledge and behaviors that includes a set of lenses, dispositions and capabilities for approaching new contexts.

The following sections outline several models for embedding organizational routines and developmental relationships into the daily work of leaders.

4.2.1. Leadership learning and deliberate practice

Embedded learning is designed to support participants in practicing their skills in real world contexts. Studies of how individuals develop expertise highlight the vital importance of practice — but most importantly, of deliberate practice (Deans for Impact, 2016; Ericsson, Nandagopal, & Roring, 2009). Deliberate practice takes place where individuals receive feedback and revise what they are doing each time they try out a skill. Repeating the same mistakes does not lead to improvement. Getting precise feedback helps a leader to modify their actions and improve.

The National Principals Academy: Facilitating deliberate practice

The National Principals Academy at Relay Graduate School of Education is a blended learning program for in-service principals in the United States.[35] The program takes place over a two-week summer intensive, and four weekends over the course of a year, and is designed to maximize participants' opportunity for deliberate practice. Relay has identified the 'core skills' of instructional leadership in the U.S. context, such as leading data meetings, carrying out observations of teachers' practice, providing feedback to teachers, and developing a strong school culture. To develop these core skills, the academy focuses on opportunities for leaders to see the skills, by studying videos or live models of exemplary practice, to name the skills by engaging in discussions about what specifically makes the practice effective, and to do the skills by practicing the actions, receiving feedback, and repeating (Klompus, 2016, pp. 28–29). Participants engage in live assessments of their skills via video, which they then review with guidance, to understand exactly where they were strong or need improvement. While the National Principals Academy is a dedicated course, the use of video for feedback is increasingly common as a school-based practice for teaching development and could become a more widely used tool for leadership development.

4.2.2. Reflection and double loop learning

Leaders also need time to step back and reflect on their context and the systems and culture in their schools. These are the elements that allow for deep 'double loop' learning and the development of a capacity for reflection and growth (Argyris, 1976, 1993). In single learning loops, leaders identify emergent problems, work on them, and look for signs of desired results. In double loop learning, rather than working only on problems as they are presented, leaders consider how they may need to reframe a situation, problem or desirable goal in order to make real and lasting improvement. Double loop learning is particularly important when confronting complex, opaque problems, or in periods when goals are shifting.

A major challenge for school-level leaders seeking to 'look at the big picture' is how to get accurate and detailed feedback from across a whole school. Many leaders may feel they are able to 'read' their school, but cognitive biases can lead individuals to overlook important areas in which they might need improvement. One method to get a broader set of feedback is to use school surveys. The 'five essentials' survey was developed at the Chicago Consortium for School Research.[36] It aims to improve on satisfaction-based surveys by including concrete, granular questions about leadership, teaching, learning, school culture and involvement of families. The survey is completed by

35. http://www.relay.edu/programs/national-principals-academy-fellowship/overview
36. https://www.uchicagoimpact.org/tools-training/5essentials

teachers as well as students, and so provides detailed feedback from teachers about how they are responding to efforts to influence teacher learning and practice. The survey is currently in use in 14 U.S. states, and this scale of use has additional benefits; leaders who use the survey are working together across school and even state lines to share learning about using the survey data to work toward improvement (A. Bertani, interview, March 22, 2017).

The Australian Institute for Teaching and School Leadership developed a '360-degree reflection' tool to provide leaders with feedback to help shape their professional learning.[37] The tool is aligned with the Australian Professional Standards for Principals, and provides feedback on 15 attributes of high performing school leaders.

4.2.3. Developmental relationships

Peers are an important source of advice and feedback found within daily work. Learning from peers may be the most useful form of learning that leaders have, as it provides them with contextualized knowledge and insight based on experience. Alma Harris and Michelle Jones found in their interviews with school leaders from seven different jurisdictions that the vast majority of them observed that learning from others had more of an impact on their practice than attending courses: "Every single principal we interviewed said that the thing that had the biggest impact on their practice was another principal or a colleague" (A. Harris and M. Jones, interview, February 7, 2017).

Sometimes these 'developmental relationships' can form in the context of mentoring or coaching programs. Key opportunities for established leaders to mentor emerging leaders may be through networks of schools. In some jurisdictions, school leaders can take responsibility for additional schools when they can demonstrate their ability to powerfully impact on learning. It is important to recognize, however, that these kinds of roles take special expertise. Coaching or intervening in another school is quite different from leading one's own, and requires dedicated development opportunities to ensure that individuals are ready to take on those responsibilities.

One way to develop in-service or past leaders into expert coaches and mentors is when they are recruited to play a formal coaching role in leadership development programs. The National College of School Leadership in England found that experienced leaders were the greatest asset to the design and delivery of their qualification programs. They decided that a key quality criteria for program providers should be that half of the sessions had to be led by current or past head teachers with a proven track record. The college also found those individuals most useful in identifying and assessing participants in the qualification (T. Greany, interview, February 2, 2017).

37. https://www.aitsl.edu.au/australian-professional-standard-for-principals/360-reflection-tool

A strong system design relies on tapping into the existing expertise in a jurisdiction. System leaders may be surprised by what they find in their jurisdiction; a research study in Vietnam which interviewed 27 successful principals found that these leaders regularly engaged in developing teaching and learning practice in their schools (Hallinger, Walker, Nguyen, Truong, & Nguyen, 2017). This finding was contrary to the existing literature, which suggests generally low levels of instructional leadership in that country. This example illustrates that it is always important to start by understanding the initial context. In addition to formal research, in-person or online networks are useful ways to identify key leaders and sources of expertise in a local area.

4.2.4 Peer reviews

Use of Peer reviews is a growing trend in school-to-school learning or in formal school inspection systems. Peer reviews involve collaboration between teams of school leaders and trained school inspectors. Inspectors act as facilitators, training the school leaders in the skills of observing and interpreting practice at another school. The school leaders then carry out an inspection visit, working closely with their counterparts at the host school to ensure a deep and rich view of the school's practices. The inspectors then also check or add to the review to ensure the host school receive high quality feedback.

The state of Victoria in Australia has initiated a system of peer inspection as part of the state's official school inspection process. In this way, they have brought together a key part of their accountability functions with their leadership capacity building functions.

Even in jurisdictions without a formal inspectorate or structure for peer review, leaders can engage in more informal 'inter-visitation' where they agree to visit each other's schools and provide feedback. Providing feedback is an important part of the learning process. For the visitor, it is an opportunity to articulate key takeaways, while for the host, it helps to make the time consumed by a visit worthwhile because they learn from the external point of view. By discussing the feedback together, both visitor and host can clarify any differences between the insider and outsider perspectives on the school. These conversations can provide valuable opportunities to clarify misunderstandings or misconceptions about practice that can otherwise proliferate amongst members of the education profession.

4.2.5 The master-apprentice model

Learning from expertise can be structured formally into induction for new leaders. In fields such as medicine and law, professional capabilities are developed by working alongside other experts, by observing their work, and then gradually having opportunities to attempt their roles and tasks, while still having access to their support.

School leadership might learn much from these approaches that rely on the induction of new participants by experts into their ways of making sense of, and acting on the world. Apprenticeship models recognize that new expertise can develop through working and learning alongside existing experts.

Apprenticeship can also be an effective learning model for developing a professional identity. In the fields of law and medicine, emerging professionals spend at least a year as an intern, trainee or associate, working alongside and expert consultant or partner. This may be an individual, one on one relationship, but often takes the form of a group relationship where one expert can model for several junior professionals. These relationships are seen as crucial for the way that juniors adopt the dispositions and identities of their profession.

4.3. Making It Personal: Intensive experiences and identity work

Both new leaders and established leaders periodically need dedicated inputs that provides them with new ways of thinking, new knowledge, and intense experiences that disrupt their established patterns and self-perception. These inputs need to be designed to maximize their impact on individual's practice, which means changing what participants are actually able to do, not just providing them with new things to think about.

Program designs aiming to effectively influence practice should involve participants in applying new knowledge and skills in environments in which they work. In the U.S. for example, leadership development programs are trending toward a 'clinical' program model that incorporates in-school residencies or internships (A. Bertani, interview, March 22 2017). These experiences are designed with a focus on teaching and learning and are a chance for leadership to hone practical skills of understanding and improving teacher practice. Residencies or internships usually take place at the site where the leader has worked previously or will go on to work, and so the goal is to develop extensive knowledge of a specific school site. Alternatively, a few programs incorporate the second type of challenge experience, what leadership authority Jay Conger calls 'stretch assignments' (Conger & Fulmer, 2003; Ready, Conger, & Hill, 2010).

Learning opportunities that include experiential learning may be offered by a number of institutions, which include professional associations, universities, or other providers. While they may be structured as formal programs, the key is that they include a large amount of context specific learning and reflection. These are the elements that allow for 'double loop' learning (see above) and the development of a capacity for reflection and growth (Argyris, 1976, 1993).

4.3.1. New ideas, new identities

Well-designed formal programs can be particularly effective for shifting how individuals think by providing them with new perspectives or even new identities. The design of these intensive experiences needs to take into account adult learning theories and their participants' current sense of self. Learning designs that do not consider the diverse ways in which adults approach experiences and see the world are unlikely to be effective across the board. But keeping these differences in mind and supporting adults in understanding their own tendencies and resistances may unlock much more powerful opportunities for change.

Opportunities for powerful, transformative learning might include introducing expertise from other domains into education. For example, aspiring school leaders might take an 'externship' (work experience for the purpose of learning as opposed to getting a job) to work alongside experts in fields such as design, business, or engineering. Exposure to fields with different ways of thinking can help leaders of learning be more flexible in the way they tackle problems.

De Nederlandse School: Experiential learning for teacher leadership development

De Nederlandse School[38] (the Dutch School, or dNS) is a new model of professional learning for teachers and school leaders in the Netherlands whose aim is to create radical change in education. It was founded based on a vision of teacher leadership set out in Flip the System: Changing Education from the Ground Up[39], by two Dutch teachers Rene Kneyber and Jelmer Evers. The goal of dNS is to provide a community and intensive experience for educators who want to take on responsibility for innovating their classroom and school in line with contemporary society.

The first cohort of dNS began in September 2015, with 42 teachers from 17 schools. The goal of the program was to transform these teachers into leaders, researchers, designers, and entrepreneurs. By developing teachers' design skills the course prepares them to lead on curriculum creation in ways that can be tailored to the needs and interests of their students. The aim of developing teachers with entrepreneurial approaches is to ensure that they can continue to take opportunities and develop the offerings in their school as knowledge and skill demands change. The program was designed to equip teachers and students for the long-term, enabling them to make decisions about how they could adapt the national curriculum and their own teaching to best meet their students' future needs.

38. http://www.denederlandseschool.nl
39. http://www.flip-the-system.org

The design of the course is aligned to these goals. The first stage encourages teachers to be curious about themselves, their students and the world outside of their school. At the start of the program, teachers engage in an individual research project to work on understanding the sense of self that they bring into the classroom, how it has been formed by their own experiences at school, and how it could be reformed to allow them to better connect with students' needs. This is coupled with an intensive coaching program over nine days, which includes group sessions. This 'self-research' aims to help teachers know themselves so that they can better know their students; the underlying belief is that when teachers have better self-knowledge they can be better role models for students.

Most of the learning takes place in spaces belonging to different education and industry leaders, recruited through the program leaders' extensive professional networks. This method exposes teachers to diverse contemporary worlds of work, allowing them to network, obtain ideas and develop a broader picture of the kind of learning that they want to promote in their classrooms.

The recruited individuals lead introductory workshops so that participants develop the skills of design thinking and disciplined innovation. Central to the learning process are 'designdays', a two-day workshop, occurring three times each semester. In designdays, teachers work to develop a new teaching and learning practice that aims to shift the culture and experience for students in their school.

4.3.2. Experiential learning

Adult learning theories can inform methods for designing high quality learning experiences in real environments (Snook et al., 2011). Key elements include:

- Learning opportunities embedded in active organizational settings
- Opportunities for personal growth and feedback
- Assessment of whether or not participants can demonstrate behaviors and competencies in the real-world.

Each of these elements can be achieved through problem-based or challenge-based learning in which participants have to work through a situation or meet a goal in a real-world setting.

In the context of school leadership, projects or challenges need to focus on the core work of leadership of learning: raising teacher capacity and student outcomes (F. S. D. Ng, 2014). An integral part of this kind of challenge is

learning how to identify when you have had impact. School leaders need an opportunity to learn and practice evaluation skills (D. Wiliam, interview, February 21 2017). This includes both learning how to introduce changes in a way that can be evaluated, and identifying valid indicators of change. Short, sharp inputs on evaluation and assessment literacy should therefore be part of any experience preparing leaders for challenge-based learning.

There are two types of challenges leaders might engage in as part of a structured experiential learning program:

1. the challenge of their own workplace, where they are applying new knowledge and skills within the community and organization they will continue to work in, and thus practicing their new skills and knowledge while also adapting them to that specific context, and

2. the challenge of a similar workplace, but one which affords them a different perspective on their work. For example, an aspiring principal might have to complete a placement in both an excellent school and a school that is struggling.

Each type of experience has advantages. In the first case, participants have a chance to practice their new knowledge and skills in a context with which they are familiar, and also make adaptations that may improve their ability to impact that specific organization.

In the second case, entering a new environment, a participant can practice applying knowledge and skills, but the experience also fulfills a range of other purposes. These include: a) ensuring that leaders who are going to be qualified are prepared to work in diverse settings, b) learning from and getting ideas from a different organization or environment, c) making it easier for them to abstract their existing tacit knowledge by having to apply their leadership skills in a new context, and make the motivation more explicit.

A good example of leadership development designed around these principles is the Leaders in Education Program run by the National Institute of Education in Singapore. As with the other programs offered by the institute, it requires participants to complete an extended, school-based project of implementing a curricular or pedagogical change (P. T. Ng, 2015). This ‘Creative Action Project’ is a major feature of the learning and assessment in the LEP. It aims to develop participants’ ability to adapt and lead amidst the complexities of a specific environment; they are placed in an unfamiliar school, where participants have to envision the school in ten to 15 years’ time. They use the practices of ‘futuring’ and ‘design thinking’ (NIE GPL, 2017), taking into account the Singapore context (Ng, 2007). Along with the multiple sources of inspiration participants are exposed to in the program, the CAP serves as a feature that creates knowledge (Ng, 2007).

LEP participants then apply the created knowledge by implementing an aspect of their envisioned school that can fit and add value to the current state of the school (NIE, 2013a; Ng, 2013). They are encouraged to manage their proposed changes and consider the accompanying feedback from their placement school. This experience tests the capacity of aspiring leaders to enter a new school environment, and influence and alter the practice of an unfamiliar group of school staff and students (Ng, 2013). An evaluation of the CAP concluded that it supported leaders in learning to a) conduct 'futuring', b) contextualize, c) be adaptable and flexible, and d) collaborate in a self-organizing paradigm (Ng, 2013).

4.3.3. Leader-generated case studies

Teaching through case studies is a well-established method for bridging theoretical and practical learning. Analyzing case studies of actual scenarios can help participants practice the skills of making sense of a context, seeing the big picture, and being attuned to the dynamics of an unfolding situation. Learning through case studies can therefore be a valuable part of formal programs, where participants learn knowledge and skills in a format that is easier to translate into new practice when they return to their daily work.

A twist on this method is to have participants generate their own cases. Ron Heifetz, Co-Founder of the Center for Public Leadership at Harvard Kennedy School, found that getting students to create a case from their personal work history produces created a more profound experience. Leadership development is not only about learning how to apply knowledge and skills to situations, but learning how to identify one's own values. Leadership students have to be able to engage with their own behavior in order to really reflect on and clarify their values.

David Jackson, former Director of the National College of School Leadership in England, described this as learning through case sets; participants worked in a group of 12 to 15, with two facilitators, who helped the group to generate their own content for each session. Participants kept reflective journals in which they recorded the challenges of their first year as a school leader and how they responded. These reflections provided the content for sessions, supplemented by brief thought pieces from leadership experts to introduce challenge. Keeping a journal can also have benefits for the mental health of leadership, an important part of maintaining leadership capacity (Pennebaker & Seagal, 1999).

Jackson also stressed the importance of developing a set of values. He reflected that as a school leader having a set of values and actionable principles based on those values was what allowed him to navigate new or challenging situations. For example, difficult decisions about individual teacher's job prospects become easier by starting from the principle of establishing a personal connection and trying to act in the best interests of the school.

Incorporating personal experiences into leadership development is particularly effective in promoting development growth in leaders who may be preoccupied by others' social expectations, rather than having their own navigation system. O'Brien studied a range of leadership learning which focused on personal experiences and found that students who began at a pre 'self-authoring' stage of development (see section 3.1.3) were likely to move to that stage. (O'Brien, 2016).

New Visions: Co-creating core new knowledge for principals

New Visions[40] was a flagship program created by the National College of School Leadership in England in 2001. The design of the program emerged from a series of study visits by members of the NCSL team, partnered with a current school leader, to the world's top centers of adult and leadership learning around the world. Having visited fourteen sites, they pooled and distilled their learnings. Thus, they designed New Visions by 'standing on the shoulders of giants' (D. Jackson, interview, 6 February 2017). The program model consisted of a team of four expert facilitators who each worked with an expert head teacher to facilitate one group of newly appointed heads over the course of 15 months. Instead of a fixed curriculum, the facilitators created sessions from 'the lived experience of new headship', using experiences introduced by the participants, supported by think pieces commissioned by the team for leadership experts.

In a key aspect of the program the facilitators used scaffolding to model and teach new school leaders how to be leaders of adult learning, how to create a culture of learning, how to use the knowledge present in the room, and how to motivate and support on-going reflection and improvement. Outside of the sessions, leaders engaged in journaling to feed reflections into each session; former New Visions participants are known to use journaling in their practices today.

This type of co-created learning rests on a refined model of the kinds of knowledge practitioners need in their daily practice. The 'three fields of knowledge' emphasizes that to be effective, new leaders need to have access to:

- what is known — the existing best evidence, theory and practice of leadership
- what we know — what those in the room know tacitly from their experiences, and what their teachers know

40. http://www.tandfonline.com/doi/abs/10.1080/13634230500116314

- new knowledge — knowledge that is created, made explicit and codified in the process of learning together and reflecting on experiences. As leadership is an emergent property and requires slightly different knowledge depending on the context and challenge, every new group of leaders in their time and place will need some new knowledge.

Leaders trained to think in terms of the three fields of knowledge are less likely to neglect the contextualised expertise that they and their teachers bring to the table, and may also be more inclined to work collaboratively with leaders in their schools and between schools in the important work of creating and codifying new knowledge for the field.

The core elements of New Visions were developed into NCSL's Collaborative Leadership Learning program, a set of guides, readings and facilitation notes designed for use by local facilitators.

4.4 Supporting Continuous Learning: Routines & Networks

The most powerful leadership learning can often occur in the context of problem-solving challenges, but in these moments leaders may not have time to access formal learning opportunities or mentors. Studies of teachers indicate that where and how educators seek advice and help depends very much on their surroundings. Social ties among teachers provide an important source of their daily learning and feedback. These ties typically form among teachers of the same subject and age group, as formal and informal meetings with this group provide opportunities to raise questions and seek help. But these ties often break when teachers are moved to teach a different year group (Spillane, in-review). School leaders can foster teacher learning by providing structures for teachers to informally seek help from others who are in similar roles and therefore have highly relevant knowledge. Likewise, system leaders need to create opportunities for the school leaders in their jurisdictions to interact and form a learning network.

Learning networks can be supported by a district or state effort, but in today's world, these networks need not be geographically restrained.

4.4.1. Organizational routines

A key way to ensure that capability development is continuous is to make use of organizational routines. Organizational routines are approaches which leaders can introduce to their school as methods to work on iterative improvement or innovation (Sherer & Spillane, 2011; Wiliam, 2016). Spirals of inquiry (see section 3.4.1.), learning sprints (see section 3.2.3) and design thinking (see section 3.4.2.) are three examples of organizational routines. By practicing working with these routines, leaders learn how to improve the capabilities of their team, as a group.

4.4.2. Local and global learning networks

The growth of communities of educators on social media platforms such as Twitter led some school leaders to describe themselves as having an online 'personal learning network' — a group of fellow practitioners who give each other recommendations, share feedback and field each other's questions. In some jurisdictions, system leaders have sought to stimulate this activity through initiatives such as 'Connected Educator Month' in North America.

Learning networks are typically sustained through a mixture of online and face-to-face activity. In the United Kingdom, a group of school leaders who had met through professional associations and online formed the Headteachers' Roundtable, now a powerful policy influence in the English education system. The Headteachers' Roundtable has held several affordable day-long conferences, gathering school leaders and other interested educators to meet in person, and also facilitates knowledge sharing online, as the majority of its members are active Twitter users and blog regularly about their learning. Their blogs incorporate cutting edge research — based on their personal reading — with ideas about current initiatives and policy directions in the English system. The content that they offer to current and aspiring leaders is therefore highly contextualised and knowledge-rich — just the kind of input that busy leaders need.

4.4.3. Accelerating digital learning networks

Many educators around the world are developing personal learning networks online. But many are not. System leaders can reflect on how to stimulate this powerful source of learning for leaders in their jurisdiction. One key starting point is online courses that provide compelling content to new or experienced leaders, often for free and without a need to enter any formal program or adhere to a strict timetable.

For example, Leaders of Learning is a MOOC (Massive Open Online Course) developed by Richard Elmore for the platform EdX, in collaboration between Harvard, MIT and other universities. Over six weeks, participants examine their own personal theories of learning, and come to understand how an organizational structure reflects particular learning theories, some of which may be defunct. Participants learn how the design of physical and digital environments can support learning, and what neuro-scientific findings suggest about the future of learning. This kind of course is particularly applicable for leaders who are in a position to radically rethink the learning environments or methods of their schools. Communities can form around these courses, creating new learning networks around a particular body of knowledge.

Leaders should actively press for knowledge sharing and create opportunities for teachers. Networks which form organically, without intervention, are not necessarily best. Studies of intentionally created learning communities find that these efforts can indeed lead to more collaboration and learning between teachers (Spillane et al., 2011).

OSSEMOOC: Introducing leaders to open learning

OSSEMOOC, the Ontario School and System Leadership Edtech MOOC, exemplifies the deployment of leaders with expert knowledge in a particular area in the creation of new learning opportunities for other experienced leaders. OSSEMOOC was created by Donna Fry and Mark Carbone, who are educators with extensive experience with digital learning. They knew that digital learning continues to evolve and did not want the course to present any static set of information. They thus created the 'course' as a gateway into the informal learning communities growing online in Ontario and beyond, in particular via Twitter and blogging.

Two of the key pieces of research that informed the MOOC design were two studies reporting on the workload of school leaders in Ontario.[41] These surveys highlighted the fact that school leaders have very little time to engage in in-service learning, and, in particular, that it is very difficult for them to take large chunks of time away from the rest of their work. A MOOC — a massive open online course — seemed like an ideal format to allow for principals and vice-principals to take part in a learning opportunity according to their own schedules. OSSEMOOC was also developed to align with the latest incarnation of the Ontario Leadership Framework. Blog posts included on the site provide guidance on each of the five strands of the framework through a digital learning lens.[42]

During the two years in which it was active, OSSEMOOC featured a regularly updated blog, including featuring reflections from in-service leaders and notices about off-line learning opportunities. It also hosted weekly online discussions throughout the school year. 'Mini-MOOC' sessions, hosted on Blackboard, collaborated and posted subsequently on Youtube, introduced leaders to diverse technology tools or ideas. One series included an introduction to using Twitter for learning, including sessions entitled Twitter for Absolute Beginners to Leveraging Twitter for Rich Professional Learning.[43] All of the best posts and videos are compiled into 'a month of learning' — a series of 30 inputs and activities to help a newcomer get started. The series helps leaders to become networked, use open learning, and learn approaches to digital storytelling[44] and digital leadership.[45]

41. https://www.edu.gov.on.ca/eng/policyfunding/memos/nov2014/ExecutiveSummaryOct7_EN.pdf
42. https://fryed.wordpress.com/ontario-leadership-framework/setting-directions
43. https://ossemooc.wordpress.com/2015/09/28/twitter-for-absolute-beginners-starts-today
44. https://ossemooc.wordpress.com/2014/11/30/ten-minutes-of-connecting-day-28-digital-storytelling-for-beginners
45. https://ossemooc.wordpress.com/2014/12/01/ten-minutes-of-connecting-day-29-digital-leadership

Summary & Questions

Agile leadership for learning is characterized by adaptive expertise, a set of capabilities that are developed and refined over time with practice. To build high-impact leadership capacity across a jurisdiction, leadership policies need to promote and support leaders in sustained learning and development. While there is an important role in this learning for intensive programs or courses, leaders also need access to sources of feedback to refine and improve their practice, as well as the organizational and social conditions to engage with ongoing learning.

Key questions for designing the How of leadership policy

The design of a system of leadership development starts from the existing expertise in a given jurisdiction and the leveraging of real-world settings for development. System leaders might ask themselves:

- How can we provide leaders with tools and opportunities for reflection, feedback and deliberate practice within their normal workplace environments?
- How could expert leaders be provided with opportunities to play a mentoring role for others?
- What venues and opportunities are there for creating formal and informal networks to accelerate ongoing learning and encourage the sharing of expertise?
- How might digital courses and networks be used to broaden learning opportunities at a low cost?

Chapter 5

Recommendations for Accelerating Action

"To make good leadership policy, you have to start with a whole set of questions. Where are you now? What's the political appetite for change? What's the current context in terms of leadership? You have to diagnose your context."

Toby Greany
director
London Centre for Leadership in Learning
former director
National College of School Leadership
(UK)

Developing Agile Leaders for Learning

Where should system leaders start in designing new leadership policies? At the close of chapter one, we introduced a range of questions that readers might consider as they seek to understand their current context for leadership policies. Having addressed these questions, you might be asking yourself: If we continue to pursue these policies, are we likely to develop the kind of leadership capabilities that have a real impact on learning outcomes? And can the current investment in and design of leadership policies lead to the desired spread of these capabilities right across the jurisdiction?

Where there are gaps between your aspirations and your set of leadership policies, your jurisdiction will need new approaches to developing leadership capabilities. As we have emphasized throughout the report, we encourage jurisdictions to take a design-led approach that seeks to draw on the inspiration from practices around the world while developing a leadership development strategy tailored to the culture, resources and goals of your system. The three previous chapters of this report provide a practical framework for you to plan next steps around the who, what and how of leadership across your jurisdiction.

The key message for government is not to aim to provide all inputs from the center, but to act as a platform. Government bodies cannot hope to provide the quality, range and scale of capacity-building activities that are needed to shift leadership for learning across a jurisdiction. Instead, governments must act to help other actors to coordinate their activities, help leaders and aspiring leaders to connect with opportunities, and align the system in ways that enable and motivate effective leadership at all levels. In other words, governments must act as a platform for effective action rather than trying to drive all the action on their own (Hannon, Patton, & Temperley, 2011; Mulgan & Leadbeater, 2013).

In embarking on creating a new strategy, there are four vital principles to bear in mind:

- Partner with the profession in order to ensure ownership
- Realize the agency of other system actors, and create cohesion
- Start small, evaluate, and expand
- Enable leadership by putting in place the enabling policy conditions

In the following sections, we expand on each of these principles.

1. Partner with the Profession

Leadership development is not something that can be 'done to' the profession. Successful approaches will need to involve deep partnership and co-creation with educators, as they are the ones who must own and drive ongoing leadership development. Furthermore, the expertise to understand what effective leadership looks like and how it can be developed is located primarily within the education profession, not within government.

System-leaders should work closely with teacher organizations, principal associations and other professional bodies within their jurisdiction to garner feedback on and co-design policies and approaches. Deep consultation is required with the profession in order to gain a shared view of how leadership is best developed, and how compelling pathways can be defined. An additional advantage of empowering these bodies is that it positions leadership policies from outside of political cycles and may facilitate greater consistency. Creating leadership capacity at scale takes time. Professional bodies can foster a body of knowledge and practice expertise that is not reliant on government funding and has a better chance of remaining consistent over time.

One example of the power of this approach is found in Canada. Teachers and principals' associations in Canada have a growing tradition of working closely with the provincial ministries, despite industrial disputes. In Alberta, the Ministry of Education has worked closely with the Alberta Teachers' Association, which includes both teachers and school leaders, in order to design standards for school leaders and plan continual professional development for school leaders. In Ontario, the Ontario Principals' Council (OPC) is in ongoing and continual partnership with the Ministry in its engagement about the development of principals and vice-principals. Since the early 2000s, the professional associations have been the main providers of qualification certificates, which has ensured that aspiring leaders are able to make clear links from theory to practice within the specific education system architecture (J. Robinson, interview, May 25, 2017). Similarly, in British

Columbia the Principal and Vice Principals' Association was a key partner in the creation of new curriculum, along with the B.C. Teachers' Federation, and has been entrusted as the holder of funds for a provincial Innovation Partnership between the ministry, districts and schools.

Another hub for professional engagement and source of expertise are universities, as the sites of teacher education and, increasingly, school leadership programs. In some jurisdictions, universities have gained a poor reputation for being disconnected from practice. But others demonstrate what an engaged and productive university can do. In their study of effective school leadership programs in the United States, Linda Darling-Hammond and colleagues (2011) emphasize the importance of partnerships between universities and districts. They observed that the most effective programs emerged when there was close collaboration between districts and universities, allowing "both quality coursework and quality field placements" and preparing leaders for working in a particular district (p. 147). The involvement of a university partner was particularly helpful in sustaining change through leadership turnover at the local level. Governments and system leaders may have an important role in incentivizing or under-writing these kinds of partnerships.

2. Create Cohesion

As jurisdictions accelerate their commitments to invest in leadership development there is growing potential for fragmentation. The goal should not be to have a myriad of programs, organizations and policies, but rather to invest strategically in a smaller number of aligned components that can achieve the desired impact. If there are multiple providers and actors designing and implementing elements of the strategy it will be important to have a team or structure that can act as a broker and system-integrator.

Some of the jurisdictions that have made school leadership a priority started by creating a central organization or institute responsible for designing and coordinating standards for and a system for leadership development. This was the approach of all seven of the systems studied by Alma Harris and Michelle Jones (Harris et al., 2016). A key purpose of such a body is to create consistency in leadership standards and knowledge across a whole educational jurisdiction or country. The Australian Institute for Teaching and School Leadership, a good example of such a body, draws on the input of various teacher and school leadership organizations and departments of education from across the states and territories of Australia, which have oversight of education. The Scottish College for Educational Leadership was established in 2014 to support the development of leadership at all levels across Scotland's schools.[46] One key point that Harris and Jones make is that creating a central

46. http://www.scelscotland.org.uk

body does not in itself amount to a leadership strategy (A. Harris and M. Jones, interview, February 7, 2017). An institute or center cannot do all the work of leadership development alone, but can act as a broker and coordinator of others' activities.

One key role of a central body is that it can act as a broker for knowledge sharing and receptacle for developed knowledge. Leadership knowledge is in part general and in part specific to any given jurisdiction. A central institute or college can play a key role in codifying that knowledge and sharing it with the profession. This kind of function is likely to be too costly for any group of schools or a local area to carry out on their own. Strength in numbers is crucial when it comes to facilitating the social networks that fuel ongoing learning. In England, the National College of School Leadership played a significant role in increasing the circulation of useable knowledge in the form of brief research reviews and evidence-based tools. Additionally, the Australian Institute for Teaching and School Leadership (AITSL) has played a key role in commissioning research on what makes effective leadership.

3. Start Small, Evaluate & Expand

Education systems benefit from having a coherent view of where they expect to go next in the area of leadership policy. As we said at the outset, this will depend greatly on the system's current position. In some jurisdictions, their next step in leadership policies will be about refining a set of existing approaches. For others, it will be about choosing the right place to start with a systemic strategy.

One thing all system leaders can be sure of is that you are unlikely to be successful if you try to plan and implement a large-scale leadership development policy. Education systems are far too complex to plan and implement effective change all in one go (R. F. Elmore, 1979; Goldspink, 2007; Honig, 2006). The key to any successful system change is to begin with a small change and create strong feedback loops to understand how the system is responding (A. S. Bryk et al., 2015). Great improvements can be achieved over time by proceeding responsively in terms of how an intervention is being received (Malone, 2013). No idea is likely to work the first time exactly as expected, and therefore revising and iterating are crucial disciplines (Breakspear, 2016; Miller, 2015).

The best approach to de-risking innovation is to begin small with some prototype programs and initiatives, collect evidence of impact and then work to scale up from there. What to look for in terms of prototypes and impact will depend on your starting point.

One starting point could be to develop draft leadership standards in collaboration with professional bodies, and then study their impact on the system in terms of whether the standards are being used and changing the way that leaders describe good practice. You might look to see if standards are changing, what programs or courses are being offered or the rate at which different offerings are being taken up. Standards could be specified in a way to shape new roles or career pathways. You could study the impact of these new pathways on a number of people applying for leadership roles or on the retention of strong leaders.

An alternative would be to start with the creation of a new program to develop leadership for learning capabilities, and create a cohort of leaders who can be the kernel of new capacity in the jurisdiction, becoming expert guides for others. This approach would require careful refinement of a program design, and would likely include elements of experiential learning and opportunities for leaders to practice their skills and develop expertise. It might introduce leaders to key organizational routines such as inquiry or design thinking, which they could use to develop the capacity of their teams and engage in ongoing improvement and innovation work. To test the effectiveness of such a program, one would need to follow participants back into their schools and understand whether and how the program is really impacting the practice of both leaders and teachers.

In each case, the same basic principles apply: test something out, learn from the results, and refine and expand what's working. Note that learning from the outcome may not always involve evaluating each policy in terms of its impact on student learning. While it is helpful wherever possible to design policies to allow for robust evaluation (for example, by establishing a comparison group from the start), where the impact of leadership on student learning takes some time to appear, this can make it difficult to generate evaluation results quickly enough for them to be useful in improvement (E. J. Fuller & Hollingworth, 2014). There is much that can be learned in the short term in order to refine and improve a policy and make it more likely that it will have impact in the long run.

4. Enable Leadership through Broader Policy

Even the best designed leadership policies cannot produce leaders who can be effective on their own. To have genuine and sustained impact, leadership needs to operate in a supportive and enabling system architecture. Each aspect of policy in a jurisdiction needs to be examined to work out whether it is supporting or inhibiting the work of leaders.

As we have emphasized throughout, system leaders need to ensure that school leaders have access to the tools and time for routines that are necessary to making improvement in schools. Enabling tools include relevant and

reasonable curriculum standards and related high quality materials; in certain subject areas, using a high quality, well-sequenced curriculum can have huge positive impacts on student learning (Hattie, 2014). As Toby Greany emphasized, "building leadership capacity has to be tied to a strong agenda around what good pedagogy looks like—you have to build that; you can't expect it all to come from leaders" (T. Greany, interview, February 2, 2017). The key point is that to improve, both leaders and teachers need access to examples of strong teaching and learning, and related materials; these tools can powerfully supplement leaders' existing knowledge.

Along with these tools, to improve leaders and teachers require time to carry out routines of studying, developing and reflecting on the impact of their practice (Wiliam, 2016, p. 180). Jurisdictions that invest in professional learning but do not create sufficient time for teachers to practice and embed their learning are likely to be wasting their money (Jensen, 2014). System leaders need to make sure that school leaders can protect time for this work, by ensuring that teachers are not overloaded with bureaucratic requirements or record keeping activities that do not contribute to student learning, and that teacher contracts are not constructed entirely around contact time with students.

Finally, system leaders must think very carefully about the way in which you design school accountability systems. In many jurisdictions, "accountability trumps curriculum as a driver of decision-making for schools" (Earley & Greany, 2017, p. 224). Leaders respond in their behavior to what they perceive is rewarded in the system. If there is a culture of compliance and leaders receive recognition for making surface changes there is little incentive to really focus on impacting student outcomes. On the other hand, if a jurisdiction focuses only on student outcome measures, this can result in distorted behavior. Often, when leaders achieve rapid improvements in student achievement metrics, these improvements are not sustained (Hill, Mellon, Laker, & Goddard, 2016). The biggest incentives for leaders should be attached to demonstrating long-term and sustained impact. This is more likely to encourage leaders to work on the difficult but important work of building teacher capacity, improving cultures of learning, and deepening student engagement and belonging in schools.

Conclusion

More and more jurisdictions around the world have been turning to school leadership as a key policy initiative to improve the quality and equity of education. For leadership to play this catalyzing role, system leaders need to hone in on the key aspect of leadership that will have the most impact on students: leadership for learning. Moreover, as societal expectations around schooling and its outcomes shift, leadership for learning must be combined with the capabilities of agile leadership so that leaders can both respond to and shape these new visions of education.

To increase agile leadership for learning capabilities across a jurisdiction, leadership preparation needs to expand beyond a focus on the principal and look to developing leadership capabilities at every level.

To ensure that leadership development efforts are coherent and focused, jurisdictions may benefit from a framework that includes the key capabilities leaders need. While some of these capabilities will be specific to a jurisdiction, local area or even individual school, international research points to the cross-cutting relevance of leadership for learning and agility. These capabilities—which combine practices and mindsets—can be seen as the pillars of developing leaders who can impact on student learning.

These capabilities cannot arise from an individual program or workshop. The design of leadership development is the creation of a system of offerings, routines and networks which support learning that is embedded, personal and continuous.

In shaping and implementing a leadership development strategy, government and system leaders must partner with the education profession. Government initiatives will not be seen as credible by frontline educators unless they take seriously the expertise that already exists within the profession. Only where this partnership is respected can efforts to create cohesion through leadership frameworks, standards or central institutions achieve sustained impact. To realize this impact, initiatives will need to be revised and improved over time: investigating the reception to, and impact of, efforts can ensure that improvements happen early and often. In following this path, system leaders and school leaders may become increasingly expert in deploying capabilities of iterative experimentation and improvement.

The research and cases reviewed here suggest that focused, sustained leadership development can produce the practices that lead to better learning outcomes. But leadership development alone cannot achieve sustained impact if other policy is not aligned in a way that supports leaders. This point is at the heart of taking a systemic view on leadership policy. Leaders operate in organizational settings where their goals, resources, and motivations are also influenced by other government education policy. We have also seen in this review that the work of leadership is extremely demanding and leadership development involves personal change, including to a leader's identity and the way they observe the social world. Leadership policy will therefore not get far if these individuals undergoing change are not at the heart of it. Working with existing school leadership to understand what influences them and what they need should be the starting point for any design-led, systemic strategy.

Appendix A — Interviews

Albert Bertani, Senior Consultant, Urban Education Institute, University of Chicago, USA

Sue Bucklet, General Manager Teaching and Leadership, Australian Institute of Teaching and School Leadership.

Toby Greany, Professor of Leadership and Innovation, Institute of Education, University College London, UK

Alma Harris, Professor of Educational Leadership, University of Bath, UK

David Jackson, formerly Research and School Improvement Director of the National College of School Leadership, UK

Michelle Jones, Assistant Professor, University of Bath, UK

Suzan Khashan, Program Manager, Queen Rania Teacher Academy, Jordan

Foo Seong David Ng, Associate Professor, National Institute of Education, Nanyang Technological University, Singapore

Pak Tee Ng, Associate Dean, Leadership Learning, National Institute of Education, Nanyang Technological University, Singapore

Joanne Robinson, International School Leadership, Ontario Principals Association.

Abdelmajeed Shamlawi, Strategic Development Director, Queen Rania Teacher Academy, Jordan

James Spillane, Spencer T. and Ann W. Olin Professor in Learning and Organizational Change, Northwestern University, USA

Louise Stoll, Professor of Professional Learning, Institute of Education, University College London, UK

Dylan Wiliam, Emeritus Professor, Institute of Education, University College London, UK

About the Authors

Dr. Simon Breakspear is the Executive Director of Learn Labs, an education research and advisory agency that works globally to apply research to support school and system improvement. He is also a Research Fellow at The Education University of Hong Kong, and the founder of Agile Schools which enables educator teams to engage in iterative, evidence-informed innovation. Simon holds Bachelor degrees in Psychology and Teaching, a Masters of International and Comparative Education from the University of Oxford and a PhD in education from the University of Cambridge. Simon began his work in education as a high school teacher in Sydney.

Amelia Peterson is currently studying in the PhD in Education program at Harvard University, where she is an Inequality and Social Policy fellow. She is also an Associate at Innovation Unit, a social enterprise based in London, UK that works on public system transformation in education, health and social services. For several years she has been a researcher for the Global Education Leaders' Partnership. She is the author of the report Personalizing Education at Scale, and a co-author of the books Redesigning Education: shaping learning systems around the globe and Thrive: Schools Reinvented for the Real Challenges We Face.

Dr. Asmaa Alfadala is the Director of Research and Content Development at the World Innovation Summit for Education (WISE). She has twenty years of professional experience in schools as well as higher education. Dr. Alfadala was an Associate Policy Analyst at the RAND-Qatar Policy Institute. Before Qatar Foundation, she worked in the Ministry of Education as a teacher, then as a Head of the Science Department. She has served at Qatar University as an Assistant Professor of Educational Sciences at the College of Education, as well as Assistant Professor of Education at Georgetown University in Qatar. Dr. Alfadala holds a PhD and MPhil from Cambridge University, UK. Dr. Alfadala is the author of 'K-12 Reform in the Gulf Cooperation Council Countries (GCC): Challenges and Policy Recommendations' published by WISE, Qatar Foundation (2015). She is a member of the Comparative International Education Society (CIES), and the British Educational Research Association (BERA). Dr Alfadala has participated in numerous conferences in Qatar and internationally, both as a featured panelist and moderator.

Muhammad Salman Bin Mohamed Khair is a Senior Research Associate at the World Innovation Summit for Education (WISE). He conducts education research and manages a portfolio of research studies and school leadership programs, in collaboration with global education leaders, to build the future of education in Qatar and worldwide. Previously in Qatar Foundation (QF), Salman was a Research Associate supporting QF schools through research and system improvement to address student needs and outcomes. At Qatar University, he was involved in restructuring its Core Curriculum Program. He began his career in Singapore working with students with special needs. Salman holds a M.Ed. in Special Education from Qatar University and a B.A. in Psychology from National University of Singapore, and is a member of the Council of Exceptional Children.

About LearnLabs

learnlabs

Learn Labs (www.learnlabs.com) is a global education research and design agency. We synthesize the relevant research base and identify leading international practices, in order to create actionable frameworks for leaders and practitioners. LearnLabs works with government and educational leaders around the world to utilise evidence-informed approaches to policy and practice in order to achieve a greater impact on learner outcomes.

About WISE

world innovation summit for education

مؤتمر القمة العالمي للابتكار في التعليم

An Initiative of Qatar Foundation

The World Innovation Summit for Education was established by Qatar Foundation in 2009 under the leadership of its Chairperson, Her Highness Sheikha Moza bint Nasser. WISE is an international, multi-sectoral platform for creative, evidence-based thinking, debate, and purposeful action toward building the future of education. Through the biennial summit, collaborative research and a range of on-going programs, WISE is a global reference in new approaches to education.

The WISE Research series, produced in collaboration with experts from around the world, addresses key education issues that are globally relevant and reflect the priorities of the Qatar National Research Strategy. Presenting the latest knowledge, these comprehensive reports examine a range of education challenges faced in diverse contexts around the globe, offering action-oriented recommendations and policy guidance for all education stakeholders. Past WISE Research publications have addressed issues of access, quality, financing, teacher training, school systems leadership, education in conflict areas, entrepreneurship, early-childhood education, and twenty-first century skills

Acknowledgments

The authors would like to thank Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation, and the leadership of Qatar Foundation, for their unwavering commitment to the cause of education globally. It was the vision and guidance of Her Highness that led to the creation of the World Innovation Summit for Education. Without her ongoing support, this WISE Report would not have been possible.

This report has been informed and improved by many leading thinkers in the field of leadership and school improvement. We are particularly grateful to Albert Bertani, Toby Greany, Alma Harris, Michelle Jones, David Jackson, Pak Tee Ng, James Spillane, Louise Stoll and Dylan Wiliam for their contributions to the core messages of this report. The included case studies were made possible by the many leaders who provided time for our team to conduct interviews, review materials and engage in research visits. We are most grateful to them.

The authors would like to acknowledge members of the WISE team for their dedication and invaluable assistance in the various stages of producing this WISE Report, including in particular Dr. Ahmed Baghdady and Malcolm Coolidge. We would also like to thank Law Alsobrook and Patty Paine for their valuable contributions to the design and editing of this report. Our two reviewers, Peter Gronn and Anthony Mackay, gave us extremely helpful comments on our draft which considerably improved the paper. We would also like to thank WISE for their support, and in particular Stavros Yiannouka for his vision and enthusiasm for this report. The views expressed are entirely our own, as are any errors. We hope that collectively, we have provided compelling and practical guidance to support systems in redesigning their approaches to leadership learning and development.

References

AITSL. (2014). *Learning Through Doing: Introduction to Design Thinking*. Melbourne: Australian Institute for Teaching and School Leadership. Retrieved from http://www.aitsl.edu.au/docs/default-source/default-document-library/aitsl-learning-through-doing-introduction-to-design-thinking.pdf?sfvrsn=0

Argyris, C. (1976). *Single-Loop and Double-Loop Models in Research on Decision Making*. *Administrative Science Quarterly*, *21*(3), 363–375. https://doi.org/10.2307/2391848

Argyris, C. (1993). *Knowledge for Action: A Guide to Overcoming Barriers to Organizational Change (1 edition)*. San Francisco: Jossey-Bass.

Bangs, J., & Frost, D. (2015). *Non-Positional Teacher Leadership: Distributed Leadership and Self-Efficacy*. In J. Evers (Ed.), *Flip the System* (pp. 209–225). London ; New York, NY: Routledge.

Barber, M., Whelan, F., & Clark, M. (2010). *Capturing the leadership premium: How the world's top school systems are building leadership capacity for the future*. McKinsey & Co. Retrieved from http://mckinseyonsociety.com/downloads/reports/Education/schoolleadership_final.pdf

Bason, C. (2014). *Design for Policy (New edition edition)*. Farnham, Surrey, England ; Burlington, VT: Routledge.

Beer, M., Finnström, M., & Schrader, D. (2016, October 1). *Why Leadership Training Fails—and What to Do About It*. Retrieved January 30, 2017, from https://hbr.org/2016/10/why-leadership-training-fails-and-what-to-do-about-it

Bennett, T., Che, J., Daly, A. J., Earl, L., Finnigan, K. S., Galdin-O'Shea, H., … Taylor, C. (2015). *Leading the Use of Research and Evidence in Schools*. (C. Brown, Ed.). London: Institute of Education Press.

Berry, B., Zeichner, N., & Evans, R. (2015). *Teacher Leadership: A Reinvented Teaching Profession*. In J. Evers (Ed.), *Flip the System* (pp. 209–225). London ; New York, NY: Routledge.

Bock, L. (2015). *Work Rules!: Insights from Inside Google That Will Transform How You Live and Lead*. London: John Murray.

Bono, J. E., Shen, W., & Yoon, D. J. (2014). *Personality and Leadership*. Retrieved from http://www.oxfordhandbooks.com.ezp-prod1.hul.harvard.edu/view/10.1093/oxfordhb/9780199755615.001.0001/oxfordhb-9780199755615-e-042

Boyce, J., & Bowers, A. J. (2016). *Principal Turnover: Are There Different Types of Principals Who Move From or Leave Their Schools? A Latent Class Analysis of the 2007–2008 Schools and Staffing Survey and the 2008–2009 Principal Follow-Up Survey*. *Leadership and Policy in Schools*, *15*(3), 237–272. https://doi.org/10.1080/15700763.2015.1047033

Bransford, J. D., & Sears, D. (2009). *It Takes Expertise to Make Expertise: Some Thoughts about Why and How and Reflections on the Themes in Chapters 15-18*. In K. A. Ericsson (Ed.), *Development of Professional Expertise: Toward Measurement of Expert Performance and Design of Optimal Learning Environments* (pp. 432–448). Cambridge University Press.

Breakspear, S. (2016). *Agile implementation for learning: How adopting an agile mindset can help leaders achieve meaningful progress in student learning (Occasional Paper No. 147)*. Centre for Strategic Education. Retrieved from http://www.cse.edu.au/content/agile-implementation-learning-how-adopting-agile-mindset-can-help-leaders-achieve-meaningful

Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). *Learning to Improve: How America's Schools Can Get Better at Getting Better*. Cambridge, Massachusetts: Harvard Education Press.

Bryk, A. S., Sebring, P. B., Allensworth, E., Luppescu, S., & Easton, J. Q. (2010). *Organizing Schools for Improvement: Lessons from Chicago*. Chicago ; London: University Of Chicago Press.

Bryk, A., & Schneider, B. (2002). *Trust in Schools: A Core Resource for Improvement*. Russell Sage Foundation.

Buck, A. (2016). *Leadership Matters: How Leaders at All Levels Create Great Schools*. John Catt Educational Ltd.

Caldwell, B. J., & Spinks, J. M. (2013). *The Self-Transforming School (1 edition)*. London: Routledge.

Coburn, C. E. (2005). *Shaping Teacher Sensemaking: School Leaders and the Enactment of Reading Policy*. *Educational Policy*, *19*(3), 476–509. https://doi.org/10.1177/0895904805276143

Coburn, C. E., & Russell, J. L. (2008). *District Policy and Teachers' Social Networks*. *Educational Evaluation and Policy Analysis*, *30*(3), 203–235. https://doi.org/10.3102/0162373708321829

Conger, J. A., & Fulmer, R. M. (2003). *Developing Your Leadership Pipeline*. *Harvard Business Review*. Retrieved from https://www.ohmae.ac.jp/bbtu/tmp/wiki/Developingleadershippipeline.pdf

CUREE. (2011). *Understanding What Enables High Quality Professional Learning: A report on the research evidence (Pearson School Improvement)*. Coventry: Centre for Research and Evidence in Educaiton (CUREE).

Danielson, C. (2006). *Teacher Leadership That Strengthens Professional Practice (*1.2.2006 edition). Alexandria, Va: Association for Supervision & Curriculum Development.

Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr, M. T., & Cohen, C. (2011). *Preparing Principals for a Changing World: Lessons from Effective School Leadership Programs (Vol.* 10). Retrieved from http://www.tandfonline.com/doi/abs/10.1080/15700763.2011.557520

Day, C., Gu, Q., & Sammons, P. (2016). *The Impact of Leadership on Student Outcomes: How Successful School Leaders Use Transformational and Instructional Strategies to Make a Difference*. *Educational Administration Quarterly*, *52*(2), 221–258. https://doi.org/10.1177/0013161X15616863

Day, C., Sammons, P., Hopkins, D., Harris, A., Leithwood, K., Gu, Q., … Kington, A. (2009). *The Impact of School Leadership on Pupil Outcomes. Final Report* (Research Report No. DCSF-RR108). Nottingham, UK: Department for Children, Schools and Families. Retrieved from http://eprints.worc.ac.uk/1921/

Deans for Impact. (2016). *Practice with Purpose: The Emerging Science of Teacher Expertise*. Austin, TX: Deans for Impact. Retrieved from https://deansforimpact.org/wp-content/uploads/2016/12/Practice-with-Purpose_FOR-PRINT_113016.pdf

Dinham, S. (2016). *Leading Learning and Teaching*. Camberwell, Vic: Australian Council Educational Research.

Donohoo, J. (2017). *Collective Efficacy: How Educators' Beliefs Impact Student Learning*. Corwin Press.

Dumont, H., Istance, D., & Benavides, F. (Eds.). *(2010). The Nature of Learning: Using Research to Inspire Practice*. Paris: OECD.

Durlak, J. A., & DuPre, E. P. (2008). *Implementation Matters: A Review of Research on the Influence of Implementation on Program Outcomes and the Factors Affecting Implementation*. *American Journal of Community Psychology*, *41*(3–4), 327–350. https://doi.org/10.1007/s10464-008-9165-0

Dweck, C. (2006). *Mindset: The New Psychology of Success*. New York: Random House.

Earl, L., & Timperley, H. (2015). *Evaluative thinking for successful educational innovation (OECD Education Working Papers)*. Paris: Organisation for Economic Co-operation and Development. Retrieved from http://www.oecd-ilibrary.org/content/workingpaper/5jrxtk1jtdwf-en

Earley, P., & Greany, T. (2017). *School Leadership and Education System Reform*. Bloomsbury Publishing.

Edge, K. (2015). *Generation X Leaders in Global Cities: Emerging Perspectives on Recruitment, Retention and Succession Planning*. In A. Harris & M. S. Jones (Eds.), *Leading Futures Global Perspectives on Educational Leadership* (pp. 187–199). Los Angeles, Calif. ; London: SAGE Publications.

Eisenstat, R., Spector, B., & Beer, M. (1990, November 1). *Why Change Programs Don't Produce Change*. Retrieved January 30, 2017, from https://hbr.org/1990/11/why-change-programs-dont-produce-change

Elmore, R. (2000). *Building a new structure for school leadership*. Washington, D.C.: Albert Shanker Institute.

Elmore, R. F. (1979). *Backward Mapping: Implementation Research and Policy Decisions*. *Political Science Quarterly*, *94*(4), 601–616. https://doi.org/10.2307/2149628

Ericsson, K. A. (2009). *Development of Professional Expertise: Toward Measurement of Expert Performance and Design of Optimal Learning Environments*. Cambridge University Press.

Ericsson, K. A., Nandagopal, K., & Roring, R. W. (2009). *Toward a science of exceptional achievement: attaining superior performance through deliberate practice*. *Annals of the New York Academy of Sciences*, *1172*, 199–217. https://doi.org/10.1196/annals.1393.001

Evers, J. (Ed.). *(2015). Flip the System*. London ; New York, NY: Routledge.

Fairbanks, C. M., Duffy, G. G., Faircloth, B. S., He, Y., Levin, B., Rohr, J., & Stein, C. (2010). *Beyond Knowledge: Exploring Why Some Teachers Are More Thoughtfully Adaptive Than Others*. *Journal of Teacher Education*, *61*(1–2), 161–171. https://doi.org/10.1177/0022487109347874

Flatt, R. (2016, April). *Revolutionize Schools with Design Thinking and Play*. Presented at the Debats d'Educacio #42, Fundacio Jaume Bofill. Retrieved from http://www.fbofill.cat/publicacions/revolutionize-schools-design-thinking-and-play-how-new-york-public-school-transforming?lg=en

French, R., & Rumbles, S. (2010). *Recruitment and Selection*. In R. French & G. Rees (Eds.), *Leading, Managing and Developing People* (3 edition, pp. 169–190). London: Chartered Institute of Personnel and Development.

Frost, D. (2011). *Supporting teacher leadership in 15 countries: the International Teacher Leadership project, Phase 1 (Leadership for Learning)*. Cambridge: University of Cambridge Faculty of Education. Retrieved from http://www.teacherleadership.org.uk/uploads/2/5/4/7/25475274/itl_report_.pdf

Fullan, M. (2013). *Leading Educational Change: Global Issues, Challenges, and Lessons on Whole-System Reform*. (H. J. Malone, Ed.). New York: Teachers' College Press.

Fullan, M. (2014). *The Principal: Three Keys to Maximizing Impact (1 edition)*. San Francisco: Jossey Bass.

Fullan, M. (2016). *Indelible Leadership: Always Leave Them Learning*. Thousand Oaks, California: Corwin.

Fullan, M., & Hargreaves, A. (2016). *Bringing the Profession Back In (Call to Action)*. Oxford, OH: Learning Forward.

Fuller, E. J., & Hollingworth, L. (2014). *A Bridge Too Far? Challenges in Evaluating Principal Effectiveness*. *Educational Administration Quarterly*, *50*(3), 466–499. https://doi.org/10.1177/0013161X13506595

Fuller, E. O. (2008). *The Revolving Door of the Principalship. Implications from UCEA*. University Council for Educational Administration. Retrieved from https://eric.ed.gov/?id=ED520570

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). *Collective Teacher Efficacy: Its Meaning, Measure, and Impact on Student Achievement*. *American Educational Research Journal*, *37*(2), 479–507. https://doi.org/10.3102/00028312037002479

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2004). *Collective Efficacy Beliefs:Theoretical Developments, Empirical Evidence, and Future Directions*. *Educational Researcher*, *33*(3), 3–13. https://doi.org/10.3102/0013189X033003003

Goldspink, C. (2007). *Rethinking Educational Reform A Loosely Coupled and Complex Systems Perspective*. *Educational Management Administration & Leadership*, *35*(1), 27–50. https://doi.org/10.1177/1741143207068219

Gronn, P. (2002). *Distributed Leadership*. In K. Leithwood & P. Hallinger (Eds.), *Second International Handbook of Educational Leadership* (pp. 653–696). Dordrecht: Kluwer Academic Publishers. Retrieved from http://www.springer.com.ezp-prod1.hul.harvard.edu/gb/book/9781402006906

Gronn, P. (2008). *The future of distributed leadership*. *Journal of Educational Administration*, *46*(2), 141–158. https://doi.org/10.1108/09578230810863235

Gronn, P., & Lacey, K. (2004). *Positioning oneself for leadership: feelings of vulnerability among aspirant school principals*.*School Leadership & Management*,*24*(4)405–424 https://doi.org/10.1080/13632430410001316516

Haidt, J. (2006). *The Happiness Hypothesis: Finding Modern Truth in Ancient Wisdom (1 edition)*. New York: Basic Books.

Hallinger, P. (2010). *Leadership for learning: What we have learned from 30 years of empirical research*. Retrieved from http://repository.lib.eduhk.hk/jspui/handle/2260.2/10503

Hallinger, P., Walker, A., Nguyen, D. T. H., Truong, T., & Nguyen, T. T. (2017). *Perspectives on principal instructional leadership in Vietnam: a preliminary model*. *Journal of Educational Administration*, *55*(2), 222–239. https://doi.org/10.1108/JEA-11-2015-0106

Hampson, M., Baeck, P., & Langford, K. (2013). *By Us, For Us: The power of co-design and co-delivery*. London: Nesta. Retrieved from http://www.nesta.org.uk/publications/us-us-power-co-design-and-co-delivery

Hannon, V. (2015). *What is Learning For? European Journal of Education, 50(1), 14–16*. https://doi.org/10.1111/ejed.12107

Hannon, V., Patton, A., & Temperley, J. (2011). *Developing an Innovation Ecosystem for Education (White Paper)*. Cisco. Retrieved from http://www.innovationunit.org/sites/default/files/Developing%20an%20Innovation%20Ecosystem%20for%20Education_Cisco-IU_1.pdf

Hannon, V., & Peterson, with A. (2017). *Thrive: Schools Reinvented for the Real Challenges We Face: 1*. (I. Unit & F. Editing, Eds.). Innovation Unit Press.

Hanushek, E. A., Link, S., & Woessmann, L. (2013). *Does school autonomy make sense everywhere? Panel estimates from PISA*. *Journal of Development Economics*, *104*, 212–232. https://doi.org/10.1016/j.jdeveco.2012.08.002

Hargreaves, A., Boyle, A., & Harris, A. (2014). *Uplifting Leadership: How Organizations, Teams, and Communities Raise Performance (1 edition)*. San Francisco: Jossey-Bass.

Hargreaves, A., & Fullan, M. (2012). *Professional Capital*. New York; London: Routledge.

Hargreaves, D. (2011). *Leading a self-improving school system*. Nottingham, UK: National College for Teaching & Leadership. Retrieved from https://www.gov.uk/government/publications/leading-a-self-improving-school-system

Hargreaves, D. (2012a). *A self-improving school system in international context*. Nottingham, UK: National College for Teaching and School Leadership. Retrieved from https://www.gov.uk/government/publications/a-self-improving-school-system-in-international-context

Hargreaves, D. (2012b). *A self-improving school system: towards maturity*. Nottingham, UK: National College for Teaching & Leadership.

Harris, A. (2008). *Distributed leadership: according to the evidence*. *Journal of Educational Administration*, *46*(2), 172–188. https://doi.org/10.1108/09578230810863253

Harris, A. (Ed.). *(2009). Distributed Leadership-Different Perspectives*. Dordrecht ; London: Springer. Retrieved from http://www.springer.com/gb/book/9781402097362

Harris, A., & DeFlaminis, J. (2016). *Distributed leadership in practice: Evidence, misconceptions and possibilities*. *Management in Education*, *30*(4), 141–146. https://doi.org/10.1177/0892020616656734

Harris, A., Jones, M., & Adams, D. (2016). *Qualified to lead? A comparative, contextual and cultural view of educational policy borrowing*. *Educational Research*, *58*(2), 166–178. https://doi.org/10.1080/00131881.2016.1165412

Harris, A., & Jones, M. S. (2015). *Leading Futures: Global Perspectives on Educational Leadership*. SAGE Publications India.

Haslam, S. A., & Reicher, S. D. (2016). *Rethinking the Psychology of Leadership: From Personal Identity to Social Identity*. *Daedalus*, *145*(3), 21–34. https://doi.org/10.1162/DAED_a_00394

Hatano, G., & Inagaki, K. (1986). *Two Course of Expertise*. In H. W. (Harold W. Stevenson, K. Hakuta, H. Azuma, & Center for Advanced Study in the Behavioral Sciences (Eds.), *Child development and education in Japan* (pp. 262–72). New York, N.Y.: WHFreeman.

Hattie, J. (2008). *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement (1 edition)*. London ; New York: Routledge.

Hattie, J. (2014). *Visible learning and the science of how we learn*. London ; New York: Routledge, Taylor & Francis Group.

Hattie, J. (2015a). *High-Impact Leadership*. *Educational Leadership*, *72*(5), 36–40.

Hattie, J. (2015b). *What Works Best in Education: The Politics of Collaborative Expertise (Open Ideas)*. Pearson. Retrieved from https://www.pearson.com/corporate/hattie/solutions.html

Hattie, J., & Timperley, H. (2007). *The Power of Feedback*. *Review of Educational Research*, *77*(1), 81–112. https://doi.org/10.3102/003465430298487

Heath, C., & Heath, D. (2010). *Switch: How to Change Things When Change Is Hard (1st edition)*. New York: Crown Business.

Heifetz, R. A. (1994). *Leadership without Easy Answers*. Cambridge, Mass: Harvard University Press.

Heifetz, R. A., Linsky, M., & Grashow, A. (2009). *Practice of Adpative Leadership: Tools and Tactics for Changing Your Organization and the World: A Fieldbook for Practitioners (1 edition)*. Boston, Mass: Harvard Business School Press.

Heniks, M. A., & Scheerens, J. (2013). *School leadership effects revisited: a review of empirical studies guided by indirect-effect models*. *School Leadership & Management*, *33*(4), 373–394. https://doi.org/10.1080/13632434.2013.813458

Hill, A., Mellon, L., Laker, B., & Goddard, J. (2016, October 20). *The One Type of Leader Who Can Turn Around a Failing School*. Retrieved January 30, 2017, from https://hbr.org/2016/10/the-one-type-of-leader-who-can-turn-around-a-failing-school

Hofman, R. H., Jansen, E., & Spijkerboer, A. (2011). *Innovations: Perceptions of teachers and school leaders on bottlenecks and outcomes Education as Change 15*(1) 149–160 https://doi.org/10.1080/16823206.2011.573799

Honig, M. I. (2006). *New directions in education policy implementation : confronting complexity*. Albany: State University of New York Press.

Ibarra, H., Wittman, S., Petriglieri, G., & Day, D. V. (2014). *Leadership and Identity*. Retrieved from http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199755615.001.0001/oxfordhb-9780199755615-e-015

IDEO. (2013, April). *Design Thinking for Educators: Toolkit v.*2.0. Retrieved from https://designthinkingforeducators.com/

Jackson, D., & Riordan, R. (2016, June 3). *Designing New Schools*. Retrieved February 8, 2017, from http://www.schooldesignlab.co.uk/blog/2016/6/3/designing-new-schools

Jackson, N., Payne, L., Fraser, J., Bezzina, M., & McCormick, J. (2010). *Aspiring Principals: Final Report*. Hay Group. Retrieved from http://www.aitsl.edu.au/docs/default-source/aitsl-research/insights/re10025_aspiring_principals_final_report_hay_group_etal_jan_2010.pdf?sfvrsn=4

Jameson, J. (2015). *Leading Future Pedagogies*. In A. Harris & M. S. Jones (Eds.), *Leading Futures Global Perspectives on Educational Leadership* (pp. 222–232). Los Angeles, Calif. ; London: SAGE Publications.

Jensen, B. (2014). *Making time for great teaching*. Grattan Institute. Retrieved from https://grattan.edu.au/wp-content/uploads/2014/03/808-making-time-for-great-teaching.pdf

Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016). *Beyond PD: Teacher Professional Learning in High-Performing Systems*. Washington, D.C.: National Center on Education and the Economy. Retrieved from http://www.ncee.org/wp-content/uploads/2016/02/BeyondPDWebv2.pdf

Johnson, S. M., & Birkeland, S. E. (2003). *Pursuing a "Sense of Success": New Teachers Explain Their Career Decisions*. *American Educational Research Journal*, *40*(3), 581–617. https://doi.org/10.3102/00028312040003581

Kaospilot. (2016, January 1). *Experiential Learning Travels the World*. Retrieved February 8, 2017, from http://www.kaospilot.dk/experiential-learning-travels-the-world/

Kaser, L., & Halbert, J. (2009). *Leadership Mindsets: Innovation and Learning in the Transformation of Schools (1 edition)*. London ; New York: Routledge.

Kegan, R. (1982). *The Evolving Self*. Harvard University Press.

Kegan, R. (1998). *In Over Our Heads: The Mental Demands of Modern Life (4th Printing edition)*. Cambridge, Mass.: Harvard University Press.

Kegan, R., & Lahey, L. L. (2009). *Immunity to Change: How to Overcome It and Unlock the Potential in Yourself and Your Organization (1 edition)*. Boston, Mass: Harvard Business Review Press.

Kellerman, B. (2008). *Followership: How Followers Are Creating Change and Changing Leaders*. Boston, Mass: Harvard Business School Press.

Kellerman, B. (2016). *Leadership–It's a System, Not a Person! Daedalus, 145(3), 83–94*. https://doi.org/10.1162/DAED_a_00399

Khurana, R., & Snook, S. A. (2011). *Commentary on "A Scholar"s Quest"–Identity Work in Business Schools: From Don Quixote, to Dons and Divas*. *Journal of Management Inquiry*, *20*(4), 358–361. https://doi.org/10.1177/1056492611420929

Kiat, K. T. H., Heng, M. A., & Lim-Ratnam, C. (2016). *Curriculum Leadership by Middle Leaders: Theory, design and practice*. Routledge.

Kirschner, P. A., Sweller, J., & Clark, R. E. (2006). *Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching*. *Educational Psychologist*, *41*(2), 75–86. https://doi.org/10.1207/s15326985ep4102_1

Klompus, B. (2016). *Scaling Instructional Improvement: Designing a Strategy to Develop the Leaders of Leaders*. Retrieved from https://dash.harvard.edu/handle/1/27013352

Kyndt, E., Raes, E., Lismont, B., Timmers, F., Cascallar, E., & Dochy, F. (2013). *A meta-analysis of the effects of face-to-face cooperative learning*. Do recent studies falsify or verify earlier findings? *Educational Research Review*, *10*, 133–149. https://doi.org/10.1016/j.edurev.2013.02.002

Lahey, J. (2017, January 4). *How Design Thinking Became a Buzzword at School*. *The Atlantic*. Retrieved from https://www.theatlantic.com/education/archive/2017/01/how-design-thinking-became-a-buzzword-at-school/512150/

Lane, K., Larmaraud, A., & Yueh, E. (2017). *Finding hidden leaders*. McKinsey & Company. Retrieved from http://www.mckinsey.com/business-functions/organization/our-insights/finding-hidden-leaders

Langley, G. J., Moen, R. D., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provost, L. P. (2009). *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance (2 edition)*. San Francisco: Jossey-Bass.

Learning Forward. (2011). *Standards for Professional Learning*. Oxford, OH: Learning Forward.

Leithwood, K. (2012). *The Ontario Leadership Framework*. Retrieved from http://iel.immix.ca/storage/6/1345688978/Final_Research_Report_-_EN.pdf

Leithwood, K., & Mascall, B. (2008). *Collective Leadership Effects on Student Achievement*. *Educational Administration Quarterly*, *44*(4), 529–561. https://doi.org/10.1177/0013161X08321221

Leithwood, K., & Seashore-Louis, K. (2011). *Linking Leadership to Student Learning (1 edition)*. San Francisco: Jossey Bass.

Leithwood, K., Seashore-Louis, K., Anderson, S., & Wahlstrom, K. (2004). *How Leadership Influences Student Learning (commissioned by the Wallace Foundation) (p. 88)*. New York: University of Minnesota, Center for Applied Research and Educational Improvement and University of Toronto, Ontario Institute for Studies in Education. Retrieved from http://www.wallacefoundation.org/knowledge-center/Documents/How-Leadership-Influences-Student-Learning.pdf

Lichtenstein, B. B., Uhl-Bien, M., Marion, R., Seers, A., Orton, J. D., & Schreiber, C. (2006). *Complexity leadership theory: An interactive perspective on leading in complex adaptive systems*. *Emergence: Complexity & Organization*, *8*(4), 2–12.

Lieberman, A., & Miller, L. (2004). *Teacher Leadership (1 edition)*. San Francisco: Jossey-Bass.

Louis, K. S., & Robinson, V. M. (2012). *External mandates and instructional leadership: school leaders as mediating agents*. *Journal of Educational Administration*, *50*(5), 629–665. https://doi.org/10.1108/09578231211249853

Malone, H. J. (Ed.). *(2013)*. *Leading Educational Change: Global Issues, Challenges, and Lessons on Whole-System Reform*. New York: Teachers' College Press.

Martinez, M. E. (2015). *Paths to the Principalship: Perceptions of Latino Leaders, a Phenomenological Study (Ed.D.)*. Drexel University, United States — Pennsylvania. Retrieved from http://search.proquest.com.ezp-prod1.hul.harvard.edu/docview/1700208793/abstract/8E05C7FEABA848FDPQ/1

Marzano, R. J. |Waters. (2005). *School Leadership that Works: From Research to Results*. Association for Supervision and Curriculum Development.

Matthews, P., Higham, R., Stoll, L., Brennan, J., & Riley, K. (2011). *Prepared to lead How schools, federations and chains grow education leaders (p. 75)*. Nottingham, UK: National College for School Leadership. Retrieved from http://www.lcll.org.uk/uploads/3/0/9/3/3093873/prepared_to_lead.pdf

Mayer, D., & Lloyd, M. (2011). *Professional Learning: an introduction to the research literature*. Melbourne: Australian Institute for Teaching and School Leadership. Retrieved from https://www.aitsl.edu.au/docs/default-source/default-document-library/professional_learning_an_introduction_to_research_literature

Mendels, P. (2016). *Perspective: Building Principal Pipelines*. New York: Wallace Foundation. Retrieved from http://www.wallacefoundation.org/knowledge-center/Pages/Perspective-Building-Principal-Pipelines.aspx

Miller, R. (2015). *Making Experimentalist Leadership practical: The theory and practice of futures literacy (Seminar Series Paper No.* 246). Melbourne: Centre for Strategic Education.

Moolenaar, N. M., & Daly, A. J. (2012). *Social Networks in Education: Exploring the Social Side of the Reform Equation*. *American Journal of Education*, *119*(1), 1–6. https://doi.org/10.1086/667762

Mulgan, G., & Leadbeater, C. (2013). *Systems Innovation Discussion Paper*. London, UK: Nesta. Retrieved from http://www.nesta.org.uk/publications/systems-innovation-discussion-paper

National Institute of Education. (2013a). *Developing School Leaders For The Nation*. Singapore, Singapore: Author

National Institute of Education. (2013b). *Leaders in Education Programme | National Institute of Education (NIE), Singapore*. Retrieved February 2, 2017, from http://www.nie.edu.sg/leadership-professional-development/leadership-programmes/leaders-in-education-programme

Ng, F. S. D. (2007). *Developing Singapore school leaders*. In Commonwealth Secretariat, Commonwealth Education Partnerships 2007 (pp. 111-113). London, UK: Nexus Partnerships.

Ng, F. S. D. (2014). *Complexity-based learning—An alternative learning design for the twenty-first century*. *Cogent Education*, *1*(1), 970325. https://doi.org/10.1080/2331186X.2014.970325

Ng, P. T. (2013). *Developing Singapore school leaders to handle complexity in times of uncertainty*. Asia Pacific Education Review, 14(1), 67-73. doi:10.1007/s12564-013-9253-1

Ng, P. T. (2015). *Developing Leadership for Schools in Singapore*. In A. Harris & M. S. Jones (Eds.), *Leading Futures Global Perspectives on Educational Leadership* (pp.169–184). Los Angeles, Calif. ; London: SAGE Publications.

NIE GPL. (2017, January 2). *Leaders in Education Programme at NIE [Video file]*. Retrieved from https://youtu.be/LfCdoeLLdlg

O'Brien, T. (2016). *OBRIEN-DISSERTATION-2016.pdf*. Harvard Graduate School of Education, Cambridge, MA. Retrieved from https://dash.harvard.edu/bitstream/handle/1/27112706/OBRIEN-DISSERTATION-2016.pdf?utm_source=Into+Practice&utm_campaign=8276e829d1-2.6.2017+Newsletter&utm_medium=email&utm_term=0_261abb8651-8276e829d1-238787429

OECD. (2008a). *Improving School Leadership, Volume 1: Policy and Practice*. Organisation for Economic Co-operation and Development. Retrieved from http://dx.doi.org/10.1787/9789264167995-lt

OECD. (2008b). *Improving School Leadership : Volume 2, Case Studies on System Leadership*. Organisation for Economic Co-operation and Development. Retrieved from http://lib.myilibrary.com?ID=178441

OECD. (2011). *Building a High-Quality Teaching profession (Background Report for the International Summit on the Teaching Profession)*. Paris. Retrieved from https://www.oecd.org/site/eduistp13/Building%20a%20High-Quality%20%20teaching%20profession.pdf

OECD. (2013). *Leadership for 21st Century Learning*. Paris: Organisation for Economic Co-operation and Development. Retrieved from http://www.oecd-ilibrary.org/content/book/9789264205406-en

OECD. (2014). *TALIS 2013 Results*. Paris: Organisation for Economic Co-operation and Development. Retrieved from http://www.oecd-ilibrary.org/content/book/9789264196261-en

OECD. (2015). *Schooling Redesigned*. OECD Publishing. Retrieved from http://www.oecd-ilibrary.org/education/schooling-redesigned_9789264245914-en

OECD. (2016). *School Leadership for Learning*. Paris: Organisation for Economic Co-operation and Development. Retrieved from http://www.oecd-ilibrary.org/content/book/9789264258341-en

Orphanos, S., & Orr, M. T. (2014). *Learning leadership matters: The influence of innovative school leadership preparation on teachers' experiences and outcomes*. *Educational Management Administration & Leadership*, *42*(5), 680–700. https://doi.org/10.1177/1741143213502187

Orr, M. T., & Orphanos, S. (2011). *How Graduate-Level Preparation Influences the Effectiveness of School Leaders: A Comparison of the Outcomes of Exemplary and Conventional Leadership Preparation Programs for Principals*. *Educational Administration Quarterly*, *47*(1), 18–70. https://doi.org/10.1177/0011000010378610

Parks, S. D. (2005). *Leadership Can Be Taught: A Bold Approach for a Complex World (1 edition)*. Boston, Mass: Harvard Business School Press.

Pennebaker, J. W., & Seagal, J. D. (1999). *Forming a story: the health benefits of narrative*. *Journal of Clinical Psychology*, *55*(10), 1243–1254. https://doi.org/10.1002/(SICI)1097-4679(199910)55:10<1243::AID-JCLP6>3.0.CO;2-N

Pont, B., Nusche, D., & Moormon, H. (2008). *Improving School Leadership (No.* Volume 1: Policy and Practice). Paris: OECD. Retrieved from https://www.oecd.org/edu/school/44374889.pdf

Ready, D. A., Conger, J. A., & Hill, L. A. (2010, June). *Are You a High Potential? Harvard Business Review*. Retrieved from https://hbr.org/2010/06/are-you-a-high-potential

Reimers, F. M., & Chung, C. K. (Eds.). *(2016a). Teaching and Learning for the Twenty-First Century: Educational Goals, Policies, and Curricula from Six Nations*. Harvard Education Press.

Reimers, F. M., & Chung, C. K. (Eds.). *(2016b). Teaching and Learning for the Twenty-First Century: Educational Goals, Policies, and Curricula from Six Nations*. Harvard Education Press.

Rew, W. (2013). *Instructional Leadership Practices And Teacher Efficacy Beliefs: Cross-National Evidence From Talis*. *Electronic Theses, Treatises and Dissertations*. Retrieved from http://diginole.lib.fsu.edu/etd/7573

Robinson, K., & Aronica, L. (2015). *Creative Schools: The Grassroots Revolution That's Transforming Education*. Penguin.

Robinson, V. (2010). *From Instructional Leadership to Leadership Capabilities: Empirical Findings and Methodological Challenges*. *Leadership and Policy in Schools*, *9*(1), 1–26. https://doi.org/10.1080/15700760903026748

Robinson, V. (2011). *Student-Centered Leadership (1 edition)*. San Francisco, CA: Jossey Bass.

Robinson, V., Hohepa, M., & Lloyd, C. (2009). *School leadership and student outcomes: Identifying what works and why, best evidence synthesis iteration (extended from 2007 edition)*. University of Auckland.

Robinson, V. M. J., Lloyd, C. A., & Rowe, K. J. (2008). *The Impact of Leadership on Student Outcomes: An Analysis of the Differential Effects of Leadership Types*. *Educational Administration Quarterly*, *44*(5), 635–674. https://doi.org/10.1177/0013161X08321509

Robinson, V. M. J., & Timperley, H. S. (2007). *The Leadership of the Improvement Teaching and Learning: Lessons from Initiatives with Positive Outcomes for Students*. *Australian Journal of Education*, *51*(3), 247–262. https://doi.org/10.1177/000494410705100303

Ronfeldt, M., Farmer, S. O., McQueen, K., & Grissom, J. A. (2015). *Teacher Collaboration in Instructional Teams and Student Achievement*. *American Educational Research Journal*, *52*(3), 475–514. https://doi.org/10.3102/0002831215585562

Schleicher, A. (Ed.). *(2012). Preparing Teachers and Developing School Leaders for the 21st Century*. Paris: Organisation for Economic Co-operation and Development. Retrieved from http://www.oecd-ilibrary.org/content/book/9789264174559-en

Schwartz, D. L., Bransford, J. D., & Sears, D. (2005). *Efficiency and Innovation in Transfer*. In J. P. Mestre (Ed.), *Transfer of Learning from a Modern Multidisciplinary Perspective* (pp. 1–51). IAP.

Shelton, S. (2012). *Preparing a Pipeline of Effective Principals: A Legislative Approach (p.* 13). New York: Wallace Foundation. Retrieved from http://www.wallacefoundation.org/knowledge-center/Pages/Preparing-a-Pipeline-of-Effective-Principals-A-Legislative-Approach.aspx

Sherer, J. Z., & Spillane, J. (2011). *Constancy and Change in Work Practice in Schools: The Role of Organizational Routines*. *Teachers College Record*, *113*(3), 611–657.

Snook, S. A. (2004). *Be, Know, Do: Forming Character the West Point Way*. Retrieved from http://www.hbs.edu/faculty/Pages/item.aspx?num=31780

Snook, S. A., Nohria, N. N., & Khurana, R. (Eds.). *(2011). The Handbook for Teaching Leadership: Knowing, Doing, and Being*. Thousand Oaks: SAGE Publications, Inc.

Spillane, J. P. (2006). *Distributed Leadership (1 edition)*. San Francisco: Jossey-Bass.

Spillane, J. P. (2015). *Getting Beyond Our Fixation with Leaders' Behaviours*. In A. Harris & M. S. Jones (Eds.), *Leading Futures Global Perspectives on Educational Leadership* (pp. 200–204). Los Angeles, Calif. ; London: SAGE Publications.

Spillane, J. P., & Diamond, J. B. (Eds.). *(2007). Distributed Leadership in Practice*. New York: Teachers College Press.

Spillane, J. P., Halverson, R., & Diamond, J. B. (2001). *Investigating School Leadership Practice: A Distributed Perspective*. *Educational Researcher*, *30*(3), 23–28.

Spillane, J. P., Hopkins, M., & Sweet, T. M. (2015). *Intra- and Interschool Interactions about Instruction: Exploring the Conditions for Social Capital Development*. *American Journal of Education*, *122*(1), 71–110. https://doi.org/10.1086/683292

Spillane, J. P., & Kim, C. M. (2012). *An Exploratory Analysis of Formal School Leaders' Positioning in Instructional Advice and Information Networks in Elementary Schools*. *American Journal of Education*, *119*(1), 73–102. https://doi.org/10.1086/667755

Spillane, J. P., Kim, C. M., & Frank, K. A. (2012). *Instructional Advice and Information Providing and Receiving Behavior in Elementary Schools: Exploring Tie Formation as a Building Block in Social Capital Development*. *American Educational Research Journal*, *49*(6), 1112–1145. https://doi.org/10.3102/0002831212459339

Spillane, J. P., & Mertz, K. (2015). *Distributed Leadership*. *Oxford Bibliographies*. https://doi.org/10.1093/OBO/9780199756810-0123

Spillane, J. P., Parise, L. M., & Sherer, J. Z. (2011). *Organizational Routines as Coupling Mechanisms Policy, School Administration, and the Technical Core*. *American Educational Research Journal*, *48*(3), 586–619. https://doi.org/10.3102/0002831210385102

Stein, M. K., & Nelson, B. S. (2003). *Leadership Content Knowledge*. *Educational Evaluation and Policy Analysis*, *25*(4), 423–448. https://doi.org/10.3102/01623737025004423

Stoll, L. (2015). *Three greats for a self-improving school system—pedagogy, professional development and leadership (Teaching schools R&D network national themes project 2012-14 Research Report)*. Nottingham, UK. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/406278/Three_greats_for_a_self_improving_system_pedagogy_professional_development_and_leadership_full_report.pdf

Supovitz, J. (2014). *Building a Lattice for School Leadership: The Top-to-Bottom Rethinking of Leadership Development in England and What It Might Mean for American Education*. Consortium for Policy Research in Education. https://doi.org/10.12698/cpre.2014.rr83

Supovitz, J., Sirinides, P., & May, H. (2010). *How Principals and Peers Influence Teaching and Learning*. *Educational Administration Quarterly*, *46*(1), 31–56. https://doi.org/10.1177/1094670509353043

Tang, O. S. (2015). *Teacher Policies (WISE Research No. 4)*. Qatar: World Innovation Summit on Education. Retrieved from http://www.wise-qatar.org/2015-wise-research-teacher-policies

Taylor, D., Tucker, P., Pounder, D., Crow, G., Orr, M., Mawhinney, H., & Young, M. (2012). *The Research Base Supporting the ELCC Standards*. University Council for Educational Administration (UCEA). Retrieved from http://www.ucea.org/resource/the-research-base-supporting-the-elcc-standards/

Teach First. (2016). *The School Leadership Challenge 2022.pdf*. Retrieved from https://www.teachfirst.org.uk/sites/default/files/The%20School%20Leadership%20Challenge%202022.pdf

Tekleselassie, A. A., & Villarreal, P. (2011). *Career Mobility and Departure Intentions among School Principals in the United States: Incentives and Disincentives*. *Leadership and Policy in Schools*, *10*(3), 251–293. https://doi.org/10.1080/15700763.2011.585536

Timperley, H. (2008). *Teacher professional learning and development (Educational Practices)*. Geneva: International Academy of Education, International Bureau of Education. Retrieved from http://edu.aru.ac.th/childedu/images/PDF/benjamaporn/EdPractices_18.pdf

Timperley, H. (2011). *Knowledge and the Leadership of Learning*. *Leadership and Policy in Schools*, *10*(2), 145–170. https://doi.org/10.1080/15700763.2011.557519

Timperley, H., & Robinson, V. M. J. (2001). *Achieving School Improvement through Challenging and Changing Teachers' Schema*. *Journal of Educational Change*, *2*(4), 281–300. https://doi.org/10.1023/A:1014646624263

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration (Iterative Best Evidence Synthesis)*. Wellington, New Zealand: New Zealand Ministry of Education.

Turnbull, B. J., Riley, D. L., & MacFarlane. (2015). *Districts Taking Charge of the Principal Pipeline (Commissioned by the Wallace Foundation No.* Volume 3). New York: Wallace Foundation. Retrieved from http://www.wallacefoundation.org/knowledge-center/Documents/Building-a-Stronger-Principalship-Vol3-Districts-Taking-Charge.pdf

Tuytens, M., & Devos, G. (2010). *The influence of school leadership on teachers' perception of teacher evaluation policy. Educational Studies*, *36*(5), 521–536. https://doi.org/10.1080/03055691003729054

UNESCO. (2015). *Education for All 2000–2015: Achievements and Challenges*. Paris: UNESCO. Retrieved from http://unesdoc.unesco.org/images/0023/002322/232205e.pdf

UNESCO. (2016). *Leading better learning: School leadership and quality in the Education 2030 agenda (Regional reviews of policies and practices (preliminary version))*. UNESCO Education Sector. Retrieved from http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/leadership-report.pdf

Vaillant, D. (2015). *School leadership, evolution of policies and practices and improvement of educational quality (Background paper prepared for the Education for All Global Monitoring Report 2015)*. Paris: UNESCO. Retrieved from http://unesdoc.unesco.org/images/0023/002324/232403e.pdf

Walker, A., & Hallinger, P. (2015). *A synthesis of reviews of research on principal leadership in East Asia. Journal of Educational Administration*, *53*(4), 554–570. https://doi.org/10.1108/JEA-05-2015-0038

Walsh, L. (2015). *Educating Generation Next: Young People, Teachers and Schooling in Transition (1st ed.* 2016 edition). Basingstoke, Hampshire ; New York, NY: AIAA.

Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Dallas, TX: National Staff Development Council.

Westfall-Greiter, T. (2013). *System Monitoring Note 1–Austria: The Lerndesigner–Network in Transition*. Austria: National Center for Learning Schools for the Ministry of Education, Art and Culture.

Wildy, H., & Louden, W. (2000). *School Restructuring and the Dilemmas of Principals' Work. Educational Management & Administration*, *28*(2), 173–184. https://doi.org/10.1177/0263211X000282006

Wiliam, D. (2011). *Embedded Formative Assessment (US ed edition)*. Bloomington, IN: Solution Tree Press.

Wiliam, D. (2016). *Leadership for Teacher Learning: Creating a Culture Where All Teachers Improve So That All Students Succeed*. West Palm Beach, Fla: Learning Sciences International.

Willingham, D. T. (2010). *Why Don't Students Like School?: A Cognitive Scientist Answers Questions About How the Mind Works and What It Means for the Classroom (1 edition)*. San Francisco, CA: Jossey Bass.

Woessmann, L., Luedemann, E., Schuetz, G., & West, M. R. (2009). *School Accountability, Autonomy and Choice Around the World*. Cheltenham ; Northhampton, MA: Edward Elgar Pub.

Ylimaki, R., & Jacobson, S. (2013). *School leadership practice and preparation. Journal of Educational Administration*, *51*(1), 6–23. https://doi.org/10.1108/09578231311291404

WISE would like to acknowledge the support of the following organizations:

wise

world innovation summit for education

مؤتمر القمة العالمي للابتكار في التعليم

An Initiative of Qatar Foundation

wise research