Edited by Barbara Tournier, Chloé Chimier, and Charlotte Jones

Leading teaching and learning together

The role of the middle tier

Education Development Trust

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International Institute for Educational Planning

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Abbreviations

AAP	Academy Associates Programme
ART	Academic Resource Team
BLF	Building Learning Foundations
CoP	Communities of Practice
CPD	Continuing Professional Development
DA	District Administration
DDE	District Director of Education
DEO	District Education Officer
DfE	Department for Education
DIET	District Institute for Education and Training
DoE	Directorate of Education
DPCYP	Department for the Protection of Children and Young People
EDT	Education Development Trust
FGD	Focus group discussion
ERfKE	Education Reform for the Knowledge Economy
ESSP	Education Sector Strategic Plan
EWC	Education Workforce Council
IIEP	International Institute for Educational Planning
LIC	Learning Improvement Cycle
LiM	leading ‘in’ the middle
LfM	leading ‘from’ the middle
LLL	Local Leader of Learning
MINEDUC	Rwanda Ministry of Education
MoE	Ministry of Education
NAEL	National Academy for Educational Leadership
NCERT	National Council for Educational Research and Training
NGO	Non-governmental organization
NLL	National Leader of Learning
PISA	Programme for International Student Assessment
PLC	Professional Learning Community
QRTA	Queen Rania Training Academy
REB	Rwanda Basic Education Board
SCERT	State Council for Educational Research and Training
SEI	Sector Education Inspector
SIP	School Improvement Plan
TDC	Teacher Development Co-ordinator
UNESCO	United Nations Educational, Scientific and Cultural Organization

About the project

In 2018 IIEP-UNESCO and Education Development Trust established a joint research agenda to investigate the middle tier of education systems. Our first report, *Change Agents: Emerging Evidence on Instructional Leadership at the Middle Tier,* was published in 2020, in partnership with the Education Commission, and offered a review of emerging international evidence about how middle-tier professionals can catalyse improvement in teaching and learning.

This report expands our enquiry into this topic, with new empirical evidence on promising practice from five jurisdictions.

IIEP is an integral part of UNESCO, dedicated to supporting educational policy, planning, and management. It develops the capacities of education actors to plan and manage their systems through its programme of training, technical assistance, policy research, and knowledge sharing. One of its core missions is to assist countries to better manage their education workforce for improved learning. The institute has trained numerous system leaders around the globe and published extensively on education policy issues.

Education Development Trust is an international not-for-profit organization working to improve education outcomes through expert research, intelligent design, and delivery of school improvement programmes at scale. It has published a large body of work on education system and workforce reform, dealing with topics such as school leadership, systems thinking, school turnaround, teacher management systems, and innovations in school collaboration. Many of the organization's large-scale programmes include teacher professional development and have demonstrated considerable success in improving student learning outcomes through innovations in areas such as pedagogical coaching and supervision.

Editors and contributors

Editors

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This report is the result of generous inputs from a broad team of collaborators over two years.

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Foreword

Jordan Naidoo

One of the game changers to improve learning outcomes is about how to better support teachers to deliver quality education. How can we provide them with spaces within the education system where they can share, collaborate, and problem-solve together and with other experts? How do we unleash the power of an education system in which different levels speak to each other and trust is established among all the actors? How can we build a learning system that supports and enhances the professionalism of teachers and head teachers, and improve teaching and learning outcomes?

In exploring these questions our attention naturally turned to the middle level of education systems, and those education professionals (often experienced practitioners themselves) who play district or regional roles just above the school level, or who work across several schools. Their proximity to teachers and schools gives leaders in these positions a unique opportunity to understand the real-world issues teachers face, help develop and deliver practical solutions, and contribute to enhancing equity and wellbeing in the education workforce. These middle-tier leaders can then go beyond supporting individual classrooms or schools to drive whole-system change.

Global policy reforms have tended to focus on the school level, as the space where national education change is implemented. Over-reliance on school-level, compliance-oriented interventions has undermined the importance of the middle tier. Promising improvements in teaching and in the effectiveness of both school and district leadership have been especially neglected in countries of the Global South. To avoid a purely top-down approach to policy delivery, the middle tier should be understood as an organically functioning space with both bottom-up and top-down flows, where the agency of actors is valued – as opposed to the hierarchical model in which a central agent tries to motivate or incentivize actors lower on a delivery chain. The middle tier can then be seen less as a 'post-box' administrative level and more as an active learning, problem-solving organization; instead of constantly reporting evidence up to the central government, it can make use of this evidence locally to diagnose and solve problems.

Linking policy-making at the central or state level and the implementation of policy reforms at the school level is critical for strengthening learning capacity in education systems. We seek to draw attention to this 'missing middle' to enable expanded forms of collaborative leadership. The leaders identified in our case studies are providing much-needed support to teachers and headteachers, facilitating enhanced collaboration, and promoting the evidence of best practices locally, nationally, and internationally.

As we look to the future and reflect on how to transform education, this research is timely. We hope it opens some eyes to the ways that improving learning systems, especially at the middle tier, can lead to better teaching and learning. It also offers policy-makers some concrete recommendations on how to recast teaching as a collaborative profession, as called for in UNESCO's *Futures of Education* report (2021: 90). More broadly, it represents an opportunity to rethink relationships and interactions within education systems.

Executive summary

Tony McAleavy

What is the middle tier and why does it matter?

The need to improve the quality of learning is one of the most important challenges facing education policy-makers. The world is facing a learning crisis, and at its core is a teaching crisis. The Covid-19 pandemic has exacerbated learning and teaching problems and, in many places, worsened outcomes for disadvantaged students. There is an urgent need for purposeful action to address the question of teaching quality.

Many forces determine teachers' effectiveness. One relatively neglected but significant factor is the nature of the professional support that teachers receive locally. Almost every system includes a middle tier of administration and management linking the school and the central ministry of education. This report considers the potential role of middle-tier actors as a force for good in the improvement of teaching practice.

The 'middle tier' refers to the sub-district, district, or regional levels of education systems – the often complex area positioned between schools and state-level policy-making. It may look very different from one country to the next, depending on a country's size and administrative set-up, level of system (de)centralization, and breadth of mandate. The middle-tier workforce typically comprises a wide range of professionals with planning and management as well as pedagogical support functions, and can include school professionals who have stepped up to offer leadership and support to practitioners beyond their own school. As the representatives of the ministry who are closest to the schools, and simultaneously the representatives of schools and practitioners to the ministry level, they play a pivotal role in improving education systems. As intermediaries in systems, middle-tier actors are responsible for implementing and monitoring national education policy at the local level. When empowered to do so, they can drive the entire system by 'leading from the middle'.

Policy-makers often find education systems resistant to reform. They struggle to find ways to translate a high-level policy vision into operational reality on the ground. Here the middle tier is crucial, since it has the power to champion and mediate reform at the local level and to provide policy-makers with invaluable feedback on aspects of policy that school professionals find problematic.

Almost all education systems possess a middle tier, and most of them budget for salaries of middle-tier professionals. Strengthening this group can thus be a low-cost but high-impact policy priority, and increasing its effectiveness can generate a disproportionately large benefit in terms of the productivity of the whole school system.

This research report is concerned with how to improve teaching and learning, and focuses on instructional leaders and actors with pedagogical support functions in the middle tier. By instructional leadership we mean activity dedicated to supporting teachers and school leaders in their practice and professional growth. We distinguish those roles from other (equally important) ones at the middle tier which focus on administrative support functions. As supervisors, cluster co-ordinators, current or former teachers, and school leaders, instructional leaders have an acute understanding of teachers' needs.

Our initial assumption is that the instructional support that teachers receive from intermediate levels of the education system can improve pedagogical quality and learning in several ways. However, we also assume that this transformational role is often undeveloped in the real world, where the middle tier too often focuses largely on top-down direction and compliance monitoring, adding little value to classroom practice and teacher professionalism. We make a case for the need to reorient middle-tier roles towards instructional leadership.

The nature of this investigation

The present enquiry builds on a previous report, *Change Agents: Emerging Evidence on Instructional Leadership at the Middle Tier* (Childress et al., 2020). That study reviewed the literature relating to the middle tier and discussed the potential of middle-tier actors to contribute to instructional improvement, the challenges they face, and the fact that their role has been overlooked in prior research and policy debates.

Our report builds on this earlier analysis, starting from the hypothesis that middle-tier instructional leaders can improve the quality of education at scale. It investigates the role of middle-tier professionals as instructional leaders in real-world settings, through five case-studies of promising practice drawn from different education systems: Delhi (India), Jordan, Rwanda, Shanghai (China), and Wales.

The central research question is: In what ways can instructional leaders at the middle tier act as change agents to improve teaching and learning? We devised a subset of questions to guide the research:

- What are the professional practices of instructional leaders at the middle tier?
- How do these practices bring about change in teaching and learning?
- What conditions are needed if instructional leaders at the middle tier are to be effective?
- What are the challenges and policy recommendations for implementation?

These questions were explored through qualitative research, involving interviews with instructional leaders and other key education stakeholders, and through review of policy documents, programme documents, and data in the five research settings.

The case studies were conducted in very different geographical, cultural, and income-level locations. The middle-tier instructional leadership approaches in each case study are summarized below.

Delhi, India

Since 2012 the Delhi government has been seeking to create a better academic environment in schools and among teachers, to improve student learning outcomes and performance. Its goal is to aid teachers to become motivated professionals, with a growth mindset and a focus on facilitating lifelong learning.

A new middle-tier role, 'mentor teacher', was introduced in 2012. The mentor teachers' role is to develop a rolling programme of professional learning for teachers in a selected group of schools. At present they are serving classroom teachers who volunteer to help improve teaching practice. They organize professional learning sessions, provide feedback to teachers based on classroom observation, and seek to spread best practices identified through observation and discussion.

Since 2017 the system has been strengthened through the designation of teacher development co-ordinators. These are classroom teachers who implement the goals of the mentor teachers at the level of the individual school, by leading professional discussions. They aim to create a collaborative environment among teachers while also raising the level of academic discourse in order to ensure a focus on teaching and learning. Each school also has an academic resource team, a group of teachers from across the school who work together to improve specific aspects of pedagogy with support from the mentor teachers and their own teacher development co-ordinator.

Jordan

In Jordan, as in many countries in the Middle East and North Africa, the Ministry of Education employs supervisors, middle-tier officers who operate at a district level and monitor the work of teachers. Since 2015 the government has emphasized the need for supervisors to provide developmental support through coaching and facilitating communities of practice.

Between 2017 and 2019 an innovative pilot programme offered professional support to a group of specialist English-language supervisors from across Jordan, by training them in evidence-based supervision. Following this training, the feedback they gave teachers after lesson observation was underpinned by evidence derived from robust international education research.

To help supervisors and teachers access evidence-based knowledge, 'clinical practice cards' were developed, summarizing research findings relating to high-impact pedagogy. The principle of research-informed professionalism, well established in the medical professions, was now applied to the domain of education. Supervisors were also trained in high-impact coaching techniques.

Since 2019 the emphasis has been on developing online resources to make evidence-based supervision accessible to all supervisors.

Rwanda

In 2017 the Rwandan Government created a new middle-tier role, the 'leader of learning'. These are head teachers whose own practice is considered exemplary, and who act as change agents to lead teaching and learning improvement beyond their own school, working across their locality to offer professional development support to their peer head teachers. A cadre of national and local leaders of learning has now been established to serve all 3,200 public and government-aided primary schools nationwide. The leaders of learning play an important role in up-skilling their peer head teachers in school improvement practices, particularly data-led school planning, and in promoting in-school professional development for teachers. They provide peer support through coaching and by leading local Professional Learning Communities of head teachers.

The motivation for head teachers' involvement is the opportunity for professional development to improve their own performance and that of their school. The new roles support a 'triple-helix' learning system, where professionals learn at all levels of the education hierarchy: local leaders of learning are supported by national leaders of education at district level in Professional Learning Communities; head teachers are supported by local leaders of education at sector level in Professional Learning Communities; and head teachers support the learning and development of teachers within their own school through communities of practice.

Shanghai, China

Shanghai has a well-established three-pronged professional supporting structure, initiated in the 1990s. High-performing instructional leaders are competitively selected for three middle-tier positions, to implement national education reforms and spearhead innovative school practices across Shanghai's schools.

Teaching research officers organize and lead group lesson observations and feedback. The expectation is that the insights generated will improve practice when teachers view their pedagogy in this collaborative way. These officers also develop textbooks and other curriculum materials.

Educational research officers co-ordinate and support research projects undertaken by individual teachers and schools in their districts or at the municipal level. They advise and support school-based improvement projects.

High-performing school practitioners are designated 'master principal' or 'master teacher'. They continue to be serving practitioners, but provide support on a part-time basis to other school professionals, including mentoring through a system known as the 'master studio'.

Wales

In 2018 the Welsh Government created the National Academy for Educational Leadership to assist school leaders' professional development. A cadre of 'academy associates' was created: these are serving head teachers with a reputation for excellence in their own leadership practice. The roles are advertised and awarded competitively. Associates are not paid, but schools receive compensation for the time they spend on the role. They are released for one day a week to undertake system leadership work beyond the leadership of their own schools. The associate role is intentionally loosely defined, but involves two forms of system leadership: associates contribute to formulating national policy, bringing the perspective of the front line to the central planning process; and work with other school leaders in their localities, mediating and explaining national policy and assisting with problem-solving.

One distinctive feature of the Academy Associates Programme is the investment that the Welsh Government has made in the associates' professional development, recognizing that a range of skills is needed if expert practitioners are to engage in outreach activities beyond their schools and in the policy arena.

The learning system: The key components of middle-tier effectiveness

Based on our analysis of the case studies, we have identified five main functions that middle-tier instructional leaders can undertake to act as effective change agents. The functions are interconnected, and concern different ways of enabling powerful professional development. Too often teacher professional development is equated with occasional training courses; the case studies offer a much more mature model of professional learning, and the five main functions, taken together, constitute a learning system for education professionals.

Providing support for school and teaching improvement

Empirical studies show that teachers learn best when offered on-site guidance and coaching. Middle-tier change agents can play a vital role by offering this support (especially where teachers lack robust professional teacher training and reflective experience), improving pedagogy by school-level action that focuses reflection on classroom practice. Across the case studies we saw many instances of practices intended to stimulate pedagogical improvement: coaching teachers and head teachers; conducting lesson observations; modelling effective practices; delivering needs-based and practical professional development; and providing non-judgemental feedback.

The impact of such support depends both on the skill of the middle-tier change agents and on the level of trust and mutual respect established with school staff. This is in turn determined by the wider governance and administrative set-up.

Promoting professional collaboration within and across schools

Evidence shows that when school professionals collaborate to learn together, their practice improves, but that effective collaboration needs careful facilitation. A key function of middle-tier instructional leaders is to facilitate collaborative professional learning through the exchange of practice and knowledge. Instructional leaders at the middle tier foster professional collaboration among school-based professionals, and also across schools within localities and at system level. They encourage the sharing of expertise and exchange of good practices through setting up and supporting collaborative networks. The case studies provided examples of practices related to the promotion of collaboration, including facilitating Professional Learning Communities and promoting connectedness using social media.

The exchange of good practices is enhanced by the existence of formal networks and by the cultivation of a sense of community and collegiality at school and locality level.

Brokering knowledge to promote the use of evidence

Continuous improvement in any professional field is strengthened when practice is based on the best available evidence and is outward-looking. However, it can be difficult for busy front-line practitioners to access evidence and identify what might be relevant to them. Instructional leaders at the middle tier act as knowledge brokers, translating evidence and research into practical solutions for teachers and head teachers to experiment with. We found instances of several practices linked to the mobilization of knowledge and evidence, including encouraging engagement with international standards and evidence; translating evidence into practical solutions; and producing new knowledge.

Effective middle-tier change agents encourage the use of different forms of evidence – findings from external research, practitioner enquiry, and disaggregated data. Engagement with evidence requires both the availability of findings from reliable sources and a professional mindset that values collective enquiry and critical thinking about practice.

Providing local instructional direction and system alignment

The middle tier is the intersection between central policy-making and local implementation of policy. Middle-tier actors have the potential to explain and mediate policy at local level and to provide practitioner feedback and engagement in the policy-making process. Our case studies provided examples of this, including translating policies into meaningful practice at the school level and promoting the voice of practitioners in the policy-making process.

Educational reform often encounters resistance from front-line professionals who are unconvinced of the case for change. Through their role as mediators and brokers, middle-tier change agents can reduce the risk of opposition to change. By providing a feedback loop to the policy centre, they can also facilitate adaptive policy enactment, leading to adjustments informed by an understanding of the school-level perspective.

Testing innovations and scaling up promising practices

All education systems have pockets of promising practice and new innovations: the challenge for policy-makers is how to take these to scale. Middle-tier instructional leaders are well placed to introduce and pilot innovative practices and to play a central part in scaling up 'what works'. In our case studies we saw examples of several practices relating to the management of innovation: strengthening school-level actors' agency to experiment with new practices; scaling-up promising practices; and monitoring and reporting on the impact of new practices.

Pilot projects at the local level, facilitated by the middle tier, provide policy-makers with a rapid and efficient way of learning about what works and what should be taken to scale. Involving the middle tier in facilitating innovation increases the probability of 'buy-in' to change at scale.

Professionalizing the middle tier and peer leadership

Understanding the essential components of an effective middle tier is key, but it is also necessary to understand the conditions policy-makers put in place to support middle-tier leaders. Across the case studies, policy-makers invested in strengthening and professionalizing the middle-tier cadre, for example by investing in stronger recruitment policies, enhanced professional status, and high-quality professional development. This focus on professionalism and talent management was an important ingredient in the construction of a group of confident change agents at the middle tier.

In our case studies, the middle-tier workforce was viewed as a respected group of professionals and a vital asset, pivotal to policy implementation and transformational change, rather than as a marginal part of the education system. Plans to support and develop classroom teachers were considered likely to fail without the presence of competent middle-tier professionals. This awareness led in turn to recognizing a need to strengthen and professionalize the middle-tier cadre by means of appropriate recruitment policies and opportunities for professional growth.

In many settings, including Rwanda, Delhi, and Wales, policy-makers professionalized and recognized peer-leadership roles for the first time. They typically recruited middle-tier instructional leaders from expert practitioners (who continued to be serving teachers or leaders in schools) who could garner immediate respect from their fellow-professionals. The case studies offer interesting examples of how this peer-leadership role was recognized and professionalized as part of the formal system.

Wider, contextual factors also play a part, including the level of trust of school staff in the education system and approaches to the recruitment, retention, and development of the middle-tier workforce.

One critical success factor in all the examples discussed in this report was the existence of what we refer to as an empowering culture, one that grants autonomy to professionals and seeks to strengthen their mastery. Across our case studies, middle-tier actors were permitted to use their professional judgement to support teaching and learning improvement. Policy-makers trusted them to interpret and adapt broad policy directions and make them relevant to school professionals in their locality. It was also understood that recruitment, training, opportunities for career progression, and incentivization will determine the effectiveness of middle-tier change agents.

Policy-makers faced similar challenges across our case studies; they all accepted that the process required a 'learning by doing' approach to gradually adapt to and adopt the innovations implemented. We recognize this as a key condition for success. The required shift in mindsets needed if individuals are to develop in their new roles and establish their legitimacy would not be achieved overnight. We highlight some of those short-term challenges, such as initial opposition to peer coaching and the move to more collaborative accountability structures, and the strategies put in place to meet them. We also reflect on broader considerations for policy implementation in relation to scaling and sustainability, such as budgeting, monitoring and evaluation, and the formalization of roles.

Conclusion

Around the world, education systems are beginning to understand the transformational contribution of an effective cadre of instructional leaders at a local level. In the context of the learning crisis, the middle tier can be a driving force for deep change. By rethinking and strengthening the relationships within the education sector, and by gearing systems towards more collaboration and professional development, the middle tier can harness workforce motivation and contribute to transformation in teaching and learning. Instructional leaders in the middle tier have the potential to bring about significant improvement in quality and reset education systems with a greatly strengthened focus on student learning.


Mount Street Academy

Chapter 1. The potential of the middle tier

Barbara Tournier and David Childress

1.1 Strengthening education systems to better support teachers

Much research has addressed the improvement of teaching quality by focusing on front-line practitioners, by whom we mean teachers. Their impact on students has been shown to be the most important school-level variable influencing learning outcomes (Rivkin, Hanushek, and Kain, 2005; Chetty, Friedman, and Rockoff, 2014; Hanushek and Rivkin, 2010), and a large body of evidence has demonstrated the effect of teacher policies on student learning (Bruns and Luque, 2015; OECD, 2018a). As a result, policy decisions and programming geared towards improving the quality of learning have predominantly targeted teachers.[1]

However, improving teaching quality, especially at any kind of scale, remains a pressing issue for many education systems around the world. While vast gains have been made in access to education, we are soberly reminded that the world is facing a 'learning crisis' (World Bank, 2018), and that a teaching crisis is at its core. How can we make sure teachers are motivated and equipped with what they need to teach effectively? Given the essential role they play, as the World Bank recognizes, 'addressing the learning crisis requires supporting teachers, who are the single most important driver of how much students learn in school'. Or, in the words of the Education Commission, 'teachers are at the heart of the learning process, but…they cannot work alone' (2019: 12).

A growing concern for policy-makers is therefore how to bring about the necessary changes across whole education systems to better support improvements in teaching and learning quality at the school level (Fullan, 2015; Education Commission, 2019; Leithwood, 2013; Aston et al., 2013; Hargreaves and Shirley, 2019). The saying goes that it takes a whole village to raise a child; it also takes a whole education system to support its front-line workers to deliver the best education possible. One of the key themes of these discussions has been a call for more focus on the 'architecture' of education systems: the delivery structures, the key workforce roles, and the leaders who will reform instructional practices (Education Commission, 2019; Gibbs et al., 2019). This requires a shift in attention away from teachers towards the wider education workforce, asking what can be done to strengthen its contribution to teaching and learning (Education Commission, 2019). The wider workforce includes head teachers and other staff of the education administration such as supervisors, inspectors, pedagogical and curricular experts, support services staff, and other technical teams from ministries of education, either working in central offices or out in the field.

Professionals in this wider workforce are increasingly recognized as agents who can make or break a policy reform. This is evidenced by the growing interest in the staff who operate at the middle level of education systems, the 'middle tier' (Childress et al., 2020; Mundy, Asim and Tahir, forthcoming; Fullan, 2015; Leithwood, 2013; Hargreaves and Shirley, 2019; Hargreaves, forthcoming). This interest also relates to research on bureaucrats and the role of bureaucracies (Aiyar and Bhattacharya, 2016) and discussions of their motivations (Honig, 2021; 2022), and on rethinking accountability within education administrations (Honig and Pritchett, 2019). Reforms and programmes that target expert practitioners, administrators, and managers can assist in the push to improve overall schooling quality. There is a growing understanding that professionalization is required across the

[1] Research on this subject often focuses on policy options and programming that specifically targets teachers themselves, including topics such as recruitment, training (both initial and in-service), career structures, remuneration, and standards/accountability measures, to name a few (see UNESCO, 2019; OECD, 2018; World Bank, 2013).

workforce, from the front line to the centre. Yet this level of the education hierarchy typically garners relatively little attention in reforms or research studies, and little reference material is available to policy-makers.

Our research aims to help fill this evidence gap. It looks into specific roles emerging in the middle tier of education systems, dedicated to teacher support and instructional change. Recognizing that teachers are at the heart of improving education is an indispensable starting point, but 'how many good leaders they have behind' also matters (Fullan and Quinn, 2016: 134). We argue that teachers need to be better supported and that strengthening the support structure built by intermediate levels of the education system can improve learning outcomes. More broadly, solving the learning crisis will require strengthening the roles of all those involved in delivering support to front-line workers.

1.2 Recognizing the middle tier as an asset

In our research, the term 'middle tier' refers to the sub-district, district, or regional levels of education systems – that 'messy place' between schools and the central government level. The middle tier may look very different from one country to the next, depending on each country's size and administrative set-up, level of system (de)centralization, and breadth of mandate. We define middle-tier actors as intermediaries in systems, responsible for implementing and monitoring national education policy at the local level, who can, when empowered, drive the entire system by 'leading from the middle'. They are the representatives of the ministry closest to the schools, and the representatives of schools and practitioners to the central level, with a pivotal role in improving education systems. The middle-tier workforce typically comprises a range of professionals, including staff in finance, human resources, and school planning departments. Here we intentionally focus on those with instructional leadership responsibilities – those who directly interface with school staff, with a remit to improve the quality of teaching and learning. Some are in decentralized education offices, while others are professionals who have stepped up to offer leadership and support to practitioners outside their own school.

In their systematic review of the middle tier of education systems in low- and middle-income countries from 2004 to 2021, Mundy, Asim and Tahir find that the middle tier is largely missing from the debates about improving learning outcomes. In higher-income countries, investment in the middle tier over the last 20 years is credited with improving teaching and learning in numerous ways (Mundy, Asim, and Tahir, forthcoming). In contrast, research on the middle tier in low- and middle-income countries has largely treated district or middle-management staff as compliance monitors, not as creators of interventions aimed at improving instructional leadership. As a result, our understanding of the role of sub-national actors in improving student outcomes in these countries is very limited. However, the middle tier represents an important source of untapped potential in which systems are already investing: what is needed is to harness that untapped potential to better serve teaching and learning outcomes. As Mundy, Asim, and Tahir point out, 'Since middle-tier actors are part of existing bureaucracies across all developing countries, there is a huge potential and need for rigorous research to understand and improve their role in education delivery' (forthcoming). Our research seeks to fill this gap by focusing on middle-tier roles that can influence student learning in systems where roles in teaching and learning are now being reoriented or created.

1.3 Harnessing instructional leaders as change agents

Evidence suggests that leaders at the middle tier can act as change agents to improve schooling in several ways (Leithwood, 2010; 2013; Fullan, 2015; Gibbs et al., 2019; Hargreaves and Shirley, 2020; Hargreaves, forthcoming). While all middle-tier roles serve an important purpose, our research sheds light specifically on instructional leaders. In a position just above the school level or across schools, these leaders can directly support teachers and principals. By looking at their roles, our research seeks to enrich existing knowledge of whole-system change and the scaling of effective teaching and learning interventions.

We define instructional leaders as 'leaders of learning' who support teachers and school leaders in their practice and professional growth, with an explicit focus on improving student outcomes. Their functions typically include those of teacher mentor, pedagogical coach, and cluster co-ordinator; some may be head teachers who act as system leaders. Their roles may include developing and implementing policies that support student achievement, developing learning communities, providing feedback on instruction, modelling effective instruction, and supporting the use of assessment data.

These functions are critical for learning. Giving teachers feedback on their teaching has one of the strongest effects on student learning (Hattie, 2012). Some researchers call for greater focus on leadership, as education leaders are catalysts for school improvement. In their systematic study, Grissom et al. (2021) found that while the average impact of head teachers on student learning was just below that of teachers, their effects are 'larger in scope because they are averaged over all students

in a school, rather than a classroom'. The literature demonstrates the cost-effective impact of school and district leadership programmes on learning outcomes (GSL, 2020). Harnessing the potential of instructional leaders at the middle tier, who work with an even larger number of teachers and schools, may have a multiplier effect on system improvement.

The rise of expert practitioners who are promoted to leadership roles at the middle tier of education systems, and the need to better document their role in improving teaching and learning, reflects a recent trend in instructional leadership. Previous literature on the subject has tended to emphasize school-level leadership at the expense of instructional leadership functions at the middle tier. The term 'instructional leadership' emerged in the 1980s (Leithwood and Montgomery, 1982), out of research associated with school effectiveness. Researchers originally defined it in terms of curriculum and instruction management (teaching strategies and use of pedagogy) by the school principal or head teacher. It then came to be associated with more distributed models, which emphasize shared empowerment for school improvement among school staff more generally (Southworth, 2002).

Instructional leaders can be seen as paralleling supervisors in the medical realm, where practitioners tend to be supported by experienced supervisors who provide research and evidence-based training that reflects promising practices nationally and internationally. Middle-tier leaders in education can similarly address problems or shortcomings in the classroom through a systemic diagnostic process, creating clinical questions, examining and researching best practices, applying 'treatment' or interventions, and evaluating the results (Churches, Dommett, and Devonshire, 2017). By adopting this model, teaching can become more professionalized and take advantage of existing successful strategies in other settings and classrooms.

This approach to system change is critical because it builds on trust and collaboration and marks a shift away from the paradigm of accountability, structured around formal reporting of quantifiable information. Education systems face key tensions between upward accountability requirements and the ability to problem-solve and iterate, especially in improving instruction: viewing middle-tier instructional leaders as collaborative problem-solvers who co-ordinate and support agents contributes to directing education systems towards more collaboration, which has been called the 'new chorus line for innovation and improvement' (Hargreaves and O'Connor, 2018). It also contributes to resetting priorities to learning instead of accountability processes, and enables movement from institutional self-interest management to more collaborative and professional forms of school governance (Greany and Higham, 2018).

1.4 Conceptualizing instructional leaders at the middle tier

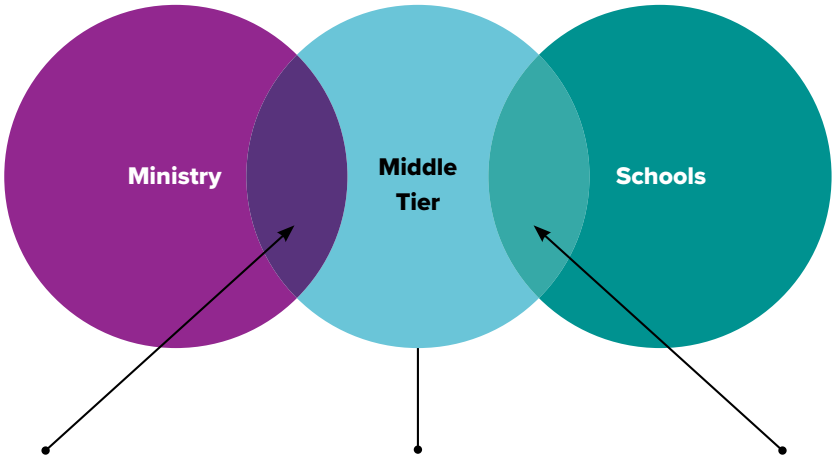
In our model we conceptualize the education system in terms of three groups of professionals: those working at state level; those working at school level, the largest group; and the 'middle tier' positioned between the state and the local levels. Representing these as overlapping circles helps us understand which relationships and interactions are necessary for the front line to speak to the state level and vice versa, especially in large education systems where the middle tier acts as a linchpin connecting the other two levels. Strengthening the middle tier and redesigning roles at this level creates an opportunity to rethink relationships within the education sector more generally.

A multitude of roles and job titles are associated with instructional leaders at the middle tier. Some of the most common are: district director; head of cluster; teacher mentor, coach, or pedagogical advisor; supervisor, inspector, or monitor; and district education officer. Similar roles often have different titles or slight variations in specific responsibilities. For example, mentor teachers in Delhi and supervisors in Jordan have very similar roles, as do associates in Wales and leaders of learning in Rwanda.

As Figure 1.1 shows, instructional leaders can be located at the middle tier (such as supervisors or cluster co-ordinators) or can be school-based actors brought up to the middle tier to intervene across schools while keeping their initial roles and one foot in practice. Positions held solely in a single school, such as teachers serving as department heads or grade-level heads, are not considered to be middle-tier positions.

Box 1.1 explains in more depth how different scholars have conceptualized the middle tier and its potential as a force for change. Highlighting these variations shows two things: first, that scholars agree on the importance of the middle tier; and second, that its impact can grow as the middle tier becomes more established and mature.

Figure 1.1: Where do instructional leaders at the middle tier sit?



Space where the central level interacts with middle-tier instructional leaders

Middle-tier instructional leaders based in local government structures such as districts and regional teams, e.g. supervisors, cluster co-ordinators

School-based instructional leaders: those working in their own school and beyond to improve teaching and learning of peers, e.g. mentor teacher

Box 1.1

Nuances in the conceptualization of the middle tier

The existing literature presents several ways to view the role and potential of the middle tier in education systems. Hargreaves and Shirley (2019) characterize it via the difference between leading 'in' the middle (LiM) and leading 'from' the middle (LfM). Leading in the middle describes more traditional middle-tier roles and responsibilities. For example, Fullan (2015) describes leadership in the middle level as seeking to improve whole-system performance by acting as a partner to both the state-level authorities above and the schools and communities below. Mourshed, Chijioke, and Barber (2010) liken this relationship to a computer's operating system, which connects the user (teachers and schools) to the central processing unit (central education authorities). Hargreaves and Shirley's understanding of leading from the middle stems from research in mature, high-performing districts in Ontario, which had begun developing and circulating innovative new strategies on their own. This chart presents some of the differences in these middle-tier leadership styles, highlighting the advanced level of maturity in LfM systems.

Leading in the Middle	Leading from the Middle
Level, layer, or tier	Centre, core, and heart
Improving performance	Transforming learning and wellbeing
Better systems	Stronger communities
Coherence and connection	Collective responsibility
Implementing initiatives	Taking initiative

Table source: Hargreaves and Shirley (2019: 107)

1.5 Our hypothesis and research questions

We recognize that reforms and roles at the middle tier have not always been effective contributors to teaching and learning, often due to lack of resources, unclear mandates, and failed attempts at merging summative and formative evaluation functions (Carron and De Grauwe, 1997). For this study, we explore a contrary trend – promising (and potentially disruptive) middle-tier instructional leaders who have been enabled to bring about positive education change globally. Our main hypothesis is that these leaders can be agents for change. We derived this hypothesis from our initial review of the global evidence (Childress et al., 2020), which showed that when empowered, instructional leaders can promote system learning feedback upwards, downwards, and laterally among professionals. They can also act as knowledge brokers by sharing best practices across schools as well as up and down the delivery chain. Middle-tier instructional leaders may also function as a kind of conduit, providing guidance or opening lines of communication between schools and central authorities, which principals and teachers need in order to implement reform efforts; they may even serve as drivers or initiators of system improvements.

We aimed to test this hypothesis by gathering empirical data from five case studies. One central research question underlies the project: In what ways can instructional leaders at the middle tier act as change agents to improve teaching and learning?

A subset of questions further guides the research.

- What are the professional practices of instructional leaders at the middle tier?
- How do these practices bring about change in teaching and learning?
- What conditions need to be in place for these instructional leaders to be effective?
- What are typical challenges and policy recommendations for implementation?

1.6 Case study selection

We tested our hypothesis through empirical case-study work in five jurisdictions: Delhi (India), Jordan, Rwanda, Shanghai (China), and Wales. We selected our case studies primarily because they offer promising examples of middle-tier reforms, either because roles are being reoriented around coaching and support or because new roles have been created. The case studies varied in terms of demographic, geographic, and income-level country contexts, education structures, and the characteristics of middle-tier instructional leader roles. Since most of the literature on middle-tier systems comes from high-income countries, we wanted to explore structures in a wider variety of settings. Other criteria for selection included differences in maturity of reforms, and practical access.

We narrowed our criteria further by focusing specifically on instructional leaders working directly with teachers and head teachers. Most of these instructional leaders were drawn from expert practitioners among the ranks of teachers and head teachers (as shown in the overlap between the 'schools' and 'middle-tier' circles in Figure 1.1). This was an intentional strategy to highlight systems based on peer leadership, where the most exciting developments are taking place. In choosing these examples we seek to offer inspiration to policy-makers and identify promising reform practices.

Each case study brings something different to the research. Rwanda, Delhi, Shanghai, and Wales provide illustrations of systems where new roles have been created. The systems in Rwanda, Delhi, and Wales are built around peer leadership: acting head teachers or teachers take on teaching and learning improvement beyond their own school. By having one foot in their schools as practitioners while also serving as collaborators, team-mates, role models, and leaders, they provide support that is perceived as non-threatening compared to that provided by authority figures. In Shanghai, one of the roles is also based on peer leadership (high-performing school practitioners are brought up to the middle tier on a part-time basis), while others are full-time institutionalized positions dedicated to collaboration, research, and sharing of best practices. By contrast, the programme in Jordan is trialling changes to some of the tasks of an already established supervisor position, exemplifying an initiative to re-orient existing supervisor roles towards teacher support, coaching, and formative evaluation by way of a critical thinking process.

Another selection criterion was the maturity of the programmes. Some of the selected systems have been established and running for years, while others have recently developed as part of reforms or new programming. The Shanghai Master Studio Programme is the most established, having run for decades and gone through several iterations. The initiatives in Wales, Delhi, and Rwanda are much more recent. These differing levels of maturity also relate to the differences in LiM and LfM identified in Box 1.1. While all five studies possess characteristics of both types of middle-tier leadership, case studies in Wales, Rwanda,

and Shanghai most closely resemble systems that lead from the middle, while Delhi and Jordan illustrate systems more closely aligned with leading in the middle. These differences can help reveal how middle-tier systems mature; all offer valuable insight into positive practices of instructional leadership.

The systems in Shanghai, Wales, Delhi, and Rwanda operated at the largest scale within established education structures. In Wales, the Academy Associates Programme (AAP) is a national initiative that selects head teachers from all over the country. In Rwanda, Shanghai, and Delhi, middle-tier systems and instructional leaders are in place to provide support across all public schools. While they are not national programmes, the systems in Delhi and Shanghai each cover nearly half as many students (approximately 1.5 million) as the total population of Wales (approximately 3 million) (Del E, 2020; ONS, 2020). Both should thus be viewed as large-scale programmes.

Practical considerations also intervened. Education Development Trust (EDT) had partnered with Rwanda, Jordan, and Wales on their programmes and was familiar with their aims and the associated personnel. Programmes in Delhi and Shanghai were identified through the literature review as examples of larger systems in geographically diverse locations.

The study is a collaborative partnership between the UNESCO International Institute for Educational Planning (IIEP-UNESCO) and EDT. The Wales study was led by both partners. IIEP led on the Shanghai and Delhi studies, and EDT led on the Rwanda and Jordan studies.[2]

1.7 Methodology and research process

This research is focused on promising practice globally, through a case-study approach designed to extract insights and lessons for policy-makers and practitioners. To develop the case studies, new qualitative primary data were gathered from five jurisdictions and combined with a synthesis of existing qualitative and quantitative data from each setting.

Primary data were generated from semi-structured interviews and focus group discussions with teachers, instructional leaders, and their leadership. Secondary data came from the analysis of background documents as well as programme monitoring and evaluation data.[3] This approach specifically sought out examples of positive effects or improvements to teaching and learning quality in the selected middle-tier programmes. Rather than aiming to produce advice on 'what works', or systematic evaluations of each initiative, we sought to provide insights on the strengths, weaknesses, and potential of different models.

More specifically, we sought to better understand the functions and roles of middle-tier instructional leaders and how these are implemented on the ground to influence best practice, as well as the conditions within a system or country that enable instructional leaders to be effective. This required developing a picture of the national context, institutional structures in place, atmosphere in schools, and the experiences and behaviours of the middle-tier professionals.

Data analysis and synthesis was conducted jointly by IIEP-UNESCO and EDT using manual coding. Further details of the methodology are presented in each case study, and the Appendix provides an overview of all the interviews conducted as well as further information on data collection.

1.8 Scope, terminology, and limitations

As explained above, the scope of this study is intentionally limited to instructional leader roles that directly drive teaching and learning improvements. While we acknowledge that administrative functions play a critical role in the quality of education, looking at all groups of actors and their very diverse tasks would have been unmanageable. Moreover, our research addresses professional roles and practices in and across school settings. Interactions with other formal roles, structures, and institutions, for example interactions with accountability and supervision systems, or with district-level school improvement and planning systems, were beyond our scope.

The middle tier is a complex term for research purposes: it includes a wide range of roles and functions, and the terminology is not standardized throughout the world. For example, in the UK the term 'middle tier' is used loosely to refer to all the bodies and actors that intervene between the school and the central level. In other parts of the world, the term 'district' is more commonly used, often to refer to all intermediary levels, not only the specific administrative unit of a 'district'. Other authors speak of a

[2] Three of the case studies – Wales, Rwanda, and Jordan – examined EDT programmes where a middle-tier role has been developed with a particular focus on elements of collaboration. This helped to identify other case studies with promising initiatives in place. IIEP identified the other two, Delhi and Shanghai, through a literature review, as bright spots where the middle tier was already recognized as having an active role.
[3] For further detail of the individual methodologies of each case study, see the introductory sections of each case study chapter.

'meso' level (Schleicher, 2015; Boeren, 2019; Yousuf and Zualkernan, 2015) or a 'third space' (Tsui and Wong, 2010). For ease of reference and readability we have opted to utilize the term 'middle tier'. Likewise, 'instructional leadership' may be given other names around the world (such as pedagogical leadership, educational leadership, or leading learning), but we have used the term in this work for the sake of clarity and consistency.

A major limitation of this study was that the fieldwork took place in 2020 and early 2021, in the midst of the Covid-19 global pandemic and ensuing national lockdowns. This meant abandoning our original data-collection design, which included in-person interviews and workshops to explore change in culture and practice in more depth, as well as school visits and informal observation. While some of the interviews and focus group discussions took place in person, in Shanghai and Wales, the major part of the fieldwork was carried out remotely through online and phone discussions. In Wales, Jordan, and Rwanda certain interviews could not be conducted, especially with teachers, due to school closures and the overall crisis situation. Capturing teachers' experiences and perceptions of the effects of middle-tier roles on their practice could therefore only partly be achieved. Future research should actively seek out teachers who have received instructional leadership from middle-tier actors and use their perspectives to continue to build this base of evidence.

Beyond limiting access to potential research participants, the move to online interviews had additional drawbacks. They limited interviewers' capacity to make informal observations in school settings, which could have enhanced the project. The time for each interview was limited to finite blocks, forcing interviewers to focus more narrowly on the functions of middle-tier role-holders, leaving less room for discussing the challenges related to the design and implementation of these middle-tier programmes. It is also likely that in-person visits would have provided a better understanding of implementation problems. Nonetheless, online discussions proved informative, and secondary data, such as programme evaluation reports, have been valuable sources of information.

Another limitation resulted from the degree of maturity of reforms in our case studies. While the reform in Shanghai took place decades ago and is well established, others are much more recent. This made it harder to identify the challenges and policy implications to be considered midway through the reform process. Nonetheless, valuable lessons could be derived from the experience of Shanghai.

1.9 Structure

Following on from this introduction, the five case studies are presented in alphabetical order in Chapters 2 to 6. Chapter 7 draws on our empirical research to synthesize the perceived impacts of instructional leaders on teaching and learning across the selected jurisdictions. It identifies five main areas where these leaders can work as change agents: support and professional development, collaboration and school networks, knowledge brokering, instructional and system alignment, and innovation. Chapter 8 draws together lessons about the conditions needed for instructional leaders to be effective and Chapter 9 highlights some challenges to be aware of at implementation stage. Chapter 10 concludes with some key policy recommendations.

Chapter 2. Case study: Strengthening academic support for teachers in Delhi

David Childress

Abstract

This case study shows how school-based actors can be brought up to the middle tier to provide a teacher support system geared towards improving teaching and learning. Delhi's Teacher Development Co-ordinator (TDC) programme has created two new roles in the education system's middle tier: mentor teachers, introduced in 2012, and teacher development co-ordinators, introduced in 2017. The programme seeks to create an improved academic environment in schools and among teachers, and in turn improve student learning outcomes and performance. To do this, it seeks to aid teachers to become intrinsically motivated professionals, with a growth mindset and a focus on facilitating lifelong learning, not merely on delivering content to students. By utilizing these new middle-tier roles to provide needs-based professional development and training, Delhi seems to have created a system of support and collaboration for its teachers. With constant opportunities for collaboration, positive and supportive feedback, and an increased voice in the system, Delhi's teachers have seemingly advanced in professionalism and motivation.

2.1 Introduction

With more than 1.6 million students and 1,000 secondary schools in its jurisdiction, the Delhi government school system[4] oversees and supports a vast network of students and employees (Del E, 2020). To manage such a large system, a wide array of administrators and support staff ensure that decisions and plans made in the upper echelons of this structure make their way down to the individual teacher. But who are these middle-tier personnel, and what are their roles in improving the quality of teaching and learning in schools? While many positions with a myriad of responsibilities exist in Delhi's middle tier, two relatively new positions – mentor teacher and teacher development co-ordinator (TDC) – provide valuable examples of the types of highly supportive roles that middle-tier personnel can embody.

In recent years the Delhi government has made education reform a priority in both its focus and its budgetary allocations (Sahoo, 2020; SCERT, 2019). As part of these reforms, and in partnership with international non-governmental organization (NGO) STiR Education, the TDC programme has sought to enhance teaching and learning outcomes by creating two new support roles at the middle tier. Each government school has selected one teacher to serve in the role of TDC. These teachers are pulled up to the middle tier, where they benefit from professional development and in turn act as mentors, role models, and collaborative leaders to other teachers in their schools. Meanwhile, mentor teachers work across schools (they are typically assigned to between four and six schools), providing guidance and feedback to both TDCs and teachers on best practices and new strategies. Through this system of peer support, collaboration, and feedback, the programme has acted as a catalyst for teachers to improve both their professional development and their motivation.

As a part of a larger reform movement, the TDC programme and other new implementations have contributed to a culture shift in Delhi government schools, in which dialogue about teaching and learning is now central to teachers' professional development. It has also contributed to continued increases in student exam scores (Sahoo, 2020). While the programme has certainly faced its share of challenges, those stakeholders most involved in its implementation (TDCs, mentor teachers, and teachers) now speak highly of the change in culture and professionalism it has brought to the teaching ranks. One teacher said that in the 'last five or

[4] When this case study refers to 'Delhi government schools', it means those in the jurisdiction of the Directorate of Education. In Delhi, all these institutions are secondary schools as primary schools tend to be run by local municipal councils (such as the Municipal Corporation of Delhi). There is a large presence of private schools in Delhi, which also fall outside the purview of this research. Only the programme implemented in public secondary schools (Del E, 2020) is explored here.

six years, there has been a paradigm shift in our schools. Now the teachers have developed the practice of discussing academic issues: issues related to the classroom'. Referring to the improved culture in their school, one TDC noted that 'before this, there never used to be any sharing. Everyone used to do whichever activity they pleased or not do any activity…but now this sharing culture has started, and it has been very effective'. Taking all of this into account, this chapter will provide a brief overview of how the TDC programme functions, and explore some of its impacts, challenges, and key takeaways for other education planners.

2.2 Case study methods

To understand the programme's impacts and outcomes, researchers conducted a series of 24 semi-structured interviews and two focus group discussions over approximately two-and-a-half weeks in October and November 2020. The interviews spanned the hierarchy of roles in the TDC programme, to include four Academic Resource Team (ART) teachers, four TDCs, four mentor teachers, four programme managers, three block resource persons, four District Institute for Educational Training (DIET) officials, and one state official; the focus groups each consisted of six ART teachers (see section 2.5.3 for more detailed descriptions of each role).[5] Since research was conducted at the height of the Covid-19 global pandemic, all interviews and focus group discussions were undertaken via Zoom video-conference. After conducting the interviews and transcribing the audio recordings (all Hindi transcriptions were translated into English), a thematic analysis of all the data collected was conducted with Dedoose, a qualitative research application that assisted with the coding and organization processes.

2.3 Recent reforms

Though India has national education guidelines and a federal Ministry of Education, it allows individual states and union territories to make many of their own policy decisions. State Departments of Education and State Councils for Education Research and Training (SCERTs) have large, influential roles in determining the culture and trajectory of their school systems. Delhi's government took advantage of this freedom and began focusing heavily on education in 2015, working to transform its government schools through a series of new projects and improvements (Sisodia, 2019; BBC, 2015). It began by doubling the budget allocations for education, raising expenditures to almost 25 per cent of Delhi's total budget (Del E, 2018; Sahoo, 2020). New projects and programmes sought to improve many aspects of the education system, including infrastructure, student reading levels, community involvement, and teacher and principal training. Reflecting these efforts, Delhi has seen a continued increase in the pass rate for standardized Class 12 exams in government schools since implementing the reforms. In 2020 the pass rate in Delhi's government schools reached nearly 98 per cent, the highest of any state in India (Sahoo, 2020).

2.4 Structural overview

In Delhi, the various education entities are organized in a hierarchical structure that includes school, zone, district, state, and national levels, and are also split between academic and administrative duties. The administrative side is referred to as the Directorate of Education (DoE), and every teacher (including TDCs and mentor teachers) ultimately reports to it. The five levels of the hierarchy are shown in Figure 2.1.

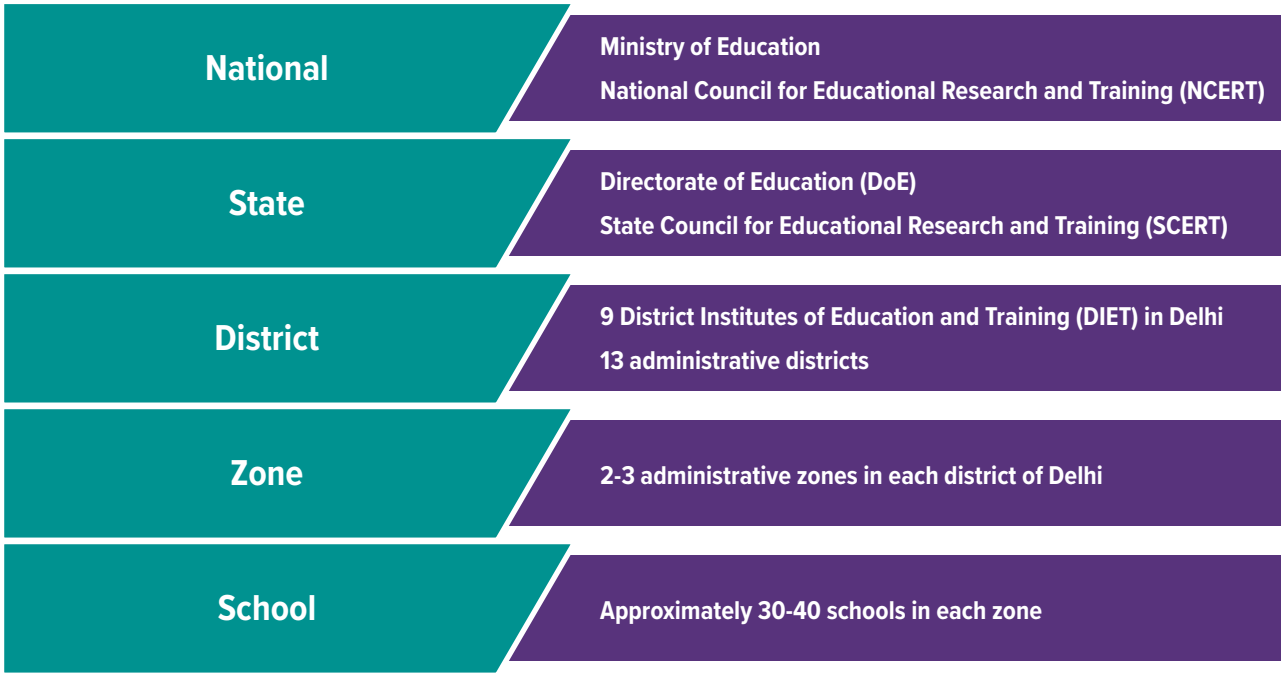
At the highest level, the national government provides administrative guidance to states and union territories, while the National Council for Educational Research and Training (NCERT) oversees the academic side of the structure, with a focus on curricula and textbooks. Similarly, at the state level in Delhi, the DoE runs the administrative side of the education sector, while the SCERT is the academic body providing curriculum guidance and training for teachers. Delhi's SCERT also supports the state's nine DIETs in their various roles and responsibilities.

The true nature and responsibility of Delhi's middle tier becomes apparent at the district level. The DoE in Delhi is structured around 13 administrative districts supported academically by 9 DIETs (Del E, 2020; SCERT, 2014). Each DIET has a principal who acts as its head and faculty working across departments who focus on separate areas of expertise. On the administrative side, each district is also overseen by a district director. Each district has two or three zones, which each contain approximately 30–40 schools. Zones also have an administrative zone director. The zone serves as a logical means of separation for DIETs that conduct

[5] There are nine DIETs across Delhi, with numerous personnel working across seven specialty areas in each. One block resource person and one programme manager are typically assigned per DIET. Approximately 200-210 mentor teachers can be found across the Delhi system. There is one TDC per school, totalling over 1,100 at the time of data collection. There is one ART per school, but the number of personnel in each ART is up to the school and can change constantly. Ideally, it is set at 10 per cent of the teachers in a school. Interview respondents came from four separate districts out of a total of nine across Delhi, with each district providing one DIET official, programme manager, mentor teacher, TDC, and ART teacher, and three of the four districts providing a block resource person. This collection of interview respondents should not be viewed as representative of the whole of the Delhi system. Instead, it was a selective sampling of teachers and middle-tier officials who have had some measure of success within the programme. This method enabled the case study to highlight the positive takeaways for promoting best practices in middle-tier systems.

academic group training sessions or work with a set number of schools. Zones do not, however, have their own academic support body. Other states in India sometimes have a level known as a 'block', which roughly equates to the zone level in Delhi (Aiyar and Bhattacharya, 2016). Delhi does not have any designated blocks in its system; it borrowed the name to designate the 'block resource person' role (see section 2.5.3).

Figure 2.1: Structure of Delhi's education system



Sources: Compiled from Del E (2020); Bambawale, Hughes, and Lightfoot (2018)

2.5 The TDC programme: An initiative to strengthen academic support for teachers

The mentor teacher and TDC programmes were put in place following the change in government in 2015, amid a flurry of other reforms. The mentor teacher programme developed separately from the TDC programme, starting as an idea from Delhi's education minister in 2016, with a view to improving the academic environment in schools (Sisodia, 2019). In contrast, the TDC originated in 2012 as a programme from STiR Education, an NGO that focuses specifically on improving the intrinsic motivation of education officials, teachers, and students. The programme originally covered about 100 schools (Gibbs et al., 2019). The current version launched in 2017 as a government-owned programme, run and operated by Delhi education officials with STiR working in a support role. Now the mentor teachers and TDCs work hand in hand to provide support and mentorship to teachers as an established part of the Delhi education structure.

2.5.1 Objectives of the programme

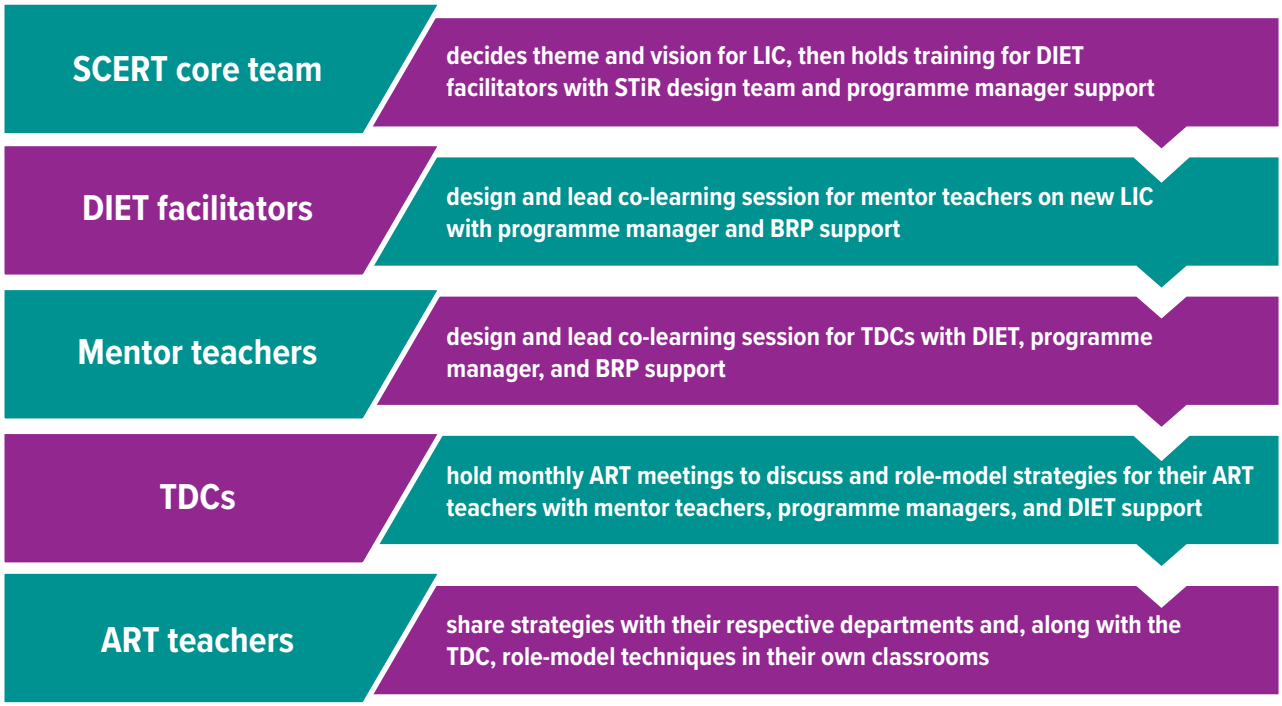
Overall, the programme seeks to create an improved academic environment and culture among schools and teachers, and in turn to improve student learning outcomes and performance. The Delhi government states in its definition of the TDC programme that it is designed 'to develop [an] "Education Leader" within each school in order to assist the Head of School in creating the culture of collaborative learning' (Del E, 2018: 14). This definition also emphasizes collaboration through role-modelling best practices and new pedagogical strategies at all levels of the system, including DIET officials, mentor teachers, TDCs, and classroom teachers. Ideally, this process culminates in a self-sustaining and self-improving education system with a more motivated and energized workforce (STiR Education, 2020). However, when describing the mission of the programme, interviewees from these groups displayed some variation in their choice of words. Teachers were heavily focused on students and immediate learning outcomes, while higher-level role-holders tended to take a broader view, describing the creation of a 'system', 'culture', an 'environment', or 'conditions' that supported teachers and students.

2.5.2 Middle-tier leaders' role in leading Learning Improvement Cycles with front-line school staff

The programme is designed around a key cyclical structure called the Learning Improvement Cycle (LIC). Each LIC lasts for approximately three months, with past iterations including topics such as building connection, lesson planning, and classroom routines (SCERT, 2019). Aligning with the overarching theme, specific classroom practices or pedagogical techniques are emphasized for the duration of the LIC.

All professionals within the system focus on the chosen theme, and selected techniques and strategies are role-modelled on all levels of the Delhi education system. As shown in Figure 2.2, the overall theme and vision are decided at the state level and cascaded down to the classroom through a series of co-learning and training sessions that workshop the highlighted strategies. Stakeholders at all levels of Delhi's education hierarchy are therefore engaged in refining techniques to improve teaching and learning, including but not limited to mentor teachers and TDCs.

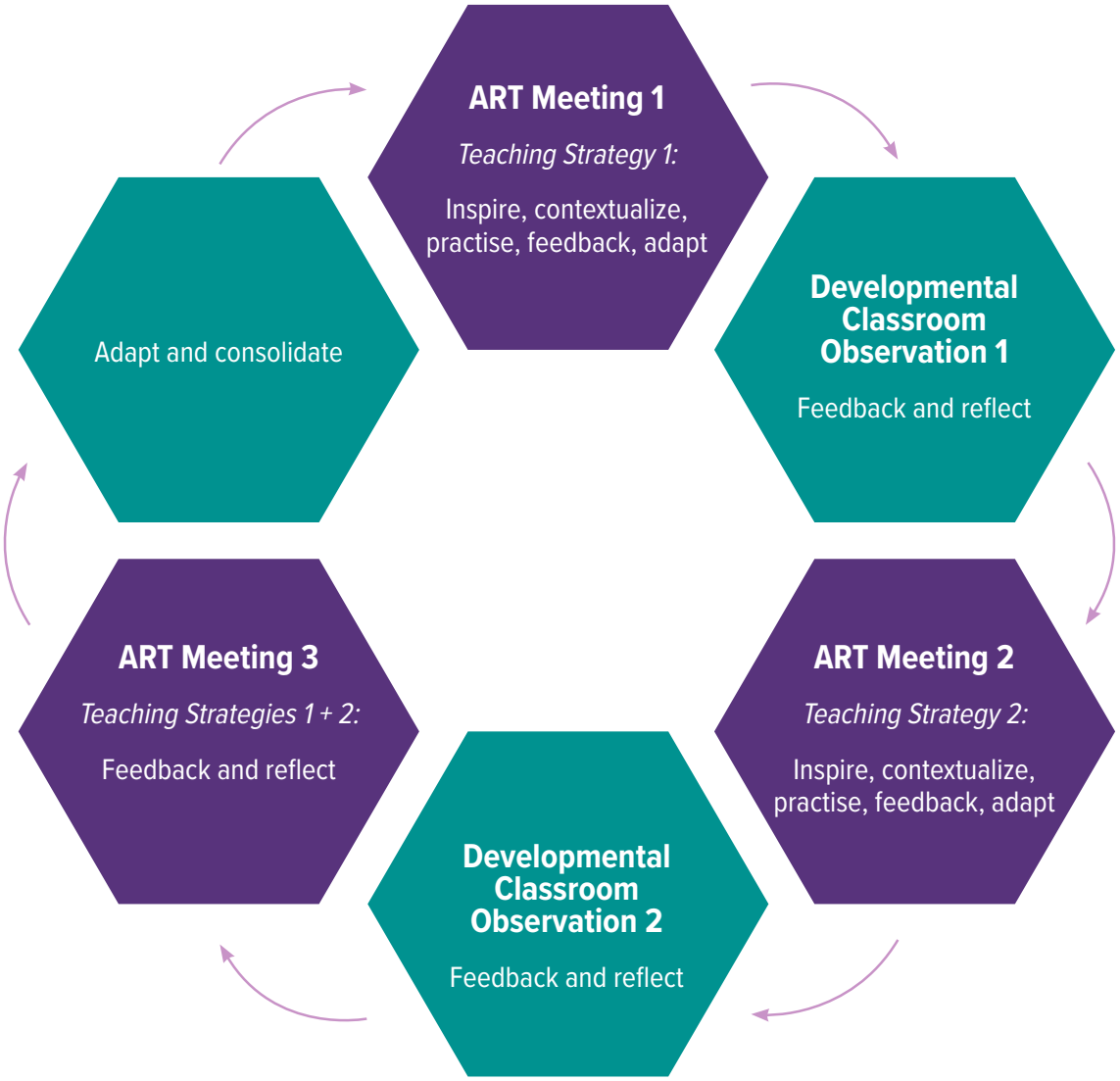
Figure 2.2: LIC theme dissemination from SCERT to classroom level



Source: Author

As the key delivery method to reach teachers at the school level, TDCs lead Academic Resource Team (ART) meetings with selected teachers to pass along strategies and practices they have acquired in co-learning sessions. Figure 2.3 shows how this process unfolds over the course of a LIC. Initially, TDCs hold an ART meeting in which they introduce the theme and related strategies. They then conduct classroom observations with teachers, while also opening their own classroom to demonstrate best practices. A second ART meeting occurs the following month to introduce any other associated strategies and give team members a chance to provide feedback. A third meeting occurs in the third month of the cycle and helps bring together all the lessons learned for the final portion of the LIC.

Figure 2.3: **LIC implementation for TDCs at school level**



Source: Unpublished STiR PowerPoint presentation on programme overview (2020: 20)

2.5.3 Role descriptions within the system

The following descriptions give a more detailed overview of the responsibilities of each role-holder, to better illustrate how they work within the system.

- **State Council for Educational Research and Training (SCERT)**. Delhi's SCERT drives the overall philosophy and design of the programme's LICs, taking inputs from DIET facilitators, mentor teachers, and TDCs. Once the overall LIC theme is finalized, the SCERT also leads a co-learning session for DIET facilitators on chosen topics.
- **District Institute of Education and Training (DIET)**. DIET officials are involved in all aspects of the planning and training process. After receiving training on new LIC topics, the DIET faculty members selected as facilitators design and conduct co-learning sessions for mentor teachers. Facilitators then work in conjunction with mentor teachers to lead a TDC co-learning session to pass along key aspects of the new LIC through role-modelling and workshops.
- **Programme Managers**. Programme managers are employed by STiR and act across all levels of the programme to co-ordinate meetings and training sessions to ensure things operate smoothly. Working in close conjunction with their block resource person, they ensure that communication occurs both up and down the hierarchy. They also assist with designing and facilitating training as well as data collection and analysis.

- **Block Resource Person**. These role-holders work for the Delhi government in a kind of mirror role to STiR's programme manager. In time, the intent is that these block resource persons will take over all responsibilities from programme managers so that the programme can remain fully sustainable. They attend meetings, provide support to mentor teachers and TDCs, and work on the design and feedback processes just as programme managers do.
- **Mentor Teacher**. Described as 'the lungs of the programme' by one programme manager, mentor teachers help design and lead co-learning sessions, provide feedback from classroom observations, and give on- and off-site support to teachers and TDCs. They spread best practices discovered through their training and travel, distributing them among the teachers and principals at their five assigned schools. In addition to being an important new element of the middle tier, all mentor teachers are classroom teachers who volunteer to serve in the role motivated by their belief in the system.
- **Teacher Development Co-ordinator (TDC)**. TDCs oversee the programme at the school level, aiming to create a collaborative environment among teachers while also raising the level of academic discourse. Taking what they have learned at their co-learning sessions, TDCs then lead ART meetings to pass along strategies and best practices. In addition to these responsibilities, TDCs continue to serve in their primary role as classroom teachers to role-model techniques.
- **Academic Resource Team (ART) teacher**. ART teachers are selected by the TDC or principal, ideally constituting at least 10 per cent of the teaching staff in a given school, with representation of at least one or two teachers from each department. They take the strategies and practices discussed in ART meetings to their own classrooms as they see fit. As they become comfortable doing so, they open their classrooms and role-model practices and strategies, so that other teachers can observe and potentially take these practices to their own classrooms.

Though all stakeholders in the programme play an important part in driving improved teaching and learning outcomes, mentor teachers and TDCs specifically fill the role of instructional leader in two major ways. Initially, they introduce and train teachers in new strategies and best practices through co-learning sessions and ART meetings, and in open-door classrooms that allow teachers to observe their colleagues implementing strategies in real-world situations. Second, mentor teachers and TDCs observe other teachers and provide supportive feedback, helping them to improve their techniques and overall effectiveness. Since these positions fall outside a teacher's evaluation structure, this provides an opportunity for growth by trying new things without fear of reprisal or a negative performance review.

2.5.4 Recruitment, selection, and training of mentor teachers and TDCs

The recruitment and selection processes look quite different for mentor teachers and TDCs, but one vital aspect is the same: active classroom teachers are selected for both roles. One state official explained that mentor teacher selection 'consisted of a full day of interaction… It started with a group discussion and there was a psychometric test in which they were tested to see if they could give 24/7 support to their department'. In addition to group discussions and the psychometric test, candidates also take subject-matter tests and must display good communication skills. Having the proper motivation (or 'attitude', as one DIET official put it) was also mentioned frequently when our interviewees discussed key skills and attributes needed for the role. In contrast to the standardized selection process for mentor teachers, TDCs are selected at the school level by the head of school. No formalized process or selection measures exist for TDCs, though the state does mandate that each school must have one.

Training for both roles consists of exposure to new ideas and participation in workshops rather than intensive coursework or certification. Everyone participates in an orientation session to familiarize them with the responsibilities and general duties expected for the role, and potentially visits national or international sites to observe promising practices. They make observations, attend training sessions, and generally try to absorb strategies from these high-performing systems. One TDC reflected on how influential these visits were, saying 'I was selected by SCERT and DoE to be sent to Singapore and that gave me a lot of joy… We were given an opportunity to learn and understand what is going on in other parts of the globe and learn how to understand this in our country's context'.

In addition to these visits, mentor teachers also attend workshop and training sessions back in Delhi. Initially, they take a week-long course aimed at strengthening their capacity-building and facilitation skills. Mentor teachers occasionally receive more specialized training from NGOs on topics such as critical thinking and problem-solving. Meanwhile, after their initial orientation training session, most professional growth opportunities for TDCs come from the co-learning sessions. There they receive directed guidance from mentor teachers and DIET facilitators on strategies being introduced or prioritized in the new LIC through role-modelled implementation sessions.

2.5.5 Skills and practices enabling mentor teachers and TDCs to develop into instructional leaders

While having the right attitude and motivation proved important in the selection process for mentor teachers, interviewees also recognized many other key skills and attributes. The most common included communication skills (deep listening, or the ability to explain and give feedback), facilitation skills, problem-solving, flexibility, patience, a positive attitude, and a growth mindset. Interviewees also highlighted similar skills required for effective TDCs, listing communication skills (especially as regards connecting with other teachers in their school and displaying a positive, supportive attitude), open-mindedness or flexibility, facilitation and people management skills, and patience. Both lists showcase the collaborative and supportive nature of these roles, providing insight into how mentor teachers and TDCs establish trust and develop into instructional leaders.

One feature that emerged as an important means for mentor teachers and TDCs to connect with teachers was the overwhelmingly positive and engaging nature of support. One ART teacher commented that 'TDCs are very positive towards us…They tell us very nicely how we can deliver a topic and how we can show the activities in a different way. TDCs are very supportive'. TDCs and mentor teachers also seek to engage and support teachers through a system of role-modelling. Instead of simply telling teachers what to do, TDCs show them, by enacting the very same strategies they promote to other teachers in their own classrooms. With an open-door policy, TDCs allow teachers to come and see these techniques in action. This role-modelling behaviour begins before it reaches the school level: DIET facilitators, programme managers, and block resource persons model approaches for mentor teachers and TDCs at co-learning sessions and workshops. This type of supportive, active engagement promotes collaboration, builds networks and relationships, and drives an increased focus on professionalism and professional growth, especially at the teacher level.

2.5.6 Utilizing the middle tier to drive feedback and data collection

Even though lots of support and feedback are directed from the upper echelons of the education hierarchy down to the teacher level, this system also allows feedback to flow back up the chain. In this dual system, district 'progress check' meetings occur monthly, in which DIET officials sit down with mentor teachers, block resource persons, and programme managers to discuss data, trends, and feedback they have received from teachers and schools. Citing a specific example of the impact of such inputs, one ART teacher described how an old social science curriculum included superfluous material that made it difficult for teachers to successfully cover everything. After reviewing this feedback, officials released a revised, slimmed-down version that better fit the needs of teachers and students. This kind of influence makes teachers, principals, and TDCs feel that their voices are heard at higher levels when officials are weighing decisions. One TDC said, 'I think we've gotten a platform where we can put our views. If there are some issues with the teachers and I know about them, then I discuss them with my mentor whenever we have meetings and I put forth those opinions'.

The TDC programme has also added more robust data collection and analysis techniques to assist in the feedback process. While the most common data points are taken into consideration (student standardized test scores; teacher attendance at both school and ART meetings), the programme has also initiated a standardized Google form for all stakeholders to fill out routinely. For example, ART teachers, TDCs, mentor teachers, and principals fill out this form for every ART meeting. This process ellicits information about which strategies have worked and which have not, as well as what types of training or initiatives could be beneficial in the future. Thus, middle-tier personnel can gather data inputs from dozens of TDCs and hundreds of teachers monthly across a single district. This feedback system plays an active role in every step of the programme's cycle. By providing a connection and motivation for role-holders at every level, it also enables planners and content designers to create needs-based content with a targeted effect on teachers.

2.6 Impact and major outcomes of the Delhi system

Even with some initial challenges to overcome, the TDC programme seems to have had a positive impact on the Delhi government school system. The following subsections outline six key areas in which the programme has exerted particular influence. Some, such as increased collaboration or a shift in culture, are directly tied to the stated goals of the overall mission. Other second-level effects, such as an increased use of data and the ability to adapt to unforeseen circumstances, have also emerged.

2.6.1 Increased collaboration and communication

An immediate impact of the TDC programme has been an increase in collaboration and communication among teachers. All teachers highlighted this in their discussions, with one saying, 'a very harmonious environment was created between us, through which we could easily discuss our strategies and problems with one another. We also started visiting each other's classes so that our abilities and practices could improve'. While TDCs have fostered collaboration among teachers within schools, mentor teachers have furthered collaborative thinking among separate schools. For example, if one of their five schools implemented a successful strategy, they would immediately share it with the others. Through this supportive, collaborative environment, the TDC programme has, according to one ART teacher, enabled the 'sharing, adapting, accepting, and most importantly, appreciating' of other teachers' methods.

2.6.2 Shift in culture, professionalism, and motivation among teachers

Almost all interviewees observed that one of the primary impacts of the programme was the change in culture among the teachers. By building an open system of collaboration and sharing, teachers began to shift their conversations between classes or in the staffroom to more academic topics. One TDC said that 'The biggest achievement of this programme I think has been building of an academic environment in the school. I won't say it wasn't there previously, but the discussions among the teachers have become much more productive in terms of academic discourse'. Alongside this rise in collaboration and professionalism, interviewees noted that teacher motivation had also started to increase. For example, a TDC commented that, 'due to this sharing culture that has started, appreciation and motivation has increased'. Seemingly this collaborative process has ignited teachers' passions and curiosity and led to a better work culture overall.

2.6.3 Student and learning outcomes

Interviewees also spoke of how these changes at the middle tier have had a positive influence on students. While correlating increased standardized test scores to the TDC programme is well beyond the scope of this study, Delhi has seen its overall scores rise consistently since implementing a variety of new projects and reforms in 2015 (Sahoo, 2020). On a more micro scale, many individual examples of improved learning outcomes stemming from the TDC programme emerged from interview responses. Specifically, teachers and other stakeholders spoke of increased engagement and connection with students, leading to better classroom environments and improved student participation. In one example, a DIET official described how mentor teachers pooled their expertise to help students in danger of failing their 10th-grade mathematics examination. By gathering a group of mathematics mentors and sharing successful teaching strategies, they helped to increase the scores of the targeted students. As the programme progressed and more success stories like these started spreading, even more teachers and middle-tier officials started buying into the programme.

2.6.4 More ownership and initiative for thematic design and implementation

In addition to the TDC programme's effects on students and teachers, Delhi's middle tier has also seen a big impact from increased ownership of all aspects of the LICs. All STiR programme managers described this process in depth. In the beginning, STiR employees had to take the lead with most aspects of design and facilitation, but mentor teachers and DIET officials have now taken on more and more of these aspects of the LIC and co-learning sessions. One programme manager commented: 'I think this year there has been remarkable handling of the stakeholders to get on board with what it was that we were doing. Most of the designing part was done by [STiR] until last year.' These breakthroughs may seem minimal at first glance, as these outcomes follow the intended plan of the project. But middle-tier ownership – especially at the DIET level – is a vital outcome for both the current and future success of this TDC programme. DIET faculty members have had to rethink how to deliver professional development, moving from a traditional presentation style to active collaboration with the classroom teachers, many of whom have been working in the education sector for decades.

2.6.5 Enhanced usage and application of data and feedback

Interviewees commented that personnel across the middle tier have also increased their usage and application of the data, as well as of feedback they receive from mentor teachers, TDCs, teachers, and principals. This is reflected especially in monthly meetings in which DIET officials, programme managers, and mentor teachers sit down and review the data they have collected. They analyse the Google feedback forms completed at each ART meeting and any issues arising at the school or classroom level. While it took some time for all stakeholders to embrace it, data collection has now become an important driver of the

design and decision-making processes behind the creation of new LICs. It allows a tailored, adaptive approach to addressing current deficiencies or trouble spots and to designing necessary training or strategies for future cycles. One mentor teacher commented, 'We have all of this data shared with us and we talk about it. And then we also think of ways to improve'. Even so, DIET faculties and mentor teachers still seem to lack holistic guidance on how to analyse and apply all the data that they collect. Many individuals in these positions said that they remained reliant on STiR for data collection and analysis, and that they did not yet feel confident in this aspect of the programme. For Delhi to take complete control of the TDC programme, this area will need continued focus and improvement.

2.6.6 Strengthening connections to adapt to unforeseen circumstances

The final major impact from this programme has become apparent due to the circumstances of the Covid-19 pandemic. With all schools across Delhi forced to shut down and students trying to learn from home, the TDC programme provided a pre-established framework for collaboration that proved vital during this difficult period. Many interviewees shared stories of teachers and TDCs who provided technical support and discussed creative ways of using distance learning with each other through their networks. Although many teachers in the ART networks initially felt apprehensive about the use of technology for teaching and learning, one TDC described how one of their supported network teachers improved in confidence: 'The moment she posted [her students' collaborative videos] and the appreciation she got, she was more than happy, and she was like…wow, I think I also can do it.' Another important adaptation introduced during the pandemic has been the most recent LIC theme, namely social and emotional wellbeing. Worried about more than their students' academic wellbeing, teachers and middle-tier officials have employed strategies to check in on their overall health. In many areas this programme has established a scaffolding of support during the crisis, from teachers supporting their less confident peers with technology to supporting students in difficult circumstances.

2.7 Challenges in implementation

Though all participants praised the programme and its overall impacts, challenges and difficulties in implementation still emerged. Many of these issues resolved themselves to some extent as the programme became more established, but it is still important to dissect and understand them. Although specific to Delhi and this programme, issues like these could well reappear in similar programmes in other education systems.

2.7.1 Reluctance and a lack of buy-in

When reflecting on challenges they have faced, interviewees most often identified initial reluctance or lack of buy-in to the programme as the biggest hurdle. This occurred at all levels, with junior teachers, senior teachers, and heads of school all at some point displaying reluctance to fully embrace the TDC programme. One mentor teacher told us that teachers were initially 'sceptical about me' and that they asked 'What is she going to do? Is she going to observe us? Find faults with us? Is she going to tell us what to do?'. Some more senior teachers also pushed back, citing the fact that they had years of experience and did not need or want to learn new strategies. This problem mainly arose because teachers did not initially understand that mentor teachers and TDCs were to act more as supportive peers than as experts or supervisors telling them what to do. Though this problem proved the most prevalent, it also tended to have a straightforward solution in terms of time, patience, and open lines of communication. As the programme became established and started to gain momentum, more and more personnel started to buy in to the support and collaboration offered by these instructional leaders.

2.7.2 Feeling overwhelmed or burdened

In addition to feeling wary of a new programme, many stakeholders also felt overwhelmed or burdened by the additional work on top of already busy schedules. One mentor teacher pointed out that 'in Delhi, principals and teachers…everyone is a state functionary as well. We have to deal with so many beneficiary schemes and so many other things for the students'. Acknowledging this, one TDC described their struggles to initially establish ART meetings, explaining: 'Teachers have a lot of things to do in the school, so if I have to ask them to come and sit in this meeting for 1.5 hours, it was a bit difficult for them'. And since so many reforms and new programmes had been initiated in recent years, some teachers and heads of school wondered whether all of these new initiatives were likely to be temporary moves, like the previous attempts at reform. Much as in the case of the lack of buy-in, this challenge lessened once the TDC programme started to have positive effects on teachers and earn a good reputation. For example, a 1.5-hour meeting once a month, which had seemed like a burden, suddenly became a valuable opportunity for collaboration and professional growth. Whereas TDCs initially struggled to get their core ART teachers to meetings, several reported that they had non-ART teachers now clamouring to join in. One TDC said that 'I used to invite only one or two teachers to attend our meeting… Now I don't just have meetings with my ART members but with the whole staff'.

2.7.3 Lack of communication

With so many stakeholders performing multiple functions at different levels of the Delhi education system, communication and co-ordination pose a constant challenge. This proved especially true of attempts to align the academic and administrative sides of the system. While mentor teachers report to representatives of the DoE, they mainly work in schools and develop new content with DIET faculty members. Trying to get all these entities on the same page and engaged in meetings together proved difficult. One DIET official mentioned initial worries that DoE officials 'were not very convinced with the programme'. As the programme gained momentum, those communication lines opened up and meetings became easier to schedule. One programme manager recalled how DoE officials 'would always request [DIET officials] write an email and request four days in advance. But now if I call them and tell them and say that tomorrow, we have a meeting…they still meet'. The programme managers and block resource persons improved these lines of communication through constant efforts at co-ordination: similar efforts may be required should such reforms be implemented in similarly complex systems.

2.8 Future of the programme

All respondents seemed to feel that the programme was sustainable, but that it needed more time to become fully established in Delhi's education structure. Specifically, they felt that it would take another couple of years for Delhi officials to take full ownership of the programme, and for STiR support staff to gradually transfer all their duties and responsibilities. In general, the future of the programme appears bright. Even so, some respondents noted that there was still room to grow and become more established. A DIET official felt that the Delhi system needed some more time to take full ownership, saying that 'at this juncture, without STiR Education, then this programme will not sustain. But after two or three years, if they withdraw their support, then we can sustain this programme'.

One issue the interviewees did not address was the question of how mentor teachers will adjust once they re-enter the classrooms as teachers. If the programme is executed as intended, all mentor teachers will serve for two years and then revert to being regular teachers. On the one hand, this transition back to a position with relatively little influence and fewer leadership opportunities could be difficult for some. On the other hand, if mentor teachers serve longer than the envisioned two years, their intrinsic motivation may not continue to drive them in such a demanding and time-consuming position. It may be necessary to introduce some extra form of compensation (either money or career progression) to keep such mentor teachers happy and motivated. These are important issues for the Delhi government to monitor as the programme moves forward with new cycles of mentor teachers in the coming years.

2.9 Takeaways

Despite the challenges listed above, the TDC programme has found widespread support at all levels of the Delhi system for its positive impacts on teachers, students, and overall school culture. This section reflects on key takeaways from this success.

2.9.1 Design positions to focus on support for teachers

The first key takeaway concerns the supportive and non-judgemental nature of the TDC programme. As a fully supportive system outside the classroom teachers' evaluative chain of command, it enables both mentors and teachers to focus solely on best practices and performance improvement. While monitoring and oversight certainly have their place, the fact that this system is entirely separate from these two processes seems to allow teachers a greater sense of freedom and openness. Teachers have appeared to respond well to this system, with one TDC saying that 'we don't ever feel that someone is observing us or that there is some authority above us. I have always felt that we all are coming together… It just feels like I am sharing it with [the teachers]'. By having others observe their classes without fear of judgement or reprisal, teachers can begin to open up to them about classroom strategies and potentially improve their outcomes.

2.9.2 Improve teacher motivation in multiple ways

More than simply providing teachers with a support system, the TDC programme aims at improving teacher motivation from multiple angles, through greater autonomy, mastery, and a sense of purpose. Teachers always have the option to implement only the practices and strategies that they like or think will work. While presenting them with new ideas, the TDC system allows teachers to retain a sense of agency as to what goes on in their classrooms. The programme also promotes mastery of skills: one mentor teacher described how teachers themselves are now 'becoming learners' and developing into 'action researchers'. Finally, by creating a collaborative environment, the programme has fostered a shared sense of purpose and vision.

2.9.3 Enhance learning outcomes without directly targeting students

Improving student and learning outcomes remains the core objective of this programme, but its structure and design take a long view of achieving this goal, by building a more fully functional education system rather than simply trying to throw more programming or work at students. Building complex networks of support and collaboration for teachers can enhance learning outcomes in deep ways. This systemic growth leads to the professionalization of teachers and the more holistic learning for students that Delhi is attempting to achieve. While middle-tier personnel rarely assist an individual student or even a single class in raising their test scores or understanding a new concept, they provide more holistic support and structures that lead to healthy education systems.

2.9.4 Bridge the gap between theory and practice

One of the clearest takeaways from the TDC programme is the blending of theory and practice in teachers' professional development. Through its core design and implementation, the entire process embodies the philosophy of providing practical guidance and support to teachers instead of highly theoretical lectures. One TDC reported: 'We have a workshop, and every three months we have this training. This is called a "workshop" and not a training. It is not about preaching but about exactly how we should do the work.' Delhi has not always embraced this type of system, but stakeholders up and down the system's hierarchy seem to have completely bought in to this hands-on approach.

2.9.5 Develop need-based training through robust feedback cycles

By heavily emphasizing feedback and data collection, this programme has ensured that teacher training directly reflects the needs and desires of teachers and schools. This process can both better engage teachers in new training opportunities and directly address the most pressing needs in the classroom. Commenting on how the programme has changed the Delhi system, a state official said that 'the training for teachers used to be like an outside resource person would come with one thought and based on that, the training was given for all the teachers. But now it's need-based training'. This type of professional development can also shift teachers' perceptions of in-service training opportunities from a burden to a growth opportunity. Finally, ongoing monitoring and feedback within the programme means that designers and facilitators can continue to update trainings or overall programmatic design to best suit the needs of teachers and students.

2.9.6 Adapt to personnel and contextual needs

The programme has shown an ongoing ability to reinvent itself or adapt to unforeseen needs. The ability to adapt was built into the programme's structure, by designing a different theme every three months with new LICs. More recently, programming and strategies have been modified to adapt to the new realities brought forth by the Covid-19 pandemic. One state official spoke to the importance of adaptability, saying, 'We should change, we should adapt the programme according to the situation'. Any new education programming needs to have some form of adaptability to meet unforeseen circumstances, as this allows both for growth and for meeting unexpected challenges in creative ways.

2.9.7 Support the supporters

While the support that teachers receive through this programme is the most visible, there is a depth and layering of support all through the system. TDCs and mentor teachers themselves receive support from DIET officials, programme managers, block resource persons, and their own colleagues. A state official commented on the close, supportive relationships developed throughout the system, comparing all the stakeholders to 'family members'. This important element of the programme – providing support for the supporters – clearly indicates the need for a whole-system approach. The TDC programme goes well beyond simply adding two new support roles for teachers: a multitude of other stakeholders are ready to support these roles.


CONSUMER CLUB

Chapter 3. Case study: Evidence-based supervision in the Hashemite Kingdom of Jordan

Richard Churches, Tony McAleavy, Ella Page, Lainie Keper, and Charlotte Jones

Abstract

The case study illustrates how a qualified workforce at the middle tier can be harnessed to improve teaching practice. Supervisors in Jordan are often highly experienced professionals with strong academic credentials. The case study describes a small-scale innovation in Jordan, delivered between 2017 and 2019, which strengthened supervisors' skills to support and challenge teacher pedagogy, in the context of national policy changes to the supervisor role introduced in 2015. The programme's elements are instantly recognizable as traditional components of teacher development by middle-tier actors (training, facilitation, coaching, practicum, and curriculum). The key innovation is the adoption of a critical thinking process by supervisors, in which they partner with teachers to evaluate the causes of student learning outcomes and apply pedagogical interventions drawn from robust evidence about teacher effectiveness in response. This 'evidence-based supervision' model, developed by Education Development Trust, is modelled on evidence-based practice in healthcare and underpins a profound shift in the professional practice of supervisors. Significant space was allowed for the system actors themselves (the supervisors and teachers) to act as local change agents, leading programme adaptations and applying local expertise to produce solutions for their context. The innovation has resonance for policy-makers internationally, given widespread interest in reformulating supervisor roles to include a stronger emphasis on teacher support, coaching, and formative evaluation.

3.1 Introduction

This case study concerns the work of supervisors, middle-tier officers of the Ministry of Education (MoE) in the Hashemite Kingdom of Jordan. They are important education professionals in Jordan and in many other countries in the Middle East and North Africa. In Jordan, a team of supervisors is located within each district office of the MoE. The districts are known as governorates, and each of the 12 governorates has a comprehensive team of subject or specialist supervisors.[6]

3.1.1 Overview

In this chapter we describe an initiative intended to strengthen the skills and capacity of a cadre of subject specialist supervisors in Jordan, in the context of significant national-level changes to the supervisor role introduced by the MoE in 2015. For many years supervisors in Jordan have engaged with individual teachers as representatives of the MoE, combining the evaluation of teacher performance with support for their development. As long ago as 1975, the MoE encouraged supervisors to both grade the quality of teachers' work in the classroom and 'focus on identifying the teacher's developmental needs' (Ministry of Education Jordan, 2015).

[6] Since 2015, each governorate has also employed a team of general supervisors who engage with school principals on whole-school issues.

The emphasis on developmental support was increased following the 2015 changes. The reforms mandated a shift in the supervisor role to emphasize teacher support and formative evaluation, with supervisors taking on responsibility for teacher training and coaching, as well as facilitating communities of practice (Ministry of Education Jordan, 2015). This shift has taken place in the context of a wider ambition, namely that the education system should support a knowledge economy (through the Education Reform for the Knowledge Economy (ERfKE) initiatives, which ran from 2003 to 2015). The ERfKE saw the supervisors as critical change agents in an effort to promote an education system which creates, shares, and produces knowledge at all levels (Alkhazaleh and Hattamleh, 2019).

The Jordanian MoE sought the assistance of Education Development Trust (EDT), in collaboration with the Queen Rania Teacher Academy (QRTA), to implement the policy and pilot a programme geared towards transforming this political vision into tangible changes in supervisor practices. Our case study details this innovative pilot programme, which offered professional development to a cadre of 46 English language supervisors across Jordan, working in 230 schools and reaching 53,000 students between 2017 and 2019.

The pilot was intended to demonstrate proof of concept on a small scale, bringing the MoE's vision for the supervisor role to life. In the context of a national policy priority – to support teachers of refugee students – the initiative strengthened professional supervision practices and therefore the support available to teachers of refugees. EDT's innovative methodology, based on evidence-based practice in healthcare, was used as the foundation for the professional development programme offered to supervisors.

Box 3.1

Concepts of evidence-based practice from healthcare applied to evidence-based supervision

The term 'evidence-based practice' in healthcare refers to the conscious and explicit integration of clinical expertise with the best available evidence and with patient/client choices (Sackett et al., 1996). In practical terms it requires diagnosis, treatment (or intervention), involvement of the patient in the process (often using motivational interviewing – an approach akin to coaching), and evaluation of the intervention's effectiveness. The QRTA and EDT Evidence-Based Supervision programme taught supervisors to work with teachers in the same way to develop their teaching and improve learning outcomes.

The initiative illustrates how existing middle-tier roles can be strengthened to direct them towards effective instructional leadership for teachers. It demonstrates the potential benefits to be realized from investing in the middle tier, without the need for radical restructuring or the creation of new roles. It is of wider international significance because many countries directly employ subject-specific supervisors in a similar role to those in Jordan. They are an important potential asset in the education workforce, often being former subject-specialist teachers with many years' experience. This is therefore an example of how an available and qualified cadre of the workforce can be harnessed to bring about a culture of school improvement at a local level.

On an international level, this case study will have particular resonance for policy-makers, as although in many places there is a long-standing interest in reformulating supervisor roles to include a stronger emphasis on teacher support, coaching, and formative evaluation, it has often proved challenging to support supervisors in making such shifts in practice (Carron and Grauwe, 1997).

This chapter also looks at innovations in the professional techniques and coaching methodologies used by the middle tier, including how supervisors acted as brokers of international evidence about high-impact pedagogy. It highlights the potential for the middle tier to function in a way analogous to clinical supervision in medicine and healthcare (see Box 3.1), where practitioners are supported by supervision structures that offer professional challenge, support, and specialist, up-to-date, subject-specific expertise.

3.1.2 The wider context of the initiative

The initiative to strengthen supervisor capacity was designed in the context of achievements by the MoE in Jordan in recent years as well as new challenges. The school system in Jordan has made good progress in the expansion of provision and the Jordanian government wishes to build on this foundation. The 2018–2022 Education Sector Plan identified the need to go beyond providing access and make the quality of teaching and learning a priority.

A major challenge facing the education system in Jordan has been the arrival of children displaced by the crisis in Syria. By 2017, the conflict in Syria had entered its seventh year and access to quality education for Syrian refugees in host communities remained an issue. Jordan was officially hosting 233,000 UNHCR-registered Syrian refugees of school age (5–17 years) (UNHCR, 2018), and the MoE had contracted new teachers (mostly novices with little experience), allowing Syrian refugees to enrol for free at public schools. Jordan enrolled 125,000 children in formal education and 68,000 in non-formal education. To accommodate those in formal education, 200 schools operated double-shift systems (Ministry of Planning and International Cooperation, 2016), in which Jordanian students attended school in the morning, refugee children in the afternoon, with in most cases a complete staff turnover from the first to the second shift.

Part of the caseload of the supervisors of this initiative was dedicated to supporting these novice teachers of refugee children, who were typically less experienced than the permanent teachers employed for the morning shifts (Bengtsson et al., 2021). The ministry worked with EDT and QRTA to build the capacity of English supervisors in coaching skills and the use of evidence to inform teachers' practice. The supervisors worked with teachers of Syrian children in grades 4–10 in the afternoon shifts, and reached all 12 governorates by the final year of implementation. By the end of 2019, the initiative had supported 46 supervisors across 230 schools, and reached approximately 53,000 Syrian refugee children.

3.2 Case study methods

The evidence in this case study derives from primary data collected between 2019 and 2020. Restrictions in place in 2020–21 due to the Covid-19 pandemic led us to draw heavily on existing primary data from 2019–20, much of it unpublished, together with three remote interviews with programme staff conducted specifically for this study.

In total the study draws on focus groups or interviews with 12 supervisors, 16 teachers, and 12 students, and a selection of project staff at QRTA and EDT. Interviews and focus groups took place in nine governorates. These were transcribed and coded to support thematic analysis against the research questions. We also drew on a small-scale survey with supervisors conducted in January 2021, and a teacher survey from the 2019 programme evaluation, to track changes in practice from a baseline evaluation conducted in 2018. The teacher survey was completed by 151 teachers who were matched to the supervisor data for comparison, securing an 84 per cent response rate from 180 participants. Secondary sources included programme materials, monitoring and evaluation data, and policy documentation from the Jordanian system.

3.3 Strengthening professional practice using an evidence-based supervision model

This section outlines how the QRTA and EDT initiative set about strengthening the supervisor role, using the evidence-based supervision model detailed below.

3.3.1 Integrating evidence-based practice into the work of Jordanian supervisors

The MoE reforms of 2015 mandated supervisors to observe classroom practice and deliver face-to-face development support. These reforms defined the supervisor responsibilities as:

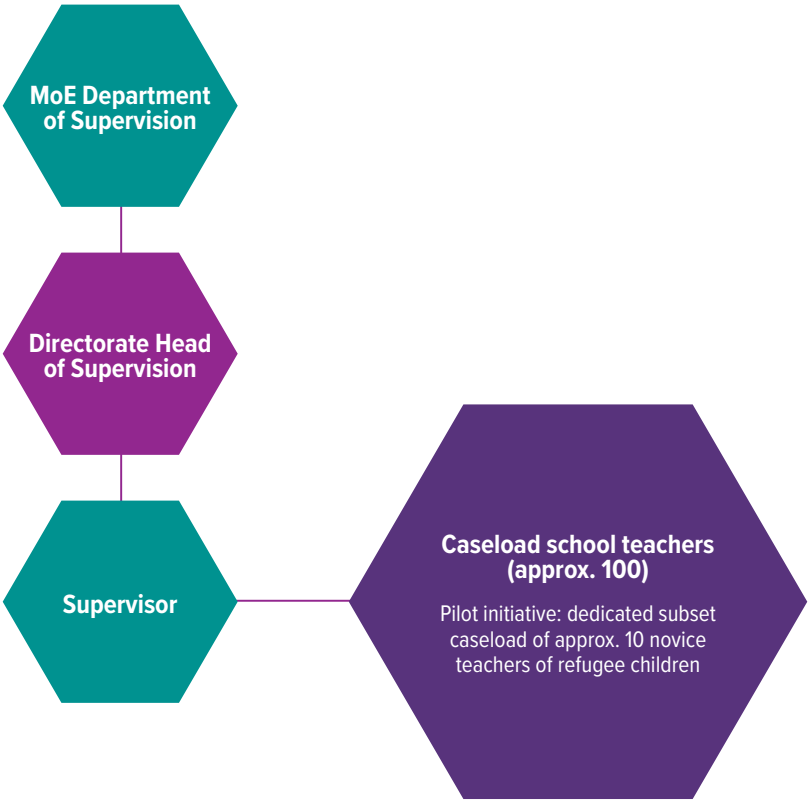
- delivering teacher training and coaching
- evaluating teacher performance and student achievement
- contributing to preparation and result analysis for national and school-based assessments
- contributing to school curricula (MoE, 2015).

Experienced teachers are often promoted to supervisory positions based on seniority, including length of service (MoE, 2018). Supervisors are expected to be subject specialists, and therefore many have been heads of department. They typically hold postgraduate degrees, and often view themselves as academics or researchers. However, they do not receive formal training on coaching, observation, or evaluating teachers, since the MoE's Supervision Guide states that supervisors have responsibility for their own professional development (MoE, 2015).

The key mechanism for supervisor–teacher engagement is the classroom visit and observation, during which the supervisor is required to 'diagnose the teacher's performance, strengths and weaknesses; and to determine the best method to address the detected weaknesses and improve performance' (MoE, 2015).

Supporting this supervisor–teacher engagement was the focus of the EDT–QRTA model. Each supervisor was assigned a cluster of five schools, and approximately 10 teachers from the supervisors' typical caseload were reallocated to ensure a focus on novice teachers of refugee children. Supervisors continued to report to the MoE through existing structures, as detailed in Figure 3.1.

Figure 3.1: Supervisor reporting structures



Source: Authors

The programme trained supervisors in evidence-based practice to equip them with high-impact coaching techniques and to support teachers to implement evidence-based pedagogical techniques in their practice. The evidence-based supervision model draws on models from the healthcare sector (see Box 3.2). At its heart is the principle that supervisors should support teachers to understand the causes and effects of their teaching practice on student learning. Supervisors are taught to give clear diagnostic feedback based on lesson observations, using evaluative judgement (Churches and McBride, 2012).

Student learning is central to the evaluative judgement conversation between supervisor and teacher. The conversation systematically identifies strengths and areas for development for the teacher, first focusing on the learning outcomes (what the children know, can do, and understand). The supervisor then identifies step by step what in the teacher's actions has produced the learning.

The supervisors received support for using the evidence-based supervision model in their professional practice, as shown in Figure 3.2.

Figure 3.2: The evidence-based supervision model

Source: Programme documentation

Evidence-based supervision requires the buy-in of an existing middle-tier structure. It therefore needs to be applied by co-constructing a model in collaboration with the stakeholders whom it aims to support. In the case of the Jordan programme, the initial consultation stage – to design and adapt the training content and structure, the practicum, and the accreditation process – was essential, and was conducted in close collaboration with QRTA, who have a deep understanding of the context.

The adapted model for Jordan is shown in Table 3.1. Supervisors were supported to work through a cycle of improvement across the four stages.

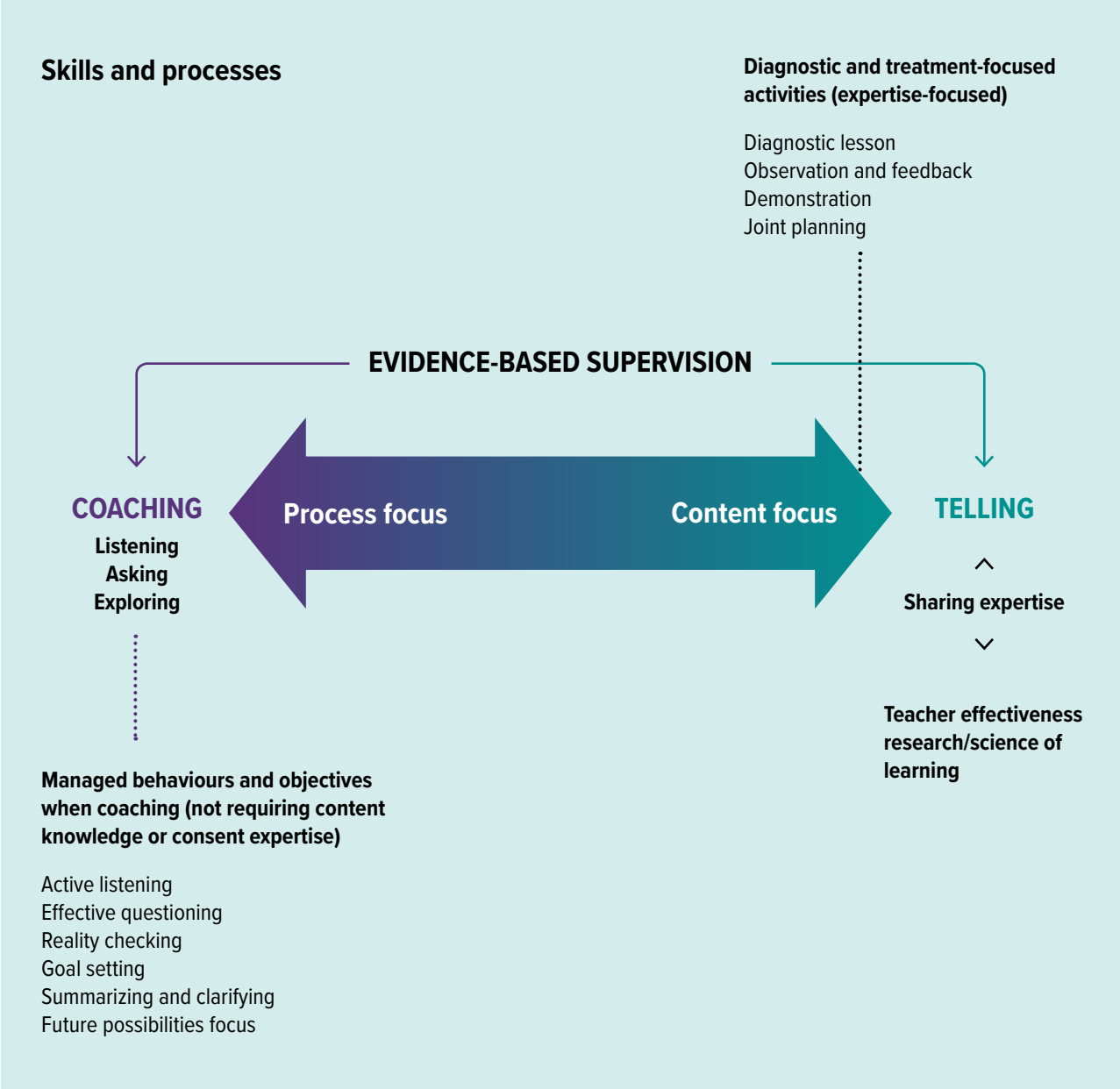
Table 3.1: Four stages of the evidence-based supervision model in Jordan

Diagnosis	The supervisors learn how to diagnose cause and effect (i.e. which teacher practices have caused which learning outcomes?) and how to give clear diagnostic feedback. The process of evaluative judgement from school inspection (Churches and McBride, 2012) is the basis for this process. They carry out lesson observations in order to make the diagnosis.
Intervention	Supervisors work with teachers to select interventions to improve their teaching practice, based on the diagnosis. To help teachers access evidence-based interventions and apply these to their practice, supervisors use a selection of 50 'intervention cards' (see Figure 3.4). These summarize the research evidence in high-impact pedagogy (Churches, Dommett, and Devonshire, 2017; Coe et al., 2014). Teachers also have access to teacher effectiveness workshops delivered by supervisors, to build skills in the latest evidence-based pedagogies from education and educational neuroscience. This includes training in teaching reading, writing, listening and speaking skills, lesson planning, differentiation, assessment, and giving feedback to students. Supporting materials and texts are offered to teachers. For example, they are trained in using classroom library books, provided to schools as part of the project.
Coaching into practice	The supervisors use coaching techniques to fully involve the teachers in the selection of interventions (for example, they are trained in core principles from motivational interviewing) to support their ownership of interventions. In monthly visits, supervisors coach teachers on the implementation of these interventions, including reflection on the implementation of newly acquired teaching skills and techniques in their classroom, and seeking support for new challenges they are facing. Within the practicum component of the programme, supervisors are required to produce three 'best practice' videos, demonstrating the work of teachers whom they have worked with. These are shared on a project social media page and via a popular free social networking programme.
Evaluation	Supervisors undertake ongoing evaluation with individual teachers (through lesson observation), to understand the effectiveness of the interventions and adapt as necessary. Group reflective-practice meetings are held through the year to examine evaluation data at individual, regional, and national levels.

Importantly, no single pedagogical approach was promoted as the 'right way' to teach. Rather, supervisors were supported to adopt a critical thinking process, using diagnosis and discussion to notice what was going on in teachers' classrooms and help them to design effective lesson solutions. They worked in a cyclical way to support teachers to implement evidence-based approaches, according to what they observed in classrooms and the teachers' next developmental step. Supervisors were trained in evaluative judgement methods for recording their observations in diagnostic statements that they could convey to the teachers, which in turn could form the basis for coaching, discussion, and teacher development (for example, 'low-ability learners make slow progress because the teacher's pace was too fast'). Coding and analysis of the statements against the Jordanian National Teacher Professional Standards facilitated regional discussions and focused additional training by the supervisors.

In this way, the evidence-based supervision training sought to develop Jordanian supervisors to make use of a balance of observation, questioning, and telling skills to support teachers. This is considered good clinical practice (see Figure 3.3).

Figure 3.3: Diagnostic and coaching skills developed through the evidence-based supervision programme



Source: Churches, Aghajanian, and Hutchinson (2018)

Box 3.2

Learning from the middle tier in healthcare

In considering the professional development of supervisors, the project team drew upon models of middle-tier support for healthcare practitioners, in the belief that education systems might learn from their supervisory systems. These systems maintain and grow leading-edge clinical practice alongside organizational leadership of a hospital or clinic.

Education Development Trust drew on two key features of these systems. First, healthcare has pioneered the provision of evidence-informed guidance for professionals such as physiotherapists and clinical psychologists. There are parallels with education, which has seen an exponential expansion in robust research into teacher effectiveness in recent years. There is a compelling case that middle-tier change agents need mediated access to this evidence in order to support front-line practitioners.

Second, healthcare systems have innovative models for using and applying this evidence. They have long sought to move away from a simplistic diagnosis and treatment model, instead 'integrating individual clinical expertise with the best external evidence' (Sackett et al., 1996). They recognize the importance of involving the patient in the decision-making process around the treatment (patient-centred care). Clinicians receive training in coaching-related techniques, such as motivational interviewing. This guiding style of engagement helps patients clarify their aspirations in a way that increases their motivation to change, while promoting autonomy of decision-making (Morton et al., 2015; Rollnick, Heather, and Bell, 1992). There are parallels with desirable approaches to the solving of educational problems at school level, based on collaboration and joint problem-solving.

Evidence-based practice in healthcare has five interdependent stages: (1) diagnosis; (2) creating a clinical question to help identify an appropriate treatment; (3) looking at the research evidence, critiquing it, and selecting a treatment; (4) treatment, involving the patient in the process; (5) evaluation of the effects of the treatment (Churches, Dommett, and Devonshire, 2017). In this way, each patient engagement becomes a form of research project for the clinician.

Education Development Trust's evidence-based supervision methodology uses these principles to help strengthen the work of middle-tier change agents, responsible for co-constructing the 'diagnosis' and 'treatment' of problems in teaching and learning.

3.3.2 Training the supervisors

EDT and QRTA trained the supervisors in these techniques through an innovative professional development programme, which recognized the supervisors as adult learners who, just like the teachers they coach, need support with translating theoretical concepts into practice. The programme combined training and workplace-based assessment of their professional competencies in the school setting.

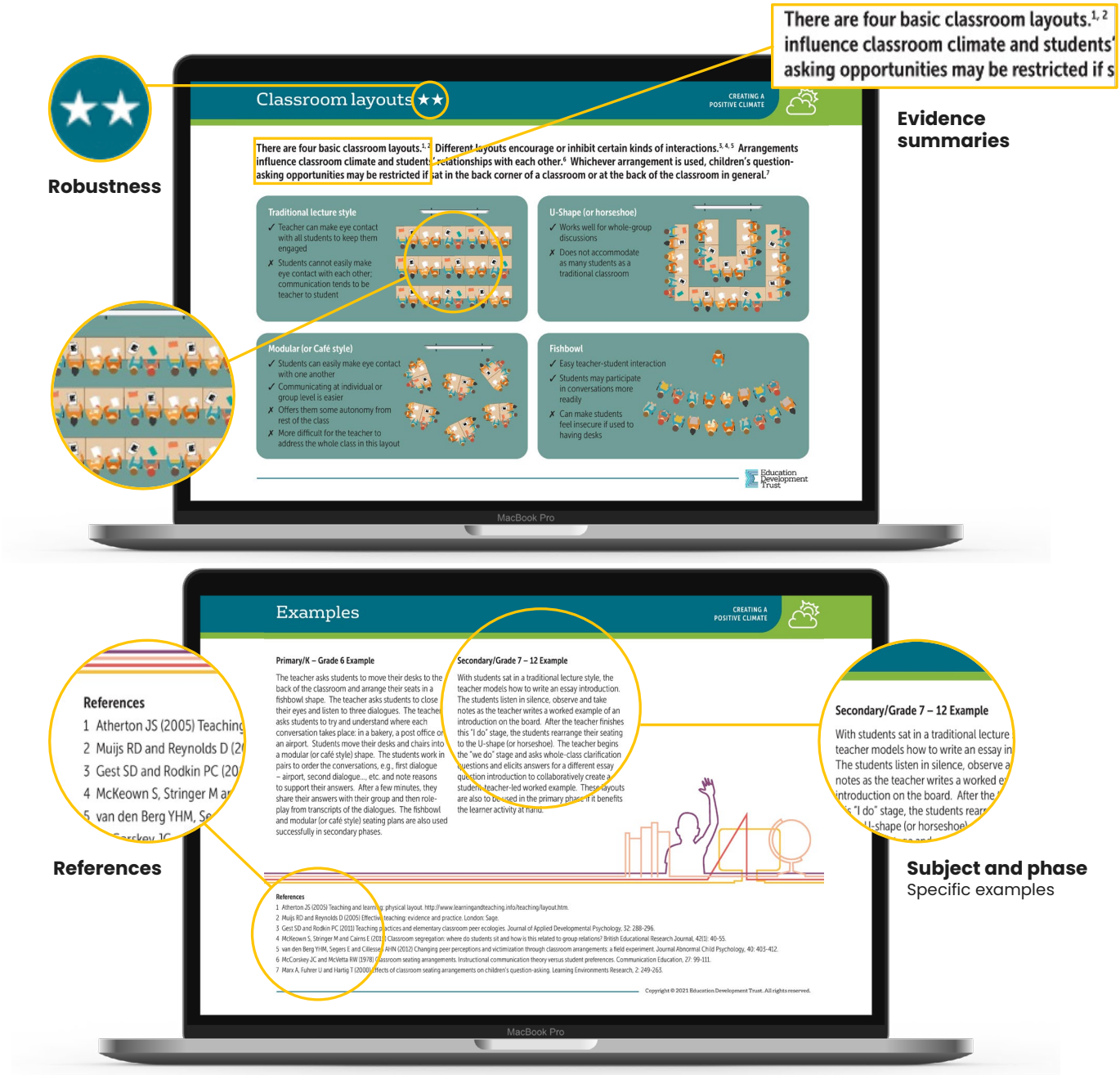
First, supervisors completed a 'how to supervise supervisors' training programme over four days. This covered the concepts in the evidence-based supervision model and techniques such as coaching. It also built the supervisors' skills in concepts widely applied in medicine and healthcare.

Second, in a practicum component, supervisors were asked to complete a portfolio over six months to demonstrate how they had put their learning into practice. The portfolio of evidence illustrated their professional practice and included three reflective learning logs for different teachers whom they had supported, diagnostic lesson observation forms, three 'best-practice' videos demonstrating the work of teachers whom they had worked with, and a reflective essay. This qualified them for a Certificate of Professional Practice in Evidence-Based Supervision, awarded by the Queen Rania Teacher Academy and Education Development Trust.

Third, QRTA and EDT have supported the supervisors' ongoing peer-to-peer learning. They assist them in sharing their best practice, including sharing the videos online and via WhatsApp groups. Since 2019, work has been under way to build a website that makes aspects of the approach available to all supervisors online. The website contains training videos in diagnostic lesson observation, intervention selection, coaching, and summative evaluation of teacher practice. It also includes a growing library of 'intervention cards' which summarize evidence related to specific areas of classroom practice, based on the best available education research, in an enhanced format (see Figure 3.4). Cards now contain not only a description of the approach but also subject-specific illustrations and information about the robustness of the evidence (the type of research and extent of its replication).

Figure 3.4: Example of an evidence-based supervision intervention card

There are four basic classroom layouts. Different layouts encourage or inhibit certain kinds of interactions. Arrangements influence classroom climate and students' relationships with each other. Whichever arrangement is used, children's question-asking opportunities may be restricted if they are sitting in the back corner of a classroom or at the back of the classroom in general.



Source: Programme documentation

For the first phase of intervention card development (2017), which covered generic pedagogical approaches, EDT drew on existing summaries of evidence and systematic reviews, accessing original papers to develop the cards. Card topics were decided based on a situational analysis of the needs of the teachers being supported. This analysis was carried out in conjunction with the QRTA. For the next phase of development (2019–2020), EDT conducted a systematic review of the developing country's 'English as an Additional Language' literature. Cards for those areas of practice with the strongest evidence were produced first; card development continues in this area.

3.4 Impact on the professional practices of supervisors and teachers

Supervisors and teachers both reported significant shifts in their professional practice. Five key findings emerge.

3.4.1 Supervisors developed more supportive relationships with teachers, resulting in a stronger focus on the improvement of teaching

Interviewees explained that before supervisors received the training, they saw themselves as 'judges' or 'inspectors'. They were there to tell teachers what they were doing wrong and to report on their weaknesses. This often resulted in strained relationships. During interviews and focus groups, supervisors reported that by changing the perception of their role, teachers became more honest about the difficulties they were facing and more likely to seek advice. Teachers confirmed this, indicating that they had seen a change in the way their supervisors spoke to them after lessons and saying that they now taught 'as normal' when supervisors observed, rather than preparing special lessons. Teachers and supervisors alike referred to the supervisor as a partner who would help the teacher come up with better teaching solutions. One supervisor commented: 'You feel the supervisor is an analyst. He can analyse the situation and if you find the problem, you can look for solutions.... The coach's role is to help the teacher find a solution by himself.' Another said: 'I take the teachers' words and the teachers' notes and I don't give solutions; I ask questions.'

The evidence-based supervision model gave supervisors a coaching methodology to implement and a shared, positive language to use to discuss teachers' professional development during their monthly visits. Supervisors talked about how they now gave teachers more space to talk, asking questions, listening to them, displaying patience, being less judgemental, and working together to find solutions. One supervisor observed that applying these strengthened interpersonal skills led to a more open relationship between teacher and supervisor: 'As a supervisor, you need the ability to organize teachers. You need patience, you need to listen more than speak. This breaks down the barriers between them and us. One of my teachers would say "No" to me coming in. After I started using coaching, she was more open. Before, she had an image that I was there for assessment.'

Another explained: 'Teachers usually feel a little bit worried when supervisors come to observe their lessons. In this sense, my teachers through this project have come to feel more secure and comfortable with a lot of readiness and willingness. In other words, they have become accustomed to seeing me among them for guidance and advice. In addition, they have become aware of setting their goals clearly and determining the best learning and teaching strategies to use.'

Supervisors talked about how the training had improved the quality and nature of the feedback they were able to give teachers, as the techniques created more space for dialogue. One teacher echoed this point and described how 'before, the supervisor would come and attend the class and would just write notes and give instructions – just tell you the mistakes, you have to follow the instructions – but this has been transformed from monitoring to coaching.'

In 2021, a small-scale survey was conducted by the project team at QRTA and EDT, exploring the extent to which supervisors had continued to use the materials and approaches encountered in training three years earlier. Although the sample size of supervisors was small (n=13), the data suggest that long-term beneficial change has taken place. There was a particularly positive response about the use of research evidence: all 13 supervisors were still using the evidence-based supervision techniques three years after the initial training, and all but two of them said that they were still using them 'frequently', 'very frequently', or 'all the time'. None said that they were not using the evidence at all three years after the initial training.

3.4.2 Supervisors as evidence translators

One of the key challenges faced by teachers globally is getting access to evidence-based pedagogical guidance for improving their teaching practice. Busy teachers do not always have the time to sift through research findings, and evidence may not always be available in the form of digestible guidance to be applied in tomorrow's class. In addition, teacher trainers or expert supervisors at the middle tier may have deep knowledge of such research, but it can be challenging to find ways to mobilize and share it with teachers in digestible formats.

This programme found innovative ways to tackle these challenges. A significant shift was seen in the role of the supervisors, as they became promoters and brokers of evidence on pedagogy, drawn from international sources and their own expertise as experienced practitioners. Through their coaching role and the intervention cards, the supervisors ensured that evidence about high-impact pedagogy reached teachers, who could put it to immediate use in the classroom.

Supervisors described themselves as mediators of new, evidence-based knowledge for teachers. One supervisor described the role as identifying evidence that helps teachers to solve classroom problems. Other supervisors spoke about their increased ability to 'diagnose' a problem, select the 'treatment' or intervention, and work with teachers to implement the new practice. One supervisor described the process as follows:

> When I coach teachers in school, I start by asking questions to diagnose the main problems the teachers face. I start asking about these problems trying to find and select the best solutions. [...] Then we start support and try out the solution to see if it is good and can be applicable in the class and evaluate their work after meeting again. Actually, the coaching is very individual and personal to the teachers and it's reflective. The solution should be derived from the teacher themselves and not applied to follow some techniques by the supervisors.

Supervisors felt that this new role raised their standing as professionals: the enhanced role within the programme enabled them to better channel and share their knowledge and expertise. The role was also a significant shift in the context of the wider Jordanian ERfKE reforms, which promote the idea of an education system which creates, shares, and produces knowledge at all levels (Alkhazaleh and Hattamleh, 2019).

3.4.3 Development of optimistic attitudes to new methods and student potential

Student learning was at the heart of the conversation between supervisor and teacher. In interviews, supervisors spoke about how action to improve student outcomes had become a clearer focus for their work. Academic failure was not inevitable and was not the fault of the student. As one supervisor explained: 'We are looking for evidence and teaching inside the classroom. Teachers now accept it is their role. The culture has shifted to not blaming children for being weak. Now they [teachers] are starting to think they are accountable for their students' weakness.'

Teachers found this focus on the student professionally motivating. Teachers and supervisors described how the emphasis on supportive relationships with the goal of improving learning has built teacher confidence, encouraging them to take risks and try new teaching strategies.

Teachers indicated that they now use a wider variety of pedagogical strategies thanks to participation in the project. Participants mentioned improvements in lesson planning, classroom management, asking questions to check students' understanding and giving effective feedback, engaging the whole class, using group work, and in some cases bringing coaching techniques into the classroom.

Supervisors described an improvement in their sense of professional efficacy. They spoke of a commonly held view among both supervisors and teachers prior to the training that poorly performing students were inherently weak and often beyond the reach of the teacher. This perception changed once teachers, with encouragement from supervisors, began to take more responsibility for pupil outcomes and to develop more optimistic attitudes towards student potential.

3.4.4 Building a sense of community and collaboration across and within schools

As well as shifts in the relationship between supervisor and teacher, the programme has also fostered new collaborations and relationships among schools, supervisors, and teachers, both through the collaborative nature of the formal training sessions and through informal WhatsApp groups established as follow-up to the training. Supervisors set up lively WhatsApp groups for teachers across schools to share resources and challenges. Each cohort of supervisors also formed their own WhatsApp group,

independently developing their own resources and sharing ideas for improvement. They also shared skills they had learnt, such as coaching, with a broader audience of supervisors who had not participated in the programme.

Supervisors said that previously teachers had been reluctant to share problems or to provide examples of practices that had worked for them in the classroom. The collaborative format of the teacher training sessions and the coaching gave greater motivation to share practices, as in one example mentioned by a supervisor: 'Teachers videoed themselves and sent the videos to the supervisor and other teachers in the group. This led to positive competition between the teachers.' Another commented: 'We say the programme combined us together. We are a team, one team. Before this we did not interact with one another.'

Supervisors and teachers both felt that the relationship between teachers and students had improved as an indirect result of the coaching training. Supervisors modelled diagnostic feedback, which encouraged teachers themselves to make more use of the power of assessment for learning and of formative, developmental assessment. One supervisor commented: 'Teachers are more co-operative and work to student needs…supervisors, teachers, and students all work as a team.'

Teachers, supervisors, and QRTA staff gave examples of sharing resources, work, and lesson plans, and supervisors and QRTA trainers were included in WhatsApp groups. These examples demonstrate a new openness, enabling the new coaching and teaching skills to flourish. Supervisors used their initiative in the way they attempted to promote the new approaches.

A broader change in attitude about the role and importance of supervisors within the wider education system is also evident. Supervisors reported viewing themselves as key actors in system change, and described ways that they are sharing their skills and knowledge with those who did not participate in the programme. Some of the activities they undertook are listed in Box 3.3.

Box 3.3

Supporting the wider system: How supervisors formally share their skills and knowledge with peer professionals

- **Supervisors have made a training video about teacher coaching to share with other supervisors.**
- **Supervisors create WhatsApp groups to share ideas and best practices with peers.**
- **Supervisors use their coaching skills with novice teachers in other public schools.**

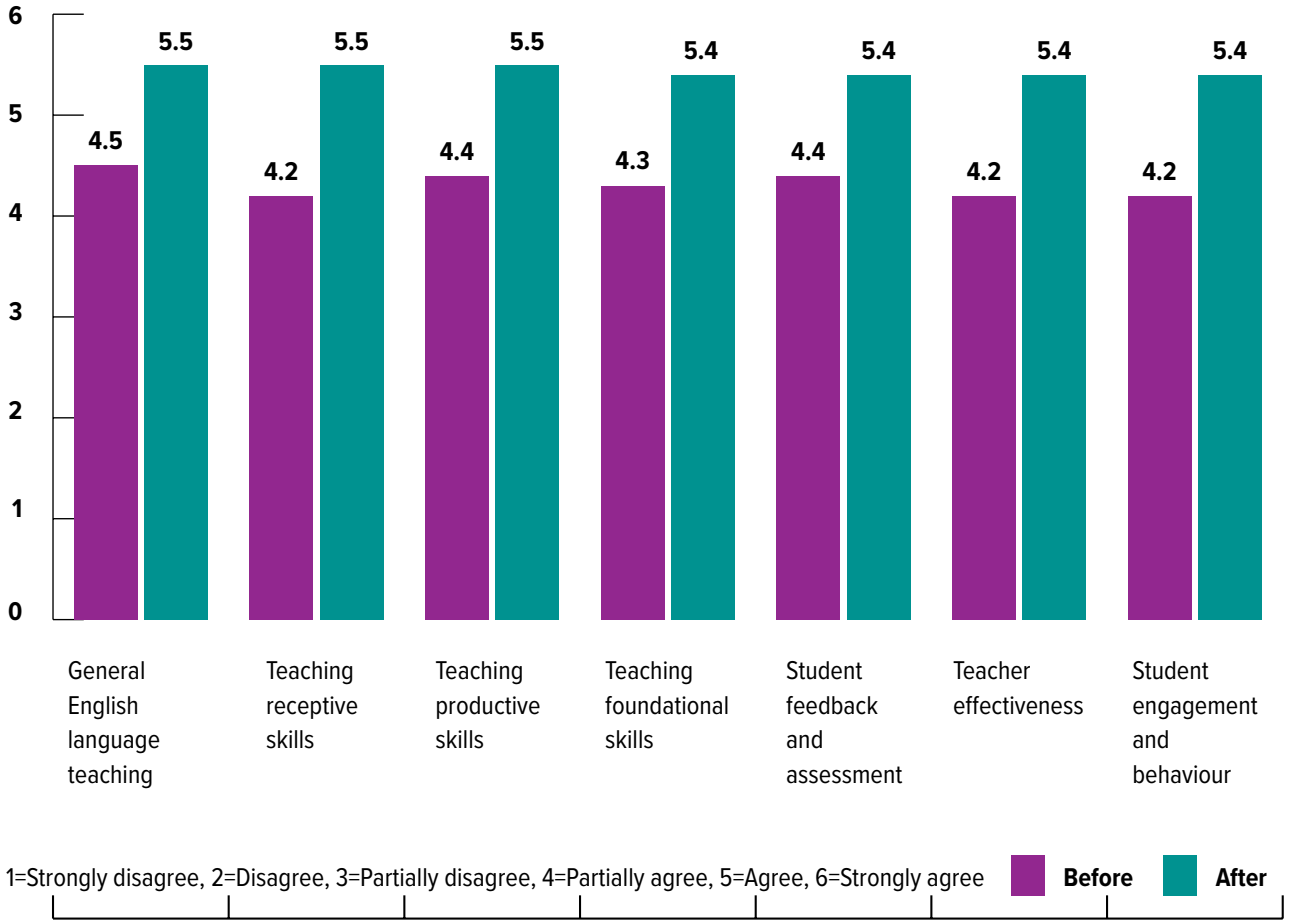
Source: Authors

Supervisors also appreciated the opportunity to expand their own professional networks by connecting with other supervisors and continuing to share experiences and learn new things. One supervisor noted that there had been mutual visits with other supervisors and teachers, which they found beneficial.

3.4.5 Reported changes in teaching practice

These shifts in mindset and ways of working have also translated into shifts in teaching practice, according to teachers and supervisors. In a self-assessment survey conducted as part of the evaluation of the project in 2019, both groups reported improvement in teaching skills in all the areas measured, including student feedback and assessment and student engagement and behaviour (see Figure 3.5).

Figure 3.5: Average teacher self-assessment scores for topic areas, before and after the training programme (n=151)



Source: Teacher self-assessment survey conducted in 2018 and again in 2019: Improving English Skills, Jordan: Project Evaluation Report 2018/19, unpublished Education Development Trust

Teachers indicated that they now use a wider variety of strategies and were more willing to try new practices. Some teachers reported that they were using coaching methodology with their own students and were more focused on the students themselves in lessons. One teacher explained: 'Before we just read the text and translated it many times…now we ask questions before, during, and after to demonstrate understanding [strategy for teaching reading]. This is better than the way we used in the past and the good students interact in this way better than in the past.' Another said: 'This programme meant I change the way I teach totally. I now engage with the whole class when teaching.'

Students have also noticed these changes. In focus groups, students whose teachers had been coached by participating supervisors were asked what they liked about learning English: all said they liked the changed classroom practices and the more engaging, interactive methods that their teachers were now using. They described many examples of the new activities or practices: one student said, 'There are lots of activities, it's hard to pick one. In a grammar lesson, she asked us to hold out cards, very nice activity like a game – picks two students each time and the students had to say if the sentence was active or passive.' Another remarked, 'Past tense, using "was" and "were": the teacher brought with her flashcards and we had to reorder them… Honestly, all the activities help me learn. Another time we did drawing about the past tense and then had to form sentences and read.' A third explained, 'We always work in pairs. I enjoy working in pairs. Yesterday we answered all the questions in the book by working in pairs.'

3.5 Challenges and opportunities

Our analysis has identified three important lessons associated with this promising intervention, which may have significance for other policy-makers considering similar shifts in the role and functions of middle-tier personnel.

3.5.1 A need to consider how to engage school principals

The programme aimed to strengthen the supervisor role and the professional practices of supervisors when engaging with classroom teachers. The initial programme did not engage directly with school principals. Evaluation interviews with principals at that time suggested that they were keen to be 'in the loop' and understand how their support to teachers could best align with that provided by supervisors.

The programme now includes a dedicated event for school principals from across Jordan to orientate them to the work. This event is designed to enable them to engage more easily with the evidence being shared with supervisors and teachers, and with the processes of diagnosis, intervention, and evaluation. Ultimately, it aims to help school principals think about how to institutionalize and support the cycles of improvement through which teachers move.

3.5.2 Stewardship of knowledge and evidence products as a public good

The programme initially relied on a suite of paper-based intervention cards which supervisors could use with teachers to support their access to high-impact pedagogical techniques, based on teacher effectiveness research. However, new evidence is constantly being produced internationally. In addition, supervisors who were not direct beneficiaries of the programme, including those in more remote areas, expressed a wish to access the materials.

The website was developed in response to this challenge and should be a cost-effective mechanism for sharing the approaches more widely. It includes a growing library of intervention cards that summarize evidence related to specific areas of classroom practice, based on the best available education research.

A further lesson from the programme has been the recognition of supervisors as potential 'producers' of knowledge – as local practitioner-experts – as well as 'users' of the intervention cards. Social network groups on WhatsApp had been set up to enable contact information and event dates to be circulated; these rapidly took on an innovative role, as the supervisors and teachers saw them as an opportunity to share video clips and ideas based on the training that they had received.

However, these videos are currently scattered among the different social network and WhatsApp groups set up by supervisors and teachers, with no central mechanism to curate and distribute them as a public good. Further programme iterations could consider the potential of a web-based solution for the sharing of best practice videos captured by supervisors and teachers. Online access to videos and clinical practice guidance is an area that appears to have much potential.

3.5.3 Opportunities for scaling up and institutionalization

Existing international and comparative education literature has long recognized the challenges of making supervision systems effective at scale (for example Carron and Grauwe (1997)), notably staffing shortages, tensions between accountability and support, and a need for greater professional support systems for supervisors. This pilot is a relatively small-scale innovation, but it shows that some of these challenges, such as what effective professional development support systems might look like, can be addressed.

Further programme iterations could consider how to scale the pilot beyond English-language supervisors to include all subject supervisors nationally. There appears to be strong demand for more supervisor support. In the National Teacher Survey in 2018, 62 per cent of teachers said that insufficient support from education specialists and supervisors posed a challenge to their work (Queen Rania Foundation, 2018). Scaling up the programme will need consideration of other factors across the system, such as supervisor caseload and effective delivery models to operate at scale and reach all teachers. Typical supervisor caseloads can be up to around 100 teachers; around 60 per cent of teachers in public schools receive feedback at least once a semester, and around 80 per cent at least once a year (Queen Rania Foundation, 2018). Supervisors in this pilot typically offered teachers coaching more frequently, on a monthly basis, but a scaled-up model could consider options such as directing more intensive supervisor coaching to those teachers most in need of it, or building a cadre of in-school supervisors to provide more frequent coaching support.

As a first step towards scaling the approach, in the summer of 2022 EDT began a more extensive collaboration with the MoE. The new programme will take evidence-based supervision to scale across the country, involving all 106 English supervisors and the teachers they support. The programme will continue across the academic year 2022/2023, and a research report will summarize lessons learned and the impact of the programme at scale.

3.6 Takeaways

This chapter illustrates how education systems can re-orient existing supervisor roles towards coaching and support. Key takeaways from this initiative are discussed below.

3.6.1 Towards a professional partnership with teachers

This case study shows that, with support and development, both supervisors and teachers welcome an approach that puts greater emphasis on the developmental dimension of the relationship. Where supervisors were able to partner with teachers as 'critical friends', both to support them and to hold them accountable for their progress, teachers flourished and their practice improved.

This was the kind of partnership envisioned by the MoE in Jordan in the reforms of 2015, which changed supervisors' job description, placing greater emphasis on the provision of developmental support while retaining the responsibility for evaluating teachers' performance.

However, making such a professional partnership work is not easy in practice. Combining both formative and summative assessment roles can be challenging for middle-tier professionals, who need to shift away from a role based on traditional authority towards one focusing on 'softer' influencing and support skills. A member of EDT programme staff commented:

> I think what a lot of supervisors are struggling with is that before, they used to have a lot of authority, whereas now with that [changed job description and role of support] ...they feel that they don't have that authority anymore and teachers aren't listening to them, so there was really a need to educate them on the importance of their role and how they can be effective at supporting teacher professional development without having to resort to dictating.

This programme gave supervisors a methodology to make the new role work in practice, helping them to understand how such a shift could be achieved on the ground, using a set of professional protocols. Instead of a hierarchical relationship based on performance assessment, teachers talked about developing a sense of joint responsibility with the supervisor for student learning. The relationship shifted towards one of partnership, working hand in hand and collaboratively, with the improvement of student outcomes as the shared motivation for the work. It seems clear that a motivational interviewing style of coaching, including specific diagnostic feedback from lesson observations, built strong relationships and trust between supervisors and teachers. It seemed that this trust and enhanced relationship helped supervisors to carry out their dual functions as evaluator and supporter/teacher developer with less conflict.

3.6.2 Using technology effectively to strengthen collaboration

One distinctive feature of this case study was the use of social media in support of middle-tier engagement with school-based staff. Supervisors used WhatsApp groups as well as face-to-face training to engage with teachers. The social media platform encouraged teachers to collaborate and share ideas about subject pedagogy. The project also established a WhatsApp group for each cohort of supervisors who were being trained, who then used the technology to create a technologically enabled community of practice for themselves.

3.6.3 Bridging the gap between evidence and practice

One of the major challenges faced by education professionals is translating theory from traditional 'training' programmes into improved teaching practice on the ground. This 'theory-practice gap' is too often the cause of failed investment in reform and professional development. This case study illustrates how middle-tier professionals, as local expert practitioners, can play a central role in bridging this gap, using their own contextual knowledge supported by a clear methodology.

The intervention described here was based on a medical analogy: middle-tier instructional leaders jointly 'diagnose' and 'treat' education problems with teachers. Medical professions are highly regarded in part because they ground their practice in robust evidence. Education research is building an increasing body of evidence of this sort. Findings concerning teacher effectiveness and the science of learning are particularly relevant to the work of instructional leaders at school or middle-tier level. The challenge is how to mobilize this evidence for busy professionals who do not have the time to read research journals. In the case study, this was done through the provision of guidance materials with high production values (the intervention cards). Impact data indicate that supervisors were enthusiastic about this approach to the use of research evidence.

3.6.4 Harnessing local system strengths to bring about change

The case study illustrates how reforms can build on existing system strengths to bring about significant changes in teaching practice. Although the programme team presented the most up-to-date international evidence on teacher effectiveness, it was the system actors themselves (supervisors and teachers working collaboratively) who interpreted and applied evidence in their own professional context, in much the same way that a doctor or other independent healthcare practitioner might apply clinical reasoning to a specific healthcare context.

Supervisors in Jordan are ideal for this role because they are often highly experienced professionals with many years of teaching and an identity as professionals with solid research and academic knowledge. Programme staff at QRTA and EDT remarked that the new evidence-based supervision approach valued and capitalized on supervisors' key strengths as experts and researchers. The approach allowed them to work with each teacher in a kind of research cycle, and gave them tools to integrate their academic knowledge and apply research evidence in the classroom.

The system-owned approach also had implications for the partnership model – in other words, how the supervisors and the ministry worked with non-state actors such as EDT. The EDT leadership acted as high-level supervisors, offering quality assurance and coaching, rather than administrators and project managers.

3.6.5 No blueprint: A mindset shift towards professional experimentation, learning, and continuous improvement

Notably, the supervisors in this programme did not offer teachers a defined blueprint for delivering their classes. They were supported by the evidence-based supervision model to develop a critical thinking process. They offered teachers a set of tools and techniques using the intervention cards, and coached them through the process of identifying suitable approaches, depending on their evaluation of what was causing student learning outcomes.

The supervisors and teachers interviewed for this case study described a mindset shift, feeling empowered as professionals with the skills to adapt their practice. Teachers also described feeling more confident as practitioners given the supervisors' support, reporting that this led them to experiment with new approaches in the classroom. Through coaching and reflection sessions in a supportive professional environment, teachers could share the results of experimenting with new techniques and the challenges of implementing them.

Central to this philosophy of learning and experimentation, an important feature of this case study is the attention paid to the supervisors as adult learners. EDT and QRTA recognized that middle-tier professionals are also learning, and that they need support for translating their training and theory into new professional practices such as coaching. Just as the teachers experienced cycles of learning, the supervisors were supported to form a cadre of professionals learning through their own peer-coaching and communities of practice. This was an important factor in enabling supervisors to model a learning mindset and to empathize with the teachers through their professional development.

Chapter 4. Case study: Leading a culture of collaborative learning through middle-tier reforms in Rwanda

Ella Page, Jean Pierre Mugiraneza, John Rutayisire, Lainie Keper, Tony McAleavy, and Charlotte Jones

Abstract

This case study looks at new middle-tier roles in Rwanda, where high-performing school head teachers are selected to serve as 'leaders of learning' to support the professional development of their peers.

The reform is a key part of the Building Learning Foundations (BLF) programme of the Rwanda Basic Education Board (REB), a major initiative designed to improve learning outcomes in mathematics and English in primary grades 1–5 across all public and government-aided schools. The 'leaders of learning' reforms are part of wider plans by the Rwandan government to transform head teachers into instructional leaders who can lead teaching and learning improvement in their school community. The new middle-tier roles have been designed to support head teachers during this transition. The approach harnesses the skills and motivation of the best-performing serving head teachers, giving them a role as change agents at the middle tier so that others can benefit from their expertise.

The case study discusses the innovative features of the initiative, in particular the accredited professional development programme for the leaders of learning – unusual at the middle tier – which focuses on the external accreditation of new professional competencies and practices.

The new middle-tier roles have been associated with professional and cultural changes in the Rwandan education system, including the promotion of a culture of collaborative learning across schools and districts. They have generated measurable improvements in the instructional leadership skills of head teachers.

4.1 Introduction

In 2017, the Rwandan government launched an initiative in partnership with Education Development Trust to promote high-performing head teachers to a new middle-tier role called 'leader of learning'. These leaders act as change agents to improve teaching and learning beyond their own school, working across their locality to offer professional development support to peer head teachers. In partnership with the Rwanda Basic Education Board (REB), a new cadre of nearly 500 local leaders of learning (LLLs) and national leaders of learning (NLLs) has been created to serve all 3,200 public and government-aided primary schools nationwide. The reform is a key part of REB's BLF programme, designed to support systematic reforms and improve learning outcomes in mathematics and English.

Alongside other middle-tier actors, leaders of learning in Rwanda play an important role in up-skilling peer head teachers in priority school improvement practices, particularly data-led school planning, and in promoting effective in-school teacher

professional development. This model is interesting internationally because of its potential applicability to other countries: most school systems have a head teacher role of some kind and all school systems will have 'bright spots' –effective practitioners willing to share their expertise with peers. The approach harnesses the skills and motivation of the highest-performing serving head teachers and gives them a role as change agents at the middle tier, so that others can benefit from their expertise. While the approach is inspired by 'system leadership' experiences in higher-income countries, it is well adapted to Rwanda (see Box 4.1), providing situated learning for head teachers within the local school setting with an emphasis on shared experiences and challenges.

The intervention is an important part of BLF's 'leadership for learning' strategy, which aims to create a strong local leadership environment and to support head teachers to develop instructional leadership practices. Leaders of learning facilitate the capacity development of their peers through Professional Learning Communities (PLCs) and targeted one-on-one coaching sessions. In turn, the leaders of learning are offered extensive professional development and support to act as middle-tier leaders, including an accredited professional development course, peer-to-peer learning, and professional development through participation in the PLCs.

4.2 Case study methods

This case study is based on ten remote interviews and a remote focus group, carried out using Microsoft Teams. It draws on interviews with two LLLs, two NLLs, a lecturer from the University of Rwanda College of Education who is involved in the programme, two district education officers, a sector education officer, the BLF Leadership for Learning leader, and a sector-level field team member; the online focus group included six programme staff. These roles are explained further in Section 4.3.1. All interviews took place in August 2020 during school closures due to Covid-19. The sample size for the study was constrained by the switch to online interviews, and the situation also unfortunately meant that we were unable to engage directly with teachers impacted by the changes.

The case study also draws on programme monitoring and evaluation data, programme documentation, and an ongoing research study from Education Development Trust, Teachers Learning Together, which looks at the effectiveness of teacher collaborative learning.

4.3 The Rwandan context

The Rwandan Government views education as a critical investment in the future growth and development of the country. The overarching goal of the current Education Sector Strategic Plan (ESSP) for 2018–24 is to make a quality 12-year basic education available and accessible to all, and to ensure that Rwandan citizens have the 'appropriate competencies (skills, knowledge and attitudes) to drive the continued social and economic transformation of the country' (MINEDUC, 2018). To achieve this vision, the ESSP sets out several strategic priorities:

- enhanced quality learning outcomes relevant to Rwanda's social and economic development
- strengthened professional development and management of teachers across all levels of education in Rwanda
- strengthened governance and accountability across all levels of education.

School leadership and management are key focus areas for improvement in working towards the achievement of these national education goals.

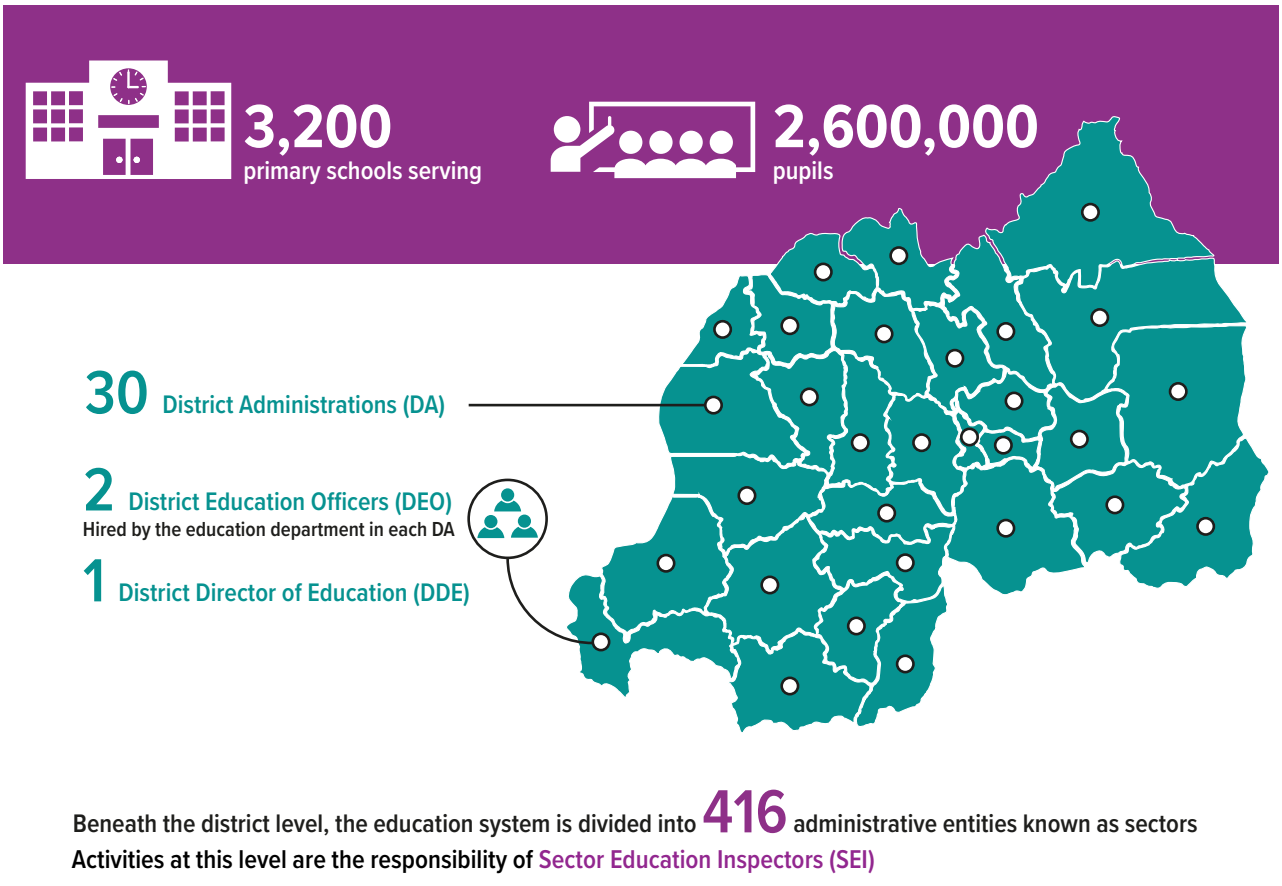
4.3.1 The middle tier of the Rwandan education system: Existing structures

The education system in Rwanda has 3,200 public and government-aided primary schools which serve 2.6 million pupils (MINEDUC, 2022). The system has been categorized as fast-changing and dynamic (World Bank, 2011). Since 2006, the education system has undergone extensive decentralization; as a result, the implementation of policy is now firmly rooted at the province and district level (there are four provinces in Rwanda, in addition to the city of Kigali, which also has 'provincial' status). Following local governance reforms in 2013, 30 districts – known as District Administrations (DAs) – are responsible for delivering education services. Staff at this level of the education system provide a vital connection between the districts and the Ministry of Education (MINEDUC), REB planning, and local-level implementation (MINEDUC, 2018).

The education department in each DA employs two district education officers (DEOs), each responsible for a different level of education: nursery and primary, and secondary and tertiary. They are managed in each district by a district director of education (DDE). The DEOs have a wide remit, including the preparation of district education plans, financial management, teaching staff recruitment, management and transfers, and the provision of education statistics. DEOs are heavily involved in the implementation of MINEDUC policy, monitoring both implementation processes and school performance in their respective districts (MINEDUC, 2018).

Beneath the district level, the education system is divided into 416 administrative entities known as sectors.[7] Activities at this level are the responsibility of sector education inspectors (SEIs) (previously known as sector education officers). SEIs are typically young graduates who support and are overseen by the DEOs (Karareba et al., 2018) (see Figure 4.1).

Figure 4.1: Structure of the middle tier of the Rwandan education system in 2021



Source: Education Sector Strategic Plan, MINEDUC (2022)

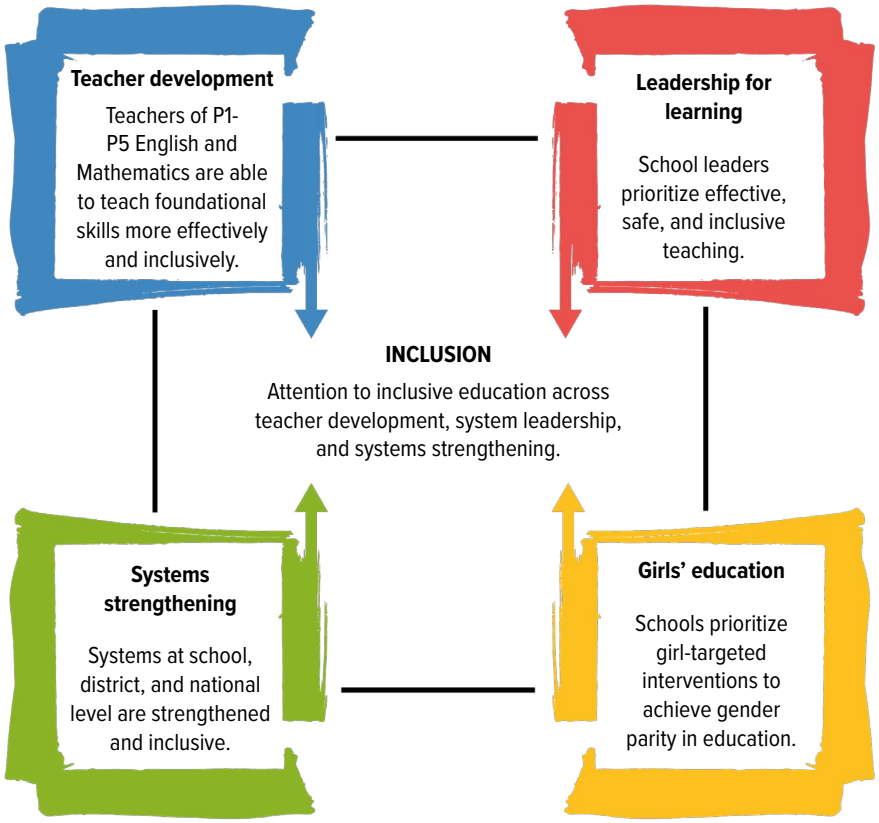
Inspectors also operate at sector, district, and province levels, and their responsibilities partly overlap with those of DEOs, SEIs, and head teachers. Head teachers are recruited at the district level from the teacher workforce. Until recently, there has been no required training for teachers who step into management roles. This leadership skills development gap is one of the issues that the BLF programme seeks to address, specifically through the intervention highlighted in this case study.

4.3.2 The Building Learning Foundations Programme

BLF is a programme of the MINEDUC and REB, funded by the UK Government. It is delivered in a partnership between Education Development Trust, the British Council, and Voluntary Service Overseas. It began in June 2017 and is scheduled to run until September 2023. BLF aims to improve learning outcomes in English and mathematics in all public and government-subsidized primary schools. The programme is organized with reference to four 'foundations': teacher development, strengthening leadership for learning, systems strengthening, and girls' education, as illustrated in Figure 4.2.

[7] In the Rwandan government structure, 'the sector is a territorial administrative entity responsible for implementation of development programmes, service delivery, and promotion of good governance and social welfare': https://www.gov.rw/government/administrative-structure.

Figure 4.2: Five pillars of the BLF programme to improve learning outcomes



Source: Programme documentation, Education Development Trust, 2021

The Leadership for Learning 'pillar' operates across the whole country and by 2021 had supported 2,650 head teachers, 13,250 members of school general assembly committees, and 506 education officials at district and sector levels. Activities are focused on transforming school leaders' practice and creating school-based system leaders who not only work more closely with existing actors at the middle tier (particularly DEOs and SEIs), but also possess the skills, knowledge, and competencies to become effective middle-tier actors in their own right.

4.4 Bringing head teachers into the middle tier

The role of head teachers in Rwanda has expanded significantly over the past 15 years. Where school leadership had previously been perceived as a largely administrative or managerial role, it now includes more responsibility for teacher professional development and school performance (MINEDUC, 2018).

4.4.1 The evolution of the head teacher role: Increased responsibility for teacher development

The 2007 Teacher Development and Management Policy required head teachers to take a greater role in the professional development of teaching staff (MINEDUC, 2007). This policy also created new standards for teachers, new recruitment policies, a teacher assessment framework for evaluation, and new professional development guidelines.

Head teachers are now regarded as key to improvements in teaching and learning. The ministry has stated that they need to be 'skilled as a focal point for the CPD [continuous professional development] of their teachers and for overall school development. They also need to be able to identify the strengths and weaknesses of their teachers and provide support and advice on pedagogy, subject matter, inclusion and other cross-cutting issues' (MINEDUC, 2018).

A set of professional standards was drafted in 2014 to underpin the professional development of the head teacher role (Rwanda, 2014). These are known as the leadership standards or REB head teacher standards (REB, 2020), and cover:

- creating strategic direction for the school
- leading learning
- leading teaching
- managing the school as an organization
- working with parents and the local community.

4.4.2 The development of the head teacher role: A collaborative vision

Explicit in these new policies and standards is a strong collaborative vision for education leadership at district and school level. The 2007 policy guided District Education Offices to 'become collaborative organizations for teacher development and management' (MINEDUC, 2007: 23). To meet the new 2014 professional standards, head teachers need to collaborate more fully with the local community and other stakeholders. They are expected to lead planning, set goals, and use data to track progress and identify challenges, communicating well with parents, the local community, and other stakeholders in the school. They are also expected to support teachers and monitor their practice. Alongside this, head teachers are expected to develop and demonstrate the commensurate knowledge as well as professional and interpersonal skills needed for the standards, and to display appropriate attitudes and values.

4.5 System leadership: National leader of learning and local leader of learning roles

4.5.1 Leaders of learning: A new role leading collaborative professional learning

In the context of these policy changes and raised expectations for head teachers, the BLF programme, in partnership with MINEDUC, supported the establishment of two new roles: national leaders of learning (NLLs) and local leaders of learning (LLLs). These leaders of learning were recruited from the highest-performing head teachers in Rwanda; their remit is to support improvement not just in their own schools but in others, as 'system leaders' (see Box 4.1). All NLLs and LLLs remain as serving school leaders, acting as expert practitioners to support peer head teachers.

A key responsibility for both NLLs and LLLs is to lead collaborative professional learning for head teachers. They provide peer support to other head teachers through coaching and leading Professional Learning Communities (PLCs). Leaders of learning have a specific responsibility for developing collaborative professional practices among other head teachers and education officials, thereby strengthening collaborative networks across education professionals in their locality.

Two NLLs are selected for each district using predefined criteria. NLLs organize and facilitate quarterly PLCs alongside the DEO for all LLLs at the district level. There are currently 60 NLLs working across Rwanda. One LLL is selected for each sector using predefined criteria. LLLs organize and facilitate PLCs alongside the SEI for all head teachers in the sector. They are also engaged in coaching for other head teachers. There are currently 416 LLLs working across the country.

The new roles open up a potential new career pathway for Rwandan school leaders as they develop higher-level competencies, as illustrated in Figure 4.3. Head teachers do not receive any additional pay or compensation for their participation as leaders of learning; the motivation for involvement is the opportunity for professional development to improve their own performance and that of their school.

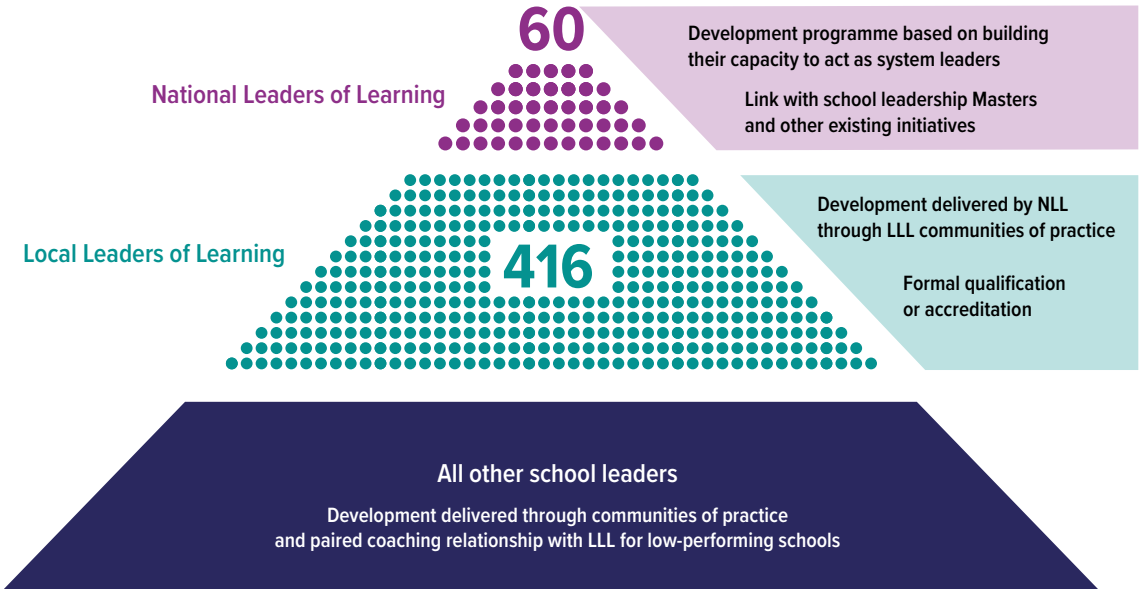
Box 4.1

NLLs and LLLs as system leaders

The Leadership for Learning model is inspired by international models of system leadership. These emphasize the importance of leadership emerging from serving practitioners at all levels of the system, to facilitate deep learning about effective professional practice (Hargreaves and Fink, 2000). At the heart of the model is the emphasis on learning on the job in context, working on real issues and problems in the school environment. In Rwanda, the system leaders act as role models by providing peer support and drawing on their own experience, insights, and skills as school leaders in high-performing schools. Rather than head teachers being trained by 'experts', the leaders of learning facilitate the sharing of practice, working together to find solutions for real issues and problems affecting their schools. The resulting dialogue is generating and sustaining a quality discourse in which new leadership for learning practices are made explicit and transferable through the sharing of tacit knowledge, values, understandings, and practices.

Sources: Rutayisire (2020); Education Commission (2019)

Figure 4.3: Potential new career pathway for school leaders, enabling entry into the middle tier



Source: Authors

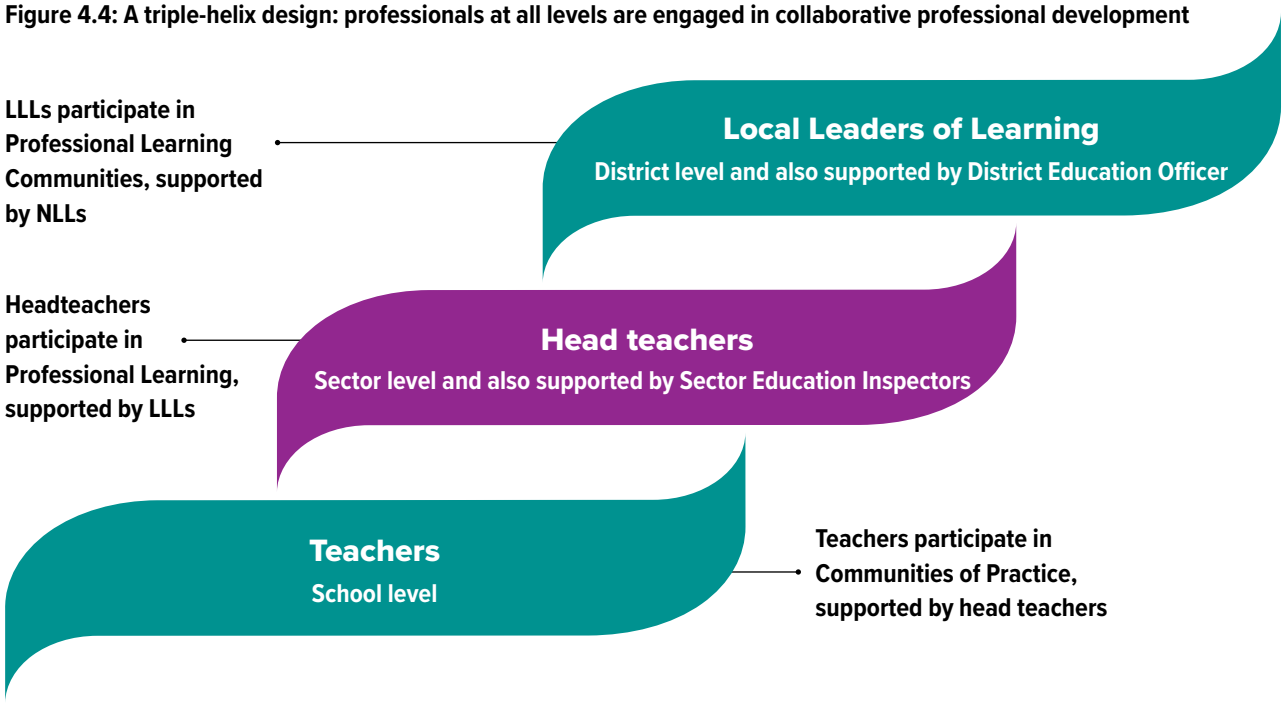
4.5.2 Supporting a learning system for professionals at all levels

The NLL and LLL roles are elements in a larger structure that supports professional learning at both school and middle-tier levels of the education system (see Figure 4.4).

At the head teacher level, LLLs facilitate PLCs for head teachers, bringing people across the sector together. One of the main objectives of the PLCs is to support head teachers to run successful communities of practice at school level, focused on improving teaching and learning for English and mathematics. In this way, head teachers attend the PLCs and role-model the concept of collaborative professional learning for their teachers. At district level, LLLs attend their own PLCs, which are facilitated by NLLs.

In other words, professionals at all levels of the education system are engaged in collaborative professional learning, akin to the Education Commission's vision of a 'learning system' (Education Commission, 2019).

Figure 4.4: A triple-helix design: professionals at all levels are engaged in collaborative professional development



Source: Authors, based on programme documentation and interviewee commentary

PLCs are a key mechanism for leaders of learning to put their learning into practice, and attendance and engagement with the PLCs is a requirement of the role. Designed in accordance with international evidence about professional learning, they are intended to provide a forum for peer support, challenge, and problem-solving. The principle is that leaders of learning 'think together' (Pyrko et al., 2017) and have an opportunity to reflect on the realities, challenges, and opportunities of their practice as system leaders. The PLCs allow space for the collective development of the 'frameworks, ideas, tools, information, styles, language, stories and documents' they use to identify and address shared problems (Wenger et al., 2002), and members develop a joint approach to solving problems they share and care about.

In addition to participating in PLCs, some head teachers also had opportunities to receive coaching. NLLs and LLLs are both trained to deliver coaching and are responsible for delivering and receiving it at different levels. NLLs coach the LLLs in their sector, while LLLs both coach head teachers and receive coaching from the NLLs. LLLs work with SEIs to offer targeted coaching to head teachers in need of support, becoming their improvement partner. Typically, these will be either in their first year of practice as a head teacher or in a very challenging school. These improvement partners will receive targeted one-on-one coaching focused on an identified school improvement priority.

4.5.3 Emphasis on professional performance and potential to support the development of others

In many school systems, promotion to positions of leadership is based on years of service rather than performance. Leading thinkers have called for the professionalization of leadership recruitment, based on the skills and competencies required for effective performance (Education Commission, 2019). NLLs and LLLs are recruited from existing experienced head teachers who demonstrate the skills and competencies required for effective performance in the role.

The selection process looks at performance and practice in schools. This considers students' performance in national exams, but also focuses on whether head teachers have a learning-focused school improvement plan in place. The process includes a school visit by BLF and DEO staff, who assess head teachers' capabilities, including appetite for learning, openness, and willingness to participate in external collaboration. Evidence of certain skills and attributes is required:

- at least three years as an established head teacher in a high-performing or continually improving school
- implementation of a school improvement plan where the goals and objectives are focused on learning
- demonstrated ability to lead improvement and to describe their effective practice to others
- an approach to distributed leadership, with evidence of effective delegation and a collaborative approach to planning.

A selection committee at district level collects and considers evidence of these skills and attributes. The committee includes the DEO, an existing NLL, and the SEI. It carries out a school site visit and interviews the candidate. Interviews with teachers, students, and the community are used to collect evidence about an applicant's collaborative leadership skills. An inclusive approach is explicitly built into the process by encouraging applications from female candidates who may not otherwise have nominated themselves, and by ensuring inclusive leadership practices are built into the recruitment criteria. Inclusive leadership practices are tested through the interviews as well as through observation during the school site visit.

Role orientation and induction is a priority and involves a centralized induction event. It includes practical work, such as preparing for the first PLC, which builds teams' readiness to act. It also helps leaders explore the professional and mindset shifts required for the role, through activities such as evaluating videos of teaching, analysis of school- and district-level data, and practising coaching skills.

4.5.4 Developing leaders of learning through structured professional development

Once selected, both NLLs and LLLs undertake structured professional development to help them improve their skills and competences. This development is provided in three ways:

- completion of accredited CPD courses to equip them with competences and confidence to support school leaders through PLCs and coaching
- participating in PLCs of head teachers to share best practices
- developing school partnerships in which leaders support their colleagues through one-on-one coaching.

Sections 4.6 and 4.7 provide an overview of these activities.

4.6 Accredited professional development

4.6.1 Overview: An accredited course focused on the practical application of leadership standards

NLLs and LLLs complete an accredited professional development course which leads to a recognized qualification in leadership. The course is run by the BLF team and the University of Rwanda, with emphasis on the practical application of leadership skills in the workplace. For example, participants are trained to establish and co-ordinate effective PLCs and coaching relationships. Aligned to the national leadership standards (see section 4.4.2), it aims to develop the skills, knowledge, understanding, and confidence for leaders of learning to develop the competences of peer head teachers while also acting as effective leaders of learning in their own schools. Access to this course is a major incentive for some participants to take on the LLL or NLL roles; many hope the training will help them 'feel more comfortable' in their head teacher role (interview with BLF programme staff).

4.6.2 Core content: A certificate in System Leadership

The core course content was developed collaboratively with international experts in school leadership and University of Rwanda lecturers. The certificate is worth 30 credits and requires 300 hours of structured learning activity over one year. Participants benefit from three modules (see Figure 4.5). The learning methodology for each module is based on international evidence about effective workplace-based adult learning: participants have an introduction to the key concepts and discussions with a coach and their PLC, and simultaneously apply their new knowledge in the workplace.

4.6.3 Diploma in System Leadership

After successfully completing the one-year certificate, NLLs extend their learning through a diploma course, worth 60 credits (600 hours). The course aims to strengthen the education system at district level. There are three modules: teacher development and parental engagement; strengthening safeguarding, inclusion, and governance; and establishing self-improving and sustainable leadership for learning. It has several innovative features.

First, the course is also available to district-level education officials – DEOs and leaders of teacher training colleges – strengthening professional collaboration across the district. Typically, four or five staff among these leaders from each district participate. Access to the course was widened to help engage district staff and strengthen their understanding of effective school leadership, recognizing that not all district staff have a background in education.

Figure 4.5: Curriculum modules of the one-year certificate

Source: Authors, from programme documentation

Second, these participants work together to implement and evaluate a new intervention in their district, in one of four areas: teacher development, safeguarding, inclusive education, or parental engagement. The team work together to deliver a report on their professional learning, which is considered as part of their assessment. This element of the course was delivered with the first cohort during the Covid-19 school closures, and initial results show that it strengthened collaboration between schools and allowed more reactive engagement and support during this time.

A third innovative feature of the course is that participants can address a ministerial commission. In this way the NLLs begin to engage more deeply in national policy dialogue. NLLs prepare for this opportunity by working with the University of Rwanda to do the necessary background research on the issue to be addressed through the commission. They engage leading thinkers in school improvement and education reform, and ensure that the response to the commission reflects the diverse nature of schools in Rwanda by engaging the sector school leaders and LLLs. They then present the commission recommendations to a group of senior stakeholders and work with the REB to develop a communication and media strategy.

4.6.4 Competency-based assessment

At the end of the course, participants submit a final portfolio, proving that they have put their new skills and knowledge into effective practice. The portfolio contains each of their module assignments and an overarching commentary on their leadership for learning practice, as well as progress reports and feedback from assessors.

The portfolio requirement means that leaders must codify and reflect on their learning and on the impact of their leadership. Respondents described the benefits of making their learning and development explicit. It has, for example, strengthened engagement with SEIs and DEOs: one leader of learning told us that he can use the portfolio to show any school visitor what is happening and the improvements they have made, enriching conversations with district-level personnel and helping to build a shared understanding of improvements. Officials also support NLLs and LLLs with their portfolios, serving to build and reinforce their own understanding of the competences of school leadership and the challenges faced by head teachers.

Course participants are assessed based on a comprehensive competency framework which is aligned to the national leadership standards. Table 4.1 illustrates the framework used in area 4, national standard 5, 'Working collaboratively with other actors to drive school improvement', which emphasizes the support delivered to other head teachers. The table refers to the School General Assembly Committee, a multi-stakeholder board including teachers and parents with oversight of the school's performance.

Table 4.1: An example of a competency framework for assessment

National standard	Competency	Threshold competency	Secure competency
Work collaboratively with School General Assembly Committees and sector- and district-level officials to drive school and system improvement	Supports other head teachers to involve their own School General Assembly Committees in school improvement planning	Has used opportunities to explain to other head teachers the value of involving the School General Assembly Committees in improvement planning as well as how to do this in practice	Models and guides good practice for enabling other head teachers to involve their School General Assembly Committees with the greatest possible impact
	Works collaboratively with education officers to provide support and to challenge other head teachers	Invites education officers to support collaboration with other head teachers, where needed	Consistently and systematically collaborates with education officers to make sector- and district-level improvements
	Engages with education officers as partners in leadership for learning system-level improvements	Recognizes the importance of system-level collaboration and values the partnership with education officers in achieving improvements	Views the partnership as essential to system-wide improvements as well as valuing and nurturing the partnership with education officers, while respecting the boundaries of each other's roles

4.7 Impact and major outcomes of the Rwandan system

4.7.1 Building a learning community across schools and within schools

Relationship-building, openness, trust, and respect are at the heart of successful learning communities (Usoro et al., 2007). In our interviews NLLs, LLLs, and DEOs all remarked on the benefits of the PLCs as a source of support and skill development. The practices of openness and peer challenge were described as a significant change in how school leaders work together in Rwanda, extending beyond the PLC itself.

> We criticize everything that needs to be criticized. When we meet next time, some have already made some corrections, others nothing done; then we offer more advice. This has helped many of our colleagues to improve their schools by telling the truth to each other.' 'Head teachers became more serious and started analysing the performance data in their schools, and they discussed with their teachers. All of us acknowledged that we have a role to play in the problem of repetition and drop-out. We decided that we should correct ourselves and we shall put it in our "imihigo" [performance contracts] for this year. (LLL report, Gicumbi district)

In describing the process of organizing and supporting their sector-level PLCs, LLLs highlighted the opportunity to see and hear what is happening in other schools. Each PLC session takes place in a different school, and participants are given a tour in which the host school staff 'show us everything' (interview, NLL). Both LLLs and NLLs noted that they had previously been unable to enter or observe practices in other schools.

The PLCs have helped to improve wider relationships and collaboration between the leaders of learning, head teachers, and existing middle-tier actors: the district-level PLCs, which take place once a term, were described as an opportunity for NLLs to sit with DEOs and sector inspectors to work together as a team, something they were previously unable to do. NLLs have benefited from increased visibility thanks to participation in these meetings, with district officials increasingly viewing them as valued partners who can get things done. As one NLL said, 'Now we have a task team. Task team is composed by the NLL, DEO, DDE [District Director of Education]. We sit together and we build an intervention cycle. With this we can build a strategic plan at district level with those DDE, DEO, and so on.'

The NLLs and LLLs also reported that coaching relationships helped them to shift their view of head teachers from authority figures to learning partners. They had acquired the facilitation and coaching skills to empower head teachers to reach solutions to problems themselves. Overall, in our interviews we heard less about the coaching relationships in the programme than we did

about the PLCs. This was exacerbated by our inability to speak with head teachers who were not LLLs or NLLs, which prevented us from building a sense of how coaching was supporting specific school improvement priorities; this might be an area that the programme can explore further. That said, NLLs and LLLs both spoke positively about the impact of coaching and being coached. There is evidence that leaders of learning were using their coaching skills with teachers as well and reflecting on these practices beyond the formal coaching partnership arranged by BLF.

Participants also reported a growing sense that school staff were working as a team and that professional relationships within schools had improved. When our interview respondents spoke about working with and managing teachers in their own schools, it was evident that their leadership styles were becoming more open and facilitative. This was echoed by one SEI, who described changing leadership practices: 'They used to say: "I'm the head teacher and you are the teachers and you cannot tell me what to do when I am the head teacher". But through the PLCs and through the local leaders of learning, they have now understood that they have to co-operate with the teachers and that it helps to be a team.'

There was evidence of a growing sense of professional trust by leaders. This was consistent with research conducted in Rwanda in 2019 to investigate the factors associated with effective communities of practice for teacher professional development, which found a strong link between high performance and head teachers' use of a facilitative leadership style. As one head teacher from the Kayonza District reported on communities of practice (CoP), 'When the CoP first started, our presence in the CoPs was key, but now that the system has strengthened, we do not need to be in the CoPs for them to happen or for the teachers to put the effort in' (quoted in Rossignoli et al. (2019)).

In addition, having improved their communication skills through PLC participation, head teachers spoke about engaging parents more in the life of the school and building a better understanding in the community of the importance of teaching, learning, and school improvement.

4.7.2 A collaborative focus on addressing live school improvement challenges

The leaders of learning have brought about major changes in how head teachers work, helping to establish a collaborative culture through the establishment of the PLCs, focusing on critical issues that head teachers want support with. Programme monitoring data indicate that there has been an increase in the number of these monthly PLCs and in participation; they reached only 49 per cent of all 2,500 head teachers in June 2018, but 100 per cent by April 2020 (FCDO, 2020). A total of 70 per cent of the head teachers report that the PLCs cover areas of leadership that they find the most challenging (East, 2018).

PLCs were described by interviewees as a mechanism to explore challenges and get ideas from different head teachers, as well as an opportunity to apply what the leaders of learning had learned during their certificate course. The interviews conducted with the LLLs revealed a strong sense that a collaborative community had developed through these meetings. Participants felt able to openly discuss their views and contribute ideas. One LLL commented: 'So if one head teacher is facing a big challenge, all the others can support them with how to do and how to solve.' An NLL said: 'Before, every head teacher worked alone, but now we share the experience. If I have got best practice in my school, I have to share with my colleagues in these PLCs. I became as a model, they came to see, and I showed them how I have…gained that practice. We have a strong collaboration because we sit together, and we share what we can't do alone.'

One DEO described how this process made changes more manageable for head teachers: 'To engage in new ways of teaching, assisting teachers, this may challenge you. That's a big challenge which is not manageable, and if they don't have any solution, we can just sit together and we assist them and we coach them and we call to them to come up with certain solutions.' Another LLL described a new collaborative mindset: 'Before I used to work alone, I was not that collaborative… I value to collaborate with others, so for any decision that I have to make, I invite others and we discuss, and in the end we implement through collaboration.' Examples of the challenges the PLCs have dealt with included innovative ways to increase the use of English in schools, ways to organize library access for children, and how to better use and collect data.

4.7.3 Improved use of data for school improvement plans

The initial focus of the PLCs in the district was the use of data for school improvement. LLLs reported how they facilitated PLC discussions to encourage the exploration of school and student data. In the words of one Eastern Province LLL: 'In our own sector, we have pass rates of two schools which differ, although both have 40 qualified teachers each. What makes school A's pass rate 70 per cent and the other 30 per cent? Why do more parents want to register their children at school A and not school B? Let us be honest to ourselves.' An NLL stated: 'Today, I'm proud of being able to design strategic school improvements and to

use data-driven tools focusing on improving learning outcomes' (Deogratias Tuyisingize, speaking at a UNESCO event in 2020, quoted in UNESCO (2020)).

The LLLs would then emphasize the need for schools close to each other to work collaboratively together on drafting the school improvement plan based on SMART principles.[8] Each head teacher was then required to draft their school improvement plan, and the drafts were used as a basis for the following PLC.

The PLCs have led some participants to change their approach to school improvement plans. The skills and actions needed for an LLL to effectively run a PLC have provided a model which can be applied to planning school improvement. For example, one interviewee described his application of greater data literacy to improvement planning; he now puts greater emphasis on discussing student performance data, drop-out rates, and absenteeism. Interviewees also reported that the PLCs gave them an increased focus on strategic direction for the school, for example focusing on learning in all grades rather than just examination classes.

Following the training, a DEO remarked on how the quality of improvement planning had substantially improved and how head teachers were implementing the activities they had planned with more confidence: 'You can see that the activities they have planned they have been implemented and the others are in progress, because before they would do things that are not even planned. When things are not planned you cannot gain what you wanted to gain.'

4.7.4 Wider impact on school leadership and on teacher and student outcomes

Head teachers' instructional leadership capacity has improved, which is a key success measure for LLLs. The BLF programme tracks head teacher competency in four areas, aligned to national school leader standards: setting the school direction; leading teaching; leading learning; and working with parents, communities, and companies. Programme monitoring data show substantial gains in head teacher competences over time: 41 per cent of head teachers achieved the competency standards at baseline in February 2018, rising to 98 per cent at a progress check in March 2021, based on data from school monitoring reports by SEIs and project staff during school visits (FCDO, 2021).

Head teachers noted an important shift in their leadership approach. They explained how they moved away from planning individually towards devising shared goals, planning together with stakeholders to make improvements: 'I was a leader – like a political leader, not a leader of learning. I had no focus on learning because I had no skills about that. Attending PLCs I've learned the importance of analysing and planning together with teachers and other stakeholders sharing our goals and objectives. Because of this in 2019 national performance was 100 per cent and we were in first place in government-aided school performance tables.'

Head teachers also reported that when there was a shared purpose and collaborative working, 'real' issues surfaced and complex problems could be solved: 'Before PLCs the head teacher would sit alone to design, implement, and monitor activities. Sometimes these activities would not tackle the real issues and burden him alone. Now parents are involved. We worked with parents and teachers to prioritize reducing the drop-out rate of children from 8.4 to 3 per cent in 2019 school years, which was a main challenge at school and before 2019.'

The BLF programme is ongoing and is part of a wider set of reforms by the REB, but impact data are highly promising: teacher pedagogical practices in mathematics and English have shifted significantly and student learning outcomes are on an upward trajectory. For example, 89 per cent of Primary 1 to Primary 3 mathematics teachers were reaching benchmark teaching standards in 2020 (n=321 teachers from 128 randomly selected schools), up from 22 per cent in an earlier progress check in 2019 (FCDO, 2020).

4.7.5 A rapid response to the Covid-19 crisis

Leaders of learning have been pivotal in organizing Rwanda's response to the Covid-19 crisis at school level. The PLCs provided a flexible structure to convene head teachers to plan for school reopening. A rapid study commissioned by WISE (Al-Fadala et al., 2021), as well as project monitoring data, sheds light on some of the ways in which the LLs supported a resilient system.

For example, the Rwandan government made equity a major national priority in its back-to-school campaign in January 2021. The NLLs and LLLs were asked to convene problem-solving discussions through the PLCs to discuss how to get all children back to school. Among the actions taken in the PLCs, all head teachers were requested to submit a list of vulnerable children and to

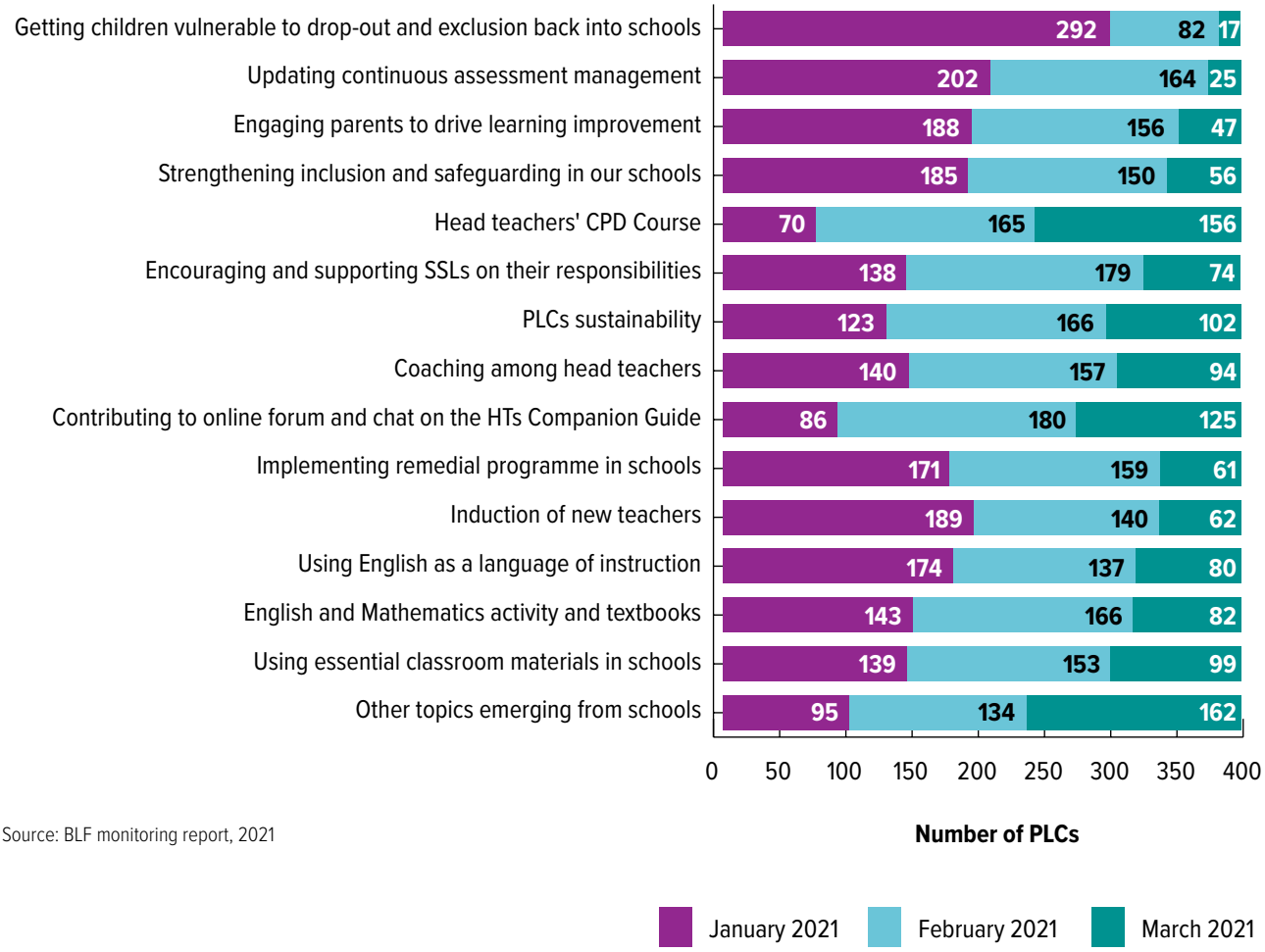
[8] SMART is an acronym used to refer to a prevalent goal-setting approach in leadership and management which suggests goals should be specific, measurable, achievable, relevant and time-related.

start engaging their parents through SMS and visits where possible. NLLs and LLLs also introduced virtual PLCs for head teachers through WhatsApp, Zoom, WebEx, and Teams calls. NLLs and LLLs helped other head teachers to understand the importance of collecting data on vulnerable children, and reported data to school inspectors for consolidation to MINEDUC and REB. In their PLCs they led data-informed discussions on how to address the 'hard cases' and ensured actions were taken to get all vulnerable children back to school, in collaboration with school committees and parents. They encouraged head teachers to plan visits to families rather than just sending letters and SMS to parents. The lists of 'hard cases' were shared with village leaders for follow-up and for strategizing about the support needed from the school community.

BLF programme monitoring data from spring 2021 showed that 72 per cent of schools nationwide had established a system for identifying vulnerable children at risk of dropping out. This is a good example of a successful national policy implemented and led locally by highly proactive head teachers, supported by the middle tier, including leaders of learning. As one NLL reported, 'The National Leaders of Learning met to discuss issues that were challenging the system, such as how will they open classrooms in COVID… They also prepared the teachers how to receive students in a time of COVID' (Deogratias Tuyisingize speaking at a UNESCO event, quoted in UNESCO (2020)).

The PLCs have also enabled a strong data-driven feedback loop between front-line practitioners and policy-makers during the Covid-19 response. Data from PLCs are shared with the education authorities at the national level (REB and MINEDUC) to inform policy development and decide whether further local interventions are required. REB and BLF can influence future PLC agendas by proposing topics to enforce some policies, strategies, or other ministerial guidelines. The data are submitted by head teachers as part of preparation for their PLCs. Figure 4.6 shows the topics discussed in PLCs from January to March 2021.

Figure 4.6: PLC topics discussed from January to March 2021 by number of PLCs



Source: BLF monitoring report, 2021

Head teachers also benefit from this strong feedback loop. The BLF team, in collaboration with the REB, consolidates data on PLC actions, best practices adopted, and challenges and recommendations for each topic. The consolidated data are shared with all head teachers to help communicate and scale good practices in tackling these challenges. The analysis also ensures that head teachers' voices are heard by policy-makers when they ask for support. For example, from January to March 2021 head teachers flagged their lack of knowledge and skills for identifying all vulnerable children, and requested more support. In response to this, BLF in collaboration with the World Bank Group have developed a guide on the back-to-school campaign, and BLF field staff have trained all head teachers on using the guide.

4.8 Challenges

The findings presented in this case study have focused on the way that leaders of learning have applied the skills they learned in the formal professional development course, and how this has led to changes in skills and competencies and in practical school improvement. While the early indications are promising, there are of course several areas where our interviews revealed challenges and aspects to be strengthened in future.

4.8.1 Portfolio-based assessment

The introduction of the portfolio as a way of recording and assessing learning was challenging. Leaders of learning needed extra support with the practical element of putting together a portfolio to demonstrate their application of the competences they have learnt. This way of learning was a new experience for many. However, with additional support in place, monitoring showed vast improvements in the second year of implementation.

Despite the challenges, our interviews clearly indicated that the process of gathering the portfolio evidence has supported leaders of learning in reporting on the skills they have learnt. They have also built relationships and networks with the BLF and district education staff who have provided support in this process. One head teacher told us that he can use the portfolio to show any school visitor 'what is happening' and what improvements have been made, making this a potential additional support for school accountability.

4.8.2 Engaging district officials

Particularly in the early days of the programme, NLLs and LLLs faced challenges in engaging district-level professionals in their work. This was partly addressed by developing the diploma course and extending access to district professionals (see section 4.6.3), including DEOs and leaders of teacher training colleges. This course has strengthened their understanding of the programme and the skills that leaders of learning are developing. Our interviews revealed clear indications of improvements in school management and leadership from this cadre of district officials. However, officials have limited time to engage with PLCs. In the future there will be scope for enabling and encouraging officials to engage with the district-level PLCs for discussion and sharing and for their own professional learning.

4.8.3 Sustainability

It was evident from our interviews that there were questions about the long-term sustainability of the PLCs. Interviewees asked whether there will be continued opportunity for professional development, how school leaders will continue to build and develop their skills, and who will co-ordinate PLCs, develop materials, and provide the expert input currently provided by BLF programme staff. One DEO commented that school leaders 'need to be encouraged to continue to learn and develop a culture of improvement on their own'. There have also been discussions about whether it will eventually be necessary to pay leaders of learning in order to embed their roles firmly within the system.

In the long run there will be a need to review the quality assurance and the tenure of the leaders of learning. There is clearly a risk that over time some of them may become less effective, and there is a case for a time limit to the role unless some form of assessment of performance takes place.

There were also concerns that a focus on leadership meant giving less attention to the development of school administration and management skills. Head teachers felt that they would also benefit from training that was more focused on administration and finance.

4.9 Takeaways

This chapter has highlighted promising practices from leadership for learning developments in Rwanda. Here we highlight some key factors in its success to date.

4.9.1 Close alignment with the national vision for reform

The new NLL and LLL roles are closely aligned with the strategic direction of the Rwandan education system, including national leadership standards and a vision for more collaborative working at district level. The shared goal of improving teaching and learning through strengthening leadership has helped the education system to begin to move towards a new self-improving model. This kind of programme has the potential to deliver the necessary supply of quality leaders with the skills, knowledge, and expertise to lead a continually improving school system.

The shared goal is supported by the common competency framework for leadership for both LLLs and NLLs. Expansion of training to district-level education officials has the potential to establish a shared professional 'vocabulary' and an understanding of leadership competences in different roles.

4.9.2 Ensuring that middle-tier roles are complementary

Offering school-based staff the right blend of oversight and capacity-building is a typical challenge faced by middle-tier professionals. By complementing – not competing or overlapping with – the traditional monitoring role of district-level professionals such as DEOs and inspectors, leaders of learning fill a key gap in the Rwandan system. However, there is still potential for confusion about the division of responsibilities between these new leaders of learning and existing middle-tier roles at district level. As in other education systems internationally, there are opportunities to further improve and promote collaboration across roles at the middle tier. The ways of working established through the diploma projects (see section 4.6.3) serve as a good example of what this might look like: shared objectives for a local intervention were set, and district professionals worked together to deliver them.

4.9.3 The importance of professional learning at the middle tier

The design and delivery of a recognized CPD course in leadership for learning has reinforced the view of leadership as a professional skill. The expert-designed curriculum (see section 4.6.2) and the programme of ongoing support seem to have been well understood by participants. The development of the assessment portfolio has been more challenging (see section 4.8.1), as lecturers and participants have had to adjust to a new way of assessing skills, one which prioritizes the assessment of professional practice over the assessment of knowledge. Over time the development of targeted support to participants to build their portfolios has proven helpful.

4.9.4 An emphasis on professional practices and clearly defined, measurable competences

The development of evidence-based, clear, detailed, and progressive leadership competences provides a clear framework for what the programme is trying to achieve and how the new skills and competences fit with the REB's vision. As well as providing a guide to progress it also constitutes a tool for measurement. Leadership competences are assessed as part of BLF's regular monitoring and evaluation, enabling the programme team to spot and address areas of relative weakness.

4.9.5 The power of collaboration and collective problem-solving

Schools can be isolated places. This case study highlights the benefits of partnerships at the level of the local school system. The beginnings of a more collaborative mindset among head teachers were evident in our research findings. There was a strong sense that head teachers can learn from each other, as well as an increased openness to sharing a school's problems and challenges and engaging with others in PLCs to find solutions. The case study also illustrates how middle-tier actors can play an important enabling role in the development of a culture of improvement through collaboration. The PLCs and this collective approach to problem-solving served Rwanda well during the recent Covid-19 crisis, where it offered a valuable vehicle for the back-to-school campaign.

Chapter 5. Case study: Shanghai, a middle-tier space to support a high-performing school system

Shuangye Chen and Wei Zhang

Abstract

This case study looks at the middle-tier space in Shanghai's education system, where high-performing instructional leaders are competitively selected for three roles – teaching research officer, educational research officer, and master principal or master teacher – to implement national education reforms and spearhead innovative school practices across Shanghai's schools. The case study demonstrates how the middle-tier space has helped establish Shanghai as a leader in education reform in China.

Through archival research, a literature review, and semi-structured interviews, the study explored how middle-tier leaders, working between the government and the school level, empower teachers and head teachers and support evidence-based policy-making that responds to feedback from front-line practitioners. By exchanging ideas and implementing action-oriented projects they develop classroom research, foster teacher professional development, successfully adapt governmental education reforms in local schools, and lead the scaling-up of schools' best practices. In doing so, they help apply practice to policy and policy to practice.

Through these activities, middle-tier leaders have a deeper impact on Shanghai's education system. They operate as agents of change who help overcome resistance to education reforms and foster local capacity-building across schools, thus reducing local inequalities and dependence on external support. To achieve these successes a strong government and resource investment is necessary.

5.1 Introduction

Shanghai is a rising global metropolis in China with long-standing high performance in the OECD Programme for International Student Assessment (PISA). It attracted huge interest when it topped the PISA ranking in 2009 and 2012, achieving this despite being host to a substantial migrant population. In recent years its education system has attracted researchers' interest due to its high performance in teaching and learning (e.g. Tucker, 2014; Sato, 2017; Tan, 2013; 2017; Walker and Qian, 2018). For example, in the OECD Teaching and Learning International Survey 70 per cent of teachers reported participating in collaborative professional learning at least once a month, whereas the OECD average was just 20 per cent (2018b). Previous research on Shanghai's education successes has usually focused on selected aspects of the system or on the policy level. Few researchers have paid close attention to its institutional structures and resulting dynamics.

5.1.1 Why this study?

This study argues that behind Shanghai's high performance is a system with an empowering middle tier that functions as a professional space connecting government (with its bureaucracy) and schools to align policy and practice. It comprises three structural pillar systems.

- The teaching research pillar system (Jiaoyan) aims to improve teachers' classroom teaching by designating teaching research officers at various levels to organize and lead group lesson observations and feedback. 'Research' here refers to the notion of teachers studying together.
- The teachers' educational research pillar system (Keyan) is based on a belief that every teacher can apply scientific methods to discover educational principles and solve their practical problems. Educational research officers co-ordinate and support research projects led by individual teachers and schools in their districts or on the municipal level. 'Research' here, as opposed to the first system, refers to enabling practitioners to conduct action research as they try out new, innovative practices in their schools.
- The teacher training pillar system (Shixun) provides professional learning opportunities beyond schools. The system selects and pools outstanding teachers and principals, who are organized and supported to recruit and develop aspiring teachers in professional communities. In the near future, pillar systems 1 and 3 will be merged.

The three pillars originated in Shanghai and were developed in line with local need for high-quality teachers and support for ongoing education reform. Originally divided and specialized into distinct areas of professional work, the pillars have in recent years been converging by working on common projects. Each pillar of the Shanghai system encompasses fixed instructional leadership roles through which ideas can be exchanged and projects can be built. To shed light on the three pillar systems, this study examines two fixed, full-time roles and one additional programme in which part-time middle-tier roles are filled on an ad hoc basis:

- The teaching research officer (Jiaoyanyuan) in the teaching research system is a fixed full-time position at the district or municipal level, supported by recurrent public funding.
- The educational research officer (Keyanyuan) in the teachers' educational research system is a fixed full-time position at the district or municipal level, supported by recurrent public funding.
- The master studio programme, in which selected mentors are named as master principal or master teacher, offers these part-time roles to selected outstanding teachers, school principals, teaching research officers, and educational research officers. These mentor roles do not offer additional pay, but every master studio receives extra ad hoc public funding for professional learning activities.

This report analyses Shanghai's middle tier to help policy-makers decide how to boost systemic capacity for educational changes and high-quality teaching and learning.

5.2 Case study methods

This chapter uses a qualitative methodology based on archive data (policy documents), previous research in Chinese, 18 semi-structured field interviews and five focus group discussions with: middle-tier officers; teachers and master teachers running master studios; scholars; and staff involved in recruiting master officers.[9] Interviews were conducted both by phone and in person, lasting 100 minutes on average. Findings came from the triangulation and synthesis of available data. All interviews were conducted in Mandarin Chinese, and all the audio and video records were transcribed. Quotes in the report are translations by the research team.

5.3 The Shanghai education system and the middle-tier space

5.3.1 Historical background

Shanghai is at the forefront of schooling structure and curriculum reforms in China. In the 1980s, the groundbreaking First Phase Curriculum Reform (Yiqi Kegai) aimed to develop students' learning and personal development. Although it was revolutionary in its restructuring of the curriculum, education leaders soon realized that reforms could not be successful without the participation of teachers and changes in their pedagogical practices. In 2014, Shanghai was selected for one of two national experiments in comprehensive and systematic education reform. The result was a gradual shift towards a system approach in educators' mindsets, as well as an institutionalized structure in which to implement changes. Among the middle-tier actors we interviewed, we sensed very little resistance and hardly any reservations to education reforms.

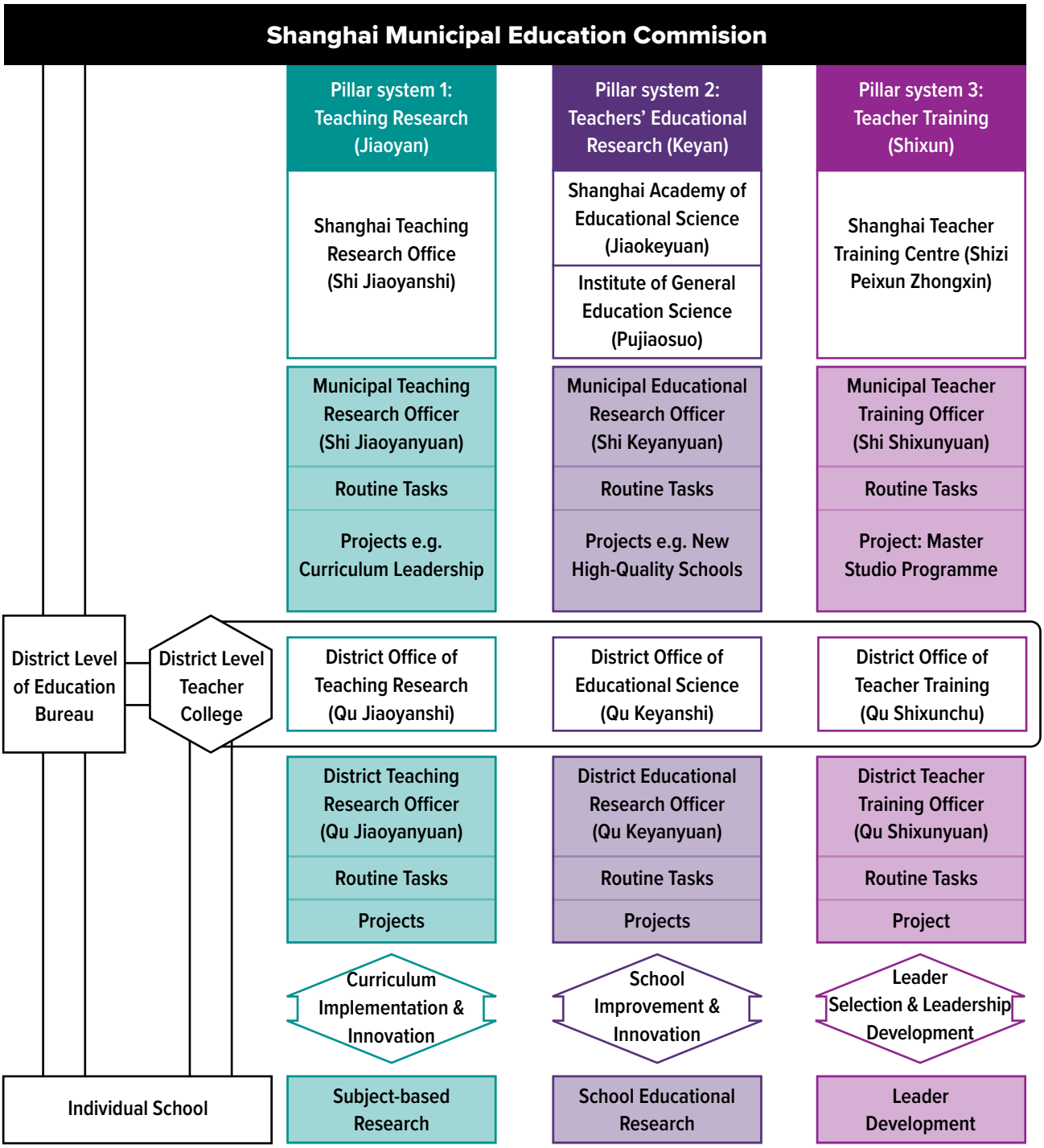
Today, over 1.43 million students and 121,200 teachers are enrolled in Shanghai's 842 regular secondary schools and 698 primary schools, deployed over 16 administrative districts. The ratio of the full-time middle-tier actors to teachers is just over 1 per cent across the system, with approximately 1,400 middle-tier actors.

[9] The table provided in the Appendix gives the exact breakdown of respondents.

5.3.2 Overview of the official professional pillar systems and the middle-tier space

Shanghai Municipal Education Commission is the municipal-level education authority in Shanghai. Every district has its own corresponding education bureau reporting to the municipal level. Along with the bureaucratic education administration in Shanghai there exists a three-level official professional structure which forms a chain of professional guidance and leadership from the municipal level down to schools via the districts, as illustrated in Figure 5.1.

Figure 5.1: Intermediary professional pillar systems and actors in Shanghai's middle tier



Source: Authors

Note: The black boxes and lines represent bureaucratic links in the education authorities between the municipal level and schools; the coloured boxes and lines refer to professional systems and practices led by the three pillar system organizations

Starting from the municipal level, three organizations lead the three pillar systems.

- The Municipal Teaching Research Office encompasses the district offices of teaching research, and is made up of teaching research officers at the municipal and district levels. This organization specializes in facilitating, co-ordinating, and leading professional discussions of subject teaching and projects to improve it.
- The Institute of General Education Science covers district offices of practitioners' educational research, with educational research officers positioned at municipal and district levels. This organization focuses on promoting and supporting practitioners' research projects to solve practical problems and to distil lessons from grounded experience.
- The Shanghai Teacher Training Centre refers to district offices of in-service teacher training, and is made up of teacher training officers and their signature Master Studio Programme. It features a tested professional community programme to provide studio-based learning by master teachers and principals for the selected mentees.

At district level, the District Level Teacher College designs, leads, and supports teacher development and school improvement. Funded by the district and administered by the District Education Bureau, it establishes district-level offices that correspond to the municipal professional organizations: the district teaching research office, district educational research office, and district teacher training office.

Finally, at the school level, school directors are assigned to work routinely with the respective district offices on teaching, research, teacher development, and so on. When a school joins municipal projects, the principal, directors, and regular teachers can work directly with municipal middle-tier actors beyond the district. Schools do not have to pay for services or programmes provided by the professional organizations, and they can also choose to work with researchers and consultants outside the three pillar systems.

Through these systems, the middle tier takes shape as a professional 'third space' (Tsui and Wong, 2010), located between government and schools. It comprises:

- actors within each pillar system working in fixed, formal positions
- mutual learning through common projects and spaces for exchange (workshops, seminars, policy forums, symposiums), enabling teachers and schools to demonstrate their practice for evaluation by the middle tier
- movement of leaders among the pillar systems (e.g. to part-time mentor roles in the Master Studio Programme, or to appointment as school principals).

5.3.3 Pillar system 1: The teaching research system and teaching research officer

The Shanghai Teaching Research Office, established in 1949, was the first teaching research institute in China (Hu, 2017). It was founded to boost competence by selecting qualified and experienced teachers as teaching researchers to lead, supervise, and train other teachers. In schools, teaching research was carried out as a daily or weekly routine for improving teaching collaboratively, becoming a continuation of teacher education for novice teachers. Nowadays, the Office works closely with the Department of Basic Education.

Teaching research officers operate at the municipal and district levels. They are divided among the various schooling levels by subjects or integrated subjects (cross-disciplinary subjects introduced in China's national curriculum in 2000, to promote enquiry-based learning through student-centred activities, mostly in the social sciences). Teacher research officers are experienced teachers or candidates for Master's or PhD programmes in education. They are not offered special training to undertake their roles, but learn by doing. Their promotion is based on their annual performance, guidance, research projects, and publications.

Their work covers planning, developing, and implementing curricula; organizing and leading subject teaching and lesson study;[10] designing student textbooks and assessments, and producing assessment reports for administrators and principals; and synthesizing and scaling up curriculum reform experiences. Box 5.1 illustrates the routine work of teaching research officers.

[10] Lesson study is a model of teacher-led research in which a triad of teachers work together to target an identified area for development in their students' learning. Using existing evidence, participants collaboratively research, plan, teach, and observe a series of lessons, using discussion, reflection, and expert input to track and refine their interventions.

Box 5.1

The routine work of teaching research officers

One of the teaching research officers interviewed in this research explained that she observes at least 30 lessons in every school term and organizes at least two open teaching research seminars, where a well-prepared lesson plan by a novice physics teacher is presented and discussed with other district physics teachers. She also develops high-quality textbooks and teaching resources by translating curriculum standards for teachers and helping them to embrace innovation in their practice. In her words, 'we teaching research officers know far better than regular teachers and scholars about the gaps between curriculum standards, textbooks, teachers' use, and student learning'.

Another teaching research officer described how he prepares student assessment and feedback by organizing at least one teaching and learning survey per term to assess students, through a written examination or a field assessment. For example, for the subject of safety education in Jinshan district, he designed a field test, inviting 10 randomly selected students from every school to visit a field of potential safety issues. Teaching research officers observed students' reactions and problem-solving, and produced a final assessment report for the district bureau and school principals.

5.3.4 Pillar system 2: The educational research system and educational research officer

The general educational research system in Shanghai is based on the simple belief that every teacher should and can conduct educational research grounded in and developed for their practice (Zhang, 1994). In the late 1990s Shanghai launched the Second Phase Curriculum Reform, in which educational research officers sought to change students' learning experience in order to cultivate innovation and hands-on capabilities: they promoted curriculum integration to enhance the inherent connections and associations between different subjects, helping schools in this process. Today, educational research officers act in three areas.

First, they organize and guide teachers' research projects. This starts with launching a call for candidatures and mentoring applicants (individual teachers) through the application process for national, municipal, and education research projects. Once projects are approved, they oversee the process, offer timely support, organize mid-term report workshops, and support submission. In every district, between six and eight educational research officers are usually deployed to cover different types and levels of schooling.

Second, they advise and support school-based improvement or reform projects. Compared to teaching research officers, educational research officers are 'less authoritative', positioned as partners rather than leaders for educational reforms. As an educational research officer explained, 'We are teachers' professional partners. We ask questions with them; we offer companionship to them on the path of educational reform.' School principals usually have far fewer contacts with teaching research officers than with educational research officers.

Finally, they collect, distil, and promote tested educational interventions. They write articles, edit books, and present exemplary cases in seminars and policy background papers. They also promote the educational interventions through symposiums which gather administrators, policy-makers, and other school colleagues to witness how schools have espoused reforms and to translate educational experience into policy.

For the specific requirement of understanding and undertaking educational research, those with research degrees are prioritized in admission. However, the small number of such positions and the specific skills and competences they require means that there are no particular professional training or career advancement opportunities, and the lack of professional development is the main disadvantage of this position.

5.3.5 Pillar system 3: The example of the Master Studio Programme

The Master Studio Programme was initiated in 2005 by the Task Force Office of Teacher Professional Development in the Shanghai Municipal Education Commission and the Shanghai Teacher Training Centre. It has thus far had four cohorts, totalling 530 principals and 3,200 teachers. Each cohort lasts three to five years; members meet once or twice per month. The programme aims to select and cultivate high-level instructional leaders through lecture-based learning and Professional Learning Communities.

A master studio has around nine members, and is most often chaired by master teachers and principals. Chairs are selected from experienced master teachers, master principals, or outstanding members of the previous cohort. Members apply voluntarily and are selected by the chairs on the basis of their professional passion and background. Junior teachers can apply, but usually members are enlisted from the pool of potential instructional leaders at district and municipal levels – a group of capable teachers who work closely with the district officers or who distinguish themselves professionally through public lesson demonstration competitions, teaching research awards, and so forth.

The actors at the municipal, district, and school levels have distinct roles in the programme. At the municipal level, the Shanghai Teacher Training Centre is responsible for inviting experts to plan, advise, and review the programmes, as well as allocating central funding. A nominated liaison in every studio is responsible for communicating regularly with the Centre on project progress. At the district level, teacher training offices manage and support the studio members in their district and nurture the pool of potential instructional leaders. Finally, schools involved in the programme provide venues and other resources to support the studio activities, and the school-based workload of the studio members is alleviated accordingly.

While the programme is experimental in nature – adjusting its form and scale in accordance with the available funding and goals – task-driven, solution-focused professional community learning is preferred to formal class lectures. In our interviews, a prestigious principal and leader of a master studio shared her understanding of these studios, comparing them to a craftsman's workshop in which a master trains the apprentices. In the process, the apprentices grow into good managers. Each studio has its own character, shaped by the character of the master, which in turn leaves its mark on each manager.

Learning activities in the master studios include project research, open lectures, discussion forums, teaching demonstrations, mentoring new members, and publication (journal articles and monographs). The school that hosts the studio can also communicate learning outcomes and achievements by organizing open conferences and other events where they invite other schools in the district along with experts to comment and discuss. These activities have built up professional learning opportunities across schools and districts.

Over the years there has been a steady increase in the number of studios and members enrolled. The number of master-principal studios has more than doubled from the first to the current cohort, reaching 17 in total, and the number of members has increased from 100 to 169. Similarly, the number of master-teacher studios has multiplied by four from the first to the current cohort, reaching 92 in total, and its members have almost tripled in number, from 319 to 878. This success is largely due to the dual benefits of personal reward (in terms of career advancement) and bringing their knowledge back to the schools they work in. Nevertheless, disseminating the knowledge acquired in the studio is not necessarily an easy matter: as one teacher commented, 'it all depends on the school principal' (see section 5.5.2).

5.4 Impacts

5.4.1 The middle tier as a space for translating policy into practice

Shanghai is the incubator and laboratory of education reforms for China, but when change has become the norm, schools and teachers need support to enact new policies and embrace the purpose of frequent reforms. The middle tier serves as a space to translate reforms, to advise, and to support schools in putting government policy into practice. It also serves as a resource pool, a collaborative platform, and a buffer where resistance and tensions can be moderated, conflicts negotiated, and a spirit of change accepted and internalized.

Piloting and testing new initiatives

When the Municipal Education Commission initiates a reform in which few schools and teachers in Shanghai have practical experience, implementation usually starts with small-scale collaborative work by expert teachers and/or school leaders, guided by middle-tier leaders in the pilot district(s). It can take up to a decade for a reform to become common practice in all schools. The reform of safety education is an illustrative example.

In 2013, the national government released a guiding policy to strengthen public safety education in middle and primary schools. At the municipal level, Shanghai devised guidelines and trained middle-tier leaders at the district level to use them. These leaders then returned to their districts to gather a group of master teachers from pilot schools for collaborative curriculum design. Pilot reforms were conducted in two schools in 2013, and the curriculum was implemented in all the city's primary and lower secondary schools in 2014.

A teaching research officer participated in the training organized by the municipal government, and then returned to his district to lead the pilot. He recalled:

> As I communicated with the two pilot schools we selected, I first told them that this was essential and gave them two options: One, we could choose not to do it, but to follow and learn from other schools which chose to be the pilot sites when they had succeeded. I could help them observe and learn from those who had led the way. Two, we could choose to do it first, and when we had done it well, others would learn from and follow us. They said they wanted to do it, but they did not know how to do it. I told them, 'It is fine, I will do it with you'.

Following this, the teaching research officer thought over the research design and implementation steps. He led the team of master teachers to interpret and translate municipal guidelines into an action plan that later became implementation guidelines. He worked with teachers in the two pilot schools to design, implement, and improve the curriculum and guidelines by testing and informing them with practice, leading to the creation of a curriculum toolkit. In their respective schools, the participating teachers continued the exploration of safety education, mentored other teachers, led enactment, and developed as potential candidates for middle-tier leadership.

Scaling up at the district level: the middle-tier space as safety net, think-tank, and resource pool

Enacting changes in some schools can be challenging. Where there is a need for external support, schools can turn to the middle tier for guidance, resources, and exchange of experience with other schools and other districts.

In the example of safety education, the success in the two pilot schools equipped the teaching research officer with the results needed to mobilize the district leadership for scaling up. In 2014, a publicity conference was used as a prelude to the scaling up of the reform. It was held for two main purposes: to share the experience in the real school context, and to raise awareness that the reform could be implemented (with pressure on schools who did not think it feasible). In the second year, the teaching research officer formed a team of other teaching research officers to evaluate progress by randomly selecting students from each school. Although they performed well in the theoretical safety exercises, they under-performed in the real-life scenario test. The team's research reports were shared with schools to determine the next steps: it was decided that schools should improve their planning and that there should be greater attention to practical training in the implementation phase.

Scaling up to the municipal level and beyond: middle-tier leaders as messengers and mobile consultants

The middle tier's research seeks to reposition scattered and context-dependent school-based curriculum development into more general frameworks, methods, and curriculum resources that could be shared with other districts in Shanghai and beyond.

For example, in the case of safety education the teaching research officer in Jinshan was invited to lead a central teaching research group at the municipal level, to identify practical measures for scaling up which could be shared with other districts. Based on their experience, transferable measures were formalized as official documents (model curriculum planning) and institutional change (creation of teaching research teams on public safety) in the middle tier and schools in all districts. A teaching and research group at the municipal level was created to roll out the scaling up, based on the district experience. One focus was on how to create the school safety plan. In 2019, the Department for the Protection of Children and Young People (DPCYP) sent the official model for public safety education planning (including how to create the plan and what to put in it) to all schools, requiring them to set up teaching research teams on the subject. Later, the Shanghai Teaching Research Office (Shi Jiaoyanshi) required each district or county to host a teaching research officer specializing in public safety. The DPCYP and Teaching Research Office (Jiaoyanshi) at the municipal level jointly urged the formation of teaching research teams in all districts and schools. The teaching research officer was invited by other districts to conduct training and supervision in schools. Middle-tier leaders continued to share their experience in publications, training workshops, and seminars, and also in action, travelling to other districts and schools so that the transfer of experience could be grounded in the local context. They interpreted local experience for the new actors and led them to tailor-made solutions to the challenges and obstacles they faced.

Another example with a slightly different trajectory was the integrated curriculum reform led by educational research officers (Keyanyuan), which started as a project in a local school. The pilot phase lasted three years. As performance jumped considerably above that of many other schools, the pilot attracted more schools to the reform and secured more resources for scaling up across 22 schools. This round of experiments lasted for two years. Middle-tier leaders led learning and research through observation, collaboration with schools, and teacher training to scale up the successful integration of subjects. Finally, the third round of experiments (through the voluntary registration of schools) was launched in 46 primary and secondary schools in

total. Middle-tier leaders in the district worked closely with their peers at the municipal level, in other districts, and in continued collaboration with teachers to spread the integrated curriculum to all schools in Shanghai. As one educational research officer put it:

> We did not know whether it would work, how it could work, and what it would mean for teachers. We turned the reform needs into projects, and then we used projects to promote reforms and to lead reforms. We had to experiment and pilot first. We used the projects to investigate and discover rules (the theory for practice) and approaches to the reform. With that knowledge, we improved and expanded our practice to move the reform forward.

Nurturing a change mindset: the middle-tier space as the buffer between policy and practice

Putting middle-tier leaders into schools symbolically conveys the government's commitment to change. Their presence on the ground and their support and leadership of teachers in schools help turn what could have been considered a burden by some resistant teachers into a collective enterprise and aspiration to change for the better. They have thus helped create a change mindset for education practitioners and the public, giving them pride in Shanghai as the engine of national and international reforms.

5.4.2 The middle tier supports a strong knowledge and evidence ecosystem

Education policy-making in Shanghai stands on firm principles: it needs to be evidence-based, appropriate and responsive to real educational issues, and feasible in practice.

How can these goals be achieved when policy-making is such a complex and ever-changing process? Middle-tier leaders play important roles in both top-down and bottom-up approaches to policy formulation, to make practice and school development goals match.

From the top down, middle-tier leaders conduct research, provide evidence for policy-making, and consult the policy-makers, contributing their rich experience as expert practitioners. From the bottom up, they identify and evaluate best practices initiated by schools and teachers, and extract and conceptualize their experiences to present to policy-makers. The policy-makers then visit the schools where innovations take place and organize research and evaluation, after which they formulate reform policies. In addition, projects, workshops, and seminars are spaces in which teachers can experiment and test new ideas.

Research for evidence-based, adaptive policy-making

When policy-makers in the Shanghai government decide to initiate a reform, they need to test its validity, reliability, feasibility, and scalability in practice, and to firm up related details and measures to formulate realistic policies. A starting point is consultation with school practitioners, families, and the wider society on reform options; the next steps are teaching and teacher research for policy details, measures, and instruments.

The educational research officers play a key role in this policy-making step. They lead research and consultations on new policies, and the outcomes inform policy formulation. They also bring the problems and opinions of various stakeholders to the attention of policy-makers during the policy implementation phase.

The middle-tier actors in the project have a good deal of autonomy in research design, data collection, and analysis. In practice, the government allocates funding to educational research officers' projects under a general banner or direction. The officers then determine their own research projects, focusing on concrete aspects of the reform direction. They work closely with expert teachers and leaders from schools, teaching research officers, and external experts such as university professors, depending on the research questions. For instance, if the research question is about textbooks, they collaborate closely with the teaching research officers, among others; if it is about school improvement, they work closely with prestigious principals and teachers.

Showcasing evidence from practitioner experiments and innovations

Many Shanghai schools are dynamic and active in experimenting with cutting-edge education theories and exploring innovative practices. In addition to advice and leadership, middle-tier leaders propose projects to encourage and support schools with innovation, change, and trial and error; and identify and assess valuable reform practices by schools and teachers.

Yet turning best practices into policy requires time while the experiments are being tested, verified, and improved. It often takes a decade or two for practice in schools to become national policy, and usually five to ten years until school experience becomes provincial or municipal policy. No practice becomes policy without rounds and rounds of practical testing.

The Datong Middle School is a case in point. It started developing a school-based curriculum entitled 'Enquiry-based learning as an independent subject' in 1987. The school had been exploring enquiry-based learning for over a decade by the time it was discovered by those further up in the education hierarchy. The curriculum that it developed eventually became the prototype of enquiry-based learning for all high schools in China in the 2000s.

5.4.3 Adapting and redistributing resources to meet changing local needs

Middle-tier leaders try to address disparities among teachers and schools in a fast-changing environment. They are in fact the major force driving collaborative teacher professional development. From the middle tier of the system they can (re-)distribute resources and support according to the varied needs of schools and teachers, by evaluating and identifying those in need of support to catch up with their peers, and by providing tailor-made leadership.

In addition, the master studio fills the gap resulting from the temporary shortage of qualified and outstanding school principals as many of these principals reach their retirement age. Some expert teachers or middle-tier leaders have been promoted to school principal but have had little experience in school management and leadership. The master studio is a hub for capacity building and for these less experienced – or 'green' – principals to share, learn, and seek support and guidance.

One 'green' principal is a case in point. In her words:

> Before I became a principal, I was a Chinese teacher, then a school manager, and then a teaching researcher in Chinese. I am very grateful to the studio, because when I became the principal I shifted from a teaching researcher specialized in the language subject, but had no clue about overall management. It was overwhelming, and I had feelings of panic. I had no idea about management, planning, financing, and curriculum design. I then joined the studio of a senior experienced principal in our district. The studio was a great platform for me to receive training from senior experts and university professors in curriculum development, planning, and financing. The studio has a group of people, and we can learn from each other without reservation. The peers offered advice and companionship. We discussed our challenges and supported each other.

5.5 Challenges

Despite the contributions of the middle-tier space to education reforms in Shanghai, several challenges remain.

5.5.1 A highly selective and meritocratic environment

Middle-tier leaders excel in rigorous competition: many of them described the nature of their career as a 'high level of challenge, high level of pressure, high level of achievement, high level of responsibilities'. They must have determination, initiative, and resilience to meet all the evaluations, competitions, and difficulties. Once they reach the top, they can benefit from many privileges: professional prestige, social respect, networking opportunities, and resources that ordinary teachers do not easily have access to. This professional capital in turn triggers the accumulation of more capital. However, only a small number of teachers reach the top: as some leaders remarked, 'this is highly competitive, and the standards are extremely high. The system can only leverage a small percentage of teachers to become middle-tier leaders'.

5.5.2 Motivation versus performativity and collaboration versus competition

Alongside the competitive battle for excellence are two dilemmas: motivation/incentives versus performativity,[11] and collaboration versus competition. Competition among teachers, schools, and districts sometimes impedes transparency and sharing, as peer collaboration turns into competition for promotion, reward, and reputation. Demonstration of changes initiated for educational purposes can be turned into an extreme form of performativity. Colleagues ought to collaborate and enjoy collaboration, and get fulfilment from contribution to the community. Yet at the same time they 'must compete to distinguish themselves from others'. They struggle with these dilemmas, having to constantly reflect and balance to stay true to their missions.

5.5.3 Scaling up

As a successful model cannot simply be copied and pasted into other situations, mobile middle-tier actors are key for scaling up the best practices. Costs associated with this can be high (notably for projects that do not succeed), and actors can be faced with the dilemmas described in section 5.5.2, where sharing experience can create rivalry or competition.

[11] Performativity as used here is a term introduced by Stephen Ball to explain a culture that 'requires individual practitioners to organize themselves as a response to targets, indicators and evaluations' and 'to set aside personal beliefs and commitments and live an existence of calculation' (2003: 215).

5.5.4 When change becomes the norm, teachers can become numb

Strong leadership and support from the middle tier have made the frequent reforms in the Shanghai education system acceptable and tolerable. However, despite system-wide and multilateral support, reforms increase the workload of already overloaded educators and school staff. Some teachers have struggled to keep up with the fast pace of change and have given up, while others simply become indifferent. Some middle-tier leaders have also reported change fatigue. As one middle-tier staff pointed out, 'given the high frequency of meetings and heavy load of studio tasks, members would also complain about "lack of time and energy".'

Nevertheless, discussions with a master studio chair made it evident that the professional passion of the senior leaders could have an impact on the platform, as an invisible but powerful tool for nurturing emerging leaders. In his words: 'I love my subject. I have strong passion in developing our subject and its curriculum reform. Some people chatted with me and suggested to me that I save my energy at this stage when I have all the rewards and recognition. I could let it go, but I couldn't help. I just want to contribute all I could do for our subject reform and subject teacher development.... This is my life pursuit.'

5.6 Takeaways

The aim of this chapter has been to illustrate how Shanghai's middle tier operates and manages to drive education reforms. Lessons can be drawn from the tier's strengths and challenges.

5.6.1 Fostering sustainable capacity development by empowering outstanding local educators in new roles

Rather than taking ready-made policies and best practices from other countries, the middle-tier leaders have played a key role in Shanghai's system, supporting it in finding its own path for development.

While external support (such as foreign aid and capacity development programmes led by international experts) can bring valuable resources and expertise to countries with resource constraints that hinder teacher education and professional development, reliance on such external support cannot be sustainable. Shanghai's experience highlights the building of internal capacity by mobilizing home-grown talent, specifically educators grounded in daily education practices.

5.6.2 Making the best resources available to all: The middle tier's role in sharing best practices

Where institutional and regional disparities are wide and qualified teachers and middle-tier leaders are few, stationing the latter in a separate specialized institution at the district and municipal level can enable them to develop the whole system equitably and efficiently. First, they learn to supervise and support all schools; second, a resource pool is created for timely professional support; and third, a platform is built for showcasing, discovering, and exchanging fruitful practices.

In some resource-rich countries teacher Professional Learning Communities are scattered; this constrains the sharing of best practice and exacerbates inequalities between schools and districts. The Shanghai experience highlights the importance of making all pertinent resources and outstanding leaders available to all schools and teachers, systematically striving to bring them together.

Finally, a lesson can be drawn for policy-makers struggling to find the balance between teacher incentives to compete, excel, and collaborate in today's neoliberal society. Shanghai's example highlights the importance of preserving and cultivating a collective culture and utilizing middle-tier leaders as messengers for sharing and development.

5.6.3 Government allocation of resources and commitment to aligning policy with practice

Both of the above takeaways require investment of resources: funding (for projects), staffing (positions in specialized institutions), and time (to experiment, test, and improve). Furthermore, system change requires sustained commitment from government officials; working with the middle tier requires special experience in leadership, teaching, and translation between policy and practice.

For resource-constrained countries, a starting point is to trust in their local teacher leaders and invest in the middle tier as a space of empowerment beyond schools, by prioritizing the most urgent domains. For resource-rich countries, the government can reconsider its commitment and investment in promoting concerted efforts for equitable, inclusive change: as the Chinese say, it is about tying strands of rope together, with everyone's heart and efforts directed towards common goals.

Chapter 6. Case study: Transforming head teachers into system leaders in Wales

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Abstract

In 2018, the National Academy for Educational Leadership (NAEL) in Wales launched the Academy Associates Programme, an innovative programme designed for highly effective head teachers. It aims to develop school leaders into system leaders to help guide ambitious education reforms across Wales. These reforms are characterized by the co-construction of policies with education stakeholders, guided by a vision of the Welsh learner and a school improvement strategy (OECD, 2017). Selected head teachers serve as associates in this three-year professional development programme. Since associates continue to be serving head teachers, they can help guide local actions towards reform priorities and serve as the voice of the profession. Through a desk review and interviews, the case study explores how, while gaining new skills and knowledge, associates have begun integrating robust empirical evidence into schools and championing promising practices and mindsets. Although the programme is still in its early days and the number of trained associates is limited, preliminary findings indicate that they are contributing to shifting leadership styles towards distributed leadership and fostering collaborative professionalism. While there have been challenges, and sustained effort will be required, this chapter demonstrates how even a small number of system leaders can have a significant effect, serving as linchpins for self-improving learning organizations.

6.1 Introduction

Over the last decade, Wales has undertaken a journey of transformation in its education system, with large-scale reforms to ensure a quality education for all learners. One recent focus has been on engaging the middle tier in leading teaching and learning reforms. Wales is small (with a population of under 3.15 million), bilingual (Welsh and English), and highly values its fully inclusive education system (ONS, 2020).[12]

In 2009, a disappointing performance on the Programme for International Student Assessment (PISA) served as a catalyst for reforms (OECD, 2014a). In 2011, Wales began comprehensive reforms to improve quality and equity in education, many of which directly targeted school leaders or indirectly impacted their practice. The reform agenda drew on promising practices from around the world and sought guidance from international organizations. It was distinguished by the co-construction of policies with education stakeholders, guided by a vision of the Welsh learner and a school improvement strategy.[13] Areas such as curriculum, accountability systems, and professional standards were reformed; key to this was the creation of the National Mission, a four-year action plan launched in 2017, which presented four enabling objectives.

[12] Since devolution in 1999, education delivery lies with the Welsh Department for Education (Davidson, 2007). There are four regional consortia, one per region, who operate under a broad mandate to support schools and leaders. Each regional consortium is a collective of local authorities who work to improve teaching and learning quality (Eurydice, 2018/19).

[13] This is aligned with the OECD's assessment of Wales, where 'schools, networks of schools and school communities have an evolving role in the co-construction of education policy. These ground-level stakeholders are increasingly considered a primary resource for designing and delivering sustainable and innovative school improvement policies and practices' (OECD, 2017).

The second of these specifically brought school leaders into the spotlight (Wales, 2017). The Mission called for a model of 'schools as learning organizations' (SLOs), developed collaboratively, with the aims of the new curriculum at its core (OECD, 2018c). SLOs learn collectively and individually while adapting to new environments (OECD, 2019). As identified by the OECD, school leaders are a linchpin for enabling the SLO model to flourish, as they 'play a vital role in creating a trusting and respectful climate…and the sharing of knowledge' (2018c: 16). Throughout these reforms, the OECD and other reports continuously identified a need to develop leadership capacity to drive reform efforts (Donaldson, 2015; OECD, 2014a; 2017).

These reforms created additional challenges, particularly a tension between different actors at the middle tier (Hill, 2013). Increased accountability measures were 'introduced without the development of parallel, independent support structures which would enable schools to navigate and meet the requirements of the new measures' (Davies et al., 2018: 206). In this rigorous reform environment, attempts to address school leadership concerns – regarding retention, quality, career pathways, and stagnating recruitment – largely stalled or led to confused lines of accountability (Power, 2016). Seeing these challenges go unmet, in 2018 the Department for Education (DfE) created the National Academy for Educational Leadership (NAEL), with the specific goal of contributing 'to the development of the professional capabilities of leaders across the education system', utilizing international and national best practices (NAEL, 2019: 4) The NAEL was positioned at arm's length from the government, as a more independent body, despite being funded by the DfE. The Academy Associates Programme (AAP) is the NAEL's flagship professional development programme for high-performing head teachers, aiming to develop school leaders into system leaders. Head teachers apply for the selective associate position to support local leadership around professional development and help transform policy into practice.

6.2 Case study methods

Evidence for this case study is drawn from desk and field research, including interviews conducted between February and May 2020 with six associates from the first and second AAP cohorts; a focus group discussion with four associates; interviews with nine individuals who have close working relationships with the associates (e.g. deputy heads, school board officials); and interviews with two Education Development Trust programme staff involved in the early stages of the AAP. Some interviews occurred in Wales in person, prior to the Covid-19 pandemic, while others were conducted by phone.

6.3 AAP overview

The AAP was intentionally designed with head teachers at its core, since system leaders are critical for maintaining reform sustainability (OECD, 2014a; 2018c). Strengthening school leadership can build capacity by enhancing skills, developing agency, and including the voice of head teachers in policy. As one associate observed, this would imply going beyond leading their own school, to 'influence leadership on the ground but then also [have] this wider influence in the system'. As one NAEL staff member said, the AAP is 'an opportunity for us to have our own Welsh definition in our own education system with transformation…[driven by] the voice of the profession'.

In 2020, the AAP was on its third cohort, each cohort consisting of 9–12 associates, intentionally reflecting the diversity of schools across regions. The core criteria to qualify are the head teachers' commitment to their profession, and efforts towards system-wide improvement. Before being shortlisted and interviewed, a candidate needs to identify additional leadership capacity within their school, with approval from their Board of Governors (similar to a school management committee), to ensure their absence would not be detrimental, and must furnish an endorsement from their local authority or region (EDT, 2018a). It is expected that associates are released one workday per week. Schools are compensated for the time their head teachers dedicate to the AAP in three annual payments.

6.3.1 Role activities

The programme aims to strengthen the skills of associates to do their existing job with more impact, through a three-year professional development programme. The role is not meant to be an additional position in the system, but an extension of the responsibilities of head teachers, aiming to develop them as system leaders. Associates participate in the following four main activities.

- Seminars/training: Associates take part in programmes that focus on high-quality system leadership, including engaging, non-lecture-style seminars from prominent education figures. Associates consistently identified the seminars as the most influential factor in shaping their learning, finding them motivational and thought-provoking. They also receive training in topics such as system leadership and facilitation skills, preparing them to train the next cohort.

- Commission: A key goal underpinning the AAP was that of forging a stronger link between practitioners and policy-making, as part of the Welsh government's emphasis on the 'co-construction' of reforms. Associates are assigned a research project to help find solutions to a problem facing Welsh education, using local and international best practices. The Commission question is different for each cohort, and agreed upon by associates, the NAEL, and the DfE. Associates embarked on a research journey, gathering evidence in trips to Finland and Canada (NAEL, 2019). Findings were presented to the government, with the potential to influence policy. After this presentation, the first cohort continued Commission work by discussing report recommendations with practitioners and gathering feedback (NAEL, 2019).
- Coaching: One-on-one coaching was established to give associates the opportunity to reflect on the programme, the role of the Academy in practice, and the use of their expertise. This was an important pillar of the programme, helping associates to navigate their new role as system leaders in the context of ambitious reforms. Associates would train as coaches and deliver coaching for the incoming cohort.
- Communities of Practice: Associates attended four CoPs in their first year, which 'enabled them to work collaboratively, within a structured enquiry-based framework to address issues…This helped the associate move from decision maker…to collegiate solution builder' (EDT, 2018b: 15).

The associate role was designed to build on each associate's experience and interests. As one NAEL staff member reported, 'We start off with a certain amount of [activities] being mandatory and directed. There are still elements that are mandatory, but we move into a self-directed role'. The AAP follows a 10/20/70 model of adult learning, whereby 10 per cent of the programme consists of seminars drawing on best practice, 20 per cent of engagement in cluster-based leadership communities, and 70 per cent of leadership coaching and 'on the job' mentoring from system leaders.

The AAP was designed for the associates to take on more responsibility over time, gaining ownership. This included CoP facilitation, responsibility for liaison with seminar speakers, and writing the Commission report (EDT, 2018b). In their second and third year, the first cohort carried out new tasks, such as 'buddying up' with a second-cohort associate, facilitating training, and completing social media work.

6.4 Impacts

Although it is early days for the AAP, based on our interviews it appears the roles and skills of school leaders are shifting on individual, school, cluster, and system-wide levels. This section analyses three distinctive ways the AAP appears to have impacted professional practices and mindsets, as perceived by associates and other educators who work with them.

6.4.1 Associates have improved access to and use of research across the system

The AAP has helped to further integrate the use of research and the research process across the education system. This is important because interviewees observed a noticeable gap in professional development opportunities for school leaders.

Access to research

Associates are sharing their learning from seminars with clusters and schools, enabling evidence-based practices to be introduced at the school level. A deputy head and supervisor of one associate noted that associates are efficiently transferring knowledge of best practices to their local schools and clusters, since they 'are actually practising head teachers…it is filtering directly back into the school'. Some associates have the 'ability to be at the forefront of research and knowledge' and can 'transfer that across a whole local authority, or across a large cohort of head teachers'.

Interviewees reported that the Welsh education system had become more outward-facing as a result, and more of an 'open system' with respect to wider evidence and learning internationally. For example, a deputy head remarked that the head teacher 'has sort of encouraged us to think outside the box a bit more…we were reading about Singapore, Japan, and Finland'.

This increased access to information appears to have led to the implementation of new practices in schools. One associate described how a seminar changed the way mathematics is taught at their school by re-examining the pedagogy behind the mathematics curriculum in relation to classroom management practices. They switched to 'collaborative teaching' in which a high-performing student sits next to a struggling student with the intention of supporting them, and noticed the improved 'self-esteem of the children who we never thought would get to a level three'. Interviewees also readily referenced prominent national or international thinkers.

A research and development mindset

The AAP seems to have enhanced the associates' research skills. A member of NAEL staff observed that 'whilst maybe right at the beginning when we said, "You are going to do a Commission, you have to do research", they were going, "But I am not an academic", we are not hearing that any more… Their language has changed, so they are talking about quantitative and qualitative data…now it is changing'.

This is helping associates to bring a new mindset to professional development in their schools, where research and enquiry become a vehicle to inform school improvement decisions. For example, one Chair of Governors described how the associates created co-operative research projects within their school. They established 'triad research groups' and selected an area to research and provide feedback to one another. Thus, 'it was a whole-school research approach' that 'stemmed from a lot of the work…done with the academy'. The deputy head remarked that there was a 'different way of thinking, that never used to happen before'.

Since the AAP has provided easier access to high-quality research, the middle tier seems to be developing a stronger capacity to embrace challenges, thereby contributing to fostering a self-improving system.

The NAEL has also encouraged the mindset that school leaders ought to be continuously learning and growing as practitioners. A NAEL staff member reported that the profession has shifted to a more 'enquiry-driven' approach to professional learning, and many associates are now asking 'What can I do next? Can I do a Master's? What should I do in order to continue improving?'. If educators are more open to the process of learning, this could enable schools to run as SLOs, which could impact all levels of the system, especially students. In one school, a Chair of Governors explained how this contributed to a wider culture of learning: 'The learners know [the associate's] not just out of the building, that actually he's learning, and taking part in challenging activities, similar to what they're doing.'

6.4.2 New distributed leadership styles facilitate more collaborative professionalism

The next perceived impact has been a redefinition of leadership styles and an increase in collaborative professionalism. The programme required a large amount of collaboration, which seems to have improved the ability to communicate and connect with other professionals who may have different needs.

Distributed leadership

One element contributing to these interpersonal skills has been a heightened understanding that there is not a 'one size fits all' leadership style. Associates appear to be shifting from a top-down leadership style to a distributed style, in which leadership functions are spread over multiple individuals, expanding leadership potential (Spillane et al., 2001). One associate observed that there was a 'clear "leadership for all" approach across the school, every member of staff…has a leadership role. It gives them ownership and clear communication…my work as an associate has contributed to all of that'. Associates attributed their ability to adopt this approach to their training on facilitation and leadership.

For instance, one associate reformed the way their school creates their development plan, saying: 'In hindsight, I was the head with control… This has taught me that you don't have to be like that… Last year, [for] our school development plan…I ended up totally giving it to the staff to write…and they totally owned it and it was the most successful [plan] in 16 years… That practice was then shared with others…Early in the school we had the delegation of tasks, true distributed leadership. All of those elements have definitely evolved.'

Those who work with associates in schools, such as deputy heads, have stepped into leadership roles, creating more opportunities for distributed leadership. An additional-learning-needs co-ordinator reported that 'through osmosis I've become quite confident and informed' to begin leading training. This reported shift is especially promising, as a recent consensus has emerged that distributed leadership can have an especially positive influence on school and student outcomes, while creating a self-improving system (Harris and Muijis, 2004).

'Shrinking Wales': Connectivity and collective responsibility

Mindsets seem to have become more collaborative in nature, with an emphasis on collective responsibility. One associate reflected that 'wanting to have a collective responsibility for all leaders and children across Wales and wanting to really work with others, not just tick a box…it's got to be what drives you'. This new mindset is partly due to the way the AAP expands professional

networks for educators. These networks allow for greater communication and connection between educators in different parts of the country. One associate said that the AAP has 'shrunk Wales in terms of giving us access to people'.

A more connected education system is one of the positive outcomes of the new associate role at the middle tier. These connections bring more educators into the reform process. Associates reported utilizing collaboration in intervention decisions. As a result, educators reported that associates have 'opened our communication between each other', in the words of a Chair of Governors.

Lastly, this way of working appears to be promoting a collective sense of responsibility among education professionals. The AAP seems to have raised the professional expectations of school leaders, with the associates serving as role models of collaborative professionalism. On applying to become an associate in the future, one head teacher explained, the position's criteria 'made me reflect on my own practice and think, "I ought to do a little bit more around supporting others"'. This teacher established training throughout the cluster. In this way school leaders are using the associates as the benchmark for best practices, including a collective sense of responsibility for advancing professional standards.

6.4.3 Aligning and linking system levels

With 15 different agencies and a range of training providers, the Welsh middle tier is unusually large given the education system's overall size (Waters et al., 2018). Associates have the potential to add co-ordination to the middle tier, which can crosscut geographical areas and levels of the education system. One interviewee for this case study commented that 'this is a heavily populated middle tier and perhaps our job swimming in that is trying to be the conduit'.

This potential to act as a 'conduit' was intentional in the AAP's design; as one NAEL staff member explained, 'we wanted to differentiate it from the sort of normal system leadership school leaders engage in…[the associates] were key, the interface in the middle of a triangle which was Welsh government, national academy, and school leaders'. Some respondents described seeing clearer connections in the middle tier: one associate reported that 'what is called the muddle in the middle is because everybody was doing their own thing…it's all starting to align… For example…we're trying to work with the Education Workforce Council[14] on the professional learning passport…so it's…about joining up services'. This can be achieved because associates can engage with higher levels while still serving as a voice for head teachers; and can engage with local schools while still serving as representatives of the DfE.

Voice of the profession

The AAP is indicative of a deliberate plan to build system leadership from the ground up, as the associates can be viewed as a mechanism for voicing the needs of the profession to policy-makers. One associate asserted, 'I will really speak for the voice of the profession…they need to know the impact this will have on schools… I do feel we are the only voice'. This is encouraging for head teachers; several of our interviewees commented that they felt the associates were their advocates. As one head teacher said, 'It was reassuring that we weren't having things handed down to us to do that weren't actually… being checked by somebody who knows how it is in real life'.

Previous attempts to develop system leaders in Wales used to train head teachers to move to higher-level positions. As one NAEL staff member explained, this was challenging because 'they were seen as being the mouthpieces of government which wasn't helpful'. While previous system leadership development struggled because leaders became compliance monitors, AAP appears to be strengthening the head teacher role.

Serving as the voice of the profession is beneficial not only to head teachers but policy-makers as well, since it promotes greater diversity of thought in policy-making. As a member of NAEL staff explained, the associates provide critical insights to policy-makers, 'because your credibility as a school leader diminishes quickly the longer that you are out of that setting… So they are very credible… When they start saying, "That is not going to work in schools", the other people around the table have to listen'.

A key way associates served as representatives was through the Commission. Associates in the first cohort expressed a sense that the DfE is listening to recommendations made when presenting their Commission.[15] Reflecting on the process, one felt that 'we are being listened to…[but] it's going to take time before changes are actually made'. Another added that associates have seen their Commission influence policy, as the DfE has 'asked the Academy to write the Professional Learning Guidance for

[14] The EWC 'is the independent regulator of teachers…and learning support staff, which maintains a register of education practitioners in Wales' (Eurydice, 2019). The EWC developed the Professional Learning Passport in 2017, as a digital tool to better track professional development (OECD, 2018).
[15] The Commission question for cohort one was: 'How can leaders enable high-quality professional learning opportunities that improve wellbeing and achieve better outcomes for all?'

Leaders', a recommendation that associates made in the Commission. As a regional-level executive noted, the research and the subsequent reports they can produce are being increasingly viewed as documents to consider when creating policy. For instance, associates called for more time for professional learning and, 'as a result of that report…we've got an additional inset day in schools this academic year. So their voice is starting to be heard'. Although one deputy head said that the AAP appears to be 'raising the profession as a whole and giving it that little bit of status', some associates do have doubts about how much they are listened to. As one commented, 'I don't think we've had enough influence'.

Policy translator

Just as associates can bring the local level to the top, they can also bring the top down to the local level. Wales has undertaken a multitude of complex reforms in recent years, which, as interviewees told us, originally caused schools to feel overwhelmed. As one reported, associates have played an important role in mitigating these anxieties by 'breaking it and making it manageable', translating what these policies mean for school-based professionals on the ground. Associates appear to have developed their ability to interpret the wider context of reform; as one remarked, 'you just see the wider system, you see how tier one is working and understand it more… I can see why things are happening in the way they're happening…and what the impact of that is'.

With this perspective, associates seem to have played a role in translating policy, making it meaningful, and generating buy-in. Those who work with associates have referred to them as 'catalysts' who can adapt the work to local contexts. A supervisor of one associate commented that the associate is like 'an advocate of the policy, because at national government level…sometimes the policies don't reflect the intricacies and nuances of school life. But somebody who can make it meaningful to a school setting… [the associate] is particularly skilled at doing that'.

An important outcome of the new role, then, is greater ownership of the Welsh education reforms. Associates play a critical role in the co-construction process since, as one supervisor said, it is 'from the ground up rather than [a] pre-prescribed leadership programme… They are encouraging autonomy to come from leaders themselves'. Associates can also serve as a more localized resource, working with school-based professionals to streamline implementation processes on the ground, ensuring a clear focus on larger reform goals.

6.5 Underlying principles of the role

The associate role is deliberately loosely defined, which is highly unusual in a personnel structure. Associates are asked to act as change agents across the system and to mould their role to their strengths and contexts. They are exposed to a variety of skills and knowledge, and the programme adapts to meet their learning needs. As a result, the potential impact varies from one to another. As one associate said, 'It is having an impact in many different ways…we've all taken on different roles…we're all growing in our own way'.

6.5.1 Embedding the role in informal networks and the spread of new ideas

Equally, this variation in associates' roles means that the influence of the role is varied and dependent on networks, rather than on a formal cascade of policies down through a hierarchy: 'How you influence…can be dependent on the region that you're in and on the relationships that you have', as one commented. While this flexibility can raise concerns regarding consistency, associates view it as an asset, because 'if everybody were to do the same thing, it wouldn't work…it does need to have this sort of spread effect into different elements of the system to be effective'. The informal nature of the role, and the fact that associates are simultaneously in and out of the middle tier, makes it dynamic.

While participating in the first year of the AAP, associates were simultaneously co-constructing their role. By co-construction we mean 'the mutual process of developing shared knowledge and building shared meaning by…modifying an original understanding…leading to shared knowledge and new meaning that was not previously available' (Decuyper et al., 2010:116, quoted in EDT, 2018b:17). Associates gave regular feedback and were immersed in real-time programme development. This role design was expected to 'use expertise in leadership to develop expertise in leadership', as one head teacher put it.

6.5.2 The co-construction and emergence of leadership expertise

Co-construction of the role and of leadership expertise did not come without difficulties. As one NAEL staff member reported, associates 'found it either uncomfortable, or they didn't quite have the skills and knowledge to do it as well as we thought they would and…they thought the academy…already had a plan that we were refusing to show them, and got…frustrated because

they are so used to somebody else having the plan'. One associate said that the AAP 'in the first year was interesting…it was very challenging because…you didn't know why you were doing something but that was the whole point…it really took you out of your comfort zone'.

Nevertheless, associates reported that co-construction, and the gradual emergence of the role and leadership expertise, gave them programme ownership. Since 'we helped construct the Academy, I think that's possibly why you feel a real bond with it… it gives you faith that co-construction does work… You've just got to go through the messy bit first', as one associate said. While initially hesitant, they appreciated the ability to enhance the AAP for future associates.

6.6 Challenges

6.6.1 Making time for local head teachers

Associates complete many tasks that require high-level skills and knowledge. Given this, and the expectation that they are only released for one workday per week, time management remained a challenge mentioned by associates and their colleagues, especially since they are still active head teachers. As one educator pointed out, when associates are absent they do not stop being head teachers, since 'you're still leading that school'. This was particularly true of the first cohort, who were also managing the co-construction process. In addition, one educator noted that 'if you are in a smaller school, being out of school…can impact a school community'. The role can only work if the schools have the capacity to compensate for the associate's time away, potentially deterring applicants. This could explain why the AAP has struggled to recruit from remote areas.

Interviewees expressed their frustration at being unable to support school leaders as they would have liked because of this. One associate said, 'I just don't think our capacity and our timescale has enabled us to support our colleagues yet, but I think that's why everybody went into the Academy'. There is a disconnect between why associates join and the activities they complete. As one NAEL staff member commented, 'Associates have international visits…they spend a lot of time talking to stakeholders… I don't think they spent long talking to rank-and-file head teachers'. Since head teachers can serve as gatekeepers to reform implementation, engaging with them more frequently could maximize impact. This is also an important way to generate support, as NAEL staff worry that they are at risk of becoming 'just another' government body.

6.6.2 Establishing a place and connections in a dense middle tier

Associates have been confronted with the challenge of establishing their relevance in a system that has been experiencing 'reform fatigue' (OECD, 2017: 44) and a perception among head teachers that there is a 'heavily populated middle tier weighing down on schools'. One head teacher said that making the AAP stand out is a challenge, since 'everyone is buried in their own change management and are not necessarily seeing the opportunities'. This situation makes it difficult for associates to highlight their value.

A critical step has been developing connections with other actors in the education system. In a congested system, actors 'sometimes inadvertently step across the path of others on an allied agenda' (Waters et al., 2018: 20). Navigating these relationships can be complex, since 'Wales is very personality-driven…everybody knows everybody', as one NAEL staff member remarked. To some extent, this stems from AAP's informal interactions and the reliance on personal connections to develop partnerships. These insecure networks can weaken effectiveness. For instance, working with the regional consortia has been challenging, despite their initial participation. Some associates were disappointed, because in 'the second year, there hasn't been anybody [from the regions]…getting involved with us'. This is perhaps because, as a NAEL staff member said, some 'regions saw the Academy as a competitor' in professional development and were threatened by the NAEL's endorsement system of region-led training.[16]

6.6.3 Communicating and monitoring impact

These challenges have been compounded by a lack of communication and impact evaluations. The AAP could benefit from stronger and clearer messaging. One educator commented: 'If somebody asks me what needs to happen, I'd probably say there needs to be a stronger PR [public relations]… showing what it is that actually they do', aside from social media, the website, or word-of-mouth interactions. Another potential way to boost visibility would be to implement a consistent monitoring and evaluation system, which was not in place at the time the research for this case study was conducted. This would help to establish legitimacy, clarify what the associates do, and allow the NAEL to adapt the AAP based on evidence.

[16] The NAEL facilitates a rigorous endorsement programme for professional development. The goal is to 'ensure equity of access to high quality leadership development provision across Wales' (NAEL, 2020: 7). Some associates serve alongside other stakeholders in a quality assurance role in existing training programmes targeting school leaders, mostly conducted by the regional consortia.

6.7 Takeaways

This chapter highlighted promising practices of associates who serve as change agents in the Welsh education system. Lessons can be drawn from both the AAP's strengths and the challenges encountered by the programme.

6.7.1 A clear communication strategy to boost visibility of new programmes

All the major challenges – recruiting diverse candidates, developing stable relationships, generating support for the associates' role at the school level, and setting them apart from other middle-tier actors – stem in part from the core issue of communication and messaging. Given the complexity of the AAP, with the many activities the associates complete and the way the programme adapts each year, a clear communication strategy is especially crucial. Most of the interviewees suggested that a way of making the Academy and the associates more visible and respected would be to create branded 'associate' products or guidance notes for wide distribution.

6.7.2 Strong monitoring and evaluation systems for enhancing the legitimacy and credibility of programmes

Another potential way to boost visibility would be to implement a consistent and robust monitoring and evaluation system for the AAP. In the pilot year of the programme, Education Development Trust conducted a midpoint review and an end-of-year review. The monitoring and evaluation tools utilized Survey Gizmo to gather feedback on coaching and seminars from associates. However, as of the time of the study, no monitoring and evaluation system has measured the AAP's impact on associates, teachers, head teachers, students, or other stakeholders. Impact evaluations would be challenging given the individualized nature of this programme, but it would help to establish the AAP's legitimacy and would allow the NAEL to adapt the AAP as necessary.

6.7.3 Co-construction: Challenging, but beneficial in creating a sense of ownership

A lesson learnt through the co-construction process was that, while essential for sustainability and creating a sense of ownership among the associates, it required significant amounts of time. As one NAEL staff member commented, 'I think this programme and the roles of the associate is one of those classic examples of where it all sounds very good on paper but when it meets the world and real people it starts to feel different. Now I think it has been really good but it's not been without absolute struggle'. Co-construction allowed the associates to feel more deeply connected to the programme and increased its legitimacy, since it was made by active head teachers, as opposed to being implemented in a top-down manner.

6.7.4 Finding a balance between developing agency and intentional role design

The associates currently use 'soft power' to make an impact through informal channels and relationships, which raises the question of whether the role should be more formalized. For some stakeholders, the 'offer' to schools and leaders needs better definition. The Academy may wish to consider whether a clearer role for associates may be necessary for quality assurance. This could also solidify their position within the middle tier, as it would more clearly outline their purpose and functions, enabling more stable or formal relationships to be established. However, the informal nature of the role allows the AAP to better adapt to the diverse needs of the system.

Associates are embedded within schools and school networks, so can create links in the system due to the fluidity of the role. Similarly, while they could have more impact if they worked more formally at local authority or regional level, interviewees felt that the fact that the associates are not viewed as a regional body can be advantageous, since by simultaneously serving as head teachers they keep a foot in the schools and are therefore seen as credible, adding legitimacy to the role.

6.7.5 Promoting agency and a mindset of collaborative responsibility in pushing towards broader system change

The associates played an important role in generating a sense of agency and ownership of reform in other professionals across the system, including peer school leaders and teachers. The AAP is helping to develop a mindset whereby everyone can be an agent of change. First, the deliberate choice to recruit a diverse representation of head teachers across Wales as associates – and the decision to have the role filled by active head teachers – has brought more actors to the table of policy reform, allowing for a greater diversity of opinion and experience. In addition, the associates are inspiring other educators, such as deputy heads, to take on more leadership roles, with the understanding that there is more than one way to lead. They are also creating space for others to lead by utilizing distributed leadership and collective responsibility. In short, instead of implementing top-down, rigid reform, the AAP is establishing a capacity for system leadership by enabling school leaders, in the words of one associate, to develop their skills, 'so they become self-developing, and that is really, really important, [to] become a learning organization'.

Chapter 7. Professional practices and perceived impacts of instructional leaders at the middle tier

Chloé Chimier

What are the professional practices of instructional leaders at the middle tier, and how do they bring about change in teaching and learning? Using evidence from the five case studies, we sought to find out what it is that these leaders actually do to bring about change. This chapter explores the promising delivery techniques they use and their perceived impacts at different levels of the education system. The chapter is structured around five main functions, which model how instructional leaders can act as change agents:

- providing support for school and teaching improvement
- promoting professional collaboration within and across schools
- brokering knowledge to promote the use of evidence
- providing local instructional direction and system alignment
- testing innovations and scaling up promising practices.

For each function, we detail the professional practices observed in our case studies and their perceived effects.

Figure 7.1: Main ways instructional leaders at the middle tier act as change agents to improve teaching and learning

Source: Author

7.1 Providing support for school and teaching improvement

By providing on-site direct guidance and facilitating professional discussions based on mutual trust, middle-tier instructional leaders are empowering teachers and head teachers to improve teaching and learning. They deliver support through a structured approach to learning and improvement, guiding school staff through learning and enquiry cycles.

7.1.1 Professional practices

Instructional leaders work closely with school-level actors to improve teaching and learning processes. The support they provide takes a variety of forms, which are not used in isolation but embedded in iterative learning processes.

Coaching teachers and head teachers

Coaching is one of the key delivery techniques. It consists of a one-on-one conversation that encourages self-awareness and promotes self-responsibility of the coachee through questioning, active listening, and setting appropriate challenges within a supportive environment (Van Nieuwerburgh, 2012). In Jordan, Rwanda, and Wales, instructional leaders are trained to deliver coaching and responsible for coaching teachers and head teachers. This involves questioning teachers and head teachers, encouraging them to reflect on their practice, and guiding them to come up with their own solutions. In the words of a Jordanian supervisor, 'The coaching is very individual and personal to the teachers and it's reflective. The solution should be derived and from the teacher themselves and not applied to follow some techniques by the supervisors.'

Conducting lesson observations

Instructional leaders also provide on-site support through classroom observation. In Delhi, both mentor teachers and teacher development co-ordinators observe classes and teachers and give feedback on their performance. Lesson observation is also key to Jordanian supervisors' delivery method: they provide diagnostic feedback and guide teachers to improve their performance.

Role-modelling effective practices

As expert practitioners, one of the main assets of instructional leaders is their ability to demonstrate effective pedagogical practices at the classroom level. By showing daily what these practices look like, including through opening their own classrooms, they are acting as role models to their fellow-teachers and head teachers. This technique is at the core of Delhi's mentor teachers' and teacher development co-ordinators' work: they role-model best practices and new pedagogical strategies in which they have been trained by actors higher up in the system.

Delivering needs-based and practical professional development

Instructional leaders provide important on-the-job professional development opportunities to teachers and head teachers. In line with research findings on effective professional development (Cilliers et al., 2018; Darling-Hammond et al., 2017; Popova et al., 2016), they deliver practical trainings and workshops tailored to the needs of each school. This is possible thanks to their deep knowledge of the context of individual schools and localities. In Rwanda, leaders of learning deliver professional development opportunities focused on live school improvement challenges. In Delhi, the design of the topics of the Learning Improvement Cycles takes into account the needs and desires of school-level actors, which are collected through a formalized feedback and data collection process. A Delhi state official comments on this shift towards needs-based and practical professional development: 'The training for teachers used to be like an outside resource person would come with one thought and based on that, the training was given for all the teachers. But now it's need-based training, it's a workshop-based training.'

Providing non-judgemental feedback

A key feature of the support provided by middle-tier instructional leaders is that they use positive and non-judgemental language in their exchange with teachers and head teachers. This is a common practice of all instructional leader roles explored as part of this research.

7.1.2 Perceived impacts

Building a professional partnership with school-level actors

In all of our case studies, instructional leaders partner with teachers and head teachers. This represents a major shift from a more hierarchical or inspection-oriented relationship. This shift is significant in Jordan supervisors' work: while previously perceived as 'judges' or 'inspectors' focused on summative evaluation for career advancement, they are now acting as 'critical friends', both supporting and challenging teachers. Teachers report feeling more at ease, open, and honest with supervisors about the issues they face, and as a result more likely to seek advice. A supervisor reports: 'Teachers usually feel a little bit worried when supervisors come to observe their lessons. In this sense, my teachers through this project have come to feel more secure and comfortable with a lot of readiness and willingness. In other words, they have become accustomed to seeing me among them for guidance and advice.' In Shanghai, education research officers similarly emphasize this partnering relationship: as one of them said, 'We are teachers' professional partners. We ask questions with them; we offer companionship to them on the path of educational reform.'

Such relationships, characterized by continued interactions, trust, and openness, are key to building successful learning communities (Usoro et al., 2007) and improving student achievement (Leana, 2011). In Wales, previous attempts to transform head teachers into system leaders failed because leaders became compliance monitors rather than improvement or learning partners: 'They were seen as being the mouthpieces of government which wasn't helpful' (NAEL staff member).

Building this mutual trust relationship takes time. In Delhi, for instance, at the beginning of the Teacher Development Co-ordinator programme teachers were quite sceptical about having an outsider come and observe their classroom. After some time, however, teachers realized mentors were only there to support them.

Focusing more strongly on teaching improvement in schools

In all five settings, the supportive professional environment fostered by instructional leaders results in a stronger focus on teaching improvement as well as enhanced professionalism and capacities. In Jordan, as a result of supervisors' strengthened skills to support and challenge teacher pedagogy, student learning is now at the heart of the conversations between supervisors and teachers. This has led to a mindset shift: encouraged by supervisors, teachers take more responsibility for pupil outcomes and adopt more optimistic attitudes towards student potential. This has resulted in improved teaching skills and classroom practices, as one teacher noted: 'This programme meant I change the way I teach totally. I now engage with the whole class when teaching'. In Delhi, a similar shift is happening thanks to the intervention of teacher development co-ordinators and mentor teachers: conversations among school-level staff are now more focused on professional practices. As one teacher says, '[In the] last five or six years there has been a paradigm shift in our schools. Now the teachers have developed the practice of discussing academic issues, issues related to the classrooms'.

7.2 Promoting professional collaboration within and across schools

The benefits of professional collaboration are well documented; they range from improving teacher effectiveness and student achievement to facilitating innovation and sharing of resources and offering socio-emotional support (Chapman and Muijs, 2014; Ronfeldt et al., 2015; Hargreaves and O'Connor, 2018; Solvason and Kington, 2019). The promotion of collaboration is emerging as an important function of the middle tier (Childress et al., 2020). Our research shows that instructional leaders at the middle tier foster professional collaboration both among school-based professionals and across schools within localities and at system level. One of their key functions is to share their expertise and exchange good practices through setting up collaborative networks. By facilitating peer exchange, they are able to build a sense of community as well as enhanced collective responsibility for the education system. Instructional leaders also foster distributed leadership at school level and contribute to redistributing resources for more equitable systems.

7.2.1 Professional practices

Facilitating Professional Learning Communities

A key function of middle-tier instructional leaders is to facilitate collaborative professional learning through the exchange of practice and knowledge. They often lead Professional Learning Communities (PLCs) either at the school level or across schools at the cluster or district level. PLCs gather groups of peers to reflect collectively on the realities, challenges, and opportunities of

their practices. In Rwanda, leaders of learning have a specific responsibility for developing collaborative professional practices at both school and middle levels of the education system. National leaders of learning facilitate PLCs to support head teachers to run communities of practice for teachers in their own schools. Interviewees report that the established PLCs have developed a collaborative culture, providing a space where teachers and head teachers share successful strategies and 'think together' to find out solutions to their issues. A national leader of learning reported on his experience: 'Before, every head teacher worked alone, but now we share the experience. If I have got best practice in my school, I have to share with my colleagues in these PLCs. I became as a model, they came to see, and I showed them how I have…gained that practice. We have a strong collaboration because we sit together, and we share what we can't do alone.' In Shanghai, the middle tier is responsible for providing professional learning opportunities across schools and districts. The Master Studio Programme, a flagship initiative, creates PLCs in which outstanding master principals and master teachers provide hands-on training and coach teachers and head teachers. In Wales, during a three-year professional development programme associates encounter a series of communities of practice that enable them to work collaboratively. Back in their localities, they apply the same techniques to facilitate collaboration at the school and cluster level.

Beyond the facilitation of formal PLCs and communities of practice, middle-tier instructional leaders bring a collective approach to problem-solving in the day-to-day running of schools. A Delhi teacher development co-ordinator observed: 'Before, we were just grumbling over the things saying this is not happening, that is not happening, [there is] this problem and that problem. Now we are putting our heads together to see how we can solve it.'

Promoting connectedness using social media

To enable the exchange of practices and resources among professionals, and to facilitate collaborative networks, in some of our case studies instructional leaders use social media. In Jordan and Rwanda, supervisors established lively WhatsApp groups for teachers to share resources and live challenges across schools, enabling continued collective conversations beyond their one-on-one interactions with teachers. Supervisors in Jordan also set up WhatsApp groups for themselves to develop their own resources and share ideas for improvement, thus creating technology-based communities of practice.

7.2.2 Perceived impacts

Spreading the expertise of strong practitioners

Thanks to their role in establishing and facilitating collaborative networks within and across schools, instructional leaders enable good practices and new ways of working to be shared and spread throughout the system. Structures such as PLCs in Rwanda and ART meetings in Delhi provide a platform to exchange peer knowledge in relatively informal and non-judgemental settings, which do not require formal top-down training programmes. Instructional leaders thus have a multiplier effect on continuous system improvement, ensuring that everyone benefits from outstanding practitioners' expertise.

Building a sense of community

Instructional leaders at the middle tier reduce the isolation of individual schools and teachers. By promoting a collaborative learning culture, they foster collegiality among professionals and contribute to building a sense of community at different levels of the system. In Wales, one of the positive outcomes of the Academy Associate Programme is greater communication and connection among educators in different parts of the country. According to one associate, the AAP has 'shrunk Wales in terms of giving us access to people'. In Delhi, a key impact of the Teacher Development Co-ordinator Programme is increased communication and collaboration among teachers at the school level, and across schools. Teacher development co-ordinators and mentor teachers are instrumental in fostering a collegial atmosphere, as one teacher reported: 'a very harmonious environment was created between us, through which we could easily discuss our strategies and problems with one another'. Similarly, in Rwanda interviewees report improved professional relationships within schools and a growing sense of the school staff as a team. Having the opportunity to see what is happening in other schools through the PLCs makes leaders of learning feel part of a broader learning community. 'Before I used to work alone, I was not that collaborative but now I value to collaborate with others', said one local leader of learning in Rwanda.

Enhancing collective responsibility for the education system

By creating a collaborative environment, the middle-tier leaders we studied generate a systemic vision for educators and guide them towards common goals. They nurture a sense of collective responsibility for student outcomes and the quality

of the education system. In Wales, the associates' increased collaborative mindset has spurred a new sense of common responsibility for the entire system. One associate commented that 'wanting to have a collective responsibility for all leaders and children across Wales and wanting to really work with others, not just tick a box…it's got to be what drives you'. In Shanghai, strengthening practice across the entire system is a foundational concept of the middle tier, which promotes 'collective endeavour for change'. Likewise, supervisors in Jordan report viewing themselves as important actors in 'system change'.

Fostering distributed leadership at school level

Our research shows that changes in leadership practices at the middle tier can shift the overall culture and power structures towards distributed leadership, empowering other school-level actors. In Rwanda and Wales, after leadership training and working in a collaborative environment, head teachers who have taken on a middle-tier role adopted a more distributed leadership style within their own schools. By extending leadership functions and delegating responsibilities to other staff, they are breaking with a top-down approach. A Welsh associate reported that there is a 'clear "leadership for all" approach across the school, every member of staff…has a leadership role. It gives them ownership and clear communication…my work as an associate has contributed to all of that'. Respondents from both countries confirmed that distributed leadership practices have strengthened professional trust among school staff, fostering team spirit and motivation.

Contributing to redistribution of resources and equity

Previous research showed the potential of professional collaboration to harness resources within a network of schools, increase the flow of information, and improve the provision of teacher professional development (Muijs et al., 2010; Chapman and Muijs, 2014). As network facilitators, middle-tier instructional leaders in our case studies pool resources and provide support tailored to teachers' and schools' needs. This is a key function of Shanghai's middle tier, where leaders identify the varied needs within the system and provide tailored support. The middle-tier personnel intervene not only when schools need guidance or resources to further their development, but also when there is a shortage of skills at the school level. For instance, by acting as a capacity development hub for novice head teachers, the Master Studio Programme helps address the shortage of outstanding head teachers, many of whom are retiring.

7.3 Brokering knowledge to promote the use of evidence

Instructional leaders at the middle tier translate international evidence into solutions for teachers and head teachers to introduce in their practice. They also generate new, context-specific evidence, thereby acting as knowledge brokers and knowledge producers.

7.3.1 Professional practices

Being exposed to international evidence

A common feature of the middle-tier staff we studied is that they have the opportunity to visit and conduct research on some of the most effective education systems at the national and even international level. In Delhi, for instance, all mentor teachers attended a leadership training course in Singapore and travelled to different states in India to observe best practices. Through their ongoing professional development courses, leaders of learning in Rwanda are constantly refreshed and trained in innovative ideas to spread across schools and communities of practice.

Translating evidence into practical solutions

Instructional leaders are then able to contextualize this knowledge and translate it into digestible and actionable guidance for busy school-level actors who do not always have the time to catch up with the latest findings. Jordanian supervisors describe themselves as 'mediators of evidence-based knowledge for teachers'. Supervisors work with teachers to select and apply 'interventions', translating international evidence about high-impact pedagogy to help them improve their teaching practice. Welsh associates have both the 'ability to be at the forefront of research and knowledge' and to 'transfer that across a whole local authority, or across a large cohort of head teachers', as one of their supervisors noted.

Producing new knowledge

Beyond their function as knowledge brokers, middle-tier instructional leaders create new evidence and play a key role in nurturing strong knowledge ecosystems. In Shanghai, some middle-tier staff specifically focus on researching new and innovative

strategies and translating those findings into practical trainings for teachers and head teachers. They are also responsible for generating evidence that feeds into policy-making. They thus have a formal role in conducting action research and promoting tested educational experience through writing articles, editing books, and presenting exemplary cases in seminars and policy background papers. They also serve as a resource pool and contribute to making Shanghai a leader in education reforms.

7.3.2 Perceived impacts

Promoting evidence-based practices in schools

As local expert practitioners, middle-tier professionals can bridge the gap between evidence-based practices and improved teaching. In Wales, associates are introducing global evidence into their schools, promoting a culture of continued improvement. According to interviewees, the Welsh education system is now becoming more outward-facing and open to international evidence. This increased access to information appears to have led to the implementation of new pedagogical practices in schools. In Rwanda, the sharing of best practices at PLCs has also led to changes in school planning. Participating head teachers report making more use of data such as students' results, drop-out rates, and absenteeism to enhance the design of the school improvement plans.

Fostering an R&D mindset and critical thinking

Middle-tier instructional leaders are introducing a culture of collective enquiry and critical thinking into schools, building collective capacity for education practitioners to become problem-solvers. In Wales, thanks to their strengthened research skills, associates have brought a new enquiry mindset to school improvement decisions. In some schools, associates initiated collaborative research projects: it is a 'different way of thinking, that never used to happen before', says one deputy head teacher. Shanghai's middle-tier leaders co-ordinate and support action research projects led by individual teachers. In Jordan, a critical thinking process is at the core of the evidence-based practice model applied by supervisors. Supervisors do not promote a single pedagogical approach as the 'right way' to teach, but guide teachers through the process of identifying suitable solutions to issues that have been diagnosed.

7.4 Providing local instructional direction and system alignment

Middle-tier staff are at the crossroads of policy-making and direct support to teachers and school leaders. They can give voice to practitioners in the policy-making process while also helping teachers understand the broader vision of district, state, or national education goals. In sum, they are able to cascade information from the top down but also to give feedback from the bottom up.

7.4.1 Professional practices

Translating policies into meaningful practices at the school level

In all the jurisdictions studied, instructional leaders at the middle tier translate policy changes from central education authorities to make them more digestible, and support teachers to enact those changes in schools. In Delhi, mentor teachers and teacher development co-ordinators play an important role in cascading priority pedagogical themes identified at the state level, by leading learning improvement cycles with front-line school staff. In Wales, one supervisor commented that the associate serves as 'an advocate of the policy, because at national government level…sometimes the policies don't reflect the intricacies and nuances of school life. But [we need] somebody who can make it meaningful to a school setting, and [the associate] is particularly skilled at doing that'. Shanghai middle-tier leaders are also described as translators and interpreters of policies for teachers. One of their purposes is to support the enactment of national education reforms in schools, thus 'symbolically convey[ing] the commitment of the government, the care and support from the policy-makers to make change happen' (Shanghai case study). Change happens when actors recontextualize the policy reforms, taking into account the local reality, thus making them policy-makers and enactors rather than simply implementers (Ball, Maguire, and Braun, 2012).

Promoting the voice of practitioners in the policy-making process

In another promising practice, instructional leaders at the middle tier act as the voice of educators. They advocate upwards for teachers and head teachers by influencing policy and by ensuring their feedback is taken seriously as part of system learning and improvement. In several of our case studies, middle-tier leaders are formally invited to contribute to discussion and dialogue on education policy-making. Past research has shown that involving teachers in decision-making and giving them a voice can

increase their levels of motivation and job satisfaction (OECD, 2014b; Tournier and Chimier, 2019). Instructional leaders in our case studies provide such opportunities by opening communication channels for teachers and head teachers.

In Wales, associates keep their responsibility as serving head teachers, making them well placed to voice the needs of practitioners to policy-makers, bringing reality into high-level discussions. An official from the National Academy for Educational Leadership commented: 'Your credibility as a school leader diminishes quickly the longer that you are out of that setting… So [associates] are very credible… When they start saying, "That is not going to work in schools", the other people around the table have to listen.'

A key way Welsh associates participate in the policy-making process is through the 'Commission': each cohort of associates is assigned a research project to help find solutions to a problem using local and international best practices. Findings are then presented to the government, with the potential to influence policy. As part of their professional development Rwandan national leaders of learning also address a ministerial commission, undertaking research to prepare recommendations on a selected education issue, which they then present to senior policy-makers and stakeholders. In the course of this activity they collaborate with researchers at the University of Rwanda and engage with school leaders, while making sure that the findings reflect the complex reality of Rwandan schools.

In Delhi, a feedback mechanism has been set up for teachers to voice their concerns to mentor teachers and teacher development co-ordinators, who would then pass them along to district and state officials. In this way, planning for new cycles of training or policy changes can directly address issues on the ground. Shanghai's education research officers are also instrumental in bringing the problems and opinions of school-level stakeholders to the ears of the policy-makers during the policy implementation phase. They play a key role in identifying and evaluating practices initiated by schools and teachers, in order to present them to policy-makers.

7.4.2 Perceived impacts

Creating an environment conducive to reform implementation

Thanks to their mediating role, instructional leaders can operate as educational agents of change and help overcome resistance to education reforms. Our case studies show that these leaders supported the implementation of reforms, policies, or new programming that originally stemmed from central officials. This aligns with previous research findings showing that middle-tier leaders can help to incorporate the goals and aims of policy-makers at the school level (Leithwood, 2013). Respondents repeatedly brought up this concept, referring to middle-tier leaders as a 'conduit' or 'bridge' between school-level and higher-level officials.

In Wales, an important outcome of the associate role has been greater ownership of the Welsh education reforms. In a context of multiple policy changes, which can make teachers feel overwhelmed, associates have helped to mitigate their anxieties and support them to implement those changes. Likewise, Shanghai's middle tier is seen as a 'buffer where resistance and tensions are moderated'. In Delhi, thanks to the atmosphere of trust and professional respect generated by the Teacher Development Co-ordinator Programme, teachers seem more likely to listen to and apply the policy and reform measures that middle-tier leaders pass on to them. Instead of simply acting as middle-management figures who convey instructions in a traditional cascade model, the leaders' practice contributes to the co-construction of policies aimed at finding collective solutions to challenges.

Promoting an adaptive system

Our research shows that middle-tier leaders are instrumental in promoting adaptive education systems that respond to feedback from front-line practitioners. This, for instance, is a key function of Shanghai's middle-tier professionals, who are contributing to making policy-making 'responsive to real educational issues' (Shanghai case study).

The Covid-19 pandemic has revealed the role of instructional leaders in adapting systems to changing needs and circumstances. In Delhi, for instance, the Teacher Development Co-ordinator Programme provided a pre-established framework for collaboration that proved vital during this unprecedented period. Interviewees shared stories about how teachers and TDCs provided technical support and creative ways of using distance learning through their networks. In response to immediate needs on the ground, the Learning Improvement Cycle implemented in schools by instructional leaders was shifted to teachers' and students' socio-emotional wellbeing. In Rwanda, leaders of learning have been pivotal in organizing the response to the Covid-19 crisis at school level. The PLCs they facilitate provided a flexible structure to convene head teachers to plan for school re-opening, paying

specific attention to the most vulnerable children, as prioritized by the Rwandan Back to School campaign. In each setting, pre-existing collaborative groups and feedback loops contributed to efficient communication and planning in a period of crisis.

Aligning system levels

The 2018 World Development Report recognizes that 'education systems are often poorly aligned with learning goals' and that 'getting all parts of an education system to work together is difficult' (World Bank, 2018). Although challenging, the importance of building coherent and aligned instructional systems is widely acknowledged (Looney, 2011; Pritchett, 2015). In particular, educators thrive in systems that 'enabl[e] them to accomplish deep and morally inspiring purposes over which they exert shared professional control' and that 'bring them closer to each other and to their students in taking responsibility for and achieving these transformational purposes' (Shirley et al., 2020: 10). Middle-tier professionals play a key role in this regard: they link different system levels and actors together and provide local instructional direction. Their position as linchpins allows them to navigate the complexity of education systems and learning processes. In Wales, where the middle tier includes a large number of stakeholders (given the small size of the country), associates have the potential to increase system co-ordination. One associate commented that 'this is a heavily populated middle tier and perhaps our job swimming in that is trying to be the conduit'. In Rwanda, by gathering leaders of learning, district education officers, and sector inspectors, PLCs have helped to improve relationships between different system levels, showing the potential to establish a shared professional vocabulary and understanding of leadership competences in different roles.

7.5 Testing innovations and scaling up promising practices

At the crossroads of policy and practice, middle-tier instructional leaders are in a unique position to introduce and pilot innovative practices, and to scale up effective interventions to boost systemic capacity for educational change.

7.5.1 Professional practices

Strengthening school-level actors to experiment with new practices

In all our case studies, instructional leaders are nurturing a change mindset. They do not see teachers and head teachers as passive agents, but instead actively promote their agency. By establishing a supportive environment, they make teachers feel comfortable in embracing and experimenting with new professional techniques. In both Delhi and Jordan, teachers report feeling more confident and empowered as professionals to take risks and try new practices. Instructional leaders have a key role in introducing innovative ideas to school-level actors, while letting them make their own choices as to what goes on in their classrooms. When working with teachers to improve teaching practices, Jordanian supervisors make a point of giving them a sense of agency: teachers have the choice of the strategies they will implement to solve diagnosed issues. In Wales, associates are helping to develop the attitude that every professional can be an agent of change.

Shanghai's middle tier is a perfect example of how instructional leaders can drive innovative practices across schools towards whole system change. By supporting schools to innovate and fostering a 'trial-and-error' spirit, they have helped establish Shanghai as a leader in education reforms in China and internationally.

Scaling up effective practices

Instructional leaders have the potential to lead the scaling up of school-level promising practices. In Shanghai, where the middle tier is the most established of those we studied, education reforms initiated at the municipal level are usually piloted on a small scale in schools under the leadership of middle-tier staff. They provide guidance, resources, and opportunities to exchange with other schools and other districts. Middle-tier professionals then formalize these experiments into general frameworks, methods, processes, and resources to be shared with other schools and districts.

An educational research officer describes the process followed in an integrated curriculum reform:

> We did not know whether it would work, how it could work, and what it would mean for teachers. We turned the reform needs into projects, and then we used projects to promote reforms and to lead reforms. We had to experiment and pilot first. We used the projects to investigate and discover rules (the theory for practice) and approaches to the reform. With that knowledge, we improved and expanded our practice to move the reform forward.

Such a process is a long one; it typically takes five to ten years until a school experiment becomes provincial policy, and one or two decades to make it national policy.

Monitoring and communicating about the impact of new practices

Successful scaling up of effective teaching and learning practices requires a robust monitoring system as well as a communication strategy. In Shanghai, middle-tier leaders closely monitor and document this process. For instance, they adjusted the design and implementation of a safety education curriculum reform after its evaluation revealed that the students lacked the ability to practically apply the new knowledge. Shanghai's middle-tier leaders actively communicate about these experiences through publications, articles and books, training workshops, and seminars.In Jordan, supervisors scale up effective practices by making videos and sharing them in virtual communities of practice.

7.5.2 Perceived impacts

Fostering ownership and co-construction of new practices

In all five settings studied, a common feature of middle-tier professionals was their ability to spark a collective conversation about teaching quality. Thanks to this dialogue, they co-construct new practices together with both front-line education staff and professionals at higher levels. This contributes to building collective ownership of new practices, which are thus more likely to be implemented at school level. This is a major focus of Learning Improvement Cycles in Delhi and Professional Learning Communities in Rwanda: instructional leaders guide structured conversations aimed at identifying and disseminating new practices, discussing and adapting them to each context, and building shared knowledge and understanding.

All practitioners benefit more quickly from high-impact innovations and new policies

Middle-tier instructional leaders can act as a conduit to disseminate and scale up effective practices and new policies rapidly throughout education systems. This is particularly important in education systems affected by crisis. For instance, in Rwanda Covid-19 response policies have been cascaded quickly through the PLCs run by the leaders of learning, which also served to share ideas and innovations to be implemented in real time. In Shanghai, the three-pillar middle-tier system has helped to accelerate the scaling up of new policies, which traditionally took longer.

Ensuring faster feedback loops and learning about 'what works'

In the process of scaling up new policies and promising practices, middle-tier professionals also play a key role in setting up feedback loops to ensure continuous improvement of interventions. Delhi's Teacher Development Co-ordinator Programme developed a data collection and analysis process to assess the impact of communities of practice facilitated by instructional leaders, although respondents emphasized a need for improvement. All stakeholders regularly fill in a standardized Google form, enabling planners and content designers to create needs-based content with a targeted effect on teachers. A mentor teacher reports that 'we have all of this data shared with us and we talk about it. And then we also think of ways to improve'.

7.6 Conclusion

Building a sense of trust and supporting teachers through challenges and reform efforts, or implementing new teaching strategies, may prove an important first step that middle-tier leaders can take to transforming the culture of the whole education system. The increased motivation and professionalization that stem from this environment may not only improve teaching practices but also lead to further implementation of reforms and programming in the future. Teachers are much more likely to accept and even embrace new programmes and practices if they trust that they work in a system that seeks to support and develop them. Similarly, reforms are more likely to reflect needs and realities on the ground if practitioner-level feedback is provided to the central level by the middle tier.

By working to translate research and promising practices into real-world solutions, middle-tier leaders can take another step towards driving whole-system change and improvement. Whether they are training and mentoring teachers across several schools or acting as cluster leaders in their role as head teachers, they have the ability to widely disseminate and scale up effective practices and innovations.

Figure 7.2: Practices of middle-tier instructional leaders and their perceived effects

Providing support for school and teaching improvement

Professional practices

- Coaching teachers and head teachers
- Conducting lesson observations
- Role-modelling effective practice
- Delivering needs-based and practical professional development
- Providing non-judgemental feedback

Perceived impacts

- Building a professional partnership with school level actors
- Bringing a stronger focus on teaching improvement in schools

Promoting professional collaboration within and across schools

Professional practices

- Facilitating professional learning communities
- Promoting connectedness using social media

Perceived impacts

- Spreading strong practitioners' expertise
- Building a sense of community
- Enhancing collective responsibility
- Fostering distributed leadership at school-level
- Contributing to redistribution of resources and equity

Brokering knowledge to promote the use of evidence

Professional practices

- Being exposed to international evidence
- Translating evidence into practical solutions
- Producing new knowledge

Perceived impacts

- Promoting evidence-based practices in schools
- Fostering an R&D mindset and critical thinking

Providing local instructional direction and system alignment

Professional practices

- Translating policies into meaningful practices at the school level
- Promoting the voice of practitioners in the policy-making process

Perceived impacts

- Creating an environment conducive to reform implementation
- Promoting an adaptive system
- Aligning different system levels

Testing innovations and scaling up promising practices

Professional practices

- Strengthening school-level actors' agency
- Scaling up effective practices
- Monitoring and communicating about the impact of new practices

Perceived impacts

- Fostering ownership and co-construction of new practices
- Enabling all practitioners to benefit from innovations and new policies more quickly
- Ensuring faster feedback loops and learning about 'what works'

Chapter 8. Enabling middle-tier instructional leaders to act as change agents

Charlotte Jones and Barbara Tournier

Chapter 7 outlined the impact of instructional leaders at the middle tier and how they bring about change in teaching and learning. But which conditions need to be in place for these leaders to be effective? This chapter argues that in all five case studies reform leaders used four common strategies to enable instructional leaders to be effective. Three of these four enabling factors come into play in sequence. First, reform leaders envisioned instructional leaders as change agents. Second, they set about professionalizing the middle tier. Third, they nurtured an empowering culture and a collective vision. And throughout this process they adopted a 'learning by doing' approach to overcome challenges.

8.1 Envisioning instructional leaders as change agents

In all the case studies, the trigger for investment in instructional leaders was a more general ambition to improve teaching and learning quality. Reform leaders recognized instructional leaders at the middle tier as critical actors in this domain.

8.1.1 A systems perspective to improve teaching and learning

Many of our interviewees made the point that policy-makers took a 'systems' perspective on how to improve teaching and learning: they were interested in all of the levers and assets they might have available to deliver improved outcomes for students, including a clear view of the role of middle-tier professionals. In every case, the driver was a commitment to supporting school-based professionals, not an interest in the middle-tier leaders per se. Policy-makers saw middle-tier professionals as an asset, a critical part of delivering the policy goals, and they understood that it would not be possible to reach front-line professionals in every classroom without building a competent middle-tier cadre who could work alongside them on a regular basis.

Welsh policy-makers explicitly asked associates to improve education leadership to address issues emerging from the 2009 PISA testing cycle. In Delhi, the government's ambition was to empower teachers and foster a new dialogue on teaching and learning at every level of the system – in school staff-rooms, in district meetings, and with parents: 'There was a need for some trigger or catalyst in order to change the course of discussions in the staff room from purely administrative-related topics to substantially academic related talks.'[17] That trigger was a cadre of new mentor teachers. In Shanghai the re-imagining of the middle tier was even bolder: again the motivation was to strengthen teachers, leaning heavily on the middle tier to achieve this at scale, and developing a sophisticated three-pronged middle-tier architecture for this purpose.

8.1.2 Policy-makers designed middle-tier roles to lead change

Policy-makers gave middle-tier leaders a very clear role in the accountability chain: to lead change and reforms on the front line. In some of the case studies this meant that roles were deliberately redesigned to deliver change. Middle-tier leaders were tasked with getting teachers and school leaders on board with new policies, persuading them to adopt new practices, and setting up new ways of working. In Wales, Rwanda, and Delhi, brand-new roles were designed to fill gaps in the delivery chain, support delivery at scale, or create new energy and momentum. Wales perhaps best exemplifies this, as the associate role was designed to address shortcomings in the system's already robust and complex middle-tier system. By designing a combined role, of policy translator and voice to teachers and head teachers, Welsh officials explicitly bridged the gap between policy and practice. By

[17] Delhi government adviser, quoted in Gibbs et al. (2019).

redesigning middle-tier roles, they were in effect redesigning delivery systems for education reforms. In other systems, such as Jordan, policy-makers simply refocused established roles to ensure they could support the wider goal of improving teaching quality.

8.2 Professionalizing the middle tier with peer leadership

In all the case studies, policy-makers invested in strengthening and professionalizing the middle-tier cadre, for example through stronger recruitment policies, enhanced professional status, and high-quality professional development. They typically recruited middle-tier instructional leaders from expert practitioners who could immediately garner respect from the teachers and head teachers they worked with, and who were well placed to challenge and support their peers. Middle-tier leaders were often serving school professionals, so were acting as peer leaders to fellow-teachers and school leaders. The case studies offer interesting examples of how this peer leadership role was recognized and professionalized as part of the formal system. Policy-makers invested effort in making these lateral relationships work.

8.2.1 Understanding skills and competences for effective instructional leadership

What does it take to lead change and reform? What distinguishes those who were able to lead change on the front line in the way described in Chapter 7? A common set of skills and competences was apparent (see Box 8.1). Being a respected expert practitioner was often an important factor in recruitment policies: can the leader demonstrate excellence in their practice as a teacher or school leader? However, simply being an expert practitioner was not enough. Across the case studies, it was clear from policy documentation and feedback from interviewees that a specific set of skills and competences was particularly valued, including being good at collaborating, open to listening, and patient in understanding the issues and challenges faced by others.

In some settings, these professional attributes had been well codified as part of the initiative. For example, in Rwanda and Wales a competency framework was designed based on international and comparative evidence about effective collaborative leadership. Policy-makers took steps to define these competences and started to use them throughout the workforce life-cycle, from recruitment to career progression. In other settings, a common set of characteristics emerged as initiatives gained traction. In Delhi, research commissioned by the FCDO looked specifically at the characteristics of effective mentor teachers and teacher development co-ordinators (Gibbs et al., 2019). The list in Box 8.1 is in line with wider evidence on the characteristics of strong collaborative leaders.

Box 8.1

Skills and competences for effective instructional leadership

Where middle-tier leaders were working well, they were enabling school professionals, encouraging their agency, professional learning, and motivation. A common set of characteristics emerged from the five case studies:

- **knowledge and skills**
- **credible expertise in the field, often gained from experience as a practitioner**
- **problem-solving and critical thinking skills**
- **communication skills, including an ability to explain and an ability to listen**
- **facilitation and coaching skills.**

Beliefs and attitudes included:

- **ability to build high expectations**
- **ability to build trusted relationships**
- **ability to challenge the status quo and offer constructive feedback**
- **open-mindedness, flexibility, or a growth mindset**
- **passion for teaching and for improving learning outcomes**
- **openness to learning and ideas from other systems and localities.**

Sources: Project documentation, including competency frameworks in Rwanda and Wales; findings from Gibbs et al. (2019) on Delhi; interviews in Wales, Jordan, and Rwanda

8.2.2 Improving recruitment procedures

Improved recruitment procedures were a feature of many of the case studies. For example, in Rwanda the recruitment process for leaders of learning focused on candidates with good instructional leadership practices and potential. The recruitment process was highly formal and visible, conducted by a District Panel with a range of local system stakeholders, adding to the sense of status and high expectations for the role. Unusually for that context, the process included a practical assessment of current leadership performance and future leadership potential, involving site visits to schools to observe practices and talk to teachers, students, and community members to get a '360-degree' perspective. This included an assessment of candidates' inclusive education practices and experience, and potential to motivate peer head teachers beyond their school through coaching and mentoring. In this way, they would already be prepared for some of the key aspects of the leader of learning position. Serving practitioners were often targeted: in Wales, serving head teachers were a key part of the talent pool; in Delhi serving teachers applied for the mentor teacher role; and in Shanghai serving teachers and head teachers are encouraged to apply for middle-tier roles.

8.2.3 Providing training and support

On-the-job training and professional support for middle-tier personnel were key factors enabling them to carry out their new responsibilities. Interviewees in all cases were keen to emphasize that this went beyond traditional training sessions to build and assess knowledge; in almost all cases, professional development focused on building the practices and competences that would be needed by instructional leaders.

The professional support was highly sophisticated, drawing on international evidence and based on the belief that if school staff are to learn and improve their practices, it is vital to create a learning ecosystem in which other professionals have a learning and improvement mindset as well. In Jordan, for example, just as supervisors were coaching and supervising teachers, they too had their own peer coaching sessions and were offered supervision. A similar approach underpinned the professional development programme for the leaders of learning: national leaders of learning were explicitly charged with coaching local leaders of learning. The professional experience of receiving coaching themselves was seen as vital in supporting local leaders of learning to be effective in their own coaching. Similarly, mentor teachers help to design and facilitate co-learning sessions for TDCs in Delhi.

In some cases the professional curriculum was formalized: leaders would earn a professional certificate or complete a portfolio of coursework to demonstrate their professional practice. Wales and Rwanda followed this model most closely, with both training programmes providing coursework lasting either one or two years in Rwanda and three years in Wales. The programme in Rwanda had leaders of learning complete an accredited professional development course from the University of Rwanda. This incorporated traditional lectures by experts, but focused on demonstrating professional practices, something which was innovative for the university personnel as well as the candidates themselves. Jordan also provided some structured coursework, and supervisors submitted a portfolio. In some respects this more systematized method of evaluation acted as quality control for the training process, as well as providing a measure of accountability for middle-tier leaders. In other equally effective cases the professional curriculum was not formalized, relying instead on collaboratively led coursework and session planning based on identified needs. Delhi's system best exemplifies this through its co-learning sessions held with both mentor teachers and TDCs. Since these sessions are interactive, respondents described them as workshops rather than trainings. Shanghai also had little structured training for their middle-tier leaders, instead leaning on their prior experience and expertise and 'learning by doing'.

8.2.4 Making middle-tier positions attractive

In order to pull in the most able candidates, reform leaders sought to make the positions attractive. In most cases, monetary incentives were not offered, or not yet offered (see section 8.5.1). The middle-tier leadership role, as a kind of peer leadership, offered an opportunity for professional growth and served to recognize practitioners' advanced skill sets. In some places a highly meritocratic system had developed. For example, in Shanghai interviewees commented that only a fraction of professionals got the opportunity to be middle-tier leaders. In other systems a more practical approach was taken at first to build supply: for example, in Delhi TDCs were selected initially by the head teachers with little guidance on recruitment protocols.

Improved status and recognition formed an important part of re-orientating the middle-tier roles. For example, in both Rwanda and Delhi the new leader of learning and mentor teacher appointments were prestigious and highly visible, and role-holders were acknowledged expert practitioners. In Shanghai, many of the middle-tier leaders described their careers as 'high level of challenge, high level of pressure, high level of achievement, high level of responsibilities'; they benefit from many privileges that ordinary teachers do not easily have access to – professional prestige, social respect, and networking and funding resources. In Wales, associates' local status was enhanced, as they became members of the prestigious new National Academy of Educational Leadership designed to raise leadership standards throughout the country.

8.3 Nurturing an empowering culture and collective vision

Policy-makers seemingly had a common 'theory of change' determining how they saw the middle-tier professionals operating. In all five cases it was clear that they were asking middle-tier leaders to step up and take on an active role in driving change, not through mandating changes but through working collaboratively with front-line professionals. How did they do it? They moved towards greater distributed leadership, allowing for co-construction, enhancing collaboration, and prioritizing collective learning.

8.3.1 Moving towards greater distributed leadership and seeing the middle tier as allies

To some extent all the policy-makers wanted middle-tier professionals to share in the ownership of state-level reform goals. They were confident about harnessing their extensive practitioner knowledge and local influence as part of a collaborative approach to teaching and learning improvement. Policy-makers empowered middle-tier instructional leaders, valuing their professional knowledge and seeing them as allies and collaborators in the change process rather than simply administrators applying policy.

In Wales, for example, the associates were tasked with co-constructing leadership reforms, being deeply involved in how top-level policy was unpacked and delivered locally. In Delhi, policy-makers wanted mentor teachers to ignite a collective conversation about teaching quality, in order to build a shared vision for improvement in their locality and collective capacity among teachers. One TDC described this capacity: 'The biggest achievement of this programme I think has been the building of an academic environment in the school…discussions among the teachers have become much more productive in terms of academic discourse.'

In this sense, policy-makers were dedicated to creating collective capacity among different actors – what education researchers call 'social capital' (Fullan and Hargreaves, 2013; Leana, 2011). In its report Transforming the Education Workforce (2019), the Education Commission calls for a skilled system in which the collective capacity of people to create and pursue overall visions is enhanced, as opposed to routine professional development, which focuses on developing the skills of individuals to do their work better (human capital). This perspective is grounded in a conception of distributed leadership where knowledge is held by actors at all levels of an education system and is actively created through situated learning (Williams et al., 2021). Policy-makers recognized the importance of not 'overselling the role of human capital and innovation from the top' and of valuing 'the benefits of social capital and stability at the bottom' (Leana, 2011).

8.3.2 Strengthening collaborative delivery structures

In all our cases, instructional leadership support for teachers flourished as collaborative delivery structures were strengthened. In Hargreaves' and O'Connors' words, 'the evidence that, in general, professional collaboration benefits students and teachers alike has become almost irrefutable. Professional collaboration boosts student achievement, increases teacher retention, and enhances the implementation of innovation and change' (Hargreaves and O'Connor, 2018: 3). In Rwanda, leaders of learning led Professional Learning Communities across schools, which helped them to fulfil their responsibilities to lead the improvement of leadership, teaching, and learning. Teacher networks were a key feature of the reforms in Delhi, mainly within schools.

In Shanghai, professional collaboration was at the heart of the sophisticated three-pillar institutional infrastructure created by policy-makers, making a 'third space' (Tsui and Wong, 2010) where collaborative projects could be undertaken and professional knowledge developed and exchanged. In the 2018 report of the OECD Teaching and Learning International Survey, 70 per cent of teachers in Shanghai reported participating in collaborative professional learning at least once a month, while the OECD average was just 20 per cent. In one example, the master studios created a strong collaborative platform for middle-tier leaders to offer support to school leaders. As one principal reported:

I am very grateful to the studio, because when I became the principal…it was overwhelming, and I had feelings of panic. I had no idea about management, planning, financing, and curriculum design. I then joined the studio of a senior experienced principal in our district. The studio was a great platform for me to receive training from senior experts and university professors in curriculum development, planning, and financing. The studio has a group of people, and we can learn from each other without reservation. The peers offered advice and companionship. We discussed our challenges and supported each other.

8.3.3 Fostering an empowering culture based on trust and autonomy

In all five systems, interviewees were keen to stress that 'hard wiring', such as new delivery structures, was only one enabling factor; a critical success factor was the empowering culture developed by policy-makers and non-state actors. There was a

culture of trust and a sense that middle-tier actors were being given autonomy to use their professional judgement in improving teaching and learning. Policy-makers trusted instructional leaders at the middle tier to interpret broad policy directions and make them relevant for school professionals. For example, in Shanghai the educational research officers had significant autonomy in research design, data collection, and analysis, under the general direction of policy-makers.

In Rwanda, in the context of wider education system decentralization, leaders of learning were charged with looking at school performance and using their expertise and judgement to support head teachers to improve. Interviewees described how leaders of learning built a strong collaborative culture in head teacher PLCs, to help share problems and solve challenges. A local leader of learning asked: 'In our own sector, we have pass rates of two schools which differ, although both have 40 qualified teachers each. What makes school A's pass rate 70 per cent, and the other 30 per cent? Why do more parents want to register their children at school A and not school B? Let us be honest to ourselves.' A national leader of learning reported: 'Before, every head teacher worked alone, but now we share the experience. If I have got best practice in my school, I have to share with my colleagues in these PLCs.... We have a strong collaboration because we sit together, and we share what we can't do alone.'

8.3.4 Moving from decision-makers to solution builders

Interviewees from all five systems reported that an important change in their role involved a shift towards solving education problems and away from delivering activities prescribed by policy-makers. Policy-makers now emphasize critical thinking skills and an enquiry mindset. In Wales, one associate articulated the culture of autonomy and the focus on shared outcomes by saying, 'We are solution builders, not decision-makers.' Similarly, in Delhi a TDC commented: 'Before, we were just grumbling over the things, saying this is not happening, that is not happening, [there is] this problem and that problem. Now we are putting our heads together to see how we can solve it.'

As Lyons and Pritchard (1976:15) wrote over 40 years ago, a shift towards 'looking at educational problems with teachers and helping to point the way to their solution [represents] a fundamental change in attitude not only on behalf of the [middle tier] but also of all actors involved in managing the education system'. This culture has enabled the middle tier to be effective and will potentially support more enduring changes in practice. It suggests that more sustainable capacity has been built: 'Traditional leadership and management approaches are well able to resolve technical problems. In the future however leaders will face problems for which there is no immediate solution and will have to build the capacity to deal with them' (Hopkins, 2008).

8.3.5 Developing a culture of collaborative learning

Across the five case studies, policy-makers prioritized collaborative over individual learning as a strategy for system-wide change. They explicitly adopted some kind of framework to structure collaborative learning and build collective understanding of progress over time. Evidence from the cases shows that the power of collaborative learning capacity resides in building professional capital that enables transformative teaching every day. This is to say, a 'professional capital' approach directs teacher development towards a collective understanding of accomplishments and responsibility, rather than individuality and competition (Fullan and Hargreaves, 2013).

For example, in Delhi the programme is designed around a key cyclical structure called the Learning Improvement Cycle which lasts approximately three months and focuses on a high-priority pedagogical topic. All professionals within the system focus on the chosen theme, and all are involved in a series of co-learning sessions and trainings featuring the role-modelling of selected techniques and strategies. In Shanghai the master studios constitute a professional learning community, led by master principals or teachers and comprising district officials and teachers, which sets clear learning outcomes for a structured project to solve local education problems. In Rwanda and Jordan, middle-tier leaders were required to submit portfolios to capture improved professional practices. Leaders had to codify and demonstrate change, which in turn helped them to share and spread ideas with others. Leaders of learning in Rwanda indicated that the process of gathering the portfolio evidence helped them to articulate the skills they have acquired and the new leadership practices they are using to a wider range of stakeholders. One head teacher told us that he can use the portfolio to show any school visitor 'what is happening' and the improvements they have made, facilitating conversations with district-level personnel and helping to build a shared understanding of improvements.

8.4 Adopting a 'learning by doing' approach to overcome challenges

A key enabling factor in all the case studies was the learning mindset adopted by reform leaders to gradually improve the functioning of the middle tier, absorb new innovations, and address emerging issues. It was notable that most of the policy-

makers took a pragmatic approach to change management: they considered the delivery systems and accountabilities at the middle tier complex and 'messy', acknowledging tensions, overlaps, and gaps, and they talked about the ongoing adjustments and shifts needed to improve the delivery of teaching and learning. Planners and policy-makers who are considering developing new middle-tier roles or programmes would do well to note these issues and consider how they might overcome similar challenges within their own systems.

8.4.1 Aligning reform efforts with delivery capacity

A recurrent theme was the time pressure on instructional leaders. Time management was a critical issue for those who still occupied their primary position of teacher or head teacher. For example, the associates in Wales found it difficult to find enough time to support other schools and head teachers when they only served in that role one day a week. They also found that those who worked in smaller schools could put their school at a considerable disadvantage by missing even one day a week. Sometimes there were staff shortages with long-term unfilled vacancies, leading to unrealistic caseloads.

This type of challenge merits due consideration when determining how to design and implement middle-tier reforms. It is necessary to quickly adapt to stop the workload from becoming overwhelming and individuals demotivated, which would undermine momentum and jeopardize the reforms. In our case studies, adaptations were made to accommodate such challenges. For example, policy-makers in Delhi had to adapt the original mentor teacher programme after quickly realizing that they could not provide the proper level of support when each mentor teacher had to cover five or six schools. A new role, the teacher development co-ordinator, was introduced in each school to improve school-based capacity for teacher development. In Jordan, discussions about scaling up are considering similar changes, for instance the creation of a school-based supervisor role to build in-school capacity for teacher coaching and support.

8.4.2 Moving from an accountability frame to a collaboration frame

The middle-tier reforms we explored required a shift from an accountability frame, where teachers were used to judgemental observations, to a collaboration frame in which they could be more open about their challenges. Accomplishing this shift required dealing with initial resistance and confusion, and allowing time for trust to be established in these new relationships.

It has been observed that teachers can put up significant resistance to peer coaching as a method of delivering professional development, partly because this goes against the established tradition of a hierarchy in training processes (Kelsall et al., 2016) and partly because of a preference for learning from better-trained and experienced 'real professionals' rather than from 'peers' (Bill and Melinda Gates Foundation, 2014). As one mentor teacher in Delhi observed, teachers were initially 'sceptical about me'. A teacher development co-ordinator recalled that 'In the beginning, I used to get anxious wondering how other teachers would feel if I held meetings, especially since I was their colleague and not their senior. I used to think that they might not even listen to what I have to say' (quoted in Gibbs et al., 2019).

To facilitate that shift, collaboration practices among peers can be gradually introduced: beginning with low-risk activities and moving towards higher-risk ones. As Hargreaves notes, collaboration can be less threatening if peers start by exchanging materials, planning lessons together, or talking about ideas. Once a relationship based on trust, solidarity, and support is built, collaboration can go one step further to observe practices, give feedback and comments, and co-teach (School Education Gateway, 2019).

The shift can be equally unsettling for middle-tier professionals, who need to move away from a role based on traditional authority towards one focusing on 'softer' influencing and support skills. In Jordan, a programme staff member commented:

> I think what a lot of supervisors are struggling with is that before, they used to have a lot of authority, whereas now with that [changed job description and] role of support…they feel that they don't have that authority any more and teachers aren't listening to them, so there was really a need to educate them on the importance of their role and how they can be effective at supporting teacher professional development without having to resort to dictating.

As De Grauwe (2009: 7) observes: 'A new post description is by far not sufficient to change the culture of a service: supervisors, who always have exercised control and have seen such control as a form of power, are not easily transformed into actors offering collegial support to teachers.'

The new focus on collaborative structures and professional networks was at odds with the traditional more formal and hierarchical structures. In Delhi, there was initially confusion among mentor teachers, who felt that they had multiple reporting lines and that there was potentially overlapping responsibility with DIET officials. In Wales too, the associate role initially caused confusion, since it was positioned outside any formal structure or accountability chain. To avoid this confusion and to establish respectful and focused conversations that can lead to improved practice, enquiry protocols and feedback structures are needed (OECD, 2014a; School Education Gateway, 2019).

Over time, as the purpose of the roles was clarified, resistance and confusion waned. What reform leaders understood well is that building learning partnerships based on strong professional relationships among peers takes time and requires the development of trust.

8.4.3 Building buy-in

Policy-makers in most settings encountered resistance or barriers erected by disengaged stakeholders. Managing stakeholders and gradually widening the networks of collaboration to secure buy-in was an essential step in all cases. Programmes had to be adapted in the process to make sure no one was left behind and that knowledge was shared.

A first hurdle was getting people on board. Interviewees described competing initiatives, which placed demands on their time, and 'reform fatigue'. One mentor teacher pointed out that 'in Delhi, principals and teachers…everyone is a state functionary as well. We have to deal with so many beneficiary schemes and so many other things for the students'. However, as the programmes became established and gained momentum, stakeholders started witnessing benefits and buying in to the support and collaboration offered by the instructional leaders.

With better understanding of the local landscape, changes were made to improve buy-in and gradually engage stakeholders in the most effective way. In Delhi, Rwanda, and Jordan, interviewees saw increased collaboration among all stakeholders as a significant positive outcome, although it took time to develop. A common challenge was head teacher engagement: in both Delhi and Jordan an engagement plan and orientation sessions were quickly incorporated into reforms to ensure head teachers were brought on board with the collective efforts to support teachers' practice. In Jordan, although supervisors initially set up social media groups among themselves and their teachers to share resources after training sessions, they gradually began to include others, such as teachers from other schools and actors from other agencies. One supervisor said: 'We say the programme combined us together. We are a team, one team. Before this we did not interact with one another.'

Building buy-in also required making sure that information was disseminated for wider public benefit. Although policy-makers in all five case studies took a structured approach to collective professional learning, they often faced challenges in disseminating knowledge and learning. For example, in Jordan supervisors are generating new knowledge products, such as video clips of high-impact teaching, but these videos are not currently made widely available. To address this challenge, a new website is being developed to ensure videos and other materials are available to other professionals. Similarly in Wales, interviewees were keen for associates to produce materials or guidance notes for wide distribution.

8.4.4 Allowing time for the reform to generate results

Systems should allow time for any new roles or programming in the middle tier to take effect and demonstrate their worth. Though policy-makers or legislators may often want immediate results, the type of structural, systemic change that instructional leaders help facilitate simply takes time. For example, the most embedded and high-functioning system that we studied – the middle tier in Shanghai – has had several decades to grow, adapt, and establish itself as an integral part of the education structure. Allowing those middle-tier roles the time and space to find their proper place has led to a system that now seems to be flourishing.

Giving new initiatives time to grow also presents an opportunity for the role-holders themselves to take ownership and establish a deeper sense of buy-in. In Delhi, DIET officials and other established middle-tier leaders took increasing initiative as the TDC programme progressed. This allowed STiR (the NGO providing support for establishing the programme) to step back and pass responsibility on to the Delhi employees. In Wales, the first cohort of associates struggled with the co-construction process as they went through their initial training. However, new cohorts eventually acquired a greater sense of connection and legitimacy.

Building complex networks takes time and consolidation. Middle-tier reforms take a medium- to long-term view of achieving their goal through building a more fully functional education system.

8.5 Conclusion

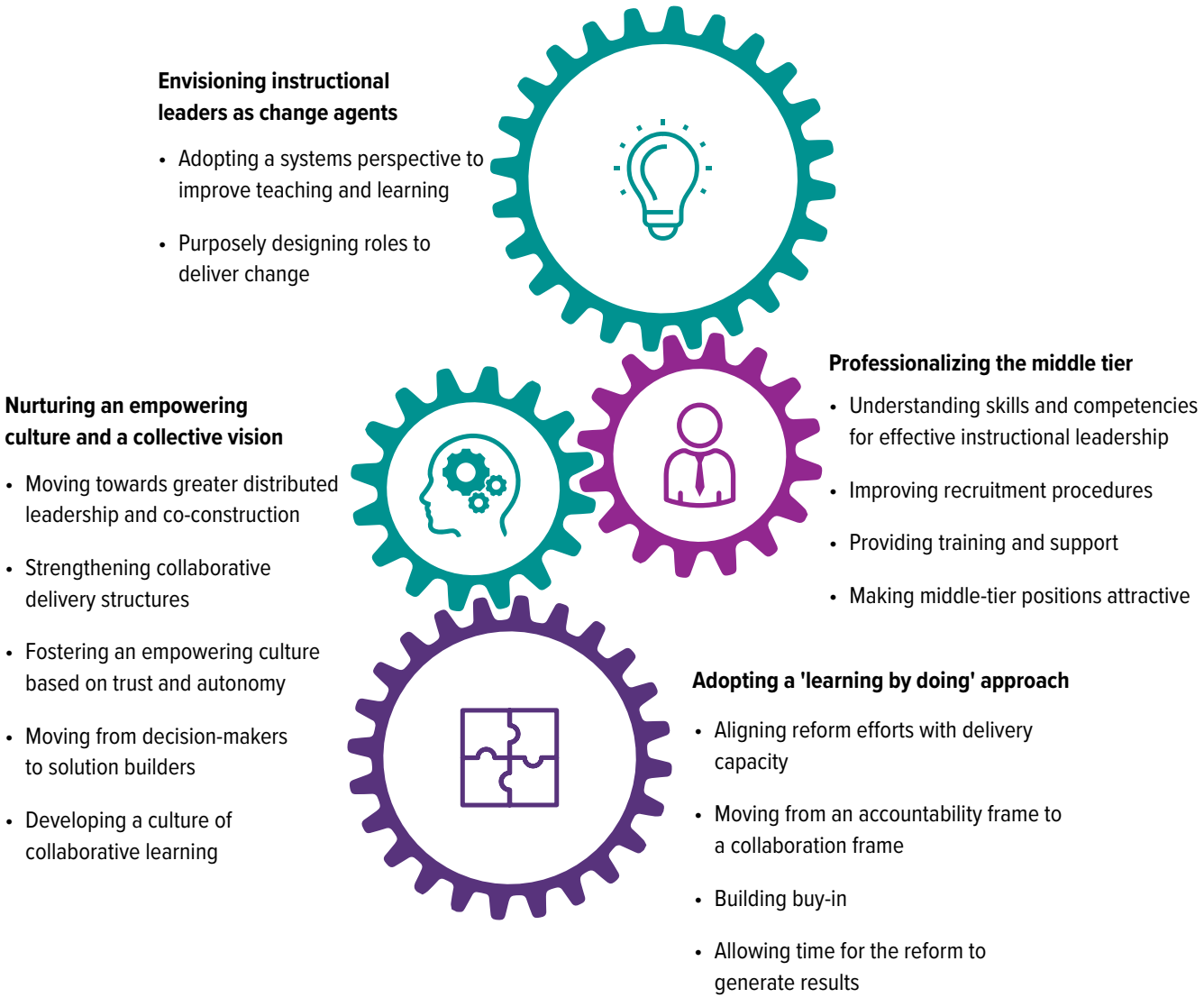
Figure 8.1 summarizes the success factors and policy considerations identified in our research. First, in all cases policy-makers invested in middle-tier personnel, seeing them as critical actors in the accountability chain. Although the five case-study settings are all very different, what unites the policy-makers is their perception of the middle-tier professionals as change leaders rather than just another layer in a hierarchical pyramid. They see them as allies, and they trust and promote them as local experts, capitalizing on the unique skills and knowledge they would bring to support front-line practitioners.

Second, policy-makers enabled the middle tier to operate in this new capacity as instructional leaders by professionalizing the workforce. For example, they invested in professional recruitment procedures and professional development to ensure the right skills and competences were in place to deliver this challenging new responsibility.

Third, policy-makers built a collective vision and empowering culture; they set up collaborative delivery structures such as Professional Learning Communities and teacher networks, which enabled the middle tier to support peer professionals, and they empowered middle-tier leaders with autonomy and a professional identity as problem solvers and solution builders.

In every case this represented significant change in complex systems. By redesigning middle-tier roles, policy-makers were in effect redesigning delivery systems 'from the middle' for education reforms. To make this work in the medium to long term, policy-makers adopted a 'learning by doing' approach, being open to collective learning, adaptation, and continuous improvement, and bringing stakeholders along with them on the learning journey.

Figure 8.1: Overview of success factors and policy considerations



Source: Authors

Chapter 9. Programme design, implementation, and sustainability

Barbara Tournier and David Childress

This chapter explores how planners approached the implementation and sustainability of each programme's design. Beyond their common challenges, several important lessons can be gained. Across the studies, adjustments are still in the making. As programmes mature and grow, broader questions of scaling need to be considered. Planners and policy-makers need to have those broader questions in mind from the beginning to anticipate developments further along the way. We address the need to consider sustainability and scalability issues early on, to recognize that middle-tier reforms are systemic in nature, and to commit sufficient resources.

9.1 Considering sustainability and scalability issues early on

9.1.1 Identifying roles with high potential

The right personnel need to be recruited into these middle-tier leadership positions to provide the designed level of support and facilitation for teachers or head teachers. But what type of personnel should be recruited? One of the first steps is to identify which roles have high potential to provide change agents, and to ask whether those role-holders exist or can be recruited in sufficient numbers. While the specifics of such questions will obviously vary from system to system, depending on the exact nature of the role to be filled, some broader considerations did emerge from our five examples.

In all our selected case studies, the programmes placed emphasis on recruiting practitioners. Our research showed that this allowed the middle-tier personnel to immediately achieve credibility among the teachers and head teachers they work with. These are not outsiders instructing teachers and head teachers on good practice, or forcing some new theories on them; they are people who have been in the same position, and who offer legitimate advice on how to improve practice. In Rwanda, for example, recruiters sought out head teachers with at least three years' experience who had demonstrated a commitment to improving learning in their schools and developed a distributed leadership approach. These teachers would already have preparation for some of the key aspects of the leader of learning position.

In fact, in all our case studies except for Jordan, a deliberate choice was made to recruit instructional leaders who were serving school-level practitioners with no role in formal accountability processes. This has the dual advantage of making sure that instructional leaders can be mobilized in sufficient numbers and of emphasizing the value of in-school peer support. In the case of Jordan, the current caseload of supervisors is too high to provide regular coaching to all teachers, and discussions are being held about turning to school-level actors. This suggests that when designing and implementing such reforms, relying on school-level practitioners can greatly facilitate scaling, since they have a foot in practice and can be mobilized in every school.

For instructional leaders to gain the trust of teachers, a clear message must be sent to the effect that they do not share reports of individual performance as part of evaluation. This makes teachers much more at ease and open to sharing their difficulties. Summative evaluations may be conducted by other actors to ensure formal accountability for their performance in the classroom.

Fostering a culture of continuous learning includes engaging teachers both in externally provided professional development and in peer support. School-level peer support is fundamental because teachers will more easily relate to people who know their work, with whom they have regular interactions. According to the OECD's TALIS survey results, this makes perfect sense: 'rather than sitting through hours of mandatory lectures that are only weakly connected to their day-to-day practice, teachers benefit more from learning from each other and from sharing "tried and tested" techniques that work in their own contexts' (Carvalhaes, 2017). Relying on teachers' expertise and professionalism can have long-lasting effects when embedded in the profession's intrinsic ethics and ideals, and empowers teachers to be in control of their work (Fullan et al., 2015). Such internally driven approaches can strengthen the role of teachers as autonomous professionals and promote job satisfaction (Smith and Persson, 2016, quoted in Global Education Monitoring Report Team, 2017: 78).

9.1.2 Sustaining the motivation of instructional leaders

Relying on school-level actors requires thinking about how to sustain the motivation of instructional leaders tasked with new responsibilities. At what stage is it necessary to formalize roles within a career structure, and is this desirable? Can policy-makers count on the goodwill of middle-tier instructional leaders for long without formalizing their roles? Those who are intrinsically motivated may continue to be engaged, while others might be tempted to pursue their personal growth journey, and options need to be thought through for those cases. Should other roles be envisaged along a career pathway as programmes mature? Unfortunately, the programmes in our sample were either at relatively early stages of their reforms or very mature, as in the case of Shanghai. There is thus a lack of information about what happens to role-holders in systems as they become more established, and future research should address this.

This issue was not expressed directly in our interviews or focus group discussions, but questions emerged as we analysed our findings. For example, the head teachers in Wales and Rwanda took on extra commitments and responsibilities without a clear promise of compensation or other external motivation. While these positions were targeted at high performers, who tended to be intrinsically motivated, it is unclear if this is a sustainable model or whether some other form of motivation to apply for these roles should be introduced (either money, professional development, or career progression). In Delhi, the model calls for mentor teachers to rotate back to normal classroom teaching after a two-year period. Since the programme is still new and this process was interrupted by Covid-19, it has yet to be determined whether this structure will work. Some incumbents were anxious to know what the next step in their career might look like once the posting came to an end. In Rwanda there have been discussions about whether leaders of learning will eventually have to be paid in order to more fully embed the roles within the system. On the other hand, there is a case for a time limit to the role, unless some form of assessment of performance takes place.[18]

The question of whether instructional leaders should get additional pay has no obvious answer. A key point here is that the middle-tier approach to system change relies on igniting the intrinsic motivation of the workforce. Non-financial elements of job design are closely associated with intrinsic motivation, as are many supportive management practices, which may require little or no financial outlay. These practices include increasing employee autonomy, competence, and relatedness. It follows, as Honig writes, that 'fostering the intrinsic motivation of the many dedicated public servants who want to serve the public is a potentially important untapped margin for improving public sector performance and thus citizens' welfare' (2021: 9). As a result, priority may be given in the early stages to non-financial ways to offer opportunities and recognition. Financial incentives should be considered where necessary, but while they are associated with positive effects on intrinsic motivation, even greater effects are observed in the case of many non-financial elements which may be less expensive to introduce – for example, setting clear objectives for staff and ensuring they have sufficient autonomy to make decisions (Honig, 2021).

Formalizing positions within a career pathway requires finding the right balance between maintaining motivation and avoiding putting actors in competition. In Shanghai, where roles have been formalized, there is stiff competition among teachers, schools, and districts, as collaboration becomes competition for promotion, reward, and reputation. Even where taking on new responsibilities does not increase pay, as in the case of the principals running master studios in Shanghai, it can bring 'many privileges: professional prestige, social respect, networking opportunities and funding resources that ordinary teachers do not easily have access to. This professional capital in turn triggers the accumulation of more capital' (Shanghai case study). If the exchange of good practices is enhanced by the existence of formal arrangements, how does one achieve the right balance and cultivate a sense of community and collegiality?

Questions like these about the progression of instructional leaders went largely unanswered in our case study examples, but certainly need to be addressed by planners and policy-makers when developing middle-tier positions.

[18] A similar issue was faced in the Teacher Career Pathways programme in New York City, where role-holders were asked to re-qualify every two years, but the question of what opportunities to provide teacher leaders in their fourth or fifth year remained unsettled (Crehan, Tournier, and Chimier, 2019).

9.1.3 Scaling up NGO-supported programmes

In Rwanda, Delhi, and Jordan, the programmes presented in our case studies were supported or initiated by NGOs and development partners. Governments need to carefully consider how to roll out NGO support when programmes are taken up at a national level.

In both Delhi and Rwanda the programmes were gradually embedded in the national system, starting on a smaller scale and then providing the evidence necessary to assist such systemic change. While sustainability was less of a concern in the more embedded and systemic programmes (especially in Shanghai, where this is a non-issue), respondents in Rwanda and especially in Jordan brought up the issue. Both of their programmes have been designed and mostly run by organizations working outside the established education bureaucracy. While the Building Learning Foundations programme in Rwanda has expanded across the whole country and works with district education officials, several aspects of the BLF role still need long-term answers: Who will provide ongoing training? Will there be any extra pay for leaders of learning? How long will they serve in these roles?

Delhi and Shanghai may both provide some insight on how to overcome sustainability challenges. Delhi also partnered with an organization outside the established education structure when developing the finalized version of the TDC programme. However, instead of choosing to let the programme run outside the established middle-tier structure, Delhi took complete ownership of it, while still receiving support from STiR, as the programme became more established and ready to function on its own. A DIET official expressed the view that 'at this juncture, without STiR Education, then this programme will not sustain. But after two or three years, if they withdraw their support, then we can sustain this programme'. Likewise, Shanghai's example shows that a middle-tier structure can take a long time to develop and continue to change and adapt to best meet the needs of teachers and schools, as long as it receives continued support.

9.2 Recognizing that middle-tier reforms are in effect system reforms

Reforming the middle tier has wide implications for the education system. In essence, it means looking at the infrastructure of education systems and the relationships within them, and fostering a mindset focused on collective responsibility.

9.2.1 Fostering a multi-layered system of support

The argument for fostering a multi-layered system is put forward by Filmer, Nahata, and Sabarwal (2021). They make the point that educational leadership and teaching practice do not occur in isolation, but are embedded in multiple overlapping relationships and rely on their environments for essential resources. They advocate 'an extended conceptualization of educational leadership as a multi-level distributed process, involving a broad set of individuals and organizations that take responsibility for leadership and the human, material, and social resources essential for the project' (2021: 33). This multi-layering is essential in middle-tier reforms.

Teachers' success can be likened to that of a football team, where the players are the teachers and the manager is the head teacher. The team's success depends on what they achieve individually and collectively, but at the same time the team is only the visible element of an entire support system, operating behind the scenes to make it successful. Similarly, instructional leaders depend on the resources and commitment of leaders in other structures and at different levels of the system, whose ability to marshal resources and motivation for improving teaching is critical to success.

How then did the authorities responsible for our five case studies take on this multi-layered perspective? First and foremost, they understood the importance of a system of support for all actors in the system, whatever their position. This is clearly exemplified in the Shanghai system, which is carefully constructed around a three-level professional structure, forming a chain of guidance and leadership from the municipal level down to schools via the districts. In Rwanda, the system provides for professional learning at all levels through its triple-helix design, which engages professionals in collaborative professional development. In Delhi, depth and layering of support is present throughout the system. Providing support for the supporters clearly brings out the need for a whole-system approach, and is akin to the Education Commission's vision of a 'learning system' (Education Commission, 2019).

9.2.2 Shifting to collective responsibility

Middle-tier leaders sit in an ideal position to interact with actors across the entire system. Following Leithwood's (2013) argument that improving school leadership can generate increased returns by influencing an even larger number of teachers, improving middle-tier leadership can reach yet more expansive areas of influence. In Delhi, for example, mentor teachers and TDCs take up themes and strategies promoted by the state in a Learning Improvement Cycle, and ensure that teachers throughout the system have practical access to them. In this way, the middle tier acts as a vital cog in the machinery of an education system, keeping everything and everyone running smoothly towards a common goal. When head teachers in Wales and Rwanda began working as middle-tier leaders, they felt a stronger collective responsibility for all students in the system. Instead of worrying only about their own schools, they began building relationships and sharing insights. By working together and discussing best practices, participants in every part of the system can start driving towards the same goal – improving students' learning outcomes.

Achieving this shift to collective responsibility signals the growing maturity of a middle-tier system, and is what Hargreaves and O'Connor (2018: 15) refer to as collaborative professionalism, in which 'there is collective responsibility for other people's impact on their students as well as personal responsibility for teachers' impact on students of their own. The school is no longer about my students. It is about our students'. Hargreaves and O'Connor further argue that collaborative professionalism in mature systems moves beyond both 'contrived collegiality', where collaboration is mandated from above, and more informal collaboration between colleagues. Instead, high levels of trust and precision drive deliberate collaboration that leads to collective improvements. The focus on fostering supportive management practices and seeking to empower intrinsically motivated bureaucrats is rooted in the idea that change comes from collectively tackling issues and co-ordination with all agents in a system, a delivery approach that 'encompasses practices that create routines for collaborative problem-solving and organizational learning' (Williams et al., 2021: 19).

9.3 Committing resources to accompany middle-tier development

Officials should always remember that implementation is an ongoing process. It requires constant supervision and adjustment if any structure is to have the chance to succeed, as well as incremental and sustained efforts over several decades to be successful. Governments should be prepared to commit resources to accompany developments at the middle tier and to invest in monitoring and evaluation.

9.3.1 Considering costs and gradually building up funding

Although middle-tier reforms may be seen as relatively low-cost interventions, governments must be prepared to commit resources and accompany the development of the middle tier as systems mature. While the vast majority of countries have district-level positions or actors at the school level who can be brought up to the middle tier, middle-tier reforms do require management capacity. Moreover, ensuring sustainability requires gradually building up funds to respond to programme needs. Initial costs may include such expenses as co-ordinating the clusters, developing materials, providing expert inputs, and offering professional development activities, as well as giving time off to actors who take on responsibilities in addition to their usual duties. Funding should also be set aside for monitoring, evaluation, and communication. In the longer term, additional funding may be necessary for full-time positions or new structures. In Shanghai the government invests resources in funding (for projects), staffing (positions in specialized institutions), and time (to experiment, test, and improve).

9.3.2 Evaluating, communicating, and monitoring impact

One frequently overlooked but critical expenditure item is monitoring and evaluation, including communication of results. Formalized monitoring and evaluation systems need to be established to assess the effectiveness and value of middle-tier roles, and to adjust them as the reform unfolds. This enables officials, schools, and parents to understand what the roles are accomplishing. At the same time, systems need to establish a clear communications or public relations plan to promote the results. Designing and applying such measures from the start can help address the challenge of gaining initial buy-in from teachers and head teachers, a situation that many participants in our case studies experienced during rollout. In Wales, one educator commented: 'If somebody asks me what needs to happen, I'd probably say there needs to be a stronger PR.... This would help to establish legitimacy, clarify what the associates do, and would allow the NAEL [National Academy for Educational Leadership] to adapt the AAP [Academy Associates Programme] based on evidence.' In Jordan, respondents worried that a lack of communication and sharing of results on a wider scale would jeopardize the sustainability of the initiative.

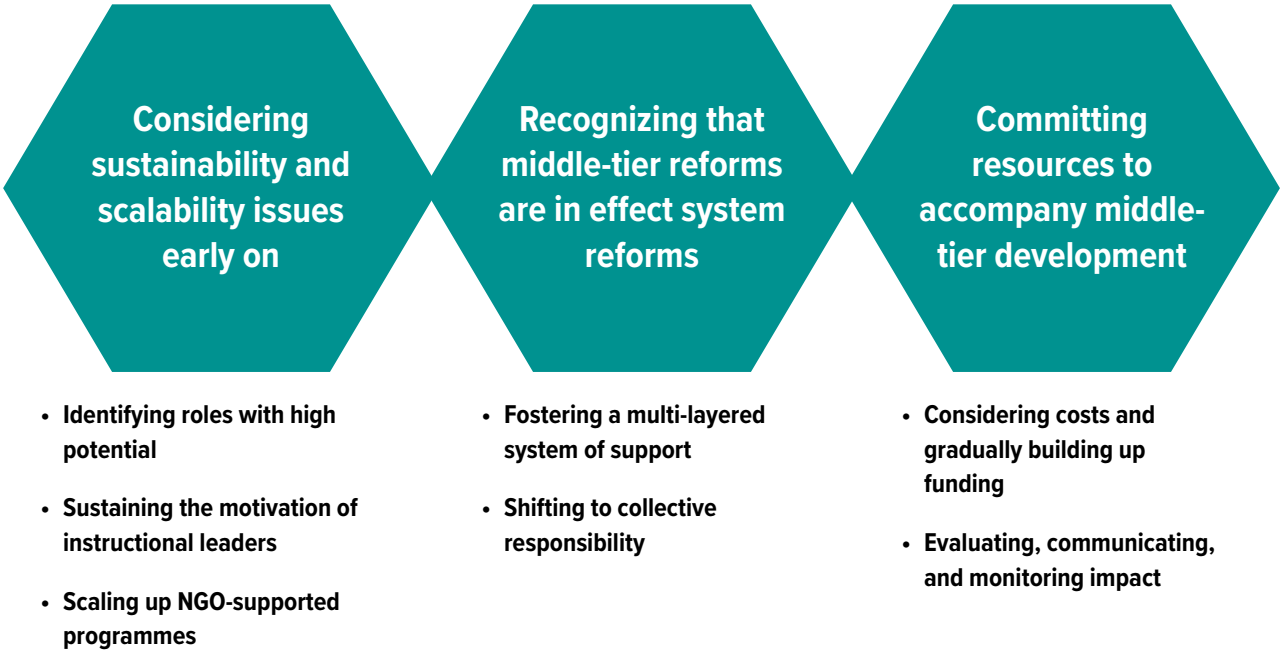
Middle-tier leaders are uniquely positioned to provide support and help improve teaching and learning outcomes. However, their position makes it difficult to accurately measure and monitor the specific impacts of their efforts. Do improved test scores and classroom practices stem directly from the interventions of middle-tier leaders, or do other factors play an equal or larger role? These questions are extremely difficult to answer. However, what can and should be done is to carefully monitor perceptions of the programme's effects among the main stakeholders: Do teachers feel that their teaching practices have evolved over time?[19] How regularly do they interact with instructional leaders? How often and in what ways do they collaborate with their peers? A robust monitoring and evaluation system, including longitudinal surveys, can help policy-makers and planners better understand the true longer-term impacts of their middle-tier programming and fine-tune programmes in the short term. Unfortunately, this was not always in place in the cases we observed.

Monitoring and adjustments help to make a programme successful by continuously fine-tuning programme design and implementation, especially where the approach to implementation is incremental and based on learning by doing. In this way foundations are laid before it is taken to the next level. Stakeholders need to learn and adjust throughout the process and grow along with it. Thus, while the proper design of the programme and the recruiting and training of qualified candidates are all-important, planners and policy-makers should also address communication and monitoring, which could prove vital to establishing validity and, ultimately, sustainability.

9.4 Conclusion

For reforms to be successful actors must consider broader policy issues, beginning at the design stage, to ensure that appropriate choices are made from the start. These issues include promoting sustainability and scalability, monitoring the effects of the reform on the infrastructure and relations within the education system, and making resources available for the management of the middle tier. Figure 9.1 captures the considerations for programme design, implementation, and sustainability discussed in this chapter.

Figure 9.1: Considerations for programme design, implementation, and sustainability



Source: Authors

Identifying which roles should be brought up to the middle tier – those with the greatest impact, whose holders can be mobilized in sufficient numbers when scaling up while sustaining their motivation – is one fundamental requirement. Another is multi-layered support: support to the supporters must be provided across education systems. When all work together towards a common goal, collective responsibility can be shared across a system rather in an individual school. Finally, it is essential to allocate resources for day-to-day operations as well as for monitoring purposes, to accompany and continually adapt to programme evolutions.

[19] Readers can refer to the experience of the Teacher Careers Pathway programme in New York City, where a monitoring and evaluation system was established from the start, helping to stimulate the programme and assess its effects on teachers (Crehan, Tournier, and Chimier, 2019).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Chapter 10. Conclusion

Barbara Tournier and Charlotte Jones

10.1 Summary of findings

Looking to the future and reflecting on the challenges the teaching profession faces, UNESCO's Futures of Education report calls for 'recasting teaching as a collaborative profession', emphasizing that 'teaching should be further professionalized as a collaborative endeavour, where teachers are recognized for their work as knowledge producers and key figures in educational and social transformation' (UNESCO, 2021: 90). More specifically, it calls for four principles to be followed.

- Collaboration and teamwork should characterize the work of teachers.
- Producing knowledge, reflection, and research should become integral to teaching.
- The autonomy and freedom of teachers should be supported.
- Teachers should participate in public debate and dialogue on the futures of education.

We believe our report is closely aligned with this vision and offers policy-makers some concrete perspectives on how to implement this recasting of the teaching profession. The sections below summarize our findings. We conclude by calling on policy-makers to invest in the middle tier of education systems, and suggest areas for further research (Box 10.1).

Box 10.1

Summary of findings

Building on advances in education research, drawing particularly on literature related to educational leadership, motivation, and governance, we developed a framework to present the benefits of a redesigned or strengthened middle tier in improving instruction and learning. In so doing we shed light on professional practices that contribute to a healthy and mature learning system. Our framework has five components:

- **providing support for school and teaching improvement**
- **promoting professional collaboration within and across schools**
- **brokering knowledge to promote the use of evidence**
- **providing local instructional direction and system alignment**
- **testing innovations and scaling up promising practices.**

In addition, we recognize common traits in the vision or mindset of reform leaders that translate into policy design. We argue that these are necessary if middle-tier actors are to deliver on their potential to act as change agents. They include:

- **envisioning instructional leaders as change agents**
- **professionalizing the middle tier**
- **nurturing an empowering culture and a collective vision**
- **learning by doing to overcome challenges.**

We draw attention to broader and longer-term considerations for policy-makers seeking to implement such reforms, particularly in terms of scaling and sustainability. We emphasize three needs in particular:

- **to consider scalability issues early on**
- **to recognize that middle-tier reforms are in effect system reforms**
- **to commit resources to accompany developments at the middle tier.**

Our research sought to deepen understanding of the pivotal role that instructional leaders at the middle tier can play in improving teaching and learning. Through documenting their experience in systems where their roles have been enhanced or given new impetus, we sought to shed light on their professional practices and their perceived impact, and to identify the enabling conditions reform leaders put in place to maximize their chances of delivering change.

Our case studies revealed that instructional leaders at the middle tier have a fundamental role to play in the success of education systems. They can act as the voice of the profession, advocating upwards for teacher and school leader professionals, including influencing policy and ensuring feedback from head teachers and teachers is taken seriously as part of system learning and improvement. They are also translators and mediators who relay reforms downwards: they translate policy into meaningful statements about what needs to happen at school level to improve teaching and learning, thereby building ownership of reforms.

Laterally, they foster collaboration between school-based professionals, encouraging the exchange of practice and knowledge. They partner with teachers and school-based professionals, coaching them in improved teaching and learning. They promote learning by translating evidence and research into practical solutions for teachers and leaders, by raising expectations, and by modelling excellent practice and high professional standards. They understand how to take the first, realistic steps towards improved teaching and learning, and strengthen development for school-based professionals. They often use soft power and informal networks. They see themselves as solution builders, not decision-makers, building professionals' confidence, sense of status, resilience, and sense of agency, as well as skills.

We found that a few shared conditions made these instructional leaders effective. First, reform leaders recognized the potential of middle-tier actors to introduce changes that will benefit teaching and learning, and empowered them to act as change agents through careful attention to their recruitment, training, and professional support. Next, reform leaders successfully created a shared purpose and goals for education reform. The creation of solid relations between schools, the building of horizontal networks and peer accountability for teachers and principals, the granting of greater autonomy in combination with more emphasis on learning outcomes and the recognition of successful change agents, all contributed to establishing a collective vision within the education workforce.

Reform leaders are aware that changes deployed from the central level will not solve all problems, and that a bottom-up approach is essential. They relinquish some of their authority in favour of making decisions at the lowest levels, and recognize the value of working with the grain (Levy, 2014). In so doing, successful reformers engage in a process of co-construction. They recognize that change is messy and non-linear, and will require adjustments along the way that only those closest to the ground can identify and respond to. They acknowledge that 'It is a lot easier to change structures and terminology than to transform ingrained cultures and traditions' (De Grauwe, 2009: 7), and that such change requires continued and sustained investment.

10.2 Investing in the middle tier

Across the five case studies, we have seen that when policy-makers invested in instructional leadership at the middle tier they experienced a range of benefits. The idea that education systems should be rooted in collaboration and dialogue between actors at different levels appears fairly intuitive and based on common sense: so why has this not been more regularly adopted in education policy-making? We argue that further investment in the middle tier is needed, and recapitulate the main reasons for this claim.

10.2.1 Balances out accountability measures

Alignment and direction provided by the middle tier, based on a shared sense of purpose, can help to offset education systems' tendency to focus on accountability routines that are excessively compliance-oriented. If done badly, external accountability can hinder the professionalism of teachers and school leaders and undermine the agency of school staff in interpreting and enacting policy reforms (Greany and Higham, 2018). Instructional leaders at the middle tier can reset priorities for learning by allowing educators to focus on interventions aimed at improving instructional leadership. For example, they can support the diagnosis of implementation challenges and facilitate collaborative problem-solving. As Honig and Pritchett argue:

> There are good reasons to worry that a focus on accounting-based accountability may not just be neutral, but actually detrimental, to system-wide performance. The multitasking problem in economics (Holmstrom and Milgrom, 1991) suggests that if people working in the education system invest time in collecting what can be measured and reported, they will do so by investing less time in what cannot be as easily accounted for – like teaching quality, individual instruction, relationship-building, responsiveness to parents or other teachers, etc. (Aiyar and Bhattacharya, 2016). (2019: 27)

10.2.2 Enhances motivation and stimulates a professional outlook

Our case studies illustrate how supportive instructional leaders can foster a mindset shift among the personnel they work with. By leading programming that targets head teachers or teachers, a strong middle tier can work towards improving collaboration in schools and positively impact the overall culture. This can improve motivation and allow teachers to feel more comfortable about trying new strategies or teaching methods, in a supportive environment where they feel connected to an overall vision. They may also be more apt to adopt and embrace future reform efforts.

In the long run, middle-tier leaders may also contribute to developing a virtuous cycle of recruitment and retention. As Honig and Pritchett argue, 'if reporting becomes a tool of control, it can constrain teacher autonomy, leading some of the best teachers to exit' (2019: 27). Though other factors such as salary, career progression, or job security also matter (Tournier and Chimier, 2019; EFA Global Monitoring Report Team, 2015), a more professionalized and motivated teaching corps has the potential to attract higher-quality recruits or retain highly experienced staff members. A stronger middle tier can thus play a valuable role in developing the foundational architecture for stronger, more high-functioning systems.

10.2.3 Does not require complex system changes

A major argument in favour of investing further in the middle tier is that governments are already investing in this level, so that strengthening it does not require considerable system change. Leaders and officials at this level offer enormous potential for improving teaching and learning outcomes. Emerging research showing the cost-effectiveness of school and district leadership programmes in improving learning outcomes and school quality emphasizes the potential of investing in the middle tier (GSL, 2020). It may simply take a refocusing of a job description, or better balancing of support and accountability, to make a strong impact on a system's culture and professionalism. Strengthening a system's middle tier is a promising and organic way to build on professionals themselves and give them more recognition and status. Governments in search of options to improve the quality of education should consider it as an easily actionable reform.

10.2.4 Cultivates a learning system

In recent decades, many public-sector reforms have focused on technical solutions and tight management control. Yet successful reforms are often associated with changes in day-to-day professional practices that are far harder to accomplish than implementing compliance monitoring. Recent research suggests that reforms often fail because they pay too much attention to 'technical' solutions, without building the wider human capacity that secures enduring change in mindsets, culture, or political buy-in (Naylor, Jones, and Boateng, 2019), and supports the changes in practices and behaviours that lead to improved teaching and learning. Well-designed instructional leadership roles at the middle tier can ensure powerful professional development for school-based professionals. As Yamini Aiyar reminds us,

> When we look for reforms and we talk about system reforms, we often focus on technical tools to better monitor and manage the front line, the bureaucrats that are tasked with implementing reforms, but these very bureaucrats operate in an ecosystem and change will only be driven when we are able to slowly and carefully infuse small changes in how bureaucrats and frontline actors, particularly the teachers, perceive themselves, understand their role, and carve out spaces of empowerment, in contexts that are by definition, hierarchical, bureaucratic and paper driven. More rules, more monitoring through paper will only serve to undermine the core objectives of reforms to change education systems. (RISE, 2020)

10.3 Considerations for further research

This exploration of five very different systems has shown how they have successfully utilized middle-tier instructional leaders. Future research should continue to build the narrative and gather evidence about this important component of education systems. We end this report with a series of recommendations.

Further research on effective middle-tier practices and time utilization

Much of this report has focused on reforms at the middle tier and system-level policies designed to bring this about. Our evidence about the impact on middle-tier professionals has been largely qualitative. More research is needed to capture and codify what these practitioners actually spend their time doing, and how effective this is in improving teaching and learning. Some exemplary work has been undertaken in high-performing systems, for example by Leithwood (2013), but there is little evidence or analysis

for lower- and middle-income contexts. Future research might explore time-on-task for activities such as teacher coaching, monitoring, and planning, and its relationship to teaching and learning gains, giving researchers a richer picture of what effective professionalism at the middle tier looks like. This would be in line with recent research on teacher effectiveness, which confirms that teacher practices and their beliefs are more reliable predictors than commonly used characteristics (gender, qualifications, experience) (Filmer, Nahata, and Sabarwal, 2021).

Further research on the link between practices and student learning

Beyond monitoring and evaluation, further research on the extent to which learning- and instruction-focused practices at the middle tier bring about changes in student learning would help make an even stronger case for investing in it. Given that middle-tier roles may be removed from the school and only indirectly impact student learning, this is extremely difficult to do. Both qualitative and quantitative studies are necessary: qualitative research can document the actual practices of instructional leaders; while garnering more quantitative evidence would help to place middle-tier reforms high on the agenda of policy-makers and international agencies, who are more prone to privileging quantitative approaches (Blackmore, 2005: 100).

More evidence on scaling and systemization of middle-tier workforce innovations

To better understand middle-tier structures and leadership, deeper analysis of the growth, maturation, and embedding of new roles and approaches is needed. This includes determining at what point roles need to be formalized, as well as communicating about reform efforts. By better understanding how strong middle-tier systems identify and promote their successes, newer initiatives may be able to learn how to grow and sustain their programming.

Growing the evidence base on a range of middle-tier roles beyond instructional leaders, including administrative and management roles

We also need to consider the broader education infrastructure and investigate other roles at the middle tier. We decided to focus on roles geared towards instruction, but other actors in administration and management also play a critical role in ensuring the quality of education and making sure that front-line actors – teachers – can deliver in the best conditions possible. Inefficiencies in teacher distribution, supply, and utilization have critical implications for costs and teacher motivation. This research would include investigation of the roles, structures, and resources used to co-ordinate and improve teaching (Spillane, Morel, and Al-Fadala, 2019).

Investing in more systematic data and evidence collection at country level

Better data on the roles within the middle tier, their numbers, and their allocation within countries would be highly valuable, for example to help policy-makers ensure an equitable distribution of resources. Unfortunately, we were not able to access this kind of data. Cross-country comparisons are not possible due to inconsistent approaches to aggregating information collected in education sector research. Furthermore, there is no standardized typology across countries for similar middle-tier roles. Nonetheless, an initial breakdown of the data at country level could easily be envisaged by policy-makers as a first step to take stock of the composition of their middle tier, its weight in the education workforce, and its distribution.

Appendix: About data collection

This research was jointly conceptualized and carried out in partnership between IIEP-UNESCO and the EDT. It was carried out in the midst of the Covid-19 pandemic, which forced us to adapt our original data collection design. Three of the case studies (Wales, Rwanda, and Jordan) focused on EDT programmes or consultancy work where a middle-tier role has been developed with a particular focus on elements of collaboration. IIEP identified the other two case studies (Delhi and Shanghai) through the literature review, as bright spots where the middle tier was recognized as having an active role.

Field work began in Wales, with joint data collection by both IIEP-UNESCO and EDT researchers across 17 semi-structured interviews and one focus group discussion. This initial case study served as a joint pilot to test interview tools and, as conditions soon warranted, find the best procedures to transition into virtual versus in-person interviews. The research began in early 2020, and the majority of the interviews and the focus group discussion took place in person, before the Covid-19 lockdowns. However, some of the final interviews had to be conducted via phone due to lockdown procedures during the last stages of data collection. Though they did not provide opportunities for informal observations or in-person interaction, researchers determined that virtual interviews were a feasible alternative for the research to continue.

Following Wales, EDT led the research studies in Rwanda and Jordan throughout the summer of 2020. Again, due to Covid-19-related lockdowns no interviews could be held in person. For Rwanda, nine semi-structured interviews and one focus group discussion adopted a virtual format, with researchers using online software to conduct interviews from afar. Jordan faced scheduling difficulties, and researchers could only conduct two new remote interviews with programme staff during the data collection period. Instead, recent interview and focus group transcripts (recorded from 2017 to 2020) and other monitoring and evaluation data, many of them unpublished, were utilized to develop the case study report. This included 15 interview transcripts with supervisors, teachers, and principals, three focus group discussions with students, teachers, and supervisors, and self-assessment surveys from 22 supervisors and 168 teachers. Out of the 168 teacher survey responses, 151 were matched to the supervisor data to allow for comparison. It was not possible to match the remaining 17 teachers with supervisors due to insufficient identification data. Since 180 teachers were part of this project, this was a response rate of 84 per cent.

Two further case studies were led by IIEP-UNESCO in Delhi and Shanghai through the autumn and winter of 2020. For Delhi, researchers spoke to all originally scheduled role-holders through a series of 24 semi-structured interviews and two focus group discussions, via online software. The Shanghai interviews and focus groups took place partly in person and partly online. In total, the Shanghai team conducted 18 semi-structured interviews and five focus group discussions. As in Delhi, all initially scheduled role-holders were interviewed during this time.

Data analysis and synthesis were also carried out jointly by IIEP-UNESCO and EDT. Initially, data from the five case studies were analysed and the chapters drafted by the individual research teams for each country. Researchers then carried out manual coding to separate this combined dataset into five main categories: programme structure or contextual factors, recruitment and training, outcomes or impacts, challenges, and key takeaways. They next parsed each of these main categories to find common trends across the five case studies. This coding took place within a theoretical framework drawn from the literature on effective middle-tier functions. These trends, and the accompanying nuanced analysis, drive the narrative in the synthesis chapters.

Table A.1 provides an overview of the interviews and focus group discussions conducted, and the existing data tapped into for this research. In total, some 80 interviews were conducted as well as nine focus group discussions (FGDs).

Table A.1: Overview of data collection sources

	Interviews conducted during data collection period	Focus group discussion (FGD) or workshop conducted during data collection period	Other or previous data from earlier research
Rwanda	9 in total consisting of: 1 BLF staff 1 University of Rwanda lecturer 2 DEO 1 SEI 2 LLL 2 NLL	1 (6 programme staff)	Monitoring data Teachers Learning Together research project
Wales	17 in total consisting of: 6 associates 4 individuals working above associate level 5 individuals working below associate level 2 programme staff/design	1 (4 associates)	Consistently and systematically collaborates with education officers to make sector- and district-level improvements
Jordan	2 in total consisting of: 1 programme staff 1 QRTA staff	N/A	Evidence-based supervision think-piece Jan 2020 interviews with 6 supervisors 2018/2019 data FGD (6 supervisors) Self-assessment (22 supervisors) FGD (10 teachers) Teacher self-assessment (151 responses matched to supervisor data) 2017/2018 data FGD (12 students across 3 schools) Teacher interview (6 across 3 schools) Principal interview (3 across 3 schools)

Table A.1: Overview of data collection sources (cont'd)

	Interviews conducted during data collection period	Focus group discussion (FGD) or workshop conducted during data collection period	Other or previous data from earlier research
Delhi	24 online interviews in total consisting of: 4 ART teachers 4 TDCs 4 Mentor teachers 3 Block resource persons (also known as district co-ordinators) 4 STiR programme managers 4 DIET officials 1 state official overseeing the programme Note: interviewees came from 4 separate districts out of a total of 9 across Delhi	2 online FGDs, both composed of 6 ART teachers	
Shanghai	18 semi-structured interviews in total consisting of: 3 teacher research officers (1 face-to-face, 2 online) 6 educational research officers (3 face-to-face, 3 online) 1 teacher training officer (online) 2 teachers working with middle-tier officers (1 face-to-face, 1 online) 1 staff in charge of design, recruitment, and training of middle-tier officers (online) 2 decision-makers (face-to-face) 3 scholars (1 face-to-face and 2 online)	5 FGDs: 1 face-to-face FGD with 1 staff supporting and managing middle-tier officers and 1 design staff 1 face-to-face FGD with 1 recruitment staff, 1 staff supporting and managing MT officers, and 2 educational research officers 1 online FGD with 1 master principal, 1 master teacher, and 2 teachers working with them 1 online FDG with 1 master principal and 1 teacher 1 online FDG with 1 master principal and 1 teacher	Review of policy documents and previous research published in Chinese Solicited local experts' views before interviews.

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In education systems around the world, planners and policy-makers are calling for more attention to whole-system improvement. To best address teaching and learning outcomes, teachers and head teachers need whole-system support to build professionalism and improve their practice. The middle tier of education systems, composed of professionals working between the school and central levels, may offer a unique opportunity to facilitate collaboration, broker knowledge, scale innovations, and provide instructional direction to school-level practitioners.

This research was conducted as a collaborative partnership between IIEP-UNESCO and Education Development Trust. It explores how middle-tier instructional leaders can form a nexus for improving the quality of education at scale. Through case studies in five jurisdictions – Delhi (India), Jordan, Rwanda, Shanghai (China), and Wales – it explores the professional practices and perceived impacts of instructional leaders and the enabling factors present in the systems where they work. It focuses on promising practices globally, and is designed to draw out insights and lessons for both policy-makers and practitioners.

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