Education Endowment Foundation

The Research Schools Programme in Opportunity Areas: Investigating the Impact of Research Schools in Promoting Better Outcomes in Schools

Evaluation Report

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Executive summary

The project

This report presents the results of an EEF-funded, independent evaluation designed to investigate the extent to which, and in what ways, Research Schools (RSs) in Opportunity Areas (OAs)[1] had supported schools to enact evidence-based practices in their classrooms. The evidence centred upon the lived experiences of ten OA RSs during the first three years of their designation (2018 to 2020):

- Stoke-on-Trent Research School by The Keele and North Staffordshire Alliance;
- Norwich Research School at Notre Dame High School;
- Oldham Research School by The Greetland Academy;
- Blackpool Research School at St Mary's Catholic Academy;
- Doncaster Research School by Partners in Learning;
- Scarborough Research School by Settrington All Saint's Primary School;
- Derby Research School at Wyndham Primary;
- West Somerset Research School at The Blue School, Wells;
- Bradford Research School at Dixons Academies; and
- East Cambridgeshire and Fenlands Research School at Littleport CP School.

The OA RSs are part of the nationwide Research Schools Network (RSN), which comprises 27 RSs and ten Associate Research Schools (ARSs) across the country. However, OA RSs have a specific regional focus on improving the quality of teaching and learning in their geographically defined areas. They are expected to act as drivers for better use of research and evidence in schools by becoming 'focal points of evidence-based practice in their region', building 'networks between large numbers of schools', and developing 'a programme of support and events to get more teachers using research evidence in ways that make a difference in the classroom' (EEF news, 5 January 2018).

Using a mixed-methods research design, this formative evaluation examined the systemic, social, and organisational processes and conditions that enabled or constrained the ability of RSs to achieve their intended impact on change in practice in schools within the OAs. The evaluation draws seven evidence-informed key conclusions regarding this place-based model of improvement and change. They are organised, in line with the three research questions, under evidence of promise, feasibility, and sustainability.

Key conclusions	
1.	Evidence of promise 1. The ten OA RSs had substantially expanded their reach to schools through RSN e-newsletters and CPD and training programmes over the period of 2017–2020. However, reach and engagement was by no means extensive within the OAs. Overall, only around a third of schools across the ten OAs subscribed to RS e-newsletters and most subscribers were not necessarily engaging with the content. Proportionally, the majority of the engaged schools tended to be from outside the OAs (although this varied across different OAs), especially higher-performing secondary schools. The risk of the 'Matthew Effect' was raised by some RS Leads—questioning whether the RS model was just making the good ones better and whether the RSs were reaching the schools that most needed to engage.
2.	Evidence of promise 2. Nearly three-quarters of respondents to the follow-up RSN survey reported that they had made a change to their practice as a result of their engagement with the RSs. Among these, senior leaders were more likely than those not in senior leadership positions to report change . The reported changes centred upon the use of research-based evidence to inform most decisions about professional practice and areas of professional beliefs and behaviours. Evidence from the CPD pro forma surveys and the interviews suggests that multiple-session CPD programmes, which allowed for follow-up reflection and actions, were perceived to be more effective in bringing about intended change in practice than information-sharing single session courses.
3.	Feasibility 1. The strategic position of a RSs within its OA Partnership Board strongly influenced the extent to which, and in what ways, its input was intrinsic to the OA's improvement offer to schools. The ten RSs ranged from those at the heart of, and indeed driving, OA strategic decision-making to those with less influence but a harmonious working relationship as a CPD provider in the marketplace through to those working much more loosely with the OA (especially when scepticism about them as a geographical outsider to the OA remained strong).

[1] The Opportunity Areas programme, announced by the Department for Education in October 2016, represents the government's plan for improving social mobility through a broad place-based approach (DfE, 2017a). Part of the DfE's support package involves an additional £72 million over three financial years to provide tailored interventions that focus on supporting teachers and school leaders to 'address stubborn local challenges and begin sustainable, long-term change' (DfE, 2017a: 35).

4. Feasibility 2. Effective and strategic coordination of targeted support across a diverse system of schools was perceived by interviewed RS Leads as an especially important condition for a place-based approach to improvement. Such coordination was critical in opening up channels of communication between varied local school communities and enabling RSs to align their provision and expertise with the overall improvement efforts within the OA. However, the local landscapes of improvement were perceived to be saturated with too many disparate projects, initiatives, and interventions. Achieving local cohesion in the OAs was seen by most RSs as a major challenge.
5. Feasibility 3. Almost all RSs drew on a complex network of relationships locally that often predated, or existed alongside, new partnerships developed specifically for RS purposes. These relationships and connections were used as leverage to RSs' advantage. They provided RSs with the necessary relational and institutional resources that enabled them to develop new capacities to expand their reach and engagement within the local school systems in the OAs, as well as out into the larger school community outside the OAs.
6. Sustainability 1. Being part of an Opportunity Area was seen as beneficial in enabling RSs to build a legacy of school improvement within the local areas. This was achieved by working closely with different school improvement partners to develop capacity, fostering school-to-school support partnerships, and providing resources and expertise for change in practice and culture in schools. Engaging system leaders, such as MAT CEOs and local authorities, was reported to be crucial in achieving this ambition.
7. Sustainability 2. Our visits to five RSs in the third year pointed to a tiered provision of programmes and support. This ranged from light touch provision of one-off information-sharing events, to three-day CPD and training that required more sustained commitment to engage, through to funded bespoke programmes engaging all or targeted schools in specific localities. All RSs had begun looking towards a wider audience, beyond the OA, for their future activity, especially more strategic, commissioned, place-focused programmes rather than the CPD offers based on the EEF's evidence and guidance reports alone. Such an approach was regarded as part of the evolution of the RS strategy, with a view to being sustainable in future.

What are the findings?

The three-year longitudinal evaluation provided a timeframe and different lenses (qualitative and quantitative evidence) through which to examine the structural and cultural conditions that had enabled or constrained the intended roles and impact of RS activities in a place-based model of school improvement linked to OAs across England. This formative evaluation centred around three questions.

Research Question 1: What are the structural and cultural barriers to, and conditions for, engaging schools with evidence-based practices in the Opportunity Areas?

The combined evidence from the surveys and interviews in this evaluation pointed to six essential structural, cultural, and organisational conditions that were most commonly and frequently cited as being instrumental in enabling or constraining schools' engagement with RS activities.

Structural conditions

Three structural conditions[2] were found to be instrumental in shaping the major opportunities and barriers that were available to RSs in geographically defined OAs. By extension, they also had a profound impact on the processes and operations that RSs had developed to seek engagement from, and instigate change in, local schools.

1) *Coordination of targeted support for improvement within the OA*. Effective and strategic coordination of targeted support for improvement was perceived by RS Leads as an especially important condition for a place-based approach to improvement.

   However, in a fragmented local landscape with perceived saturation of too many disparate projects, initiatives and interventions achieving local cohesion in the OAs were seen by most RSs as a major challenge. More often, though, to avoid their offer 'stepping on toes', RSs found themselves having to negotiate local school improvement partnerships without much systems-oriented support or direction. Where local authorities still had influence, they were useful 'mediating' partners for RSs to navigate in politically sensitive local school systems.

[2] Employing a social-ecological perspective in this research, 'structural conditions' encompass not only resources and material infrastructures, but also the broader sociocultural contexts or communities in which a specific organisation is nested (Chaudior et al., 2013; Haines et al., 2004). They refer to (but not limited to) national/subnational social, economic and educational policy systems and climate that influence organisational (school) ability to improve children's learning and development (macro); funding mechanisms (as means and drivers for policy enforcement and change); society, school and community settings and physical environment (meso); educational infrastructure /resources (meso); school systems (meso). These conditions are both *mediums* and *outcomes* of social actions and practices within the contexts (Giddens, 1984).

Although contractually the RSs were supposed to be accountable to the EEF alone, there was a widely shared perception amongst RS Leads that accessing the OA funding would inevitably bring with it accountability from the RSs to the OA. Some reported a real pressure to respond to different 'bosses' in the system.

2) *Strategic position and influence of RS within OA*. RSs' strategic position within the OA Partnership Board influenced profoundly the extent to which, and in what ways, their input was intrinsic to the OA's improvement offer to schools. The ten RSs were situated on a continuum of OA strategic engagement. This ranged from those at the heart of, and indeed *driving*, OA strategic decision-making to those with less influence but a harmonious working relationship as a CPD provider in the marketplace through to those working much more loosely with the OA (especially when scepticism about them as a geographical outsider to the OA remained strong).

3) *Credibility of the RS branding and relevance of evidence within the OA*. Building the local credibility of the RS brand required the backing of the EEF, especially at the outset. Although the EEF 'brand' was still very much valued as a 'door opener,' adapting their national, standardised guidance reports and programmes into tailored local offers informed by detailed local knowledge was reported to be important and necessary in securing schools' trust in the local credibility, identity, and expertise of the RSs.

Cultural conditions

Two cultural conditions influenced, positively or negatively, the breadth and depth of local schools' engagement with the RS activity.

1) *A shared appetite for evidence-informed practice and change*. The level of desire to use and improve evidence-informed practice amongst schools in a locality was found to be a key condition that had either encouraged or inhibited them from taking up the RSs' provision of support.

2) *Local social capital that facilitates meaningful and equitable partnerships between schools*. The history, breadth, and depth of the relationships and interconnections between schools and other key stakeholders within each OA were essential ingredients of a place-based social system. These connections were necessary social resources for change as they influenced, quietly but powerfully, the extent to which RSs were able to embed evidence-informed practice in their defined geographical areas.

Organisation condition

The organisational condition relates to leadership**.** Sustained and effective take-up of the RS provision that can result in change and improvement in practice is highly unlikely to occur in the absence of strong leadership at the school level. Initiating and sustaining engagement with the provision and, importantly, orchestrating their input effectively in school improvement processes to ensure its meaningful enactment in context depended upon local leadership's sustained commitment to foster professional learning and development in their schools.

Our quantitative analyses[3] show that RSs' input had a direct effect on improving individuals' ability and understanding of research use, but not on change in practice. Leadership support for professional learning and development was the prerequisite to a change in research-use culture and, subsequently, in practice. Put simply, schools that were already committed to developing their staff to embed a research-use culture were more likely to see RSs' input used to change and improve teacher practice and pupil learning.

In sum, the OA's structural and cultural conditions were found to have affected the RSs' ability and capacity to engage local schools for change and improvement. These conditions have strong interactions with one another and the consequences of this interactivity shaped the vision and the professional and social capacity of the local systems for change, innovation, and improvement. The important implications for the local schools were that they were then *pulled* or *pushed*, through the condition of funding, for example, to take up the RSs' offers of support.

Research Question 2: How do Research Schools embed evidence-based practices and cultures in their own school and in the local school systems in the Opportunity Areas?

Within Research Schools and their partnerships and networks

Becoming a RS had been used by RS leaders as an opportunity to revitalise the professional capacity and culture for evidence-based practice in their own schools (or groups of schools). A key common leadership strategy in the ten RSs was to involve the wider school community in the RS work and harness their knowledge, skills, and expertise into a complementary and coherent system to build RS capacity.

[3] Structural equation modelling analysis of the follow-up RSN survey.

Where possible, building the capacity from within their Multi-Academy Trust (MAT), Teaching School Alliance (TSA), or other close networks provided the RSs with the ready-made human and social capital and infrastructure for RSs to grow and expand the professional capacity required to develop their USP and a sustainable model of delivery.

Within local school systems

Almost all RSs drew on a complex network of relationships locally that very often predated, or existed alongside, relationships developed specifically for RS purposes. These relationships and connections were used as leverage to RSs' advantage. They provided the necessary relational and organisational infrastructure and resources that enabled the RSs to build *new* capacities and gradually expand their reach and engagement *up* and *down* the local school systems, as well as *out* into the larger community outside the OAs.

Our visits to five RSs in the third year pointed to a tiered provision of programmes and support. This provision ranged from light touch, one-off information sharing events to three-day CPD and training that required more sustained commitment to engage through to funded bespoke programmes that intended to bring about improvement in practice across all or targeted schools in specific localities. For those RSs that were proactively looking for opportunities to branch out, attracting bespoke, place-focused programmes was regarded as part of the evolution of the RS strategy with a view to being sustainable in future.

The EEF's Regional Leads[4] were reported to have operated as facilitators in negotiations and discussions with local authorities, MATs' and groups of schools that helped RSs to diversify, expand, and align their work with the school improvement partners within, but *primarily outside*, the OAs. Evidence from the telephone interviews with OA key stakeholders also pointed to the limited brokerage role that the Regional Leads had played *within* the OAs.

There is strong evidence that all OA RSs had invested a substantial amount of time and energy to build the capacities, expertise, and relationships required for them to play a leading or supporting role in the place-based model for school improvement in OAs. However, the place-based model for improvement was unlikely to succeed in effecting change in classrooms and schools in the absence of aligned and coordinated strategic planning and actions from other change agents in the systems—including the EEF, their Regional Leads as the mediating brokers of local intelligence, knowledge, and partnerships, and local school leaders as catalysts for change. For all OA RSs, the EEF's expert and brokering support was reported to be especially valuable in the initial phase when RSs were shaping the provision of their programmes and building the relationships and establishing the organisational and network mechanisms that were needed to tap into the regional systems and win the hearts and minds of the local school leaders.

Research Question 3: What is the overall impact of Research Schools' work on school improvement processes and outcomes at school and area level?

Reach and engagement within and outside Opportunity Areas

Although the ten OA RSs had substantially expanded their reach through RSN e-newsletters and CPD and training programmes over the period of 2017 to 2020, proportionally, the majority of the schools tended to be from outside the OAs (more so in some OAs than others).

- Overall, only around a third of schools across the ten OAs subscribed to RSN e-newsletters and most subscribers were not necessarily engaging with the content.
- The proportion of secondary schools from outside OAs engaging with the communication and training activities was considerably higher than the national distribution. Moreover, non-OA secondary schools tended to be higher-performing schools. The risk of the 'Matthew Effect' was raised by some RS Leads—questioning whether the RS model was just making the good ones better and whether the RSs were reaching the schools that most needed to engage.
- The proportion of schools from *outside of* the OAs among all schools participating in the RS training and CPD activities increased at a greater pace each year. Thus, although, proportionally, an increasing number of schools known to be located *within* OAs had participated in the formal CPD and training over the evaluation period, they accounted for a decreasing proportion of all schools participating in RS CPD and training programmes. By the final year, they accounted for under half of all participating schools. The reasons for this observation are complex and relate to the structural, cultural, and organisational conditions for take-up and implementation at school and regional levels outlined in this summary. There was also variation in strategy for engagement and impact across different RSs (for example, some OA RSs had started developing place-based projects outside the OAs).

[4] Regional Leads are employed by the EEF to 'act as a broker between the EEF, schools and the system leaders ensuring schools can access the high-quality support, training and coaching available from the Research School Network and other EEF partners' (EEF Job Specifications).

- Encouragingly, CPD and training programmes attracted proportionately more schools serving socioeconomically disadvantaged student intakes from the ten OAs compared to the overall school profiles within the OAs (and nationally).

The promise of change in OAs

Nearly three-quarters of respondents to the follow-up RSN survey reported that they had made a change to their practice as a result of their engagement with the RSs; senior leaders were slightly more likely than those not in senior leadership positions to report change.

Evidence from the CPD pro forma surveys suggests that reported changes centred upon use of the research-based evidence to inform most decisions about professional practice and areas of professional beliefs and behaviours. However, the interview evidence suggests that for school leaders who were convinced that their schools had already established a culture of evidence-based practice before engaging with the RSs, their reported RS impact on change in practice or culture tended to be more mixed.

Although evidence from the interviews shows that some key stakeholders had mixed views about RS identity, most were positive about the important role that the RSs had played in challenging local insularity, harnessing local school improvement partnerships, and improving and fostering collaborations in the OAs.

Legacy of school improvement

Supporting the schools most in need was regarded by RS Leads as a key function of their designated role in the OA. The OAs' explicit funding and intelligence support had enabled the RSs to reach and support schools that were deemed vulnerable. The take-up of the EEF's priority school funding—improving schools identified as vulnerable by the EEF—had been rather limited among OA RSs as many had already been working with those vulnerable schools in their OAs and therefore did not see the need to take up the funding.

Being part of an OA was seen as beneficial in enabling RSs to build a legacy of school improvement within the local areas. This was achieved by working closely with different school improvement partners to develop capacity, foster school-to-school support partnerships, and provide resources and expertise for change in practice and culture in schools. Engaging system leaders, such as MAT CEOs and local authorities, was reported to be crucial in achieving this ambition.

How the OA Partnership Boards had operated and how the RS approach to improving practice was perceived by them as fit for purpose within the OA influenced profoundly the impact that the RSs were able to achieve at school and regional level. Almost all OA RSs had begun looking towards a wider audience, beyond the OA, for their future activity, especially more strategic, commissioned work, rather than the CPD offers based on the EEF's evidence and guidance reports alone.

What have we learned?

This evaluation provided a unique opportunity to investigate the journey of change that the ten OA RSs have experienced over the first three years (2017 to 2020) of their operation and the EEF's sustained effort to scale up and embed their evidence for improved teaching and learning in many schools across the system. We have learned four key lessons about this place-based approach for change.

1. School leadership comes first.

We have learned that school leadership comes first among the six structural, cultural, and organisational conditions that influence the take-up and impact of the RS activity on change in practice. Empirical results in this evaluation attest strongly to RS Leaders' recognition of the significant role of leadership in shaping the effective engagement of local schools with RS activity. However, the evidence on how such recognition had been integrated and sustained in the EEF's or OAs' system-wide strategies to transform the cultural mindset and practice about teaching and learning across different schools varied considerably. If the RSs are expected to continue to act as a change agent in the place-based model for improvement, the success and sustainability of the model relies upon a sustained, systemic recognition of the centrality of leadership. Otherwise, the Matthew Effect that we identified in this evaluation on scaling-up campaigns may continue to manifest itself and adds to concerns about systemic and structural inequality in educational improvement.

Consistent with the findings in other research (for example, Bryk et al., 2010; Gu et al., 2016, 2020), this evaluation also points to the significance of RS leadership in using the RS initiative to create the professional learning and development opportunities that enable them to continue to grow the professional capacity and expertise in their own schools or groups of schools. Becoming a RS and then effectively leading it requires outward-facing, learning-focused leadership—leadership characterised by purposeful choices and decisions that buffer and align external resources—

intellectual, material, relational, and social resources—to nurture the knowledge and skills of the whole staff and expand their capabilities and horizons for further improvement. Key in this regard is the use of such resources to enrich organisational learning which then creates the necessary organisational capabilities to enable RSs to continue to model how the EEF's evidence can be translated and used in different classrooms and schools.

2. Scaling-up changes in practice must take into account local context.

A key lesson learned from our evaluation is that top-down initiatives for improvement need to respect and consider local knowledge, relationships, and skills. At the wider system level, each structural and cultural condition identified in this evaluation mattered in its own right; together, they create complex local contexts that must be taken into account. For system-wide improvement campaigns, a key challenge is to provide sufficiently bespoke support to vulnerable schools that might lack the requisite capacity and experience to understand and enact promising interventions in ways that impact on learning. Our analysis in this evaluation identified that to be successful, RS support for scaling-up of promising practice had to be based on individual and bespoke support to develop staff capacity, build an ethos of evidence-based improvement, and help leadership to support new approaches; and in doing so, take account of schools' context, conditions—including other support being provided—and capacity.

Similarly, at school level, how the school is organised shapes the professional, material, and social base for change to take root. The decades of research on school improvement reminds us that there are distinct phases of school turnaround and school improvement (Day et al., 2011; Day, Gu and Sammons, 2016). Any external change effort that aims to transform teachers' practice but fails to consider the internal conditions, capacity, and capabilities of an individual school—which determine not only what, but also how teachers learn and teach—is likely to be short-lived. The question, going forward, is perhaps whether holding up certain RSs as models—on the basis that their approach might be replicated—is appropriate, or whether the local conditions are so different that this is likely to be counter-productive. Rather than replication, an alternative aim would be tailored support to achieve specific local school improvement goals recognising context and capacity.

3. Social resources are significant.

The third issue concerns the significance of social resources in shaping the landscape of improvements in this place-based model for change. Local social politics is the arena of change and require systems-oriented improvement effort to manage. Any effort to reshape and reorganise structural and systemic conditions for improvements would be of little value unless they seek to build on as well as strengthen the relational resources in the areas of interest and use them as social foundations for deep engagement and change over time.

4. The role of the EEF needs to be made clear.

Last, but not least, we have learned that much clarity is needed around the extent to which, and in what ways, the EEF directs its energy and focus on *advocates of evidence* (what works) or on *advocates of school improvement* (how the evidence works in particular contexts and organisations) through the RS activity. The clarity of communication about the EEF's role in school improvement is particularly important in an OA area which, by its nature, will have seen an overload of other initiatives and interventions.

How was the evaluation conducted?

This evaluation details the results of a longitudinal three-year mixed-methods evaluation of the extent to which, and in what ways, the ten RSs in OAs had supported schools to enact evidence-based practices in their classrooms. To gain a nuanced understanding of their experiences the evaluation involved:

- brief scoping analysis of OA RSs' delivery plans and the official documents on new OAs;
- analysis of the profiles of over 1,000 schools recorded in the RSN database;
- baseline and follow-up surveys of slightly under 500 school staff in total to explore participants' motivations to be involved in OA RS activities and their perceived impact on change in practice and culture;
- two rounds of qualitative online and telephone interview surveys with 22 key stakeholders for school improvement in OAs to explore school improvement contexts, challenges, and priorities in each OA and the anticipated roles, activities, and outcomes for RSs;
- two rounds of telephone interviews with all ten OA RS Leads and visits to a subsample of five OA RSs to provide in-depth narrative accounts of what RSs do to promote and embed evidence-based practices and cultures in schools; and
- a standardised, three-stage pro forma (two stages of which were completed by 81 respondents) to assess the extent to which, and how, the CPD and training activity had made a difference to participants' knowledge, skills, and practice over time.

We would have liked to collect more interview data from individuals and schools who chose not to be engaged with the RS activity to identify reasons for 'non-engagement' and their implications for the take-up of this scale-up model. This

would also help to reduce the positive bias in the data. However, unsurprisingly, it proved very difficult to involve such schools and individuals that had not engaged with RS activity to explore reasons for non-engagement.

Introduction

This report presents the results of an independent evaluation designed to investigate the extent to which, and in what ways, Research Schools (RSs) in Opportunity Areas (OAs)—hereafter referred to as 'OA RSs'—promote the use of the best available evidence from the Education Endowment Foundation (EEF) and research to improve teaching and learning practices in OAs' primary and secondary schools. This three-year evaluation, funded by the EEF, builds on and extends learning from our evaluation of the first cohort of five RSs (Gu et al., 2020) by providing additional insights and adding to the continuous building of evidence on the impact of sector-led initiatives in supporting regional school improvement priorities and outcomes.

Using a mixed-methods research design, the evaluation examined the experiences and practices of ten OA RSs over the first three years since commencing in 2018:

- Stoke-on-Trent Research School by The Keele and North Staffordshire Alliance;
- Norwich Research School at Notre Dame High School;
- Oldham Research School by The Greetland Academy;
- Blackpool Research School at St Mary's Catholic Academy;
- Doncaster Research School by Partners in Learning;
- Scarborough Research School by Settrington All Saint's Primary School;
- Derby Research School at Wyndham Primary;
- West Somerset Research School at The Blue School, Wells;
- Bradford Research School at Dixons Academies; and
- East Cambridgeshire and Fenlands Research School at Littleport Community Primary School.

The OA RSs are part of the nationwide Research Schools Network (RSN), which comprises 27 RSs and ten Associate Research Schools (ARSs) that work closely with established RSs to expand the reach and engagement of the RSN across the country.[5] However, OA RSs are expected to have a specific regional focus on boosting the quality of teaching and learning in the U.K. government's designated social mobility 'cold spots'.

> *'The Education Endowment Foundation is establishing a Research School for every single one of these Opportunity Areas, to help really spread evidence-based practice where we know it can make a huge difference.' (**Justine Greening, Former Secretary of State for Education**, 12th July 2017).*

Therefore, in the evaluation, specific attention was paid to exploring whether and how the RS activity (as a school improvement intervention) is linked with other key interventions and local school improvement partnerships as a whole in each OA to improve educational outcomes for children and young people and help to promote the government's aim that they 'have the opportunity to reach their full potential' (DfE press release, 18 January 2017).

The Research Schools in Opportunity Areas

Background

Since its launch in 2011, the EEF has awarded more than £100 million of funding to evaluate promising intervention projects that aim to improve attainment and related outcomes for disadvantaged children and young people between the ages of three and 18. While the EEF has identified a range of interventions that showed promising evidence of impact on pupil outcomes and produced a number of evidence-based resources, guidance, and implementation reports to help schools to make informed decisions about their practice, it has learned that the 'passive' dissemination of evidence alone is unlikely to have a significant impact on intended pupil outcomes.[6] The rationale for creating a national network of RSs is that evidence-use is a *social* process (that is, the activities and actions involve the social interaction between people) and that sustainable impact is best achieved by working with, and through, the profession as partners in mobilising such evidence-derived knowledge. The EEF outlined three reasons for their decision to establish and expand the RSN:

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[5] Associate Research Schools are likely to have existing staff with a good understanding of the role of evidence in school improvement and potentially have links to existing RSs, although this is not a requirement. ARSs differ from a full RS in their capacity and infrastructure to deliver the full range of expectations that comes with full RS funding (EEF Application Round: Expanding the Research School Network, 2019).

[6] https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/the-literacy-octopus-communicating-and-engaging-with-research/

- schools listen to other schools;
- the evidence on 'what works' on implementation suggests that encouraging practitioners to 'own' the evidence results in wider and deeper understanding and use; and
- the expertise on how to apply evidence precisely in schools and classrooms lies within the schools themselves.

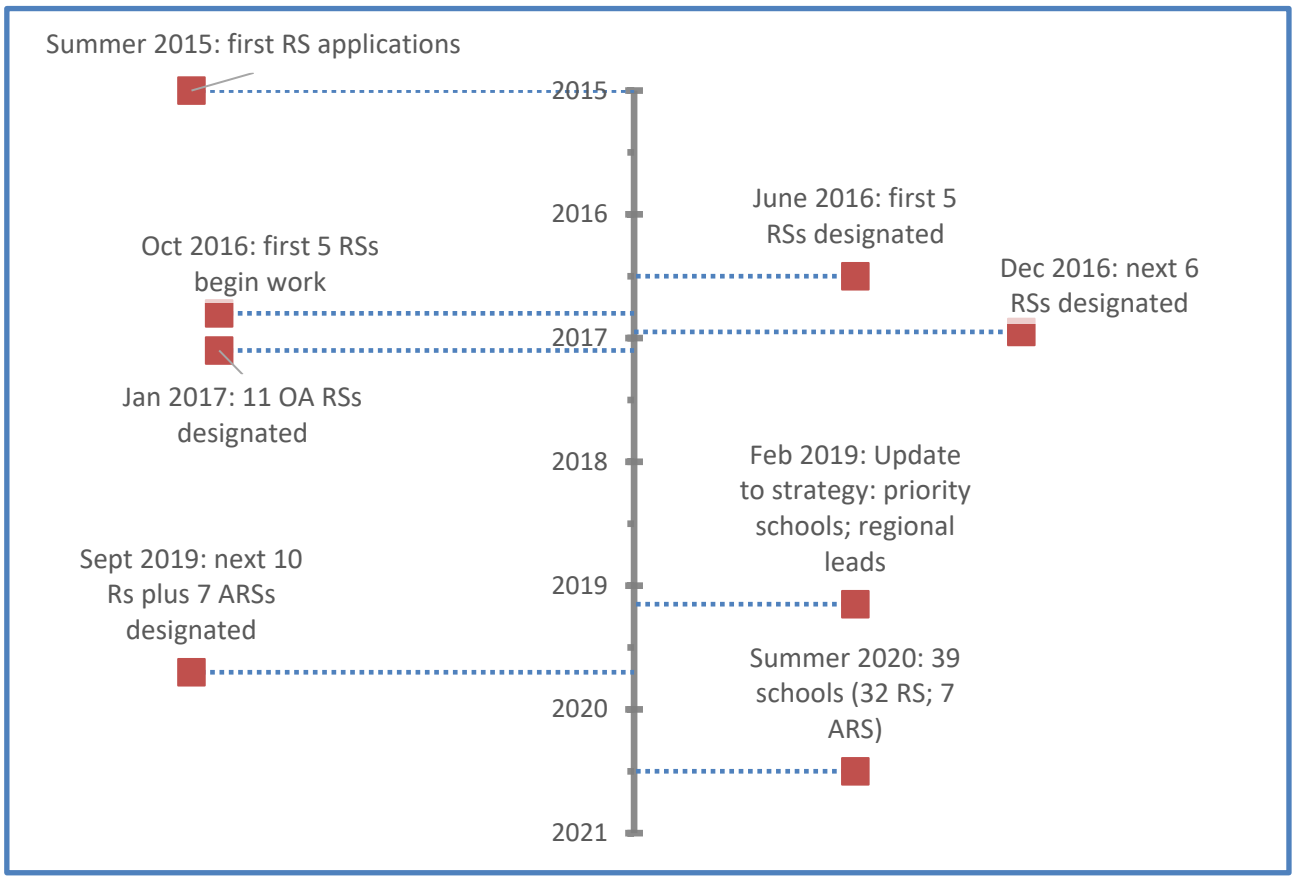
(EEF, Expanding the RSN, 2019.)

Thus, in essence, RSs are intended to act as a bridge between the EEF's evidence and practice in schools and are expected to play a knowledge broker's role by disseminating research findings and supporting the translation and application of evidence into practice through the provision of training and school-to-school support in their local and regional areas.

The establishment of the RSN represented a joint effort between the EEF and, at the time, the Institute for Effective Education (IEE) to fund a national network of schools that are expected to share what they know about putting research into practice and lead and support schools in their region (and beyond) to make better use of evidence to improve teaching practice.[7] Launched in September 2016, the RSN initiative is part of the EEF's endeavour to broaden and deepen evidence-informed practices and cultures in schools and, through this, scale up their best available evidence for impact on practice. Following the IEE's internal management reshuffle in 2019, the IEE no longer plays a primary role in the RSN initiative.[8] From September 2019, the funding, governance, and support for the RSN have been primarily provided by the EEF.

The first cohort of five RSs was designated in September 2016 followed by a second cohort of six in December 2016. As of November 2020, there are 37 schools in the RSN including 27 RSs and ten Associate Research Schools (ARSs) that work closely with established RSs through communication and face-to-face activity to expand the reach and engagement of the RSN across the country.[9] Each RS receives three years of core funding comprising £60,000 in Year 1 and £40,000 in Years 2 and 3 respectively. Figure 1 charts the growth of the RSN over time.

Figure 1: Timeline of the growth of the RSN



[7] **https://researchschool.org.uk**
[8] The IEE was closed in December 2020.
[9] ARSs are likely to have existing staff with a good understanding of the role of evidence in school improvement and potentially have links to existing RSs, although this is not a requirement. ARSs differ from a full RS in their capacity and infrastructure to deliver the full range of expectations that comes with full RS funding (EEF Application Round: Expanding the Research School Network, 2019).

A new phase in the EEF's scale-up campaign

Since its inception, the governance, strategic formulation, and management structures of this national initiative have experienced profound changes—and are likely to continue to change as the initiative unfolds to embed in a dynamic school system that is rarely short of new initiatives, innovations, and programmes for improving practice. Evidence from our evaluation of the first five RSs shows that the EEF's continuing brokering, structural and specialist support, and credibility and reputation have been essential in creating the right conditions for RSs to establish their 'brand' and broaden and deepen their reach and impact in the school system (Gu et al., 2020).

The DfE's intention to embed a clear focus on evidence-based practice into the OA programmes and their funding contributions to OA RSs were welcomed by the EEF as a significant opportunity to expand the RSN and align the work of the RSN more closely with the wider systematic movement of school improvement:

> *'We will have a third partner in this, and this will make the Research Schools much more active because they'll have to be—and get involved, almost, in the accountability system of public funds. Then … when the Teaching School Hub model has come up, the RSs are clearly going to be part of that. … So suddenly you go from this small niche thing about, "How do you communicate evidence and support teachers to use it?" into, "We're part of the fabric of the school improvement"' (EEF personnel interview).*

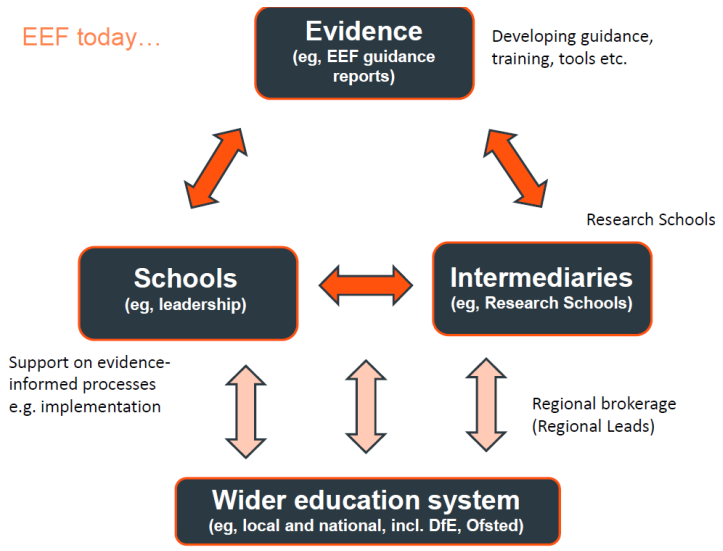
In September 2019, the EEF's scale-up work through the RSN entered a new phase. When the RSN initiative was launched in 2016, day-to-day coordination and administration of the RSs were jointly led by the EEF and IEE. From September 2019, all RSs and ARSs are only accountable to the EEF. Related to this change in accountability and governance, the EEF has not only expanded its capacity to govern and support the RSN, but also become more strategic in how it provides targeted support for schools and their disadvantaged pupils especially. A major shift in its approach is to expand a substantial investment of funds to support regional school improvement priorities and to improve the attainment outcomes of disadvantaged pupils in around 2,500 'priority schools' (some of which are in OAs) 'whose disadvantaged pupils have below average performance on a three-year average trend, and whose percentage of FSM-eligible pupils (FSMever6) are above the national average' (EEF, 2019). These priority schools equate to approximately 10% of all schools in England.

Enhancing the capacity of key intermediaries in the regions (for example, through the appointments of a National Delivery Manager, two Regional Delivery Officers, and five Regional Leads and the expansion of the RSN) is at the heart of this approach. Its core purpose is to ensure that the EEF's evidence and resources can reach schools, especially serving those that are deemed to be most in need. The EEF's Dissemination and Impact team has expanded in size and capacity considerably as a result.

The appointment of five regional leads, in particular, was (a) intended to build and maintain a strong network of contacts with system leaders, schools, and other supporting partners, (b) represent the central EEF team to work closely with the RSs and ensure that they are recognised as key delivery partners in the region, and (c) monitor the capacity for delivering CPD and training from all delivery partners in the region. OA RSs have already been working in a place-based space but will be supported, as well as challenged, by their regional leads to expand their horizons within and beyond their OAs.

Figure 2 presents the EEF's current approach to mobilising knowledge and bringing its evidence to life in schools and classrooms (Sharples, 2019): RSs act as practice partners to provide evidence brokerage at school level—bringing complementary skills, expertise, and relationships that enhance the use of evidence, while EEF's Regional Leads offer system-level brokerage to 'prepare the ground' and create regional infrastructure and readiness for evidence engagement and use.

Figure 2: EEF's approach to knowledge mobilisation (Sharples, 2019)



Rationale for Opportunity Area Research Schools

The OAs programme was **announced** by the DfE in October 2016, with the designation of six areas initially: Blackpool, Derby, North Yorkshire Coast, Norwich, Oldham, and West Somerset. The programme, which was expanded to a second wave of six other areas in January 2017 (Bradford, Doncaster, Fenland and East Cambridgeshire, Hastings, Ipswich, and Stoke-on-Trent), represents the government's plan for improving social mobility through a broad place-based approach (DfE, 2017a). This programme pulls together local partnerships across the whole education community (from early years to colleges and universities), businesses, health professionals, and voluntary and community organisations to form a united coalition and work together to provide children and young people with the opportunities to 'fulfil their potential … in the areas of the country where social mobility is the lowest' (DfE, 2017b, p.1). Part of the DfE's support package involves an additional £72 million over three financial years to provide tailored interventions that focus on supporting teachers and school leaders to address stubborn local challenges and develop solutions.

The EEF works in close partnership with the DfE to support the enactment of the DfE's commitment to prioritising and spreading 'what works' in the OA programme. Each of the 12 OAs is supported by a RS to 'spread the use and effective implementation of evidence-based approaches' (DfE, 2017a, p.35). The EEF designated 11 RSs in November 2017 and 12 RSs in Ipswich in January 2018. This evaluation was commissioned in late 2017 to evaluate the first 11 OA RSs. However, one RS did not continue, by mutual consent, in 2018 and the evaluation continued with the remaining ten.

The OA RSs are conjointly funded through the government's OA programme and the joint initiative between the EEF and the IEE. Each receives £200,000 over three years. The difference in funding streams compared to other RSs in the RSN is also reflected in the remit of main activities for which OA RSs are responsible. They have a specific regional focus to improve the quality of teaching and learning in their region through better use of research by becoming 'focal points of evidence-based practice in their region', building 'networks between large numbers of schools', and developing 'a programme of support and events to get more teachers using research evidence in ways that make a difference in the classroom' (EEF news, 5 January 2018).

Main activities

Despite having 'research' in their names, the primary purpose of *all* RSs is not to conduct primary research in classrooms or schools (Gu et al., 2020); rather, they are expected to support other schools in their local and regional areas (and beyond) to access, understand, critique, and apply external EEF and research-informed evidence in their own contexts and, through this, improve the quality of teaching and learning. The primary inputs for communication and training are EEF's evidence-based interventions and guidance reports on 'what works' as well as its implementation resources. Key RS activities include three strands but OA RSs are expected to focus on the first two activities:

- communication—encouraging schools to make use of evidence-informed programmes and practices through regular communications (for example, RS newsletters) and dissemination events (such as conferences and twilight sessions);

- CPD and training—providing training and professional development for senior leaders and teachers on how to improve classroom practice based on the best available evidence of what works in teaching and learning; and

- innovation—supporting schools to develop innovative ways of improving teaching and learning and providing them with the expertise to evaluate their impact.[10]

Research questions

The overall aim of the project was to assess the extent to which, and in what ways, the RS programme in OAs was able to promote greater use of evidence-informed practice and, through this, support improvement in teaching and learning in primary and secondary schools in OAs. In particular, the evaluation investigated the ways in which OA RSs embedded their work within school improvement structures and partnerships at area level in order to support schools to learn to use evidence from the EEF in their own contexts to improve teaching and learning.

By exploring the evidence of change at school and area level, this evaluation intended to provide additional insights into the impact of place-based, systems-focused school improvement initiatives—as perceived by senior leaders of RSs, participants of their programmes, and other relevant key stakeholders—in contributing to reported change in practice and improvement within and across schools in geographically defined areas. The evaluation was centred upon the following three research questions:

1. What are the structural and cultural barriers to, and conditions for, engaging schools with evidence-based practices in the OAs?

2. How do RSs embed evidence-based practices and cultures in their own school and in the local school systems in the OAs?

3. What is the overall impact of RS work on school improvement processes and outcomes at school and area level?

Insights from the research literature—what matters in scaling up

In our evaluation of the first five RSs (Gu et al., 2020), we concluded that the primary focus of the RS work is to develop a critical mass of professional expertise in schools (and groups of schools) that not only understand more about what works but, importantly, know how to make what works elsewhere work in their own contexts and how to capture the evidence of impact on why it has worked 'here'. Drawing on what we have learned from the previous evaluations (Gu et al., 2019 and 2020) and the research literature in implementation science, improvement science, and other scaling-up studies, we have identified five interrelated key issues that are central to the processes and outcomes of scaling up evidence-based interventions in multiple classrooms, schools, and systems. These observations formed an important knowledge and evidence base for the design and analysis of this evaluation.

1. How educators, researchers, and evidence brokers define 'evidence use' may vary and evidence use in practice is not the same as following fidelity.

We endorse Honig, Venkateswaran and McNeil's (2017) conceptualisation of research use as a *process of learning* in which practitioners are on a trajectory from learning to occasionally appropriate and apply new ideas in new situations towards consistently integrating the fruits of research into their daily practice. This process represents a journey of progressive change in which practitioners and educators master the use of research in their settings progressively to shape improvement. Given this, implementing research-informed educational innovations within one's own classroom or school requires more than faithfully, or rigidly, applying them with fidelity. Joyce and Cartwright argue that 'perfect fidelity is not possible' (in press, p.27). The knowledge and theories contained in the innovations will need to be understood and activated by those who are expected use them to achieve the valued outcomes in their own educational settings.

[10] **https://researchschool.org.uk/about/our-aims/** The first four IEE Innovation Evaluation Grants were awarded in February 2017. Funded by the IEE, these grants supported pilot evaluations of innovations of teaching and learning approaches based on the RSN's goal of improving the attainment of pupils by increasing the use of evidence-based practices. This is very much a 'bottom-up' exercise, allowing schools to get some indicative evidence behind real-world initiatives (https://the-iee.org.uk/what-we-do/innovation-evaluation-grants/).

Put differently, if *teacher professionalism* is placed at the centre of our concern about scaling up interventions across different classrooms, then it opens up the possibility of recognising evidence use as a process of *enactment* rather than only *implementation*. Enactment requires educators to *make sense* of innovations that are developed and rooted in quite different contexts in their situated day-to-day realities and adapt and apply them in ways that are educationally and culturally meaningful to their environments and to the learning experiences and needs of their pupils.

2. 'Scale' is more than spreading outward to greater numbers of classrooms and schools.

Writing about moving beyond numbers to 'deep' and 'lasting' change in the context of school reform, Coburn (2003) argues that the conceptualisation of 'scale' should be expanded to include not only *spread* and *depth* (that is, reaching more widely and deeply into schools to effect and sustain consequential change) but also *ownership* and *sustainability.* The central insight of her argument is that 'scaling up must involve more than the spread of activity structures, materials, and classroom organisation; it must also involve the spread of underlying beliefs, norms [of social interaction], and [pedagogical] principles to additional classrooms and schools … *within* a classroom, school, and district' (Coburn, 2003, p.7; emphasis in original). Only when an externally understood and supported innovation, as well as its underlying theories, has become 'an internally understood and supported theory-based practice' (Stokes et al., 1997, p.21) can teachers and schools use (or enact) it in ways that effect deep and lasting change in practice. Coburn argues that placing ownership as a central element of scale raises the priority for directing attention and resources to strategies that go beyond the superficial focus on 'buy-in' or acceptance. Providing conditions for schools and teachers to develop the necessary professional capabilities and capacity that enable them to assume authority and knowledge for the innovation is viewed as the key to sustaining consequential change over time.

3. Evidence use in schools is an organisational behaviour and is unlikely to succeed in the absence of a sustained organisational commitment to grow and enhance the 'implementation capacity' on the ground.

'Implementation capacity' encompasses educators' knowledge of the local contexts and population characteristics, their knowledge of the interventions and their underpinning theories, and their skills and capabilities that enable them to adapt and monitor interventions in ways that promote improvement within their own settings. It also considers the availability of material resources and the strengths of collective commitments and collaborative capital amongst the staff both inside and outside schools. Writing about improvement and innovation, Hatch (2013) describes these key aspects of capacity as 'human capital', 'technical capital', and 'social capital' and explains that the school's capacity to scale up new and innovative practices depends on the interaction between these three forms of capital available at the classroom level, the school level, and the local or regional level. Simply having material resources (or technical capital) does not mean those resources will be used well to improve student learning—especially in schools identified as needing improvement, because, 'Maximizing the use of resources and using them strategically to meet key goals depends on the abilities of the people involved and the social connections between them' (Hatch, 2013, p.35).

4. The quality of school leadership.

The significance of a crucial factor that is often insufficiently addressed in scaling-up efforts is the quality of school leadership. In our evaluation of the first five RSs (Gu et al., 2020), the absence of senior leadership buy-in and support was found to be likely to result in little or no change in behaviour or culture in participating schools. The reasons are at least twofold. First, enacting evidence-informed practices in a classroom requires change in teacher attitudes, beliefs, and behaviours. To achieve this within a school requires deep cultural change—and effective and high impact school leadership is the architect of such change. Second, when the RS provision of access to evidence, training, and development was perceived to be aligned with schools' improvement priorities, then effective and sustained take-up was more likely. Schools that *can* are led by leaders who know how to use new initiatives as opportunities to enhance organisational learning in ways that ensure they build collective capacity, facilitate the improvement needs of the school, and are fit for purpose.

5. External knowledge and evidence brokers act as research-practice intermediaries in the process of implementation.

Research-practice intermediaries help practitioners to make sense of research-based ideas and scaffold them into implementation steps that are meaningful to their workplace settings. In this process of knowledge enactment, research is translated into tools and actions and serves as the medium for learning (Datnow and Park, 2010; Ikemoto and Honig, 2010; Honig, Venkateswaran and McNeil, 2017; Quinn and Kim, 2017). However, although such assistance proved necessary in supporting research use and learning in local educational settings, its effects are limited in the absence of effective internal (in-school) leadership (Honig, Venkateswaran and McNeil, 2017).

In sum, transforming the practice, culture, and outcomes of schools serving disadvantaged and vulnerable communities should be a priority but some of these schools may struggle due to weak and ineffective school leadership (Leithwood, Harris and Strauss, 2010; Leithwood, 2019; Sammons, 2007). We have witnessed in our previous research that good schools led by strong leaders, who are skilled at using external funds and resources to grow their staff, keep getting better (Day et al., 2011; Gu et al., 2018, 2019 and 2020). The quantitative analyses in this evaluation reinforce our previous observations: first, stronger leadership support for professional learning and development was found to be

associated with better Ofsted ratings of schools' overall effectiveness and, second, schools that were already committed to developing their staff to embed the evidence-informed culture were more likely to see RSs' input contributing to change and improvement in teacher practice and pupil learning (detailed in Key Findings 1).

A 'good' research-informed innovation can rarely travel into the day-to-day realities of classrooms on its own merits without school leaders that can help teachers engage with it and apply and adapt it to their own classroom contexts.

Ethical review

The potential for harm in this research was low. Ethical issues with regard to consent, privacy, and confidentiality of data were considered carefully in each strand of the research. We ensured that (a) all participants were fully informed of the purposes, methodology, and potential benefits of the research, (b) they were under no pressure to participate: they were fully informed of the purposes and process of the research and of their right to withdraw from the study at any time without explanation and any actions or questions that may cause physical, psychological, or emotional harm or discomfort to participants were avoided, and (c) all the data obtained was coded anonymously, strictly confidential, and non-accessible to others outside of the evaluation team. Participants were not (and will not be) identified in any form of report or publication. Ethical approval was sought prior to the research commencing in line with the University of Nottingham Code of Research Conduct and Research Ethics (before the project was transferred to the UCL Institute of Education) as well as the ESRC Framework for Research Ethics. Ethical approval was granted by the UCL Institute of Education Ethics Committee following the project transfer.

Data protection

The evaluation made use of both primary and secondary data— empirical data collected from this evaluation and datasets from official sources. These datasets were held locally on the UCL's research network drive with access provided to the evaluation team members and specific IT support personnel. Access to the network drives was tied to researchers' workstations, which were situated in private locked offices. The terminals were all password-protected and authenticated through the University's centralised Information Access Management system. Remote access, where permissions allowed for it, only worked through a remote desktop that had the same password and authentication requirements. The research drive partition was regularly backed-up and further stored on tape drives. The storage of all data was managed centrally by UCL Research Data Storage service. The service is a free resilient facility for the safe storage of research data that ensures compliance with both UCL's and the ESRC's policies.

To comply fully with GDPR requirements, all data was managed and stored appropriately according to GDPR regulations. Where personal data was collected—for instance through interviews and surveys—we ensured that the data was:

- processed lawfully, fairly, and in a transparent manner;
- collected only for explicit and legitimate purposes for the specified research study and not further processed for other purposes;
- processed in a manner that ensured appropriate security of personal data, including protection against unauthorised or unlawful processing and against accidental loss; and
- that all participants received a privacy notice detailing how their data would be lawfully processed.

Appendix 1 presents the privacy statements used for each research activity.

Project team

Evaluation team

Professor Qing Gu, Principal Investigator, leading the evaluation.

Dr Kathy Seymour, jointly leading the quantitative strand of the evaluation; conducting quantitative data collection and analysis.

Simon Rea (Isos Partnership), jointly leading the case study strand of the evaluation; conducting qualitative data collection and analysis.

Dr Rupert Knight, conducting qualitative data collection and analysis and reporting on case study summaries.

Dr Miyoung Ahn, conducting analysis of databases and surveys.

Professor Pam Sammons, supporting the analysis of the surveys, especially structural equation modelling.

Kalyan Kumar Kameshwara, conducting structural equation modelling analysis.

Professor Jeremy Hodgen, supporting the design and analysis of different strands of the research work.

Monika Robak, project administrator at the UCL Institute of Education.

EEF team working with the Research Schools Network

Dr James Richardson, Head of Dissemination and Impact.

Stuart Mathers, National Delivery Manager.

Methods

The evaluation design was guided by a system-oriented approach. This approach sought to investigate the ways in which Research Schools were linked with school improvement mechanisms and processes in their Opportunity Areas and the roles that they had played in building local capacity to improve teaching and learning in geographically defined areas. We adopted a longitudinal design that enabled the research team to baseline, track, and document how senior leaders of RSs, as system leaders, navigated and worked with other school improvement support available to schools in OAs over a three-year period. Such a design also offered insights into how this place-based approach had contributed to change in practice at school and area level over time. In addition to exploring the perceived 'impact' of this sector-led approach in scaling up evidence-based practice for improvement, particular attention was also placed on identifying barriers to, and conditions for, effective take-up and the feasibility and sustainability of this model within and across localities.

Investigating 'impact'

We recognise that investigating the 'impact' of the RS programme on school improvement outcomes is a challenging task because the RS programme does not operate as a single 'intervention' in each OA. Importantly, despite the common challenges faced by the OAs in relation to raising educational standards and performance, their different historical, social, and cultural contexts are likely to shape how school improvement infrastructures, partnerships, and approaches are organised in profoundly different ways. Therefore, in this evaluation we do not consider establishing 'impact' as a matter of identifying a single effect; rather, we focus upon identifying, triangulating, and synthesising a range of perceived and measured effects of RS activity by participating teachers and school leaders on the capacity and practices of teaching and leadership in different schools.

Overview of research design

The mixed-methods evaluation, which allowed for multi-perspective analysis of this sector-led model for scaling up and improvement, began with a brief scoping review of OA RSs' delivery plans. This review provided a necessary overview of the then policy and school improvement contexts of the OAs and the roles and activities to which RSs were expected to contribute.

Table 1 provides an overview of the research design. Informed by understandings of the OA contexts, the initial year of the evaluation collected a range of qualitative and quantitative data to establish a detailed baseline of the school improvement systems in the ten OAs in question. Specific focus was placed upon RSs' planned strategies to encourage and sustain schools' participation in their networks and the two key strands of their activity—evidence dissemination and CPD and training. Main evaluation activities included telephone interviews with RSs' directors or coordinators, an OA RSN baseline survey for individuals who had engaged with the RS offering, telephone interviews with EEF personnel, and a scoping qualitative telephone interview survey with key stakeholders for school improvement in the OAs. In addition, the research team also worked with the ten OA RSs to develop a standardised, longitudinal RSN engagement database, which records and identifies individuals' and schools' time of participation and levels of engagement with RS activities over the three-year period of the evaluation.

The next phase (Year 2) of the evaluation adopted a light touch approach to tracking change in practice. A second round of telephone interviews with the same ten RS directors (or coordinators) was carried out to capture change in strategies and practices in their efforts to promote evidence-informed practice and embed the RS work in OAs. A research-informed, standardised pro forma—which was developed and tested in our evaluation of the first five RSs (Gu et al., 2020)—was also used to baseline and track individual participants' perceptions of change in practice as a result of their participation in RSs' multiple-session training CPD programmes.

The third year of the evaluation focused upon assessing participating individuals' and schools' perceived impact on practices and cultures in their educational settings. Complementary evidence was mainly collected through repeated research activities in the first two years including regular updates of the standardised RSN engagement database, case study visits to five selected OA RSs, a follow-up RSN survey, CPD pro forma data on reported change in teachers' beliefs and practices, and a second round of qualitative telephone surveys with the EEF's Regional Leads and key stakeholders for school improvement in the ten OAs.

The triangulation, integration, and synthesis of different strands and sources of quantitative and qualitative data formed the empirical basis for this final report.

Table 1: Overview of research methods

Research methods	Data collection methods	Timing of data collection	Participants/data sources	Number of participants (n) and, where applicable, response rates (%)	Research questions (RQ) addressed
Quantitative approach	Building RSN engagement database	Project Years 1, 2, and 3 (Year 3 was curtailed due to the Covid pandemic and so ended in March 2020)	Individuals and schools signed up to the RSN newsletters, and CPD and training programmes	Communications database included: 3,846 staff from 1,386 schools CPD and training events database included: 3,470 participants from 1,078 schools	RQ 1
	Baseline and follow-up RSN surveys	Project Year 1 and Year 3	All individuals (with valid email addresses) in the RSN engagement database and headteachers of primary and secondary schools in the ten OAs who were not in the RSN database	Baseline survey: n=255 (14%) Follow-up survey: n=335 (14%)	RQ 1, 2, 3
	Three-stage standardised CPD pro forma on change in practice	Project Years 1, 2, and 3 (Year 3 was curtailed due to the Covid pandemic and so ended in March 2020)	Participants of CPD and training programmes offered by the ten OA RSs	Baseline survey: n=531 (44%) On-completion survey: n=176 (20%) Follow-up surveys: n=153 (20%) 23 individuals completed all three surveys for their training programme, 81 completed just the baseline and on-completion.	RQ 3
Qualitative approach	Baseline and follow-up telephone interviews with OA RSs' directors/ coordinators	Project Year 1 and 2	RS directors and/or coordinators only	Telephone interviews (baseline and follow-up) n=10 (representing all ten RSs)	RQ 1, 2
	A one-day light-touch visit to five selected OA RSs	Project Year 3	Senior leaders of RSs and key stakeholders of their partner/network schools and organisations	Five of the ten RSs	RQ 1, 2
	Two OA key stakeholder qualitative surveys conducted online and by telephone	Online survey in Year 1 and telephone interview survey in Year 3	Key stakeholders for school improvement in each of the OAs, including DfE representatives, EEF Regional Leads, local authority advisors, and staff leading specific intervention programmes in OAs	Online survey in Year 1: n=22 Telephone interviews in Year 3: n=30	RQ 1, 3
Other evaluation method	Interviews with EEF personnel		Key personnel who lead and coordinate the RSN programme at EEF	Two or three EEF RS managers	RQ 1, 3
		Quantitative and qualitative data integration and synthesis: findings and interpretations		NA	RQ 1, 2, 3

Data collection

OA RSN engagement database

An engagement database was developed and maintained by the evaluation team. The purpose of the database was to enable an exploration of the reach and nature of engagement reported by the OA RSs since their inception and, more specifically, to examine the characteristics of participating individuals and their schools. This longitudinal data building approach enabled the evaluation team to baseline and track the reach and engagement of RS activity over time and assess the extent to which, and how, schools in different contexts and with different deprivation and performance profiles became more (or less) engaged.

The database was populated with information from two sources.

1. Communication

Lists of subscribers to the email newsletters for each of the ten RSs, provided by IEE (for 2017/2018 and 2018/2019) and the EEF (for 2019/2020)—centrally managed newsletter distributions using mailing platforms (Campaign Monitor and Mail Chimp, respectively).[11]

2. Training events

Lists of attendees at RS-run training courses and events provided by the RSs directly to the evaluation team. The training categories were subdivided into three categories to provide a granular analysis of the method of participation and engagement:

- conferences—designed to enable to free exchange of ideas and collaborative knowledge transfer in contrast to formal training;
- formal training—more formal 'classroom style' knowledge transfer, which often involves two or more sessions; and
- twilights—the same mode of delivery as training events but in the evenings and generally shorter; this was recorded separately to evaluate whether engagement could be increased by tailoring the availability and accessibility of sessions.

The purpose of standardising the database was to make the data consistent and comparable across the ten OA RSs and different types of activities. A database for each of the ten RSs was created and monitored over a three-year period (2017 to 2020). The data collection ceased in March 2020 due to the COVID-19 pandemic, which necessitated the closure of schools (except for key workers' and vulnerable children) and the discontinuation of in-person training events. To comply with data protection regulations and to ensure that the subscribers and participants were fully aware of the reasons for collecting their details and the way in which the data would be handled, a data handling statement was included on the RS websites on the newsletter subscription page, and was provided to RSs to include on their training event registration forms. Copies of these statements are provided in Appendix 1.

For all individuals included in the database, where they were identifiable as school staff members (either because they provided details of their school or based on the domain name in their email addresses), the schools' URNs were looked up and added against their entries. By establishing the URN, we were able to locate and include external data about the schools. The external data was taken from existing secondary databases including 'Get Information about Schools', Ofsted management information data, and school-level pupil attainment and progress data from 'Find and Compare Schools'. This allowed the evaluation team to analyse engagement with the RSs based on school contexts and characteristics to explore any conditions for engagement with the RS offering and, ultimately, evidence-based practices.

The database is as complete and robust as it was possible to make it but there were inevitably some issues with data quality and missing data (for example, schools not providing full lists of training attendees, certain fields of data being left blank such as 'role', or difficulties in identifying which school individual engagers work in). Appendix 2 provides a detailed account of the composition of the database, data management, and the strategies employed to secure the quality of the data.

[11] A key difference in the two mailing platforms is that Campaign Monitor returns open and click rates on an individual subscriber basis whereas Mail Chimp provides only overall statistics for each newsletter—a brief report on the total number and percent of opens and clicks for each newsletter, but not at individual subscriber level. This made it impossible to attribute engagement with the newsletters (open and click rates) to individuals and their schools, which, in turn, means that we cannot provide an analysis of the school contexts and characteristics of those who engaged with the newsletters in the 2019/2020 academic year.

Opportunity Area Research School surveys

The main purposes of the baseline and follow-up RSN surveys were to explore respondents' motivations for engaging with the RSs, any reported enablers or barriers to their engagement, and the outcomes or perceptions of impacts resulting from their involvement.

Design

The survey content was based largely on the equivalent survey that had been used by the evaluation team when evaluating the original five RSs (Gu et al., 2020) and had been tested and piloted as part of that evaluation. Small adjustments were made to some of the response options to account for the fact that these RSs operate within the OAs. Minor changes were made to the wording of the survey questions between baseline and follow-up but changes were kept to a minimum to enable comparisons between the two survey points.

Method

Surveys were administered at two points: a baseline in spring 2018 and a follow-up survey in early 2020. On both occasions, the survey was intended for completion by individuals who had engaged with the RSs in the OAs—from minimal engagement such as receiving newsletters through to more extensive participation in training and CPD opportunities or taking part in innovation projects or trials with the support of the RSs. The online survey was created and hosted in Bristol Online Surveys (BOS). The content of the surveys is presented in Appendix 3.

Two groups of individuals were invited to participate in the online survey. The first group included individuals that had signed up for the RSN e-newsletters (and had agreed for their contact details to be shared with the evaluation team). In order to understand how school leaders in OAs perceive the roles and activities of RSs in OAs, we also invited headteachers of schools within the ten OAs to participate in the survey. Their contact details were obtained from each school's website.

Potential respondents were contacted by email and invited to complete the online survey. Each respondent had a unique personalised link to the survey so that we could ensure that those who had already completed the survey were not included in any reminder activities. Table 2 summarises the survey distribution and reminder activities for both survey occasions. The follow-up survey was still live when the coronavirus pandemic necessitated the closure of schools and subsequent national lockdown in March 2020, which restricted the reminder activity we were able to undertake towards the end of the survey completion period.

Table 2: RSN survey distribution activities

Activity	Baseline survey	Follow-up survey
Initial invitation to complete the survey sent by email	7 March 2018	28 January 2020
First reminder emails sent	21 March 2018	11 February 2020
Paper version sent to headteachers	17 April 2018	12 March 2020
Second reminder emails sent (excluding headteachers)	18 April 2018	3 March 2020
Third reminder email	16 May 2018	Not sent due to COVID-19 lockdown
Survey closed	18 June 2018	20 April 2020

Following the closure of the surveys, the survey response data was matched to school background characteristics where the respondent was identified as a staff member in a school in England. The background characteristics were taken from publicly available resources such as Get Information About Schools, as detailed in the methods for the engagement database above. Note that for the baseline survey the most recently available finalised KS2 and KS4 results were for assessments taken in summer 2017 while the Ofsted data was from July 2018; for the follow-up survey, performance data was based on the finalised results for 2019 and Ofsted inspection data from March 2020.

Response rates

The response rates to both surveys are shown in Table 3. A total of 255 individuals completed the baseline survey. Although the monthly newsletters were emailed to 2,040 individuals across the ten OA RSs, they were only opened by 634 recipients, representing an open rate of 31%. If we regard these 634 people as our potential pool of respondents, then the 159 survey respondents from the communications (newsletters) list gives a response rate of 25%. The issue of open rates is discussed in greater detail under Key Findings 1.

For the follow-up survey, a similar analysis revealed that 24% of recipients (n = 1,206) opened the newsletter. If this is used as the base for response rate calculations, our achieved response figure of 317 survey respondents from among the 1,206 newsletter openers gives a response rate of 26%.

Of the 335 follow-up survey respondents, 31 were identifiable as having responded to the baseline survey as well (9%). Of these 31, 19 were school staff and 12 were non-school staff. This means that of the respondent group that is of most interest to this evaluation (school staff), there were insufficient responses (n = 19) to allow for a reliable and robust analysis of the same group of individuals over time. Consequently, this limits the usefulness of direct comparisons between the baseline and follow-up RSN surveys since they largely represent different individuals on each survey occasion. Therefore, we cannot be entirely confident that any variability between the two surveys represents real changes over time or is due to the fact that our achieved samples are mostly comprised of different people.

Table 3: Responses rates for each RSN survey

Survey	Pool of respondents	Number of survey invitations sent	Number of completed surveys	Response rate (%)	Number of newsletter openers	Response rate (%)
Baseline survey	Newsletter subscribers	1867	159	9%	634	25%
	Headteachers in OAs	1210	96	8%	(1210)	8%
	Total	**3077**	**255**	**8%**	**1844**	**14%**
Follow-up survey	Newsletter subscribers	6280	317	5%	1206	26%
	Headteachers in OAs	1200	18	2%	(1200)	2%
	Total	**7480**	**335**	**4%**	**2406**	**14%**

Profiles of survey respondents

It is important that interpretations of the survey results consider the characteristics of the respondents and the school contexts in which they work. Table 4 shows that across both surveys the majority of respondents were school-based teachers and school leaders. In the baseline survey there were 162 different schools represented in the response data, whilst 221 schools were identified from the follow-up survey responses. For the baseline survey, the maximum number of responses received from any one school was nine and for the follow-up the maximum was four, although across both surveys in most cases there was only one response per school.

The proportion of non-school staff was slightly higher among follow-up survey respondents than baseline survey respondents. Most tended to work in public sector organisations and local authorities.

Table 4: Whether respondents currently work in a school

	Baseline survey		**Follow-up survey**	
	n	**%**	**n**	**%**
No, not school staff	32	13%	83	25%
Yes, school staff	220	87%	252	75%
Total	**252**	**100%**	**335**	**100%**

The majority of school-based respondents had senior leadership responsibilities although proportionally the number was higher for the baseline survey (74%) than for the follow-up survey (60%) (Table 5). Table 6 shows that more than two-thirds of school-based respondents worked in schools within the OAs—with 71% from the baseline survey and 65% from the follow-up survey.

Table 5: Whether respondents are senior leaders or not

School-based respondents	**Baseline**		**Follow-up**	
	n	**%**	**n**	**%**
Senior leader	162	74%	151	60%
Not senior leader	58	26%	101	40%
Total	**220**	**100%**	**252**	**100%**

Table 6: Whether respondents' schools are within Opportunity Areas

	Baseline survey		Follow-up survey	
	n	%	n	%
Yes, school is within an OA	156	71%	163	65%
No, school is not within an OA	41	19%	89	35%
Don't know	23	11%	0	0%
Total	**220**	**100%**	**252**	**100%**

Between the two surveys there was a marked increase in the proportions of respondents who had engaged with more than one RS (which in some instances included RSs that are not situated in OAs). As Table 7 shows, only 7% of school-based respondents reported engaging with more than one RS in the baseline survey but in the follow-up survey, 95% did so. This increase is likely to be due to the expanded reach and offering from the RSs over time. The interviews with RS directors and coordinators indicated that the first year was very much a preparatory year in terms of CPD provision, hence there was less on offer and this might have made it less likely that those engaging with the RS offering would look to more than one RS to meet their needs. This high proportion of follow-up survey respondents engaging with more than one RS also means that it would not be appropriate to attribute any of the identified change or impact to engagement with any particular RS or group of RSs in the analysis of the follow-up survey.

Table 7: Engagement with more than one RS among respondents to the RSN surveys

	Baseline						Follow-up					
	School staff (n = 217)		Non-school staff (n = 32)		All (n = 251)		School staff (n = 252)		Non-school staff (n = 71)		All (n = 323)	
	n	%	n	%	n	%	n	%	n	%	n	%
Engaged with more than one RS	15	7%	3	9%	**18**	**7%**	239	95%	70	99%	**309**	**96%**

Figure 3 shows that *communications* remains the area of activity that respondents to both surveys were most likely to have engaged with. The take-up of training events from respondents to the follow-up survey had increased considerably compared to those who completed the baseline survey. However, such an increase is largely expected because, as we have learned from interviews with RS directors and coordinators, OA RSs experienced a steep learning curve in most of the first year to prepare themselves for the launch of CPD and training programmes, conferences, and twilight events. Put differently, the availability of training opportunities also increased markedly across the ten OA RSs after the initial setting-up.

Figure 3: Strands of RS activities that school staff respondents have engaged with (baseline and follow-up RSN surveys)

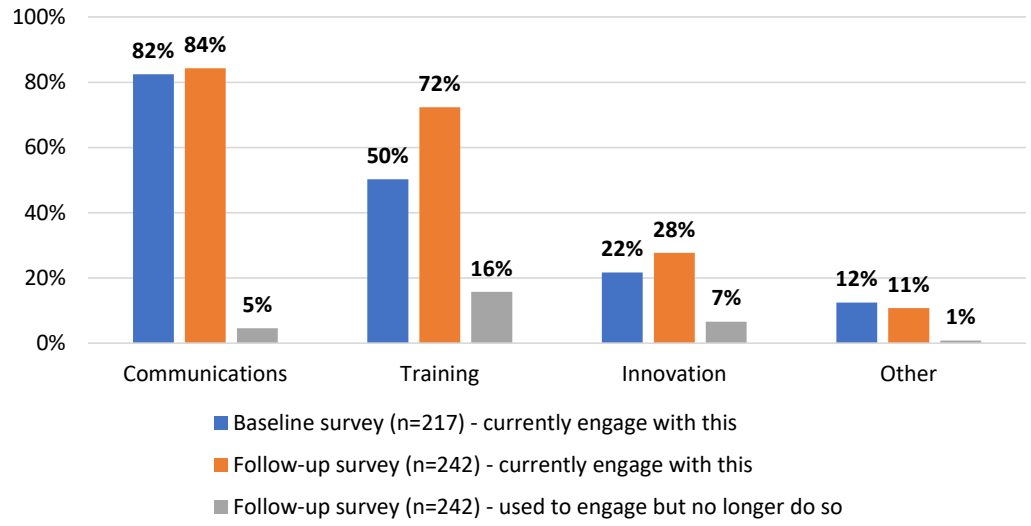


Table 8 compares the proportions of survey respondents by school phase. It shows that respondents from primary schools were proportionally much greater than those from secondary schools in both surveys. Around two-thirds of school-based respondents were from primary schools on both survey occasions, while a quarter of schools in the baseline survey data and around a third in the follow-up survey data were secondary. This makeup of survey

respondents may reflect the fact that six of the ten OA RSs were in the primary phase and that proportionally there were more primary schools than secondary schools in the RSN database. However, when compared to the national data, primary schools are under-represented in the survey responses and, correspondingly, secondary schools are slightly over-represented (accounting for 16% of schools in England overall).

Table 8: Phase of education of schools represented in the survey data

	Baseline		Follow-up		National (England)	
	n	%	n	%	n	%
Primary	93	67%	128	61%	16,784	76%
Secondary	35	25%	68	32%	3,456	16%
Other (e.g. all-through, nursery, 16 plus, and middle deemed secondary)	10	8%	14	5%	1,789	8%
Total	**138**	**100%**	**210**	**100%**	**22,029**	**100%**

Notes on Table 8:
All calculations exclude the 'not applicable' category in Get Information About Schools (GIAS, the government database of schools and colleges in England: https://www.get-information-schools.service.gov.uk/), which refers to establishments such as Pupil Referral Units (PRUs), children's centres, special schools, and independent schools. The 'all schools in the OAs' figures are based on the situation at the point of analysing the baseline survey, that is, August 2018.
The national data about the number of open schools in England in January 2020 was extracted from **https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics**.

Table 9 shows that the Ofsted ratings for schools represented in the survey response data are comparable to those of schools in England overall, as well as to the makeup of schools that were recorded in the RSN engagement database (that is, the population of the survey respondents). Whilst in the baseline survey respondents were slightly over-representative of 'outstanding' schools (when compared to the national figures), the follow-up survey saw a more representative spread of schools when compared to the national distribution.

Table 9: Ofsted overall effectiveness judgements—survey respondents' schools and England schools overall

	Baseline		Follow-up		RSN Engagement Database (%)		England (%)	
	n	%	n	%	2017/2018	2018/2019	Aug 2018*	Aug 2019*
Outstanding	42	29%	44	22%	22%	19%	21%	20%
Good	78	54%	127	62%	64%	61%	65%	66%
Requires improvement	19	13%	25	12%	11%	15%	10%	10%
Inadequate	5	3%	8	4%	2%	5%	4%	4%
Total	**144**	**100%**	**204**	**100%**	**100%**	**100%**	**100%**	**100%**

* Source: 'The Annual Report of Her Majesty's Chief Inspector of Education, Children's Services and Skills 2018/19': **https://www.gov.uk/government/publications/ofsted-annual-report-201819-education-childrens-services-and-skills**

As a measure of pupil socioeconomic disadvantage, the 'Ever 6 FSM' indicator from the Annual Schools Census was used. This is defined as 'children recorded in the school census as eligible for free school meals (FSMs) at any point in the last six years (referred to as Ever 6 FSM)'.[12] As Table 10 shows, socioeconomically more advantaged Band 1 schools were relatively under-represented in both surveys compared to the national distribution. In contrast, socioeconomically more disadvantaged Band 4 schools were comparatively over-represented. However, this was to be expected given that most survey respondents were from schools within the OAs which, by definition, were in areas of relatively high socioeconomic disadvantage.

[12] Foster, D. and Long, R. (2020) 'The Pupil Premium', House of Commons Library Briefing Paper No. 6700: **https://commonslibrary.parliament.uk/research-briefings/sn06700/**

Table 10: Proportion of EVER 6 FSM pupils—schools in the survey responses compared to England

Ever 6 FSM Bands	Baseline		Follow-up		England (from school census 2018/2019)	
	n	%	n	%	n	%
Band 1: under 9%	11	8%	25	13%	3856	18%
Band 2: 9% to 20.9%	39	29%	55	29%	7066	33%
Band 3: 21% to 35.9%	43	32%	60	31%	5369	25%
Band 4: 36% or more	43	32%	53	28%	5236	24%
Total	**136**	**100%**	**193**	**100%**	**21527**	**100%**

Three-stage standardised CPD pro forma

A standardised CPD pro forma was developed to assess the extent to which, and how, the CPD and training activities had made a difference to participants' knowledge, skills, and practice over time. Attendees at a selection of CPD or training events run by the RSs were invited to complete a short survey (pro forma) just before commencing the training (the 'baseline' survey), immediately on completion of the training (the 'on-completion' survey), and then again approximately one full term after completing the training (the 'follow-up' survey).

Design

The survey content was based on the research literature on what makes teaching and professional learning and development effective (for example, Coe et al., 2014; Timperley, 2008) and the impact of school leadership on improvement on student outcomes (Day et al., 2011; Day, Gu and Sammons, 2016). The key areas covered in the CPD pro forma were shown by robust evidence as having significant impact on student outcomes. Because this evaluation did not intend to assess RSs' impact on pupil outcomes, the CPD pro forma was designed to explore whether and how participation in RSs' CPD and training programmes had challenged and improved individuals' beliefs and practices in areas that were likely to support improvement in pupil outcomes. It also explored the organisational and leadership conditions and cultures that might have facilitated or hindered the impact of training on their reported change (or lack of change) in context of use. The key areas covered by the CPD pro forma were:

- subject knowledge;
- quality of teaching practice;
- classroom management;
- professional beliefs and behaviours;
- leadership support and culture (on-completion survey only);[13] and
- experience of the training and changes made or planned as a result of the training (on-completion and follow-up surveys only).

The surveys were used in our evaluation of the first five RSs (Gu et al., 2020) and were piloted among a small number of schools that were known to the evaluation team. The content of the surveys is presented in Appendix 4.

Method

The CPD pro forma was used to assess formal training courses lasting two days or more. One-off training sessions, conferences, and twilight events were excluded from this aspect of evaluation because they would not be expected to be major instigators of change in practice. All OA RSs were asked to provide the evaluation team with details of training programmes they were running throughout the three-year evaluation period so that, where appropriate, the CPD pro forma could be administered.

[13] Leadership support and culture was included only in the on-completion survey because it was used as a contextual factor rather than a measure of change. Therefore, we attempted to gauge from this whether those with more positive experiences of leadership support and culture in their school would be more or less likely to report changes following the training programme (that is, at the point of the follow-up survey one term after the training).

The surveys were set up online on the Bristol Online Surveys platform and RSs sent the survey links to those registered on the training programmes at the three survey points (baseline, on-completion, and follow-up) and further reminders were sent as required. Participation in the CPD pro forma activity was relatively high at the baseline but then dropped off for the on-completion survey and rose only slightly for the follow-up survey. As Table 11 shows, the number of courses covered more than halved from 45 in the baseline survey to only 18 in the on-completion survey and 22 in the follow-up survey.

Table 11: Coverage of the CPD pro formas

Survey	No. of courses	No. of RSs running the courses	No. of individuals registered to attend*	No. of respondents	Response rate (proportion of respondents based on those registered)	No. of schools in which respondents are based
Baseline	45	10	1203	531	44%	308
On-completion	18	7	880	176	20%	114
Follow-up	22	8	765	153	20%	111

* The number of individuals registered to attend is based on the information provided by the RSs, this may be higher than the number who actually attended the training programme, hence, response rates might represent small under-estimates.

There were only 23 respondents identifiable as having completed all three surveys for the training course they attended and 81 respondents identifiable as having completed both a baseline and on-completion survey but not a follow-up survey. In the event, to ensure we were basing our findings on the most robust data, we have only presented findings from the analysis of the matched dataset of 81 individuals who completed both a baseline and on-completion survey; we also present findings from the analysis of the follow-up survey as a standalone 'end-point' measure (n = 153). Appendix 4, section 2, presents additional information on the profile of respondents included in both data sets.

Qualitative online and interview surveys

Two qualitative surveys—by telephone interviews or using written open-ended surveys allowing respondents to give detailed accounts about their views and experiences in their own settings—were conducted with key school improvement stakeholders in the ten OAs in the autumn term of 2018 and summer term of 2020. The purpose of the surveys was to explore school improvement contexts, challenges and priorities in each OA, and the anticipated roles, activities, and outcomes for RSs. The interview questions were closely aligned with the research questions and were designed to collect 'thicker descriptions' of the key areas that the survey intended to explore.

The initial survey was conducted online and launched in September 2018. Following three reminder emails, the survey was closed in late October 2018. The participants, who were recommended to the evaluation team by the RSs and the EEF, included school leaders, local authority school improvement personnel, and OA programme directors and facilitators. The email addresses of 62 people were supplied to the evaluation team in the summer term 2018 of which 51 were viable; the other 11 people had mostly left their posts. A total of 22 people out of 51 from nine OAs responded to the survey. The qualitative survey questionnaire and details of the roles of the respondents are presented Appendix 5.

In a change to the research plan, the follow-up qualitative survey was conducted in the form of telephone interviews in order to minimise the burden on individuals coping with COVID-19 issues. The decision also considered the methodological strengths of telephone interview surveys compared to open-ended survey questionnaires as the former is more likely to collect more detailed, in-depth data than the latter. Moreover, and importantly, the telephone interviews gave researchers the opportunity to probe into the challenges and conditions that were perceived to have influenced RSs to embed change in practice at school, regional, and system levels.

With the EEF's approval, the evaluation team approached the five RSs that were *not* involved in the light-touch case study visits (details below) and invited them to recommend potential participants with similar roles and responsibilities as in the baseline online survey. A total of 34 individuals were recommended to the evaluation team and 30 were interviewed between June and July 2020. All five EEF Regional Leads and ten DfE leads or representatives in OAs participated in the interviews. An example of the interview questions and details of the roles of the interview respondents are provided in Appendix 5. Each interview lasted between 30 and 45 minutes.

Taken together, this qualitative data provided a detailed, rich account—especially from the perspective of school leaders, EEF Regional Leads, and the DfE representatives in OAs—of the roles and impact of the RSs in promoting evidence-based practice and culture within their locality and beyond.

Telephone interviews with, and visits to, Research Schools in Opportunity Areas

Two telephone interviews with all OA RS directors or coordinators (one in each year) and one light-touch visit to five RSs in Year 3 of the project were carried out. The purpose was to complement the quantitative evidence from this evaluation by providing detailed narrative accounts of what RSs had done to try to promote and influence evidence-based practices and cultures in schools in OAs and, as a result, how it had improved the quality of teaching and learning.

The first of the two rounds of telephone interviews, which sought to establish key baseline strengths as well as challenges to school improvement at school and area level, were conducted with RS Leads during December 2017 and January 2018. In particular, the interviews explored the initial conditions and contexts in which the RSs would build and develop their networks and also RSs' plans and strategies to link up with local school improvement partnerships and work with them to support schools for improvement. The follow-up telephone interviews in Year 2 of the evaluation were carried out during January and February 2019 and explored how RSs worked to embed their work in different contexts to support improvement in practices and outcomes in their own and other schools within (and outside) OAs.

The final one-day light touch visits to five RSs took place between January and May 2020 (with some interviews conducted on the phone following the visits). The purpose of the visits was to explore and track the extent to which, and how, RSs' approaches and strategies had changed over time and to examine in more depth the ways in which they developed effective practices within the OA and beyond. The interviews also intended to document evidence regarding conditions for effective take-up and the feasibility and scalability of this sector-led approach to promote and enact evidence-based practices in classrooms and schools. Such detailed, longitudinal evidence of RSs' development offered rich learning about how regional contexts had enabled or hindered RSs' accomplishments in terms of reach and engagement and impact on behaviour change of individuals and schools.

The selection of the five RSs considered OA RSs' self-reported experiences and was based on two key criteria: (a) evidence of 'what works' in terms of integrating into the OA region to support local school improvement, and (b) a spread of experiences and expertise available that enabled the RSs to respond to the variety of challenges. The sampling also considered interview evidence from EEF and IEE personnel and the results of the analysis of the RSN engagement database. The final selected, anonymised sample was shared with the EEF. During the school visits, interviews were conducted with individuals with a range of roles and responsibilities including RS Leads, other RS staff members, strategic school partners, RS regional leads, DfE OA representatives, OA Board members, and relevant LA representatives. These interview participants were purposefully selected by the RS leads based on the criteria provided to them by the evaluation team. An example of the interview schedules and selection criteria for interview participants are provided in Appendix 6.

Other evaluation methods

Interviews with EEF and IEE personnel

In order to understand the role of the EEF in facilitating the feasibility of this scale-up model, the evaluation team also carried out regular unstructured individual or focus group interviews with their personnel. These interviews explored their observations of the OA RSs, their reported actions to lead and govern the RSN initiative, and the rationale behind their decisions to introduce structural and cultural changes to the initiative over time. These interviews took the form of dynamic research dialogues between the evaluation team and the funders in which the evaluation team provided reflections and feedback that both challenged and supported the funders' views and the feedback they were receiving from RSs and the system.

Data analysis

Opportunity Area Research School Network engagement database

The database for each of the ten RSs was analysed separately, first, before combining them for comparison. Analysis considered individual schools' time, duration, and levels of engagement within and across the two key strands of activity. Where possible, the analysis explored clusters of schools that had played differentiated roles and made differing contributions to the delivery of each of the two strands of activity. The analysis was conducted using SPSS.[14]

A key focus of this strand of the evaluation was to identify whether (and, if so, in what ways) the RSs engaged schools with different contextual and performance profiles. To achieve this, schools' profiles in each database were matched to existing secondary databases (including the Get Information About Schools school performance data) to explore

[14] IBM SPSS (Statistical Package for the Social Sciences) is a software package used to manage and analyse quantitative data.

the main characteristics of schools in each RS's network. This analysis also examined the underlying proportion of disadvantaged pupils for each RS over time as well as which schools deviated from the average proportion and by how much. Specific questions about programme reach and participation were asked at the interviews with RS Leads during two telephone interviews and the school visits. Their perceptions were then triangulated with the participating schools' profiles to assess the effectiveness of their strategies in terms of engaging disadvantaged, low performing schools within and outside OAs.

Opportunity Area Research School Network surveys

Opportunity Area Research School Network surveys included both closed and open questions to capture the necessary information. The analysis was largely descriptive, focusing on exploring the extent to which, and in what ways, the responses were similar or different between various groupings of schools. To achieve this, the survey response data was matched to school background characteristics where the respondent was a staff member in an identified school in England. The background data was taken from GIAS, Ofsted Management Information, and School Performance Tables over the same period.

The analysis of the data was conducted in SPSS for the quantitative (tick box style) data and in NVivo for the qualitative (free text) responses. The free text responses were coded thematically (that is, the comments were reviewed by one of the evaluators to identify key themes and topics) and each comment was then allocated into the relevant theme(s) or topic(s) depending on the subject matter of the comment. A second team member checked and verified the coding to ensure accuracy and consistency. Where appropriate, the researchers drew inferences from the quantitative data using, *inter alia*, parametric and non-parametric tests of variance to examine schools' perceptions of the conditions and practices that enabled or hindered their engagement with different strands of RSs' activity and effective take up of evidence-based practices in their schools.

The follow-up survey explored respondents' perceived impact of the RS input on change and improvement in their own practice and schools. A path analysis was conducted in Stata (StataCorp, 2019) to explore a structural equation model (SEM) of change, which examined the ways in which RSs' provision influenced, directly and indirectly, a range of reported school improvement processes and outcomes. This empirically driven model presented new evidence that adds to understandings of how systemic educational initiatives may be enacted for improvement in culture and practice in schools based on the RSs and OA experience. A detailed account of the path analysis procedures is presented in Appendix 7.

As mentioned in the Data Collection section, there were very few individuals who completed both a baseline and follow-up RSN survey (just 19 school staff were identified as having completed both), therefore, any comparisons between the two surveys represent largely different respondents and any variability between the two survey points might be due to the different individuals in the achieved samples rather than representing real changes in perceptions and experiences over time.

Three-stage standardised CPD pro forma

It is not an intended purpose of this strand of the evaluation to directly compare individual courses and any impact they might have had; furthermore, all RSs were assured that their data would be analysed and presented in aggregate form.

The baseline survey—completed prior to commencing training—asked respondents to report their levels of confidence in a range of areas of their professional practice and then, in the on-completion survey (completed once they had finished the training programme), they were asked to report the levels of impact the training had had or was expected to have on each of these areas. The comparisons between the baseline and on-completion surveys are, therefore, concerned with the extent to which respondents were already confident in these areas of professional practice and the perceived relationship this has with the levels of impact the training has, or will have, in each of these areas. We analysed the matched dataset of 81 respondents who completed both a baseline and on-completion survey for their courses and chose to analyse all responses to the follow-up survey as a separate, standalone exercise.

The follow-up survey received 153 responses from staff members in 114 different schools and represented 25 courses offered by eight RSs (although some of these courses represent the same course being run at a different RS, for example, the Leading Learning course was run at three different RSs). A detailed breakdown of the 153 responses by RS and course is presented in Appendix 4.

The majority of responses were collected in relation to courses that ran in the 2018/2019 academic year. There were no follow-up survey responses for 2019/2020 because the data collection ended in March 2020 due to the COVID-19 school closures; at this point it was too early to have administered follow-up surveys for any courses run in the 2019/2020 academic year since they were designed for completion one full term after completion of the final session of the training course. Since the number of responses to the survey relating to 2017/2018 training courses is so low

(partly because most RSs were setting up their CPD and training programmes that corresponded to our definition), it was decided not to analyse this data on an academic year basis. Instead, all responses are analysed together regardless of which year the course they refer to was held in.

Qualitative online and interview surveys

A data analysis framework was developed to record and refine emergent themes, identify patterns, focus subsequent data collection, and synthesize key factors within and across individual cases (see Appendix 5). The development of the framework also considered the relevant research questions that the online and qualitative telephone interview surveys intended to explore. All interviews were digitally recorded and were analysed using the analytical matrices shortly after they had been conducted to ensure that emerging themes were fed into the research process. Analysis focused on exploring the influence of area and school contexts, leadership capability, and organisational capacity on schools' engagement with RS activity in OAs.

Telephone interviews with Opportunity Area Research School directors or coordinators and visits

All interviews were digitally recorded and analysed as above. The analytical framework for the qualitative online and interview surveys was used as a basis to develop the data analysis framework for the interviews with RS Leads and the visits to the selected five OA RSs. This approach helped to secure some consistency in the analysis of different strands of data and enable effective triangulation of research evidence. In contrast to the analysis of the qualitative surveys, which focused on exploring the school improvement contexts in OAs and whether, and how, engaging with RS activity had made a difference to practice in schools, the analysis of the interview data from OA RSs explored in detail what RSs *did* to broaden and deepen the reach of their activities and to enable change in practice. Thus, the attention was placed upon examining change in OA RSs' strategies and practice over time and the feasibility and scalability issues that might be specifically related to the characteristics of the region.

Synthesis of data analyses

The analyses of the RSN engagement database and the survey data were conducted in parallel with the qualitative data collection (telephone interviews and case studies) in order to ensure that the results from different strands of data inform the development of each other. Findings from the qualitative analysis were used to supplement, contextualise, and explore the quantitative findings and, in particular, give greater depth of insight into the extent to which, and how, the RSN approach was perceived to have made a difference to the take-up and implementation of evidence-based practice in schools within and outside OAs.

The results from different strands of data tell the 'stories', experiences, and perceptions of different groups of participants. Their different perspectives were compared and synthesised systematically at key milestones of the research to provide nuanced responses to the research questions. This rich mix of synthesised data enabled the evaluation team to compare and contrast practices and actions between different groupings of schools, and recognise how variations in context, capacity, and capability combine to influence the effectiveness of this sector-led approach to scale up evidence-based practices for improvement in schools.

Timeline

Table 12 provides a summary of the project timeline.

Table 12: Project timeline

Project Phase	Research Activity	Staff responsible
Phase 1 (Sep 2017–Oct 2017): Understanding the contexts	• Interview with EEF personnel • Brief scoping analysis of OA RSs' delivery plans and the official documents on new OAs	Qing Gu Simon Rea Kathy Seymour Rupert Knight
Phase 2 (Nov 2017–Apr 2018): Establishing initial conditions and practices for improvement	• Building RSN engagement database • Baseline RSN survey • Telephone interviews with OA RS Leads • Interviews with EEF personnel • Developing and refining CPD and training pro forma	Kathy Seymour Qing Gu Simon Rea Rupert Knight
Phase 3 (May 2018–Aug 2019): Tracking changes in practices (light touch)	• Building and maintaining RSN engagement • Using the three-stage CPD and training pro forma to baseline and track the perceived impact	Kathy Seymour Qing Gu Simon Rea

	of RS training on participating teachers' and school leaders' change in practice • Follow-up interviews with RS Leads • Initial qualitative online survey with key stakeholders for school improvement in OAs • Interview with EEF and IEE personnel	Rupert Knight Miyoung Ahn Paul Armstrong
Phase 4 (Sep 2019–Sep 2020): Understanding change in practices and exploring impact	• Continuing to build and maintain RSN engagement database • Continuing to use the three-stage CPD and training pro forma to baseline and track the perceived impact of RS training on participating teachers' and school leaders' change in practice • Follow-up RSN survey • Follow-up qualitative telephone survey with key stakeholders for school improvement in OAs • Visits to five OA RSs • Interview with EEF and IEE personnel	Kathy Seymour Qing Gu Simon Rea Rupert Knight Miyoung Ahn Kalyan Kumar Kameshwara Kathryn Crowther Pam Sammons
Phase 5 (Oct 2020–Dec 2020): Triangulating and synthesising evidence and reporting	• Integrating and synthesising research evidence • Reporting	Qing Gu Kathy Seymour Simon Rea Rupert Knight Miyoung Ahn Kalyan Kumar Kameshwara Pam Sammons

Key Findings 1: Conditions for, and barriers to, engaging schools with evidence-based practices in the Opportunity Areas

Introduction

This chapter addresses Research Question 1:

> *What are the structural and cultural barriers to, and conditions for, engaging schools with evidence-based practices in the OAs?*

Here, we explore the extent to which, and in what ways, the RSN initiative to promote evidence-informed practice in classrooms and schools had effectively attracted participation and engagement from schools within the OAs, and why. The purpose is to have an informed understanding of the perceived roles of RSs in the current education landscape and examine in detail the conditions for, and barriers to, schools' effective take-up and implementation of the RSs' provision of support within OAs.

To achieve this, the chapter begins with a detailed analysis of the contextual and performance profiles of schools involved in different strands of the RS activity (that is, *who* had been engaged with OA RSs, and *to what extent*) before discussing the structural, cultural and organisational conditions that had enabled or hindered schools' engagement with RS programmes and activities (that is *how* they had become engaged) across the ten OAs. The data sources for discussion in this chapter include the RSN engagement database, RSN surveys, the quantitative surveys, and interviews with the ten OA RSs.

Summary of Key Findings 1

- The ten OA RSs had expanded their reach substantially through RSN e-newsletters between 2017 and 2020 (from 882 schools in Year 1 to 1,386 schools by March 2020). However, reach via e-newsletters was by no means extensive within the OAs. Overall, only around a third of schools across the ten OAs had at least one staff member who subscribed to RS e-newsletters (although this varied across different OAs).

- E-newsletter subscribers were not necessarily engaging with the content. The open rate (proportion of recipients known to have opened the email newsletter) was 29% across all ten RSs over 2017 to 2020 and the proportion of recipients who clicked at least one of the links within the newsletters was 10%. In addition, the open and click rates decreased gradually across the evaluation period (but with variation on an individual RS basis).

- RSs' formal CPD and training programmes attracted participation from more schools from outside the OAs than from within. Proportionally, an increasing number of schools known to be located *within* OAs participated in the formal CPD and training over time, from 8% in 2017/2018 to 18% in 2018/2019 and 11% for the first half of the 2019/2020 academic year. However, because engagement from schools located *outside* of OAs increased at a greater pace over this period, schools that were located *within* OAs accounted for a decreasing proportion of all participating schools each year, from 56% in 2017/2018 through 50% in 2018/2019 to 47% for the first two terms of the 2019/2020 academic year.

- The proportion of secondary schools from outside OAs engaging with the communication and training activities was considerably higher than the national distribution of secondary schools; and these non-OA secondary schools tended to be higher performing schools. The risk of the 'Matthew Effect' was raised by some RS Leads—questioning whether the RS model was making the good schools better and whether RSs were reaching the schools that most needed to engage—'as the schools with the freedom and capacity to allow staff onto three-day training programmes are often not the ones most in need of our support' (RS1, CEO of RS).

- CPD and training programmes attracted proportionately more schools serving socioeconomically disadvantaged student intakes from the ten OAs compared to the overall school profiles within the OAs (and nationally).

- The ten RSs were situated on a continuum of OA strategic engagement, ranging from those at the heart of, and indeed driving, OA decision-making to those with less influence but a harmonious working relationship (for example, as a CPD provider) through to those working much more loosely with the OA.

- Effective and strategic coordination of targeted support was perceived by interviewed RS Leads as an especially important condition for a place-based approach to improvement. Such coordination was thought to be key to opening up channels of communication and interaction between schools and enabling RSs to integrate their provision and expertise into the systemic improvement efforts within the OA.

- The history, breadth, and depth of the relationships and interconnections between schools and other key stakeholders within each OA were essential ingredients of a place-based social system that influenced, deeply and powerfully, the systemic engagement and uptake of RSs' training and support. By extension, they also had a profound impact on the extent to which RSs were able to embed evidence-informed practice in defined geographical areas. Put simply, these relationships (representing local social capital) were social resources for change. All RSs had attempted to capitalise on the local social capital in their endeavour for change.

- For all RSs in OAs, a shared perception was that they were having to maintain a fine balance between national, standardised programmes for the EEF and bespoke local offers. The tailored local offer, informed by detailed regional knowledge, was of crucial importance in securing schools' trust and the valuing of RSs' expertise. However, the EEF's 'brand' was still very much valued as a 'door opener'.

- As the quantitative analyses show, high-quality RS provision was an important mediator of change, however, initiating and sustaining engagement with the provision and, importantly, orchestrating their input effectively in the school improvement process required sustained school leadership attention. Put simply, sustained and effective engagement with the RS provision that can result in organisational change and improvement is highly unlikely to occur in the absence of strong leadership at the school level.

Reach and engagement—which schools and to what extent?

The two main strands of RS activity play different roles in promoting evidence-based practice within and across schools. The communication strand—primarily in the form of RSN e-newsletters—disseminates the EEF's evidence and guidance for implementation to the teacher and school community. The CPD and training activity, which requires greater time and resource investment from participating schools, is seen by the EEF as a catalyst for change in classrooms and schools.

We have distinguished between *reach* and *engagement* in our analysis. 'Reach' refers to the number of schools or individuals receiving regular RS emails or e-newsletters according to sign-up statistics. 'Engagement' is evidenced by individuals' further actions that indicated their interest in the resources provided (for example, opening the links to resources). We consider schools' participation in CPD and training as engagement.

Overall reach and engagement by school-based staff

Communication (newsletter subscribers)

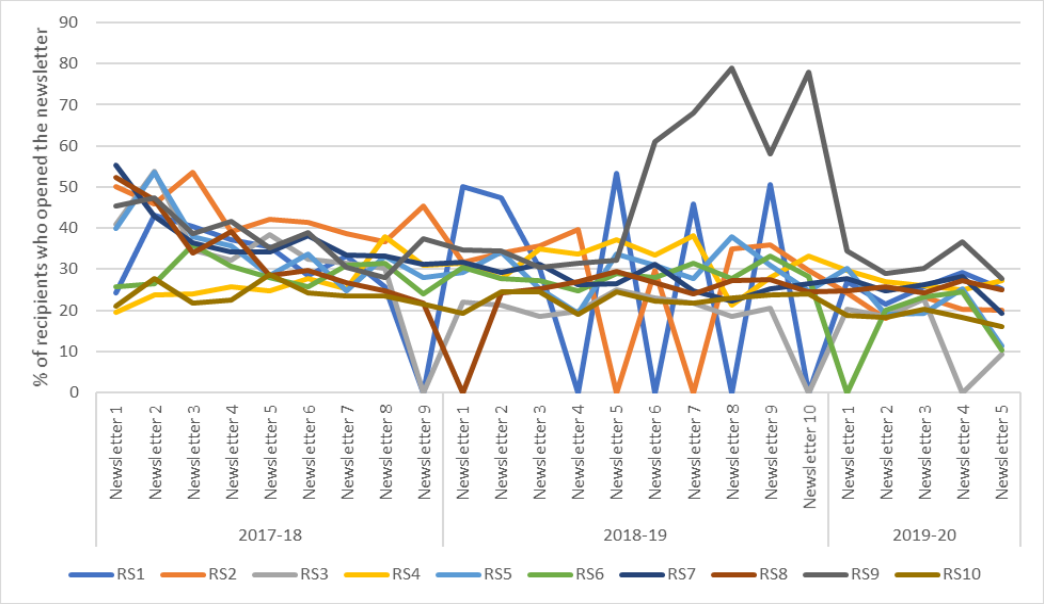
The number of subscribers identified as school staff in the first year (2017/2018) was 2,303 from 882 schools; this increased to 3,846 staff from 1,386 schools by March 2020 when schools in England were closed due to the COVID-19 lockdown. Overall, across the two full academic years for which we have the subscriber data, slightly over three-quarters of subscribers were identifiable as school staff. With the exception of two RSs that had already attracted relatively comparable numbers of individuals to sign up to their newsletters in the first year, the other eight RSs all saw a marked increase over the first two-year period for which we had full subscriber data (that is, before the mailing platform moved to Mail Chimp in 2019/2020).

In line with our observations in other evaluations (Gu et al., 2019; Gu et al., 2020), we also found, from the analyses of the newsletter open and click rates in this project, that the majority of the individuals who signed up to RS e-newsletters were not necessarily engaging with the content. As Figures 4 and 5 show, overall, across all ten RSs over the period of 2017–2020, the open rate (proportion of recipients known to have opened the email newsletter) was 29% and the proportion of recipients (that is, recipients overall, not the proportion of those who opened the email) who

clicked at least one of the links within the newsletters was 10%.[15] In addition, the open and click rates decreased gradually across the evaluation period (but with variation on an individual RS basis: for example, RSs 4 and 9 saw a slight increase) indicating that proportionally fewer subscribers were reading the newsletters. There may be many reasons for this including, for example, individuals who subscribed two or three years ago having changed their role or interest or having fulfilled what they wanted to from their initial engagement with the RS.

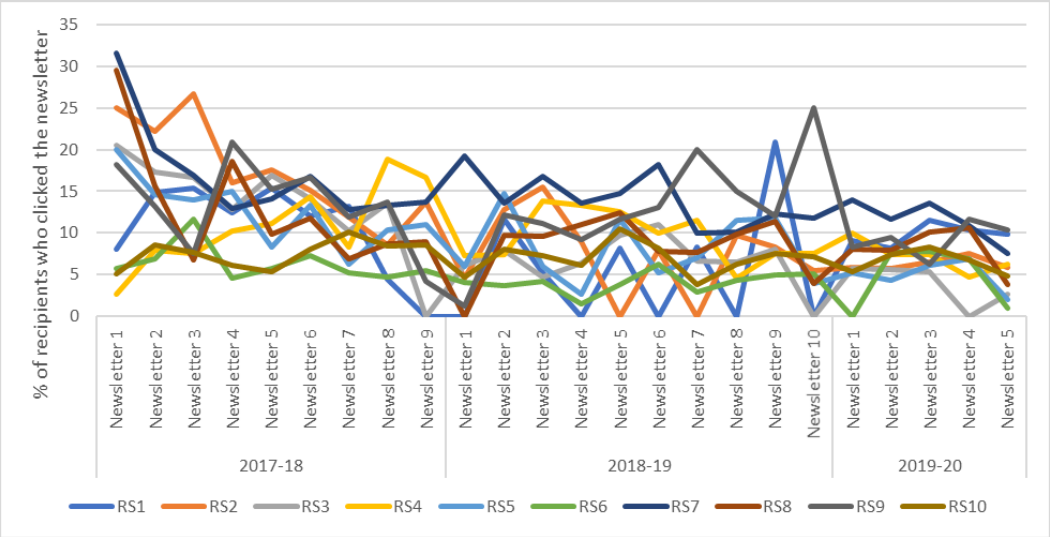
Nonetheless, the observations suggest that although RS newsletters may have reached a large number of individuals and schools, the evidence on the extent to which schools were actually engaged with the evidence and guidance as a result remains limited. Put differently, although the e-newsletters had provided schools and individuals with *access* to evidence, they had a rather limited role in attracting schools to take up evidence-based practice in their own contexts.

Figure 4: Total percentage of recipients who opened the e-newsletters by RS



In a few cases, RSs did not send out newsletters out so were recorded as '0'.

Figure 5: Total percentage of recipients who clicked the newsletter by RSs



[15] The data presented here is indicative and caution is needed when drawing inferences as open and click rates are not always reported accurately—if at all: some email systems do not return such information to the mailing platform meaning that some recorded as not having opened an email may have done so.

CPD and training events

During the same period (September 2017–March 2020), the total number of participants in the various training activities offered by the ten OA RSs was 5,008 and of these, training courses and events accounted for 2,361 participants, conferences for 1,426, and twilight sessions for 1,221. Amongst these, 3,470 participants were staff from 1,078 schools.

The remainder of the report will focus on analysing *'formal CPD and training' that was held for two full days or more*. This definition was created by the evaluation team to distinguish longer-duration, formal training programmes—which required greater levels of engagement and commitment from participants and therefore are more likely to result in change in practice—from one-off, information-sharing conferences, twilight taster sessions, and short courses. There were 1,518 individuals from 661 schools identified as participants in the formal CPD and training programmes across the ten RSs.

The number of participants in the formal CPD and training strand increased considerably over the first two years: from 278 participants in 170 schools in 2017/2018 to 838 in 421 schools in 2018/2019. The vast majority of participants were identified as school-based staff with 96% in the first year and 92% in the following year. We were unable to compile a complete dataset for Year 3 due to the national school closures necessitated by the COVID-19 pandemic. Detailed breakdowns indicating the numbers of school staff participants and the number of schools they represent according to RS and academic year are presented Tables 8.2 and 8.3 in Appendix 8.

Reach and engagement—by Opportunity Area location

Communication—newsletter subscribers

As Table 13 shows, the total number of schools that had subscribed to newsletters increased from 882 in 2017/2018 to 1,265 in 2018/2019. However, the proportion of subscribing schools that were located within OAs *decreased* over this two-year period, from 45% in 2017/2018 to 35% in 2018/2019 – suggesting that a greater number of schools from outside the OAs had subscribed to the e-newsletters in the second year. A mapping of the subscribers' schools (where known) supports this observation. Figure 8.1 in Appendix 8 shows that in the first year, the communication strand had reached schools that were often situated within relative proximity to the OA RSs themselves. However, in the second year RSs' increased geographical spread tended to cover schools from outside of the OA boundaries (Figure 8.1 in Appendix 8).

Table 13: Number and percent of schools subscribed to the newsletter that are within the OAs

Research School	Academic year	Number of schools identified in the subscriber database	Number of schools located with the OAs	% of all subscriber schools that are within the OAs	% of schools in the OAs that have subscribed to the newsletter
Total	2017/2018	882	393	45	33
	2018/2019	1,265	438	35	36

Table 13 also shows that, overall, about a third of schools known to be located in an OA subscribed to the OA RS newsletters (33% of OA schools in 2017/2018 and 36% in 2018/2019), which also indicates that the majority of schools located within the OAs (two-thirds) were not identified as having subscribed. However, the situation was highly variable across the ten RSs (detailed breakdowns by RS in Table 8.1 in Appendix 8): RS3 showed the highest proportion of schools in their OA area as subscribers by 2018/2019 (70%), whilst RS 6 showed the lowest proportion (16%).

Formal CPD and training

Similarly, although proportionally the number of schools located *within* OAs participating in the formal CPD and training increased over time—from 8% in 2017/2018 to 18% in 2018/2019 and 11% for the partial 2019/2020 academic year—because engagement from schools located *outside* of OAs increased at a greater pace over this period, schools that were located *within* OAs composed a decreasing proportion across all participating schools each year, from 56% in 2017/2018, 50% in 2018/2019, to 47% for the first two terms of the 2019/2020 academic year (

Table *14*; detailed breakdowns by RSs in Table 8.3 in Appendix 8).

Table 14: Number and percent of schools participating in the training programmes that are within the OA

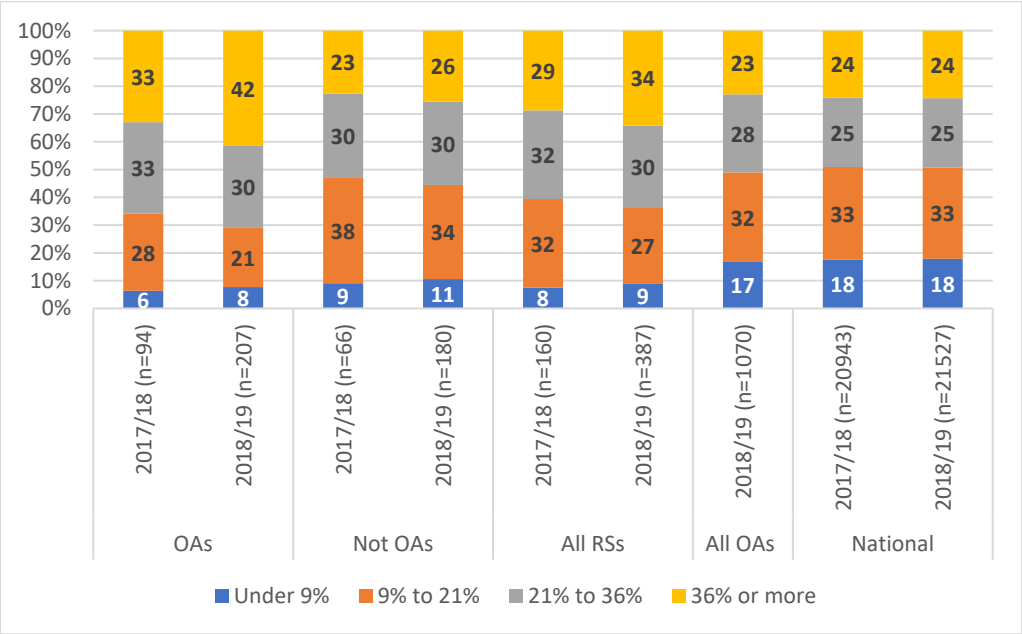
Research School	Academic year	Number of schools identified as participating in the RS training programmes	Number of schools participating in the RS training programmes that are located with the OAs	% of all schools participating in the RS training programmes that are within the OAs	% of schools in the OAs that have participated in RS training programmes
All	2017/2018	172	96	56	8
	2018/2019	422	212	50	18
	2019/2020	279	130	47	11

Characteristics of participating OA and non-OA schools

Overall, the characteristics and profiles of OA schools that participated in RSs' communication and CPD training activities *broadly* reflected the school population across all the ten OAs in terms of education phase, pupil disadvantage (using Ever FSM 6 as an indicator), Ofsted performance, and pupil attainment outcomes.

There are some variations, however. Proportionally, the CPD and training programmes attracted more socioeconomically disadvantaged schools from the ten OAs compared to the overall school profiles within the OAs (and nationally). Across all ten OAs, 23% of schools within the areas were in the most disadvantaged Ever FSM Band 4 and 17% were in the most advantaged Ever FSM Band 1. However, 33% and 42% of OA schools that attended training in the first two years, respectively, were in Ever FSM Band 4 in contrast to only 6% and 8% from Ever FSM Band 1 (Figure 6). This suggests some success in targeting CPD and training for staff in the OA schools serving more disadvantaged students.

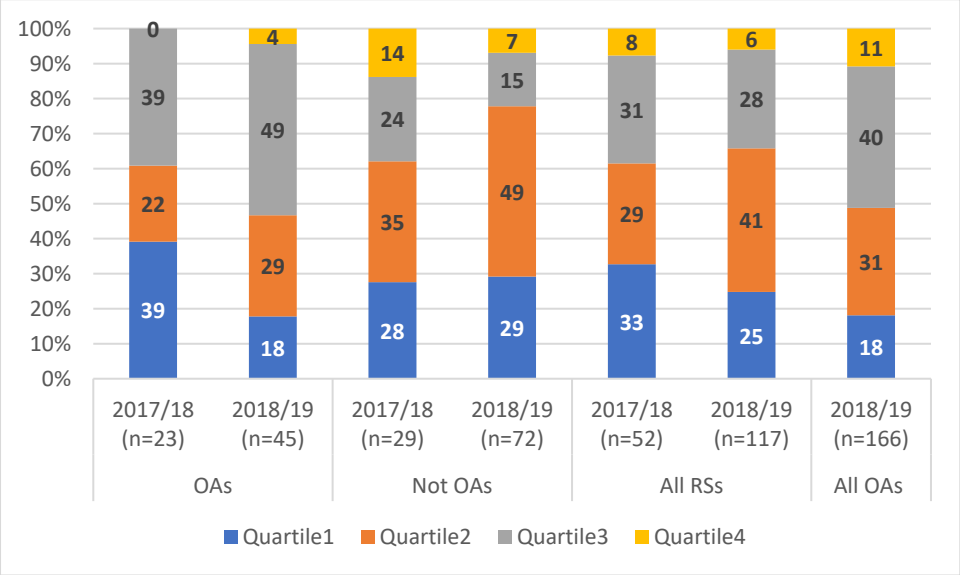
Figure 6: Percentage of schools within each Ever FSM 6 Band with at least one participant in the RS CPD and training programmes by year and by OA location



We divided the national key stage performance outcomes into quartiles. Whilst the quartile boundaries change year-on-year, the top quartile always consists of the top 25% performing schools and the bottom quartile represents the most underperforming schools. For each year, the number of OA schools in each of the national quartiles was calculated as a percentage of the total number of schools. If participating OA schools in a year had the same variation in performance as the national picture then there would be 25% of schools in each quartile. We found that although the performance profiles of secondary schools participating in CPD and training programmes in the second year were largely in line with the overall performance profiles of all secondary schools in OAs, high performing secondary

schools (based on GCSE Quartile 1) were over-represented amongst participating OA schools in the first year: 39% of the 23 participating OA secondary schools in 2017/2018 were in Quartile 1 (Figure 7).

Figure 7: Percentage of schools within each GCSE performance quartile with at least one participant in the RS training programmes by year and by OA location



The proportion of secondary schools from outside OAs engaging with the communication and training activities was considerably higher than the national distribution. Nationally, only 16% of state-funded schools are secondary; but more than a third of non-OA schools (45% in 2017/2018 and 37% in 2018/2019) that had signed up to newsletters and close to half that were involved in CPD and training programmes were secondary (59% in 2018, 41% in 2019, and 48% in 2020). Moreover, these non-OA secondary schools tended to be higher-performing schools, especially those participating in formal CPD and training programmes (based on GCSE quartiles): 63% from the higher-performing Quartiles 1 and 2 in 2018 and 78% in 2019 (Figure 7). The key difference between OA and non-OA schools' engagement, in the view of the RS1 Lead, concerned 'the mandate and remit': within the OA, schools were funded and encouraged to take part but outside the OA it was those schools that 'wanted to engage'—despite that, the design of the courses and programmes was not be bespoke to their contexts or needs. Similarly, the RS6 Lead also commented,

> *'You can do CPD around a new guidance report, market it, people who see this will be keen, quite far along the research journey, travelling from quite a distance, you can get larger numbers in one room. If you explained something to that room, they are more likely to implement it in their schools as they are farther along that research journey. Whereas in the OA, we get smaller numbers of schools, we put some coaching in there about how this is going to look in your setting and "shall we come and help you with that?"; and they are there because it was recommended that they should go' (RS6 Lead).*

The danger of the 'Matthew Effect' was raised by some RS Leads—questioning whether the RS model was just making the good schools better and whether the RSs were reaching the schools that most needed to engage. We will continue to explore this theme throughout the remainder of the report.

The necessary conditions for engaging schools to improve

The combined evidence from the two RSN surveys, interviews with RS Leads, and the qualitative online and telephone interview surveys points to a range of structural, cultural, and organisational conditions in OAs that were most commonly and frequently cited as being instrumental in enabling schools to effectively engage with RS activity and use their provision of support as resources for improvement in teaching and learning, summarised as follows.

Structural conditions

1) coordination of targeted support for improvement;
2) strategic position and influence of RS within OA; and
3) credibility of the RS branding and relevance of evidence.

Cultural conditions

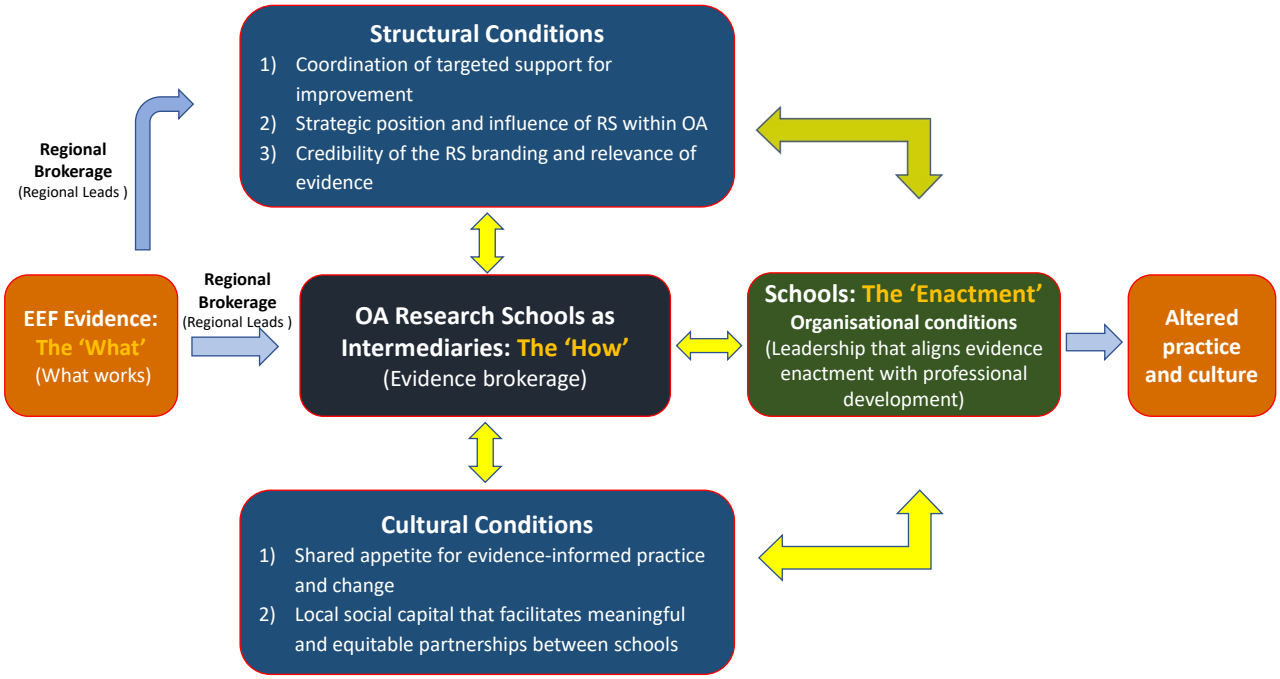
4) a shared appetite for evidence-informed practice and change; and
5) local social capital that facilitates meaningful and equitable partnerships between schools.

Organisational conditions

6) strong in-school leadership commitment to professional learning and development.

Figure 8 outlines the way in which these conditions influenced RSs' impact on the enactment of evidence in schools at the area and school levels.

Figure 8: The necessary conditions for engaging schools to improve at school and area levels



1. Structural condition—coordination of targeted support for improvement

The general consensus amongst the interviewed OA RS Leads was that their priority was to support school improvement in ways that was responsive to local needs. Different from the first five RSs that had their own specialisms and areas of focus (for example, marking, literacy, or research), RSs in OAs had a clear focus on a defined geographical area. Although events and programmes were open to all, they needed to retain a focus on the OA schools and consider local school improvement needs in their planning.

To meet their objective in targeting support to the needs of local schools, it was necessary that RSs had a good understanding of how schools' needs were defined, how resources were allocated across different groups of schools, and how support for improvement was configured in the OA. Effective coordination of targeted support was, therefore, perceived by interviewed RS Leads as an especially important condition for a place-based approach to improvement that would open up channels of communication and interaction between schools and enable RSs to integrate their provision and expertise into the system improvement efforts within the OA. For example,

> *'A lot of OA projects have involved our work, felt more mandated; schools were funded to take part. It was easy to get [OA] schools through the door, being funded by OA, their needs had been identified previously. They knew it was a problem for them and other schools in the town' (RS1, RS Lead).*

In a fragmented local landscape with 'too many disparate projects' (RS4 Vice Chair) and a 'tidal wave' of initiatives and interventions (RS4 School Improvement Lead), achieving local cohesion in the OAs was seen by most RSs as a major challenge. Where local authorities still had influence, they were useful and supportive partners for RSs to navigate in a complicated and, at times, politically sensitive local landscape: 'So we have that intelligence and about schools and needs. Organisations come to us to find out what [OA] schools need' (RS4, RS Lead). There were also positive examples showing how the DfE Lead in the OA dividing up jobs and developing strong relationships between key players (for example, the TSAs, the RS, and the LA) created a good and positive environment without competition for courses and support in the local areas.

More often, though, to avoid their offer 'stepping on toes' (RS 6, RS Lead), RSs found themselves having to negotiate local school improvement networks without much structural support. Aside from the local authority maintained schools, the OAs were heavily populated with TSAs and MATs. In some OAs, if the RS was well connected into such networks, their 'insider status' presented an opportunity for communication and connection. Nevertheless, these organisations added a layer of complexity by sometimes extending beyond the geographical boundary of the OA, operating in competition with other local groups, or simply looking inward, 'like a closed book to us' (RS7, RS Lead). Intersecting with these different groups and with existing projects and initiatives presented tensions in most cases, not only for the RS but also for the other schools locally: 'Unless they can make sense of the school improvement offer, it's not going to lead to improvement—it's going to lead to confusion' (RS4, RS Lead). One RS, discussing the competition and lack of co-ordination among stakeholders in the region, commented on 'the murky swamp of CPD programmes in the local area':

> *'We can try and join things up but it doesn't help when the DfE make an announcement and say there are going to be so many literacy hubs working with so many schools. Can you link that up to any other literacy offers? Can you link that to any SSIF [Strategic School Improvement Fund] programmes that are running that are literacy based?' (RS7, RS Lead).*

In other cases, OA funding for other local projects had led to a feeling of competition, a lack of communication, and overlapping plans in a saturated market rather than the strategic, co-ordinated approach required. For example, although various SSIF grants and other OA grants had provided funding and opportunities for collaboration, it was felt that they also created a potentially saturated market where there were too many school-to-school support programmes and offers. There was perceived competition in the market where money had been manoeuvred to serve similar purposes. One OA was seen by the RS as having inadvertently frustrated their efforts to promote a training event by 'flooding the market with alternative provision' (RS7, RS Lead). The headteacher of another RS also expressed her concern about the confusion for schools because of a lack of joined up coordination of the funding and a lack of capacity to implement the programmes well so that they would make a real difference to school improvement across the locality:

> *'That's [SSIF] just added to more programmes being delivered that aren't joined up. So there is a lot of money in the system but I'm not sure there is the capacity. We keep saying "who is driving the bus?" … I see it as a journey for [the OA] as a whole and we are just one seat on that bus but we are not the driver of that bus. I said that we had nobody driving it or holding the schools to account' (RS3, RS Lead).*

Similar observations and concerns were also raised at the interviews with the DfE's OA leads. In some areas, the view was that schools were inundated with school improvement support offers, causing issues with schools knowing what they should be accessing. Within a context of small or rural schools such as in OA5 and OA10 where there had been a high level of funding and school improvement opportunities whilst, at the same time, school workforce recruitment and retention challenges, the capacity for schools to be engaged was perceived to be rather limited:

> *'I would say that the level of engagement is what schools in the OA can bear. Some are very small and don't have the capacity to engage in a large school improvement programme. Some of the schools will have felt that the Research School offer was valuable but still didn't want to engage with it for other reasons' (OA10, DfE lead).*

A fundamental question for all RSs concerned the extent to which they were able to engage the OA schools that were seen as most in need of support in terms of school performance or their association with areas of particular deprivation. The lack of a coordinated approach to targeting hard-to-reach and needy schools had led to perceived difficulties for RSs in differentiating their offer, particularly from short-term, quick-fix interventions geared towards a preoccupation with raising attainment:

> *'Schools are getting bombarded and overwhelmed with providers offering services and programmes and they come to the Research School and say, "I need some support here about making choices." It's quite complex, particularly for some of our most vulnerable schools who are getting everything poured in' (RS4, RS Lead).*

Although contractually the OA RSs were accountable to the EEF alone, there was a widely shared perception amongst RS Leads that accessing the OA funding would inevitably bring with it accountability from the RSs to the OA. There were expectations within the OAs that the programmes on offer (not limited to RS programmes) needed to demonstrate evidence of impact on improved outcomes. As RS3 commented, it felt that everything was examined under a microscope and that 'what mattered most had to be weighed up carefully' because of a real pressure to respond to different 'bosses' in the system, including the OA DfE representative, the Regional School Commissioner

(RSC), the RSN Central Team, and the OA Partnership Board (RS Lead). The picture, overall, was of a still-evolving and fairly confused interplay between RS and OA:

> *'You are in that space you feel that they are your bosses because they are the ones who are deciding on what programmes happen or what the themes might be. … you've got the [school improvement groups] and they keep changing their minds over what they wanted and we had to go up to the board and then the board were having to get feedback and then the DfE get involved. So all the time I felt I couldn't decide how we did the delivery. That was a massive piece of learning and I don't think that other Research School people understood it' (RS3, RS Lead).*

2. Structural condition—strategic position and influence of the Research School in the Opportunity Area

The qualitative online survey and interviews with key stakeholders suggest that there was variation in how the RS work was perceived in contributing to change and improvement across schools in OAs. Variation in perceptions and observations was often related to RSs' strategic positions within the OA. The ten RSs were situated on a continuum of OA strategic engagement, ranging from those at the heart of, and indeed *driving*, OA decision-making to those with less influence but a harmonious working relationship through to those working much more loosely with the OA. Almost all RSs could point towards a representative either sitting on the OA Board or phase-based school improvement groups, attending relevant meetings, or involved with OA working parties. At one end of this continuum, for example, was RS4 where the RS claimed to 'shape' local improvement:

> *'The RS has a place around the table which is really beneficial. So right from the early days of the OA, we were involved in determining the priorities' (RS4, RS Lead).*

The senior leaders of RS1, RS3, RS7, and RS9 were also represented on the OA Board and this enabled them to influence decisions and promote an evidence-informed approach at a regional, strategic level, 'challenging some of the things they say but also helping to steer in the right direction' (RS1, RS Lead). There was recognition on the part of the RSs of the very different circumstances each worked in and the way that the relationship with the local OA was at the heart of this. One, for example, had been struck by the extent of RS1's work:

> *'They've had a greater scale of ambition up there, where they've said, if this is a priority for all schools, you're all going to follow a more common framework and for whatever reason the RS there has been able to strategically influence the OA programme group to get them to think about a much more coherent, rather than piecemeal, solution for one of their priorities' (EEF Regional Lead.)*

Interviewed members of the OA7 Board were also highly complimentary about the relevance and quality of the RS's provision within the area and saw the RS had been instrumental to the OA delivery from the outset:

> *'They [RS7] attend all working groups and have a broad understanding of our priorities. We can direct schools to them to benefit from their expertise, which is broad and generously offered. They provide CPD that targets our priorities. They support school leaders to implement evidence-based strategies effectively' (Member of OA Board).*

> *'The Research School goes hand in hand with what we're doing. Schools see us as two sides of the same group. They are represented on all working groups. Whenever we are doing any significant project, we will ask the Research School to test the evidence' (Programme Director).*

Having experienced frustrations in aligning RS priorities with those of the OA in the first year when she was only represented in one of the school improvement groups in the OA, the CEO of RS3 was extremely positive about being part of the OA Board from the second year. This enabled her to understand 'the missing links in the effort to improve schools in the city' and to feed the thinking into their school improvement proposals and the design and implementation of their programmes. She was positive about the new composition of the OA Board which, as a result of its expansion over time, included 'a real blend of people' who 'really tried to talk one voice from different perspectives' (RS3 CEO). The OA Board was using a more robust approach to review the proposals—with a clear intention to reach and improve hard-to-reach schools. She felt that there was now more openness in the city and that her strategic position on the OA Board had helped the RS to align its offer to be 'more responsive to the needs of the OA' (RS3 CEO). The RS's strategic contribution to the OA was also recognised by the DfE Lead who commented, 'They're part of the eco-system and they bring a real evidence-based approach. They were seen as an outsider prior to the OA and this has been turned around' (OA3 DfE lead).

In contrast, other RSs, that described occasional attendance at the OA Board, made fewer claims to shape strategic decision-making at the OA level. For example, in OAs 5, 6, and 10, the RSs' involvement was limited to attendance at stakeholder or priority meetings and, rather than driving policy, 'we are listening and sharing and suggesting' (RS5 Lead). The interview with a key stakeholder from the same OA revealed that their scepticism about the lack of alignment between the OA schools' improvement capacity and priorities and the RS's capacity and experience constrained the potential influence that the RS could have achieved in the area. This OA Board member compared the OA RS with a RS in a nearby region, which had a significant amount of capacity and a broader range of expertise across their MAT schools. In addition, the lack of lead-in time to the OA meant that there had been much pressure on the RS to get things off the ground quickly with offers that were developed elsewhere but were not necessarily relevant to the school improvement needs and priorities within the area.

> *The RS in the area is limited by their size, a lack of pre-existing influence over other schools, and the challenge they have in attracting high-quality teachers to the area … Research Schools are another bit of school improvement that is based on the premise that there is some school improvement capacity in the area, when in this Opportunity Area there isn't. We need to think about different models of school improvement that recognise the limitations of an area' (OA5 Board Member).*

Further evidence from the qualitative telephone interview survey with regional key stakeholders points to a shared view that although these RSs were taking some role in supporting school improvement priorities within the OAs, their work was less embedded within the accountability and delivery structures of the OA. As such, they tended to be viewed more as another CPD provider in the marketplace, rather than as being intrinsic to the OA's offer to school.

At the other end of this scale, in OA2, the Trust CEO had ceased to attend the board and there was little capacity to deputise. In OA8, while the RS Lead, being an outsider to the locality, did attend the OA Board, the churn of DfE and OA staff—especially in the first two years when the RS was working to establish itself in the OA—caused concern about the lack of continuity of key personnel with whom to build relationships:

> *'By the summer I felt we'd got really good relationships with X, who was the lead, then he moved on and then Y came. While she's still there leading on a bit of it, she's got someone else and she's doing it as an interim and then there's been a permanent … so actually the structures haven't really been how we've built capacity and strategy because the personnel has changed too much … It would be really hard to take the OA as the driver for what we do' (RS8, RS Lead).*

In OA10, a consistent message from all four interviewed board members was that the RS 'had done very well in the circumstances' (LA personnel) where there had been, from the outset, real and persistent resistance and reluctance from local schools to engage with the RS that was situated outside the OA. Three years on, an OA Board member still expressed deep reservations and scepticism about the role of a RS external to the OA in supporting school improvement within their area:

> *'If the Research School is expected to have any purchase in the area, then they need to be on site. They have organised some INSET but it's been quite generic. It's not been tailored particularly to [the OA] … The model was fundamentally flawed from the start' (OA10 Board member).*

Related to the difference in OAs' perceptions of the RS offer, the role of the OA in helping the RS to reach schools also varied considerably. In some areas, the OA had either provided a list of schools or even targeted schools on behalf of the RS; in others, the RS was still pushing for this kind of support.

3. Structural condition—credibility of RS branding and relevance of evidence

The staff leading the RS offer in the OAs were key enablers to engaging schools in evidence-based practice. In the qualitative telephone interview survey in 2020, most interviewees at all levels spoke about the professionalism and engaging nature of the RS personnel. The professionals leading the RS activities were seen as having provided the level of professional expertise and credibility required for engaging schools.

In some cases, such professional qualities enabled the RSs to demystify and break down barriers regarding evidence-based practice. As a RS partner in OA9 commented:

> *'They enable the schools to start to think differently… to start to think that they could do some research. It's about demystifying research and seeing that it's just about looking at their practices in school, why they're using it, and what impact it is having' (OA9, RS partner).*

This view was supported by the DfE Lead for OA9 who commented that the RS was able to support school improvement because of the expertise and credibility that the staff brought: 'Their staff are very well-respected and they are a high-performing school so they bring credibility and schools want to engage with them' (OA9, DfE Lead).

For all RSs in OAs, a shared perception was that they were having to maintain a balance between national, standardised programmes for the EEF and bespoke local offers. The tailored local offer, informed by detailed regional knowledge, was of crucial importance in securing schools' trust and the valuing of RSs' expertise. However, the EEF's 'brand' was still very much valued as a 'door opener' and a reminder of 'core principles'. Linking up with the EEF (and through them, indirectly with the DfE), for example, was felt to have given RS3 an important status at local and national events: 'It raises your profiles at local levels … and it feels that you are getting into the national policy level as well' (RS3 CEO). Although described by one RS as a somewhat 'corporate' approach, it was clear that a strong sense of identity endured, as summed up in RS1:

> *'I want to feel, if I'm doing a maths course, that it's absolutely on message with the research and the evidence. I could easily bang together a three-days maths course with loads of great ideas but it wouldn't be a Research School course because it wouldn't have that common theme to it of making sure people are engaging with the evidence and thinking and reading and planning for long-term change' (RS1 Lead).*

Building a strong local identity with the support of the EEF was particularly important for the RSs that were situated outside the OAs. In OA10, for example, its ability to engage schools with the RS offer was constrained by a combination of the perceived challenges of the RS being out of the area and the limited capacity of the schools to take up the offer. As the DfE lead commented:

> *'The Research School wasn't strong to begin with and the EEF did have to provide them with a lot of support. Schools were a bit reluctant and the Research School's offer wasn't very developed. Relationships have developed and the Research School are now more sure about what they are doing. It feels like it's a more secure operation' (DfE Lead).*

Acceptance of RS10's credibility within the OA was also acknowledged at the interview with the local authority personnel:

> *'I've been very impressed with their persistence and tenacity and they have tried really hard, but from the outset there was absolute frustration amongst the schools that there was a Research School that was outside of the OA area' (LA Lead).*

The experience of OA10 also showed that building the local credibility of the RS brand was the outcome of a joint effort that required the backing of the EEF, especially at the beginning of the journey and, as importantly, the professional commitment, agency, and expertise of the professionals who led the RS work. RS leads discussed the challenges of providing a varied training offer and meeting demand. As well as the provision of courses centred on EEF guidance reports, many RSs had found tailored ways to respond to the distinctive needs of their OAs, some securing OA funding in the process. In some cases, this involved the RS offer being embedded as a condition of a wider training programme. Such experience was well expressed in RS4 where there were reservations about the EEF's emphasis on core programmes, when they might not be local priorities, but also an acknowledgement of the need for some conformity:

> *'We've been able to mould it so it's bespoke for the needs of [the OA], but there's still that strong core offer from the EEF and the structure and ways of working we're bound by, which is good for consistency across RSs' (RS4 Lead).*

The RS1 Lead commented that, 'You feel part of it, part of the EEF, rather than them being your boss, as it were.' It was notable that these schools (RS1, 3, and 4) were among those with the strongest OA presence and influence.

Evidence from the follow-up survey supports the efforts of the RSs, showing that the relevance of the content of the RS offering was perceived as a key condition for participating individuals' and schools' continued engagement. Among those who had reservations about whether their aims for engagement had been achieved, the reasons given were varied but the most frequently recurring issue (mentioned by a third of those who gave a reason) was with the content of the RS offering—for example, a lack of relevance to their school phase, contexts, or role, the focus of the content being too broad or too narrow, or adhering too rigidly to EEF guidance reports.

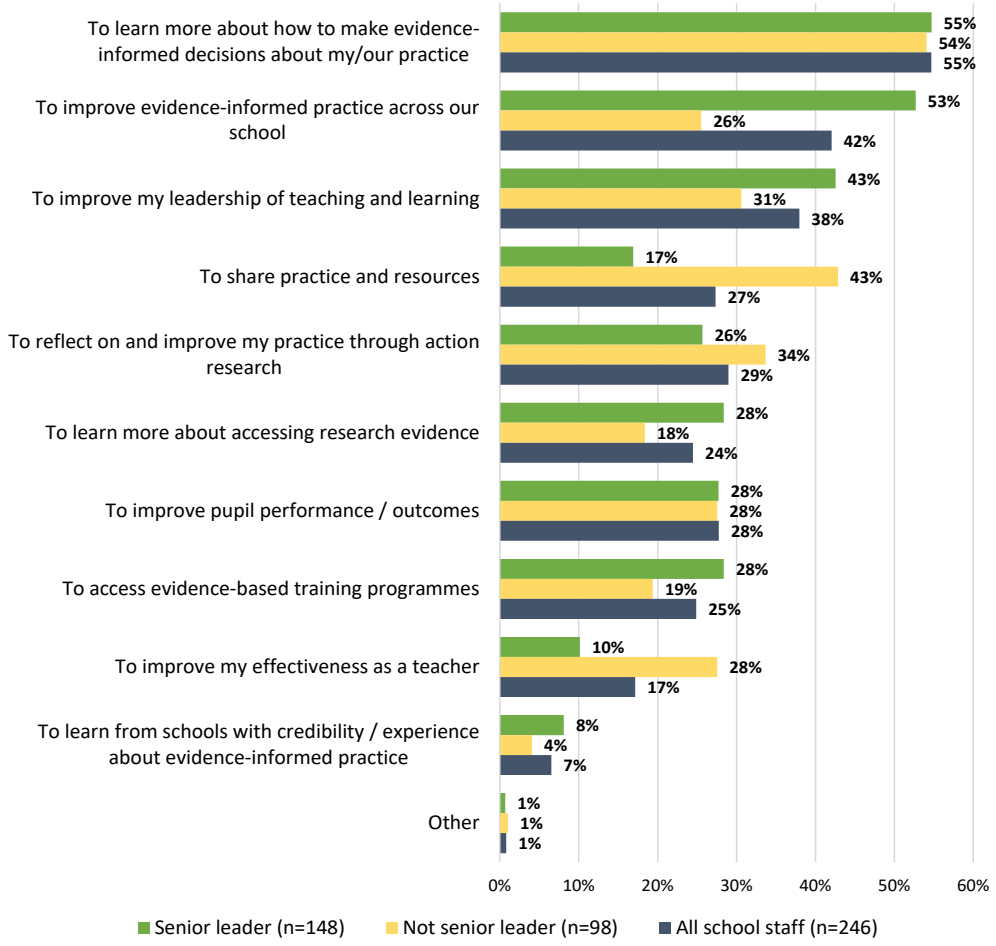
The question, going forward, is perhaps whether perceiving certain RSs as models of promising approaches to scale up the use of evidence in classrooms and schools—on the basis that their approach might be replicated—is valuable or whether the local conditions are so different that this is likely to be counter-productive.

4. Cultural condition—appetite for evidence-informed practice and change

There were also cultural conditions that influenced, positively or negatively, schools' engagement with the RS offer. Schools' appetite for improving evidence-informed practice and motivation to change were found to be key factors that had either encouraged or inhibited them from taking up the RSs' provision of support. As the following evidence shows, the reasons behind schools' interest in taking up evidence-informed practice are complex. Some were related to in-school leadership concerns and priorities, some were influenced by local school improvement cultures and capacity, while others concerned the clarity of what the RS offer was—especially for schools in need of urgent support and improvement.

Figure 9 shows what respondents to the follow-up RSN survey reported to be the main aims they were hoping to achieve by engaging with the RSs, for all school staff and split by senior leaders and non-senior leaders. Overall, the two most frequently cited aims were to 'learn more about how to make evidence-informed decisions about my/our practice' (55%) and to 'improve evidence-informed practice across our school' (42%) although, perhaps understandably due to the whole-school nature of the aim, this latter aim was far more likely to be cited by those in senior leadership roles. Nonetheless, the results indicate that there was a relatively strong willingness among the survey respondents to engage with the evidence-informed practice through participation in RSs' activities.

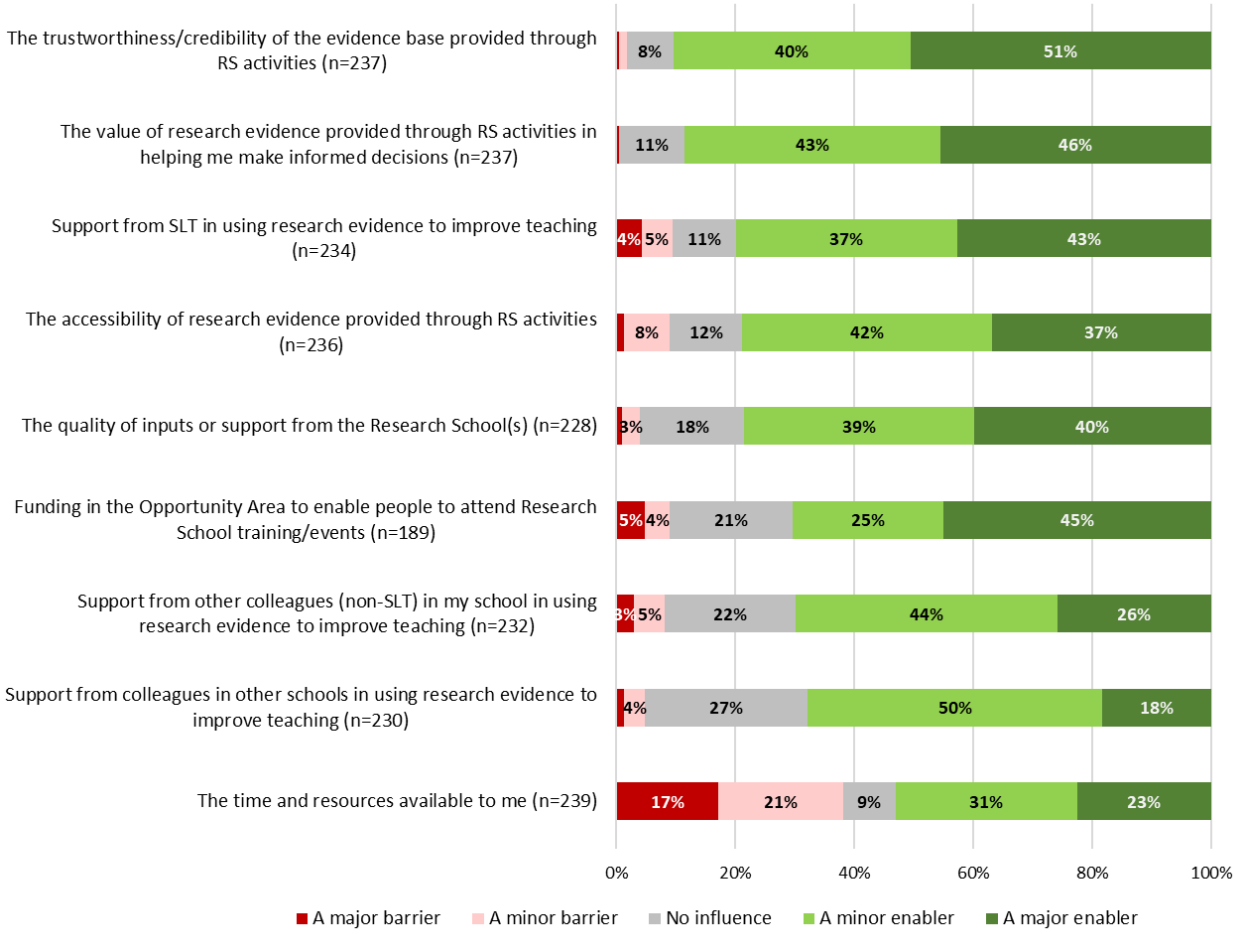
Figure 9: Respondents' aims in engaging with the OA RSs, follow-up RSN survey, all school staff and by role



Respondents were able to tick any aims that applied to them. As some ticked more than one, this means percentages do not total 100. The base for the percentage calculations is the number of respondents in each group who answered the question, as indicated in the chart legend.

The value, trustworthiness, credibility, and accessibility of the research evidence were cited by a large majority of respondents to both the baseline and follow-up RSN surveys as enablers to their engagement with RS activities. Figure 10 shows that 89% of follow-up survey respondents indicated that 'the value of research evidence provided through RS activities in helping me make informed decisions' had been an enabler, while 'the trustworthiness/credibility of the evidence base provided through RS activities' had also been a 'major' or 'minor' enabler to their engagement for 91% of follow-up survey respondents. Around 79% cited the 'accessibility of the research evidence' as an enabler for their engagement with RS activities.

Figure 10: Extent to which a range of factors have served as barriers or enablers to follow-up RSN survey respondents' engagement with the RS activities



To assist readability, data labels of 2% or less have been removed from the segments of the chart.

Evidence from the qualitative telephone interview survey with school improvement key stakeholders in Year 3 of the evaluation suggests that where schools had failed to see the relevance of RS support to their context or practice, the take-up of RSs' offer tended to be limited or challenging to sustain. The DfE and local OA leads from OA5 and OA10, for example, believed that historical cultural issues around weak, inward-facing school leadership and schools' reluctance to look outside their immediate area for help had contributed to the challenges in the RSs' ability to promote evidence-based practices in these areas. As the DfE lead in OA5 described, 'This is partly due to the heads having an attitude that they have a very different context and that the children they are dealing with are unique; they are reluctant to accept help and have an aversion to outsiders.' This was a message that was reinforced by an OA lead who lamented a culture of complacency in OA10: 'There's a lack of engagement with the community as well and any denial that there are any issues or that the area should be an OA.'

There had also been challenges for RSs to engage 'hard to reach' schools in evidence-informed practice, especially vulnerable schools that were under systemic challenges to improve. In all OA RSNs, variation in early engagement was more prominent. Where schools tended not to respond, this was often seen as a capacity issue, closely linked to the challenges inherent in the OA:

> *'The schools that have attended are the schools that are doing alright already: that is, they have the capacity to say this is new and different. The schools that we are targeting are not attending. With good reason. They don't have the capacity to take another new initiative. They may not have a member of the leadership team they can afford to send' (RS3 Lead).*

The concern over whether vulnerable schools in need of support had the capacity to take up RS activities was also raised by this headteacher:

'It will make the good schools better and it is about showing a vulnerable school how it is going to help them because they've got that much stuff being thrown at them. Because they've got to show results immediately, I would say that the Research School way is a bit longer sighted and so those hard to reach schools are probably going for a quick fix. But getting people talking and feeling empowered can be very quick as well, but we are not getting to those hard to reach schools because the accountability isn't mature enough yet in the opportunity system, and so what I am trying to do is to get under the skin of those schools who don't even realise that they are engaging with the Research Schools' (RS3, Headteacher of Partner School).

In OA7 the interviewed key stakeholders also commented on issues around schools that were most in need of the RS support choosing not to access it: 'Those that need it the most are the ones that don't access it' (DfE Lead). RS7 sat on the OA Board and was seen to have 'played a key role in embedding evidence-based practice in schools' (DfE Lead). The RS staff helped some schools in Ofsted judgement categories of 'requires improvement' and 'inadequate' to see the longer-term benefits (as opposed to short-term, quick fix interventions) of using evidence to improve practice:

'There's still an Ofsted effect, everybody panics about what other schools are doing and adopts practice from an outstanding school rather than looking at what will work in their own school. The Research School has taken them back to basics by focusing on diagnostics and a theory of change underpinning their plans to ensure that changes being implemented are based on evidence' (Programme Director).

However, the need to clarify the RS offer was also raised. The DfE Lead felt that some of the reluctance to engage was led by the perception that the RS offer was academic and thus a 'nice to have' offer 'rather than something that they need to help with some of those more systemic challenges they were facing'. To attract interest and gain a foothold in a diverse education landscape that was populated with so many school improvement stakeholders and offers, it was necessary to have some clarity on what targeted support the RS was able to offer both within and outside the OA:

'The language used by the Research School and the pitch is wrong. The challenge is to break perceptions about what they are and what they do. In this OA the water was muddied even more because a Teaching School became a Research School and therefore it was even less clear how the two were distinct' (OA7, RS Partner).

'There is something that could be done about the branding and packaging of Research Schools. The EEF could send out a clear message to school about being able to offer solutions to working with disadvantaged children, and that doesn't come across clearly enough currently. The term Research School is unhelpful (OA7, DfE Lead).

Related to this was the view that the EEF's vision for the OA7 and the role of the RS in achieving that vision should have been communicated more clearly with all those concerned. According to the DfE Lead, 'It's not clear what the EEF's mission for the Research School model in an Opportunity Area is and how that compares to […] the OA's vision for the role of the Research School.' Similarly, the Programme Director attributed the lack of sustained engagement with the RS to the misalignment between the EEF's contractual expectations for the RS and the OA's need for support:

'When we used to have discussions with them [RS7] about doing more, this wasn't always possible because they had a tight contract with the EEF and the priorities and outcomes of that contract didn't always align with the OA work. There were also examples of work that we paid them for, that perhaps it wasn't clear whether we should be paying them for it or whether they should have been doing it as part of their EEF contract' (Programme Director).

5. Cultural condition—capitalising on the local social capital

Local social capital relates to a particular area and characterises the nature and intensity of the ties between individuals and organisations in facilitating cooperation and collaboration for mutually beneficial goals and relations in local communities. The history, breadth, and depth of the relationships and interconnections between schools and other key stakeholders within each OA were essential ingredients of a place-based social system that influenced, deeply and powerfully, the systemic engagement and uptake of RSs' training and support. By extension, they also had a profound impact on the extent to which RSs were able to embed evidence-informed practice in defined geographical areas. Put simply, these social relationships and ties were social resources for change. In their absence, RSs' endeavours to promote change in thinking and behaviour about teaching and learning were less likely to be effective

and culminate in sustained improvements in organisational cultures and capacity that were fundamental in bringing about the intended change within and across local schools.

OA4 represents some areas where school improvement cultures were perceived by RSs as fairly compact, with a history of collaboration and a strong regional identity. The RS Lead had worked in the area for years and had been highly involved in driving school improvement in the locality. At the point of RS application, key stakeholders from the area were brought together to ensure buy-in and a sense of involvement from the outset.

> *'When we made the application for the RS originally, we tried to get all the main stakeholders in [the OA] around the table to try and outline why we were making the application and what the RS would be doing, how we'd like everybody's involvement. We've tried really hard to bring all the stakeholders in [OA] with us on the RS journey' (RS4, RS Lead).*

Additionally, the RS was at the heart of a 'highly influential' TSA in the area, which had involvement from almost all schools in the OA (100% paid membership subsidised by the local authority). The headteacher of a partner school commented that 'the Research School's close relationships with the leading Teaching School Alliance is extremely beneficial' because the TSA provided established networks of schools that not only enabled the RS to facilitate school improvement but also strengthened the existing culture of collaboration in the region:

> *'The Research School identifies those schools, leaders, and system leaders who have the capacity to work with them in order to bring about sustained improvement. The relationship with the local authority, teaching school, and lead for SMOA [Social Mobility Opportunity Area] is a true partnership and ensures that together they can support the work of the Research School' (OA4, School Improvement Partner).*

Other areas such as OA1, OA2, and OA6 also saw RSs well integrated into the local social systems. The CEO of the MAT/RS was a well-known figure in OA1 and the RS Lead drew on their prior connections to engage schools: 'Me and X have both worked in [the OA] for years; people know us and I think that has massively helped with the OA Board'. For the RS6 Lead, she appreciated access to 'a ready-made bank of SLEs to draw on'. Evidence from the qualitative online survey with key stakeholders also points to the willingness of educational stakeholders and school leaders to collaborate and engage in partnership activity as a means of school improvement in these areas. The scale of collaboration coordinated and operationalised through Partnership Boards and working groups, and the innovative work being undertaken as a result, represented key strengths in these regions.

Key stakeholders from the OA7 region noted that although in some cases the inter-school relationships still remained in their infancy, overall the collective will amongst groups of schools to work together in addressing localised issues in the OA reinforced a move towards a culture of sharing evidence-based practice across organisational boundaries. As this school improvement partner suggests: 'There is exceptional cohesion amongst local leadership, which makes engagement easier'—a sentiment repeated by other respondents within this region:

> *'The strength is how schools have come together to collaborate and support each other. All the secondary headteachers meet regularly and commit to working together, for things like reducing exclusions. Seven of the primary headteachers in [the OA] are advocates for the OA programme, encouraging their peers to engage with the support the OA has to offer' (Headteacher, Partner School).*

Some also suggested that the establishment of three OAs within a particular region bolstered opportunities and encouraged a region-wide culture of mutual support and critical friendship between schools in this part of the country.

At the other extreme were OAs such as OA5, a quite fragmented region with geographical divisions between north and south and MATs and school clusters extending across borders. It had been difficult for the RS to gain a foothold in a diverse and sometimes competing array of stakeholders: 'It's been said to me more than once, "We're up here and you're down there"' (RS Lead). The lack of stability caused by the vulnerable nature of many OA schools was also seen in a high turnover of staff, presenting an additional challenge in the forging of local relationships.

RSs located outside the OA also lacked the social resources and advantages. This was especially the case for OA10 which, although geographically large, only comprised less than 20 schools and lacked strong networks:

> *'We are seen as a partner in school improvement, and that's where we've got to. I don't think we are seen as the go-to person because there are some very good people in the area' (RS10 Lead).*

6. Organisational condition—leadership commitment to learning and development

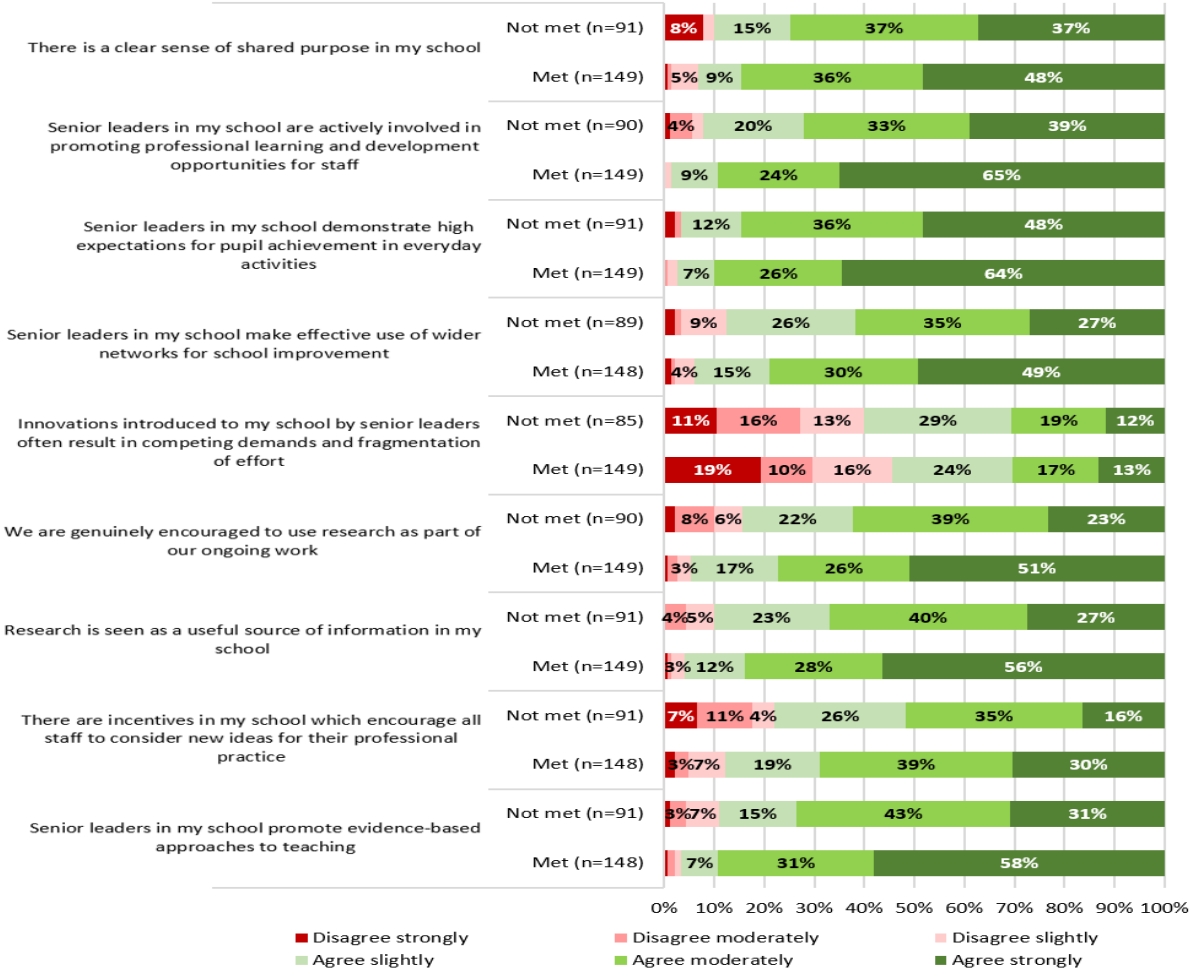
The RS model was believed to be a really strong mechanism for school improvement by all interviewed OA RS Leads, the focus of which was on long-term change rather than a short-term, quick fix solution.

> *'The change in my thinking is more of a shift towards making sure that schools are ready to implement things long term. That's where the network is almost unique. The training we provide is not one of those nice days out where you get lots of resources shared and you try them out and then go back to school and you forget them and never do them again. That, historically, is what external CPD is like and I think we offer something quite different from that' (RS1 Lead).*

However, some expressed concerns about their work exacerbating the 'Matthew Effect'—'as the schools with the freedom and capacity to allow staff onto three-day training programmes are often not the ones most in need of our support' (RS1, CEO of RS). The significance of senior leadership that had the influence to effect engagement and change in participating schools was highlighted by the survey evidence especially.

The follow-up RSN survey results also highlight the importance of senior leadership support in enabling staff to achieve their expectations from engaging with RS initiatives. Figure 11 shows the relationship between respondents' perceptions of nine key areas of senior leadership behaviour and ethos and whether their aims and expectations of engaging with the RSs had been met or not. It indicates that staff aims and expectations were more likely to be met when there was stronger SLT support. For example, 58% of respondents whose expectations were met, compared to 31% of those whose expectations were not met, strongly agreed that 'senior leaders in my school promote evidence-based approaches to teaching'. Given that the vast majority of respondents (92%) cited 'engaging with the evidence and/or adopting evidence-based practice' as their aim in participating in RS activities, the results suggest that senior leadership is an important condition in engaging schools with the RS activity and achieving the aim of embedding evidence-based practice in their contexts.

Figure 11: Extent to which follow-up RSN survey respondents agree or disagree with statement about school leadership by whether they have met their aims and expectations from engaging with the RSs



Principal component analysis (PCA) was conducted on the follow-up RSN survey data to explore the latent factors that were likely to be associated with respondents' reported impacts in their own practice and at school as a result of their engagement with the RSs. Question seven (leadership support for promoting and adopting evidence-based practices) and question eight (enablers and barriers to engagement with RSs) were included to identify both school-level and individual-level variables in the factor analysis. The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis (KMO = 0.91 and 0.82 respectively) exceeding the recommended value of 0.6 and the Barlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix.

Principal component analysis of the nine items in question seven revealed the presence of one component with eigenvalues over Kaiser's criterion of 1, explaining 65% of the variance, and the analysis of the ten items in question eight revealed two components with eigenvalues exceeding 1, explaining 43.22 and 15.39 of the variance respectively. One component was revealed as a result of the PCA of the ten items in question nine suggesting that there is only one underlying factor structure (that is, dimension) relating to respondents' perceived impact as a result of their engagement with the RSs (Table 9.3 in Appendix 9). Tables 9.1–9.3 in Appendix 9 presents the factor loadings:

- Factor 1: senior leadership support for using evidence to improve teaching and learning;
- Factor 2: quality inputs and support from RSs;
- Factor 3: support for using research to improve teaching; and
- Factor 4: perceived impacts on teaching and learning.

Table 9.4 (Appendix 9) presents the results of the correlation analysis on factor scores of Factors 1, 2, 3, and 4 (Q7, Q8, and Q9) and Q6b regarding whether respondents' aims and expectations of engaging with RS activities had been met. The results point to a strong association[16] between respondents' perceived impacts of their engagement with RSs (Factor 4) and RSs' quality inputs and support (Factor 2) (r = 0.651). Senior leadership support for using evidence to improve teaching and learning (Factor 1) was moderately associated with support on research use to improve teaching (Factor 3) (r = 0.499) as well as respondents' perceived impacts on teaching and learning (Factor 4) (r = 0.462). In addition, and perhaps expectedly, respondents' perceptions of impacts (Factor 4) were moderately associated with whether they thought their aims and expectations of engagement had been met (r = 0.550).

The results of the correlation analysis show that the quality and relevance of support from RSs and in-school leadership support for using research and evidence to improve teaching and learning were both highly significantly associated with perceived impacts on practice and outcomes of teaching and learning in participating schools. However, in comparison, the association between *RSs' quality input* and respondents' perceived impacts was relatively stronger.

Further analysis was then conducted to explore whether the above associations were likely to be evident in relation to the roles of the respondents. As Table 5 in the previous chapter shows, 60% of the participants in the follow-up survey had senior leadership responsibilities in their schools compared to 40% who did not. The results presented in Table 15 confirm the above observations about the importance of RS quality input and in-school leadership support but add more detailed evidence to help understand the relationships between latent variables of change and impact. There are two key observations from this additional analysis:

- For senior leaders, senior school leadership support showed only *weak* associations with perceived impacts on teaching and learning (r = 0.339). In contrast, for school staff, such support had *stronger* associations with perceptions of impact (r = 0.602).
- RS input and support showed *stronger* associations with perceived impacts amongst the senior leader respondents (r = 0.692). Such association was more *moderate* amongst the school staff respondents (r = 0.552).

Taken together, the results suggest that for both senior leaders and school staff, leadership support and quality inputs from RSs were important conditions in bringing about perceived impacts on teaching and learning. However, the role of senior leaders in cultivating in-school support for using research to improve teaching and in effecting perceived improvements on teaching and learning was seen as of most importance for the school staff.

[16] Using the guide that Evans (1996) suggests, the strength of the association for absolute values of r of 0–0.19 is regarded as very weak, 0.2–0.39 as weak, 0.40–0.59 as moderate, and 0.6–0.79 as strong.

Table 15: Correlation analysis of factor scores for Q7, Q8, Q9 and Q6b by leadership

Senior leader yes/no			Factor 2: RS input and support	Factor 3: Support for RU	Factor 4: Impacts	Q6b Meeting expectation
Senior leaders	Factor 1:	Pearson Correlation	.166	.449**	.339**	.272**
	Q7 Senior leadership support	Sig. (2-tailed)	.081	.000	.000	.001
		N	112	112	131	149
	Factor 2:	Pearson Correlation		.398**	.692**	.554**
	Q8_1 RS input and support	Sig. (2-tailed)		.000	.000	.000
		N		114	107	113
	Factor 3:	Pearson Correlation			.413**	.238*
	Q8_2 Support for research use	Sig. (2-tailed)			.000	.011
	(RU)	N			107	113
	Factor 4:	Pearson Correlation				.570**
	Q9 Impacts	Sig. (2-tailed)				.000
		N				132
Non-senior leaders	Factor 1:	Pearson Correlation	.106	.565**	.602**	.359**
	Q7 Senior leadership support	Sig. (2-tailed)	.395	.000	.000	.000
		N	66	66	78	95
	Factor 2:	Pearson Correlation		.268*	.552**	.402**
	Q8_1 RS input and support	Sig. (2-tailed)		.025	.000	.001
		N		70	61	69
	Factor 3:	Pearson Correlation			.370**	.129
	Q8_2 Support for RU	Sig. (2-tailed)			.003	.292
		N			61	69
	Factor 4:	Pearson Correlation				.529**
	Q9 Impacts	Sig. (2-tailed)				.000
		N				80

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Investigating the relationships between leadership, RS inputs and support, and school processes and changes—developing the structural equation models

To explore the relationships between leadership, RS inputs, and school processes and changes, the PCA followed by confirmatory factor analysis (CFA) were used to confirm the underlying dimensions identified as important in the research insights and measured by groups of items in the follow-up survey. Further structural equation modelling (SEM) tested the proposed structural relations (through path analysis) between these and perceived changes in practice and culture at the school level.

We used CFA to examine the goodness of fit for the construction of underlying dimensions (that is, latent variables) from the items related to *leadership support* (Q7), *RS input and support* (Q8), and *perceived impacts on teaching and learning* (Q9) respectively. A 'good fit' CFA structural model was identified for each of the three above questions that consisted of different observable items, revealing a total of seven dimensions (see Appendix 7 for the three CFA models):

- leadership support for professional learning and development (Q7);
- leadership support for research use (Q7);
- support on research use to improve teaching;
- quality inputs and support from RSs;
- personal ability and understanding of research use;
- research use culture and capacity in school; and
- pupil engagement and learning.

Table 7.1 in Appendix 7 lists the questionnaire items associated with the seven dimensions. We have also included two measured (non-latent) variables in the path analysis: (a) Ofsted ratings of respondents' schools ('outstanding', 'good', and 'requires improvement/inadequate') and (b) whether respondents had implemented changes to their practice as a result of their engagement with the OA RSs—Q10a: (i) having implemented one or more changes, (ii) planning to implement change, and (iii) no plans to take actions of change.

After deletion of missing data, the SEM analysis was conducted with 252 respondents. The SEM model predicts respondents' perceptions of change at school, staff, and pupil levels for our sample of participants of RS activities. All the coefficients in the model are statistically significant (at 95% confidence levels, $P < 0.05$) and the magnitude of the coefficients demonstrate the strength of association between variables (Table 7.4 in Appendix 7).

Figure 12: Leadership support, RS inputs, and change in schools—a structural equation model (N = 252)

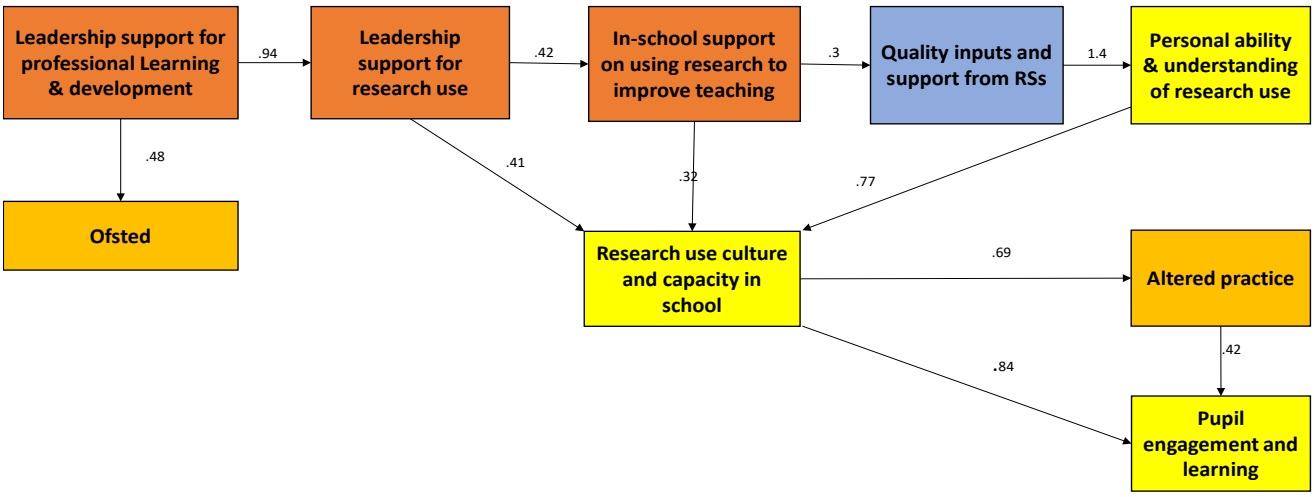


Figure 12 shows that quality input and support from RSs is a key mediating condition in the school process that connects most closely and directly with improvements in individuals' reports of their ability and understanding of research use; these in turn help predict improvement in school culture and capacity of research use, and so, indirectly, change in practice and perceptions of improved pupil engagement and learning outcomes. Driven by theories of school leadership and school improvement, the SEM reveals four interrelated observations:

1) *Leadership support for professional learning and improvement* (LS_PDI) is found to be an antecedent of the school improvement process, which, through its direct influence on *leadership support for research use*, affects indirectly the provision of in-school structural, intellectual, and relational support for using research to improve teaching, improvement in school culture and capacity, change in practice, and, ultimately, improvement in pupils' engagement in learning. This observation is in line with the wider research evidence that leadership strategies that focus closely on supporting and developing teachers to improve their teaching practices have direct effects on improvements in school processes that in turn help to improve student outcomes indirectly (Day, Gu and Sammons, 2016; Leithwood et al., 2006; Robinson et al., 2009). Given this, it is perhaps no surprise that leadership practices that promote professional learning and improvement were found to have a direct effect on Ofsted ratings. The converse of this association is not plausible.

2) *Leadership support to promote research-informed approaches to teaching* ('leadership support for research use') is shown to be significant not only in terms of directly influencing in-school support for research use to improve teaching but also directly influencing the building and development of research use culture and capacity in school. Importantly, the provision of such targeted leadership support and, through this, the development of research culture and capacity in school is shown by this SEM to be an integral part of the leadership strategy to promote professional development for staff.

3) Related to the above is that RSs' quality inputs and support ('QUALI_RSINPUT') were perceived by survey respondents as a professional development opportunity that senior leaders embedded in the school process to enhance individual staff's ability and understanding of research use ('PSN_RUSE') and, through this, develop and foster research-use culture and capacity in their schools ('CUL_RUSE'). However, RSs' quality support has *direct* effects on improving individuals' ability and understanding but not on schools' research culture or change in practice in this model.

4) Three dimensions are found to have direct effects on perceptions of schools' enhanced culture and capacity for research use ('CUL_RUSE'): leadership support for research use ('LS_RUSE'), in-school support for research use to improve teaching ('SRUSE_TEACH'), and staff's improved understanding and ability to use research in teaching ('PSN_RUSE'). It is notable that building research-use culture and capacity has significant mediation effects in the model of school processes and appears to play a pivotal role in enabling change in staff practice as well as perceptions of greater pupil engagement and better learning outcomes.

As a way of interpreting the various direct and indirect effects in our model, we suggest that 'synergistic influences' (Day, Gu and Sammons, 2016) may be promoted through the *combination* and *accumulation* of various relatively small effects of leadership practice and provision of support that influence different aspects of school improvement processes in the same direction. They promote an improved culture and enhanced capacity, especially in relation to research use and evidence-based practices and pupil outcomes such as learning engagement. Such synergy of leadership influences can be argued to have helped create the structural and cultural conditions necessary for change in practice and improvement in outcomes, as perceived by respondents to the follow-up survey.

Taken together, the SEM derived from the survey data reinforces earlier observations regarding the significance of school leadership in promoting and embedding evidence-based practice in schools. Engaging with RSs to make effective use of their high-quality input and support was shown to be an informed leadership decision to enhance and sustain the *existing* in-school structural, intellectual, and relational support for evidence-based practice. The RS provision was, as the SEM model suggests, perceived by survey respondents as a high-quality professional learning and development opportunity that school leaders purposefully introduced into the school improvement process to cultivate and sustain the culture, capacity, and practice of research use required for change and improvement. In the process, developing staff to build *culture and capacity* remained a central concern for leadership. High-quality RS provision was a most important mediator of change, but initiating and sustaining engagement with the provision and, importantly, orchestrating their input effectively in the school improvement process required sustained school leadership attention. Put simply, sustained and effective engagement with the RS provision, which can result in organisational change and improvement, is highly unlikely to occur in the absence of necessary leadership at the school level. This is an important message and links with the broader findings about the difficulties in both reach and school engagement noted earlier in the report.

Key Findings 2: How do RSs embed evidence-based practices and cultures?

Introduction

This chapter addresses Research Question 2:

> *How do RSs embed evidence-based practices and cultures in their own school and in the local school systems in the OAs?*

The chapter explores the extent to which, and in what ways, RSs embedded evidence-based practices and cultures in their own schools and in the local school systems in OAs. It documents in detail RSs' reported practices and strategies to link up with local school improvement key stakeholders and partnerships and work with them to promote, develop, and embed evidence-based practices for improvement in teaching and learning in other schools over time. By drawing more extensively on the reported experiences of a subsample of five RSs, the chapter will focus more specifically on practices that were perceived to have created the capacity and conditions required for supporting schools to engage with evidence use and explore the feasibility and sustainability of this place-based approach to improvement in the OAs.

The data sources for discussion in this chapter are primarily drawn from the telephone interviews with the ten RSs and the light touch visit to a subsample of five RSs. The sources of evidence will also include the qualitative online questionnaire and telephone interview surveys.

Summary of Key Findings 2: How do RSs embed evidence-based practices and cultures?

- Becoming a RS had been used by RS leaders as an opportunity to revitalise the professional capacity and culture for evidence-based practice in their own schools (or groups of schools). A key common leadership strategy was to involve the whole school community in the RS work and use the opportunity to challenge their thinking and practice and create the collective capacity required to align the outward-facing RS work with the improvement needs of the RS.

- Where possible, building the capacity from within their MAT, TSA, or other close networks provided the RSs with the ready-made intellectual and social capital and infrastructure for RSs to grow and expand the knowledge, skills, and expertise required to develop their unique selling point (USP) and a sustainable model of delivery. Harnessing these human, intellectual, and social resources into complementary and coherent 'systemic RS capacity' was regarded as key to success.

- Most RSs drew on a complex network of relationships locally that very often predated, or existed alongside, relationships developed specifically for RS purposes. These relationships were reportedly used as leverage to RSs' advantage because they provided the necessary relational and organisational resources that enabled the RSs to build *new* capacities and expand their reach and engagement *up* and *down* the local school systems, as well as *out* into the larger community outside the OAs.

- A tiered provision of programmes and support was identified in the third year that ranged from light touch, one-off information-sharing events to three-day CPD and training and funded bespoke programmes that intended to bring about improvement in targeted schools in specific localities. For those RSs that were proactively looking for opportunities to branch out, providing these bespoke, place-focused programmes was regarded as part of the evolution of the RS strategy with a view to being sustainable in future.

- The EEF's Regional Leads were reported to have operated as facilitators in negotiations and discussions with local authorities, MATs, and groups of schools that helped the RSs to diversify, expand, and align their work with the school improvement partners within, *but primarily outside*, the OAs. Evidence from the telephone interviews with OA key stakeholders also pointed to the limited role that the Regional Leads had played in brokering strategic partnerships and embedding the RS work *within* the OAs.

- Taken together, the key findings presented in this chapter provide strong evidence that all OA RSs had invested an immense amount of time and energy to build the capacities, expertise, and relationships required for them to play leading and supporting roles in the place-based model for school improvement in OAs. However, the place-based model for improvement was unlikely to succeed in effecting change in classrooms and schools in the absence of integrated and coherent

strategic planning and actions from other change agents—including the EEF, their Regional Leads as the mediating brokers of local intelligence, knowledge, and partnerships, and local school leaders as catalysts for change.

Fostering evidence-based practice through becoming a RS: the opportunity to revitalise professional capacity and culture

Interviews with the RS Leads show that they all shared a strong commitment and belief in using evidence to inform, drive, and improve the quality of teaching and learning in schools. Their motivation to become a RS was founded on principles and evidence-based practices that existed in their schools well before the application. Becoming a RS was therefore perceived to be 'a logical and prestigious extension' of its existing practice: 'We pride ourselves on considered, evidence-based leadership' (RS2 Lead). It was felt that their experience of using research in planning action and decision-making would enable them to contribute to the development of 'a school CPD system that was evolving towards being evidence-informed' and act as 'a key driver who was increasingly research-literate' (RS7 Lead).

This idea of a 'positive' contribution was expressed in different ways, but most emphasised the opportunity to make a difference to children locally, described by some as driven by a 'moral compass' (RS3 CEO) and a desire to bring evidence to bear on a more strategic and better-informed vision of school improvement. As one RS Lead put it:

> *'We want to get more schools in the area to stop making short-term fixes in response to external pressures, be they Ofsted or other, and become like us: not research-led but research and evidence-informed and playing a longer game in terms of strategic decision-making' (RS7 Lead).*

To achieve this, the ability to exemplify how the EEF's guidance materials and implementation guidance had been used for improvement in their own contexts was perceived by RS Leads and interviewed key stakeholders as important in giving the necessary credibility for their work: 'You feel more confident having tried it and knowing how it works in practice, and this makes you more credible with schools' (RS6 Lead). The RS10 Lead reflected on their experience in the first year and realised that they had neglected their own school and 'the *modelling'* (RS10 Lead) they should have done there. Now that they had created 'teaching coaches' to lead school-wide discussions on evidence use in practice, he was able to give concrete examples on how evidence was translated into practice in their RS training programmes. In RS7, they used the EEF implementation guide to implement their own school's development plan. This experience, together with their reflection on the culture shift that they had observed from the deputy coaching programme across ten primary schools, led the RS Lead to comment that,

> *'To implement effective change you've got to treat implementation much more as a process than an event. That's really the crux of all of this, that schools under pressure in challenging circumstances are often trying to solve all of their problems immediately and then a year later, they realise they'd have been better off just narrowing it down to the ones they really have capacity to address properly. I think that's far more fundamental to the system than an individual piece of research on literacy or metacognition. It's giving things the best possible chance of success that's actually critical often' (RS7 Lead).*

For some, developing and delivering the RS CPD and training programmes to other schools was itself a reflective learning experience which made them think differently about their own in-school CPD for staff development. A key common leadership strategy was to involve the wider school community in the RS work rather than positioning it only as an isolated outward-facing strategy:

> *'It's part of the school now. Everyone knows what it is and understands what we're doing and because I'm now supporting delivery of school priorities it's just part of the school now, so that's a big positive. The leadership team can see the value of using me to help make decisions and critically evaluate things. Although I'm part of the school, I've got that slight step back so I'm able to oversee or question' (RS5 Lead).*

Similarly, the headteacher of RS1 reflected that after the first year of being a RS, they had asked themselves, 'What benefit are we getting [as a school]?' That reflection led to a re-focus on how best to support professional learning and development in school. The key change was to engage the RS Lead in the planning of all the school's professional development opportunities for the year ahead so that they were able to build in the learning and relevant programmes from the RS work in this whole-school planning for staff development. The impact of this change was evident to the headteacher:

> *'We moved [our school] from a bronze to a gold Teacher Development Trust school. Why? Because we were having two-hour weekly sessions of [professional development] and one of these strands was from the RS working internally, for example, focusing on cognitive load theory' (RS1 Headteacher).*

The RS Lead gave a specific example to show how the RS programme was used in school to contribute to improving capacity-building because, as the headteacher put it, the learning and benefit 'needs to trickle down to affect practice in the classroom':

> *'We had identified knowledge retention as an issue across the school. We had memory and meta-cognition programmes for the RS and we knew we could deliver them internally too. That meant we could work with X [school staff member] and it also enabled them to see what we did. We've come a long way on this and we're now confident that most staff here could give a pretty good answer about memory and knowledge retrieval' (RS1 Lead).*

In RSs centred on smaller primary schools, staff exposure to RS activity had evolved more naturally. This was because a higher proportion of teachers had been involved in delivery of training, providing what was seen in RS6 as 'really fantastic CPD' and a boost for development and retention of experienced staff:

> *'We knew we had good people and experienced staff, they had lots of RS training anyway; two staff didn't need anything additional, one just needed their confidence raising a bit. Staff were keen and wanted this opportunity to get out and meet new people. Of four staff, three are on UPS [Post Threshold] and are enjoying doing something different and don't want to be headteachers' (RS6 Lead).*

The above examples also show how RSs had learned to *integrate* their outward-facing RS work into the organisational practice and culture in their own schools or groups of schools to which they were attached and use the opportunity to challenge their thinking and practice and grow staff to enhance the collective professional capacity within their own contexts. As the RS4 Lead put it, 'The RS and the RS remit are massively changing practice within our organisation and within schools we work with. The feedback on that has been really significant.'

What the examples also had in common was that by placing the RS Leads in the centre of the strategic leadership positions within the RS or their closely associated groups of schools, the RS work was grounded within an aligned, coherent, and complementary set of mechanisms for improvement.

Seven of the ten RSs were either a Teaching School (TS) or a lead partner for research and development of a TSA and among these, five were part of an MAT. RS8, for example, was an active part of the decision making within the School-Centred Initial Teacher Training (SCITT), MAT, and TSA with which the RS was associated. The RS work had informed their Pupil Premium policy, the school development plan, and the behaviour training of their SCITT trainees; the implementation guidance was also frequently used by staff introducing new initiatives.

> *'It's positioning. The RS is positioned quite strongly inside all of these things. It's not a bolt-on. It's an active part of the decision making. It's not an afterthought. It's live and [the RS Lead] is at the table when we're having some big meaty discussions at key points to help on a practical level but also has trained up so many key people in all of our departments and schools—whether it's MAT schools or partner schools—so that they themselves are able to talk the talk and walk the walk in that respect; so it's filtered without us actively having to go "and now we're going to do this". It's been evolutionary over time' (TS CEO).*

Over time, the RSs had all built up fairly stable teams and these ranged considerably in size from almost a one-person operation (such as RS6) to a fairly extensive structure (such as RS4). A common thread was the view that the RS Lead was a role centred on bringing strategy, coherence, and sustainability to bear on the work of the RS. Three layers of staffing were discernible in many RS teams:

1. the core RS staff;
2. colleagues within the school or MAT, closely associated with the RS; and
3. a wider body of collaborators drawn strategically from the school network.

In RS1, for example, these layers were represented as follows:

1. the RS Lead/Director, an assistant RS director, and an administrative assistant;
2. the MAT CEO and staff from the RS working as within-school RS Leads; and
3. a deputy head from a local primary school contributing to the training offer.

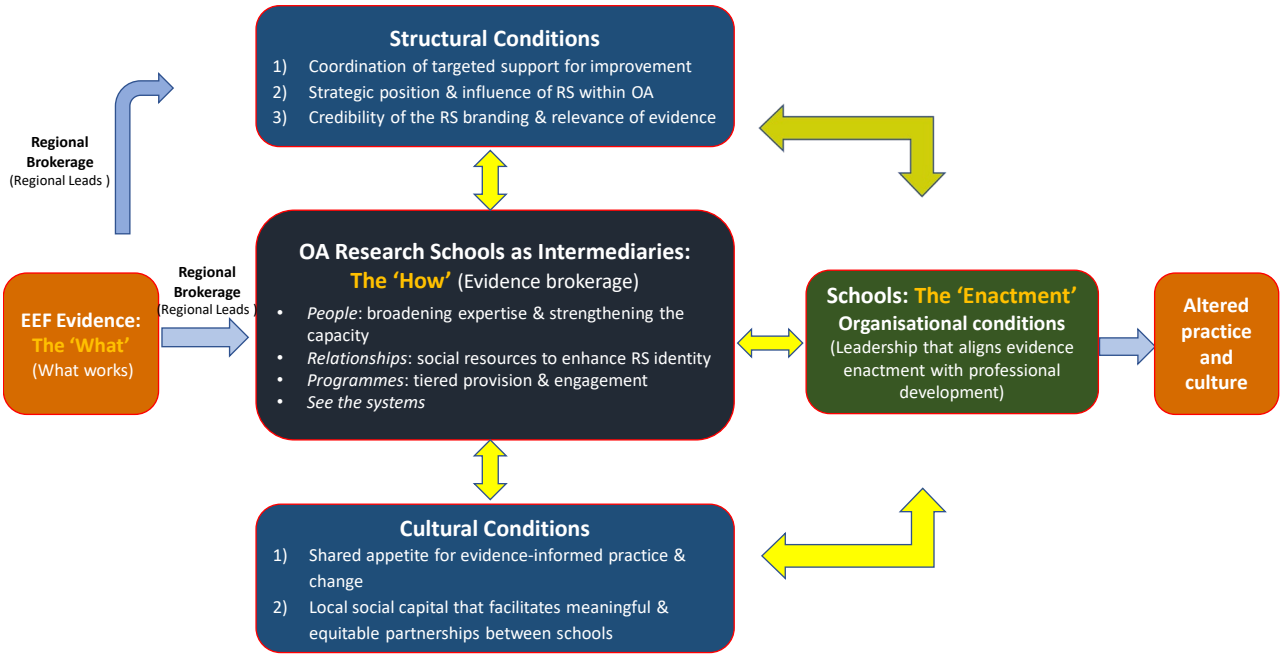
In creating the layered leadership structure for the RS work, almost all RSs had appointed or designated additional personnel to provide the experiences and subject expertise required to enable the RS to lead adult learning. The professional payoffs are at least twofold. First, this process of building and expanding internal capacity offered career progression opportunities for staff, which, in the view of some RS Leads, had contributed to staff retention and made their school (or schools) more attractive in the local school system. Second, through working with colleagues in other schools and through school visits on the RS programmes, the existing RS staff had the opportunity to broaden their professional horizons. The new skills, understanding, and knowledge that they had gained externally were felt to have enabled them to review the internal practice, exploring, for example, the different ways that the curriculum could be structured or their school development plans could be improved in light to the EEF implementation guidance.

The perceptions of these professional payoffs resonate strongly with our observation in the evaluation of TSs (Gu et al., 2016) that becoming a TS had been strategically used by senior leaders of TSs as 'the best' CPD opportunity to enhance the professional learning and development of their staff and nurture their career progression. In reflecting upon these benefits, the RS6 Lead hoped that there would be a professional 'legacy' in their school, especially after the funding had stopped.

Promoting evidence-based practice in OAs: creating conditions and capacities for a place-based approach for improvement

Figure 13 builds on the structural, cultural, and organisational conditions outlined in Figure 9 by including the four key areas of RS focus in terms of how they create the necessary conditions and capacities for a place-based approach for improvement.

Figure 13: Promoting evidence-based practice in OAs—RSs creating conditions and capacities for a place-based approach for improvement



1. People—broadening expertise and strengthening the capacity

Search for local partners

Building on the emergence of the three 'layers' of staffing to lead the RS work, the five RSs involved in the light touch visits were engaging local schools by working with and through a range of strategically chosen local partners. These partners were selected primarily on the basis of their expertise, perceived by RS Leads to have the potential to complement their own RS's profile and help to give the initiative some credibility among schools of different phases and in different contexts.

In some respects, this was about building capacity by addressing potential gaps in expertise, school connections, or local credibility. For RS8, which is located outside the OA, the designation of an Associate RS within the OA in the second year provided a physical base within the town, additional personnel, and also valuable connections to the secondary and post-16 phases to help fill the gap in phase and subject-specific expertise: 'The big thing has been

building capacity in [the OA]. That was part of our KPIs and leaving some kind of legacy… It's a vehicle we didn't have before' (RS8 Lead). Having this vehicle also meant that all courses could now have an OA-based trainer. The Lead of the Associate School described the value of their local connections:

> *'We've got a good reputation in the area. I think that helps build the credibility more … I've worked with people that run teaching and learning in the secondary school. So I know most of them, so I've already got those contacts. And so I think all of that helped, really. And I've, through being the principal here at [school name] that's ten years now, I've got relationships with all the secondary here' (Associate RS Lead).*

For RS6, a small, rural primary school, this same phase and expertise issue had been addressed in a different way through the secondment of a secondary assistant headteacher (AHT) for 1.5 days per fortnight and the recruitment of a varied range of 18 primary and secondary schools as delivery partners. Recruiting secondary expertise was a deliberate decision so that the RS's CPD and training provision could demonstrate the different approaches needed to implement the EEF's guidance reports on behaviour and Pupil Premium. Working *through* other schools was felt to have led to an understanding that the offer went beyond the original RS itself: 'It's not the school; it is the whole offer from the Research School'. Additionally, this network of delivery partners had also enabled courses to be run in a variety of locations, based on three geographical hubs, as part of 'encouraging and taking down the barriers that people would find not to engage' (RS6 Lead).

Indeed, the question of building capacity also had a geographical dimension. As RSs began to look beyond the OA for future growth, local partners enabled this reach to be extended. In RS1, for example, fifteen Evidence Leads in Education (ELEs) had been appointed for up to six days per year. This was regarded as a 'zero risk model' since payments were only made if they were used for a course generating income. These ELEs were senior staff working in other schools—including those that were interested in becoming an Associate RS—and they had to have been on a train-the-trainer course before delivery any of the courses themselves. As well as extending the pool of expertise available, enabling the RS 'to deliver courses that otherwise we would not have the capacity or skills to deliver', this model had also extended their scope and reach:

> *'We wanted to replicate what had happened in [the OA] elsewhere … but we knew that schools would not travel from [their location to the OA] for a two-hour event at the end of the school day. We wanted well positioned ELEs across the region; so we're trialling twilight events in [place] and [place] on SEND and early maths to test the water and see if we can replicate the model we had and that worked well in [our OA]. ELEs have these relationships with schools in those areas' (RS1 Lead).*

This shift in role from the RS leading and delivering almost all training towards primarily facilitating and managing a team of ELEs resulted from the journey of learning that the RS team had been through over time:

> *'The trajectory has been—from Y1 to Y4—from learning, to delivering, to still delivering but more about managing a team … Making sure we have the right people for the right jobs and not necessarily doing those jobs myself. This has been hard sometimes to let go because we build this up from nothing!' (RS1 Lead).*

Growing from within

Evidence from the interviews with the ten RS Leads suggests that they had faced a host of demands when setting up the RS and the initial pressure to justify their role in the school system was 'too much' (RS3 CEO). The RSs experienced a steep learning curve in the first few months and building the capacity from within their MAT, TSA, or other close networks was reported to be a sustained focus of their work. These MATs, TSAs, and networks provided the ready-made *human and social capital* (see Hatch, 2013 in Research Insights) and infrastructure for RSs to grow and expand the *technical capital* (Hatch, 2013) required to develop their USP and a sustainable model of delivery.

The Director of RS3, a primary school that was part of part of a secondary-led MAT and TSA, invested much time and effort in ensuring a multi-tiered capacity and engagement model was developed to instil a common evidence-based 'technical language' into the CPD and training programmes commissioned by their TSA. The EEF's guidance reports and implementation guidance were reported to have been embedded in the TSA's National Professional Qualifications (NPQs), Specialist Leaders of Education (SLE), SCITT, and other training programmes across a range of local authorities:

> *'So we're getting to a point of cross-regional building a common technical language, building a common base of tools that many of our schools who regularly engage with us can use' (RS3 Lead).*

The RS Lead felt that 'a huge amount of buy-in' and trust from the senior leaders enabled her to work with all the MAT schools to identify and grow talent, specialisms, and leadership from across these programmes. Such experience had not only helped her to grow as a system leader but also helped their CPD provision to become 'hopefully a more sustainable model or a more impactful model because of the different tiers of engagement [from across MAT schools] that helped':

> *'We invested a lot of time last year in ensuring that more and more bright sparks and capable individuals within our Trust were able to access those programmes. It meant then we were able to grow our next tier of facilitators. So for me, yes, at the moment I still feel very heavily involved in facilitation but there are a few things I've been able to hand off and take more of a quality assurance role. So we've been able to diversify but also build capacity in the team to enable that … I've stepped out of being in [the RS] and have stepped into a central role so I'm completely immersed in system leadership' (RS3 Lead).*

A Regional Lead described the RS CEO as 'particularly exceptional': someone who had 'played a really strong role' in modelling leadership and providing the RS Lead the trust, independence, and opportunity to develop and grow from a deputy head of a primary school into a 'strong' RS director. In contrast to some OA RSs that appeared to have struggled to build a team around them, RS3's experience provided 'a great model of bringing on talent in many ways'. The RS Lead added that their experience had benefited 'massively' from strong senior leadership buy-in and support at the Trust level, which 'embraced the Research School to the extent that the Research School is the glue that holds their Teaching School and their maths hub and their Research School work together'.

> *'I do think that if we hadn't had been in the Trust, which also has the NPQs and also sits in Teaching School Boards in [our city] and worked with schools that go into [our city, area, and neighbouring areas], our regional footprint and our impact beyond immediate CPD delivery would have been diminished' (RS3 Lead).*

Similarly, RS7 also used SLE deployment in its effort to create alignment between the RS training and the TS delivery. Other examples of capacity building included RS4 recruiting four specialist leaders of research (SLRs) from its local school networks who acted like SLEs but with a research specialism to lead and support local practitioner enquiry groups. In RS2 and RS9, evidence 'ambassadors' or 'advocates' were employed, respectively. They were regarded as enthusiasts and early adopters drawn from the Trust or local networks who were well placed to extend the reach of the RSs. In relation to the three layers of RS teams outlined above, this additional expertise and capacity was created as a third layer to expand the human and technical capital needed for RSs to support improvements in their operations.

It is important to note that the notion of 'local' schools was not necessarily restricted to OAs. In almost all cases, the geographical boundaries of an OA did not appear to be a major concern in RSs' efforts to develop and broaden the capacity base and reach of their work. Rather, increasing the supply of human, intellectual, and social resources from across their organisational networks and harnessing them into complementary, multi-tiered, and coherent 'systemic RS capacity' was regarded as key to success.

2. Relationships—the social resources to enhance RS identity

Most RSs drew on a complex network of relationships locally that very often predated or existed alongside relationships developed specifically for RS purposes. These relationships and connections were used as leverage to RSs' advantage in that they provided the necessary relational and organisational infrastructure and resources that enabled the RSs to build *new* capacities and gradually expand their reach and engagement *up* and *down* within the local school systems, as well as *out* into the larger community outside the OAs. However, as many OAs continued to be perceived as complex and somewhat fragmented landscapes to navigate, improving coherence and building strong local presence and partnerships was seen as fundamental to RSs' success.

Connection with teaching school alliances

Relationships with teaching school alliances were particularly crucial in this respect. Earlier in the RS journey, building on existing TS links had been frequently reported as a way to gain early local traction. For example, TSA and MAT groups with which RSs were associated provided ready-made mailing lists for newsletters and a RS at the helm of such a group had an important starting point. Especially at the outset, RSs leading TSAs tended to present the RS initiative as a logical extension of the TSA work. However, the picture was more nuanced three years on and RSs found themselves using these TSA links in different ways.

In OA4, interviews with key stakeholders suggested that they saw the RS, which was run by a TSA, as 'often one and the same' (DfE OA Lead) and 'hard to separate … as they work so closely together' (OA Vice Chair). The view from the RS itself was of activity being somewhat intertwined:

> *'As a TS we need to be much more evidence-informed. There is a different offer from the RS but, a lot of the time, it's one and the same thing. I don't think schools see us as different. I think they see the RS sits within [the TSA]. It sits within a TS. But because the TS isn't led by a single school—it's an alliance—I think that's a benefit to us because it's not seen as one school driving everything, it's done collectively. This is for all [OA] schools. It's not just about one school' (RS4 Lead).*

The RS's approach to evidence was used to underpin and strengthen the quality of training provision by the TSA and over time the RS was reported to have gained prominence in this intertwined relationship: 'The Research School has strengthened the Teaching School, undoubtedly. We were saying the other day most of the work coming through now is coming through the Research School' (RS4 Lead). This emerging distinctive RS identity was important in establishing an offer untainted by the politics of the more competitive local TS landscape:

> *'I think the Research School has developed its own sense of identity apart from the Teaching School. I think it needed to as well because whilst we have lots of positive engagement from a Teaching School perspective, we do sometimes get schools and groups of schools saying 'it's [TS name] again', whereas the Research School is kind of independent' (RS4 Lead).*

Indeed, because competition was reported to be prevalent in the sector of school improvement, capitalising on TS status was not always straightforward. In OA6, there had been a conscious decision to move beyond the RS's previous affiliation with one of the two TSAs (as its Research Lead) and to ensure that this was 'everybody's Research School' (RS6 Lead). In OA2, while the TS forum was a valuable conduit for RS communication, some historical antipathy towards their TSA was mentioned as a complicating factor in the relationship of the RS with the local authority.

These examples serve to illustrate the way in which the history and local reputation of the specific school, or group of schools, hosting the RS can be double-edged. Compared to TSAs' provision of similar programmes on ITT, CPD, and school-to-school support, some of which bear direct impact, positively or negatively, on resource-sharing and teacher recruitment and retention across schools within a locality (Gu et al., 2016), the OA RSs' different remit of promoting an evidence-based approach to improve teaching and learning, together with the backing of the credibility of the EEF and the perceived trustworthiness of its evidence, had enabled RSs to develop a distinct identity in local school systems that were felt to have somewhat distanced themselves from local politics and the issue of competition. In OA4, where the RS had good working relationship with the OA and had also been a driving force in much of the improvement strategies, the OA Board members referred to the RS as a means to local cohesion in that it was 'the glue and an underpinning' in a fragmented local landscape with 'too many disparate projects' (OA Vice Chair) and a 'tidal wave' of initiatives.

The complexity and capability to connect with local systems

Other school improvement links were also significant, especially for RSs that did not have their own TSAs or MATs to draw on. RS1 was a hub school for a school improvement charity and this connection became a significant benefit. This charity had won a DfE bid for the provision of CPD across the country and RS1 became a hub in the OA. This productive key connection meant that the activity of the CPD hub could be supported by the RS's approach to evidence-based teaching, learning and development:

> *'This meant we had a way into ten schools, and we were contracted to have coaching conversations with headteachers in those ten schools through the CPD hub. Then the RS had programmes to support issues that were identified through these coaching conversations. I remember Kevan Collins was really interested in this combination of CPD hub school and RS when he visited us and how it had provided us with a way into ten SLTs. That was a really key relationship' (RS1 Lead).*

An important benefit of working closely with key OA stakeholders to facilitate integration into local networks was widely recognised by RS Leads as an opportunity to access local intelligence and, therefore, to work in a much more targeted manner. While all RSs had shifted their emphasis from *communication* to *CPD and training* over time, the extent and uptake of standard EEF programmes varied considerably. The most successful in striking the balance between generic, nationally-driven programmes and specific, locally-driven work tended to be those RSs more closely engaged with the OAs. This was because, at least in part, RSs with strong local connections and local intelligence were more likely to have the information and resources required to make more bespoke local offers—in ways such that their role evolved from being a centrally-created CPD provider to becoming a more responsive local partner. RS5, which did not have the advantage of enjoying ready-made school networks from being part of a MAT or TSA, emphasised that coordinating the provision of training and support with the OA helped to avoid duplication and, gradually, as relationships with schools and school leaders began to take root, the participation of schools in their activities had also begun to increase steadily, a 'steady drip, drip, drip':

> *'The key to its success is that it's something within schools. I think other schools like that. It's not coming from a university, for example, where people's backs would be up—"you don't understand it day-to-day" … It's that bridging the gap, takes that gap away, that it's aligned to a school' (RS5 Lead).*

Building connections with key stakeholders in the local systems was reported to be particularly important for the two RSs located outside the OAs. At the outset, the major challenge was that their senior leaders did not have pre-existing reputations or connections in the two OAs and had little knowledge about 'the ins and outs and politics' (RS10 Lead). Compared to their peers, because these two RSs had to create their local networks from a distance, they experienced different pathways of relationship building.

The experience of local connections—Research School 10

In contrast to the enthusiasm for engagement that it had received from schools outside the OA, RS10 was met with scepticism from schools within the OA: 'There is this fear that in [OA10], "Who are you?" The [school name] in X, coming over here and telling us what to do and how to teach lessons and so on' (RS10 Lead). The RS identified a handful of 'warm contacts' in the OA who 'really understand it and get it' and used them as advocates to find their way in. The EEF personnel also used their connections to help the RS build networks and relationships in the OA at the start of the journey. In addition, the recognition, promotion, and support from the local authority helped the RS Lead to become more prominent in this geographically large OA.

The RS then found itself being 'adopted' as a member of the Regional Education Partnership Board. Such connection turned out to be really helpful as it gave the RS the access to a well-established network of schools in the OA. Although the RS's influence was reported to be growing in the OA, there was deep-seated resistance to engaging with an 'outsider' that presented hidden challenges that 'we're slowly trying to turn around' (RS10 Lead). The RS Lead felt that their local OA schools' perceptions of their credibility remained relatively limited compared to elsewhere:

> *'I don't think we were a threat, but we were an unknown quantity … We are seen as a partner in school improvement. That's where we've got to. I don't think we are seen as the go-to person because there are some very good people in the area [the local maths hub, healthcare bodies, etc.]. We are there and established and things have improved since this time last year… In some ways, ironically, I feel we are established even more in other areas of the [location] outside the OA, with more credibility, trust and respect than in the OA itself' (RS10 Lead).*

The experience of local connections—Research School 8

The RS8 Lead expressed similar 'frustrations' at the outset because of 'political sensitives' relating to the RS being an outsider to the OA:

> *'It's just an added area of complexity being an OA and being out of area … We can't appear to be riding in on white horses to rescue [the area] … We have to work carefully and slowly and with them. The challenge is that everybody's waiting to see what our offer is, and I can't tell them what our offer is' (RS8 Lead).*

In the first year, much time and effort had been made to establish effective communication to get information into schools and make the school visible in the OA. Additional investment included the recruitment of a communication and marketing person, 'because we're trying to win hearts and minds, we're probably doing much more one-to-one work than I would like to have done' (RS8 Lead).

A major difference, and advantage compared to RS10, was that the RS8 Lead sat on the OA Education Partnership Board. Being part of this helped her to gain access to 'the gatekeepers'—to local headteachers in the promotion of the RS offer. An OA Board member described her as someone who spoke up readily when things were not good enough and as 'an excellent professional in terms of her depth of knowledge and how she delivers the CPD'. In this positive feedback, however, there was also an observation that the reputation was possibly too bound up in a specific person: 'People will ask who is delivering the training sometimes to make sure it is [the RS Lead]'. A Regional Lead made a similar comment that although the RS Lead was 'an incredible person', there had been a struggle to build a team around her and, as a result, 'the buck stops' with the RS Lead.

In the third year, the designation of the Associate RS brought a physical base for CPD delivery in the OA, strong contacts with local schools, and 'capacity and credibility' (Associate RS Lead). 'The big thing has been building capacity in [the OA]. That was part of our KPIs and leaving some kind of legacy … It's a vehicle we didn't have before' (RS Lead). Another major development was that the various key stakeholders and decision-makers (for example, RSC, Ofsted, and leaders of MATs) formed a new sector-led school improvement partnership that involved the local authority devolving its powers to this group. Being at the heart of this 'single alliance, broker and provider' (Associate RS Lead) gave the RS the confidence that the OA schools no longer saw the RS being outside the OA a major issue:

'They no longer think of us as not part of the OA system; they've got over the fact that we're in [the OA]' (RS Lead). However, as yet, such a view might not have been shared by all. A key stakeholder described the RS as the 'elephant in the room'.

This discussion about the importance of social networks and social capital raises an interesting question about the extent to which successful RS activity, particularly in a defined geographical area, is dependent on unique individuals and historical relationships and to what extent on transferable structures and procedures. As the OA8 RS Lead put it, from an outsider perspective it concerns the former: 'It's not systematic. It's all about people and relationships.'

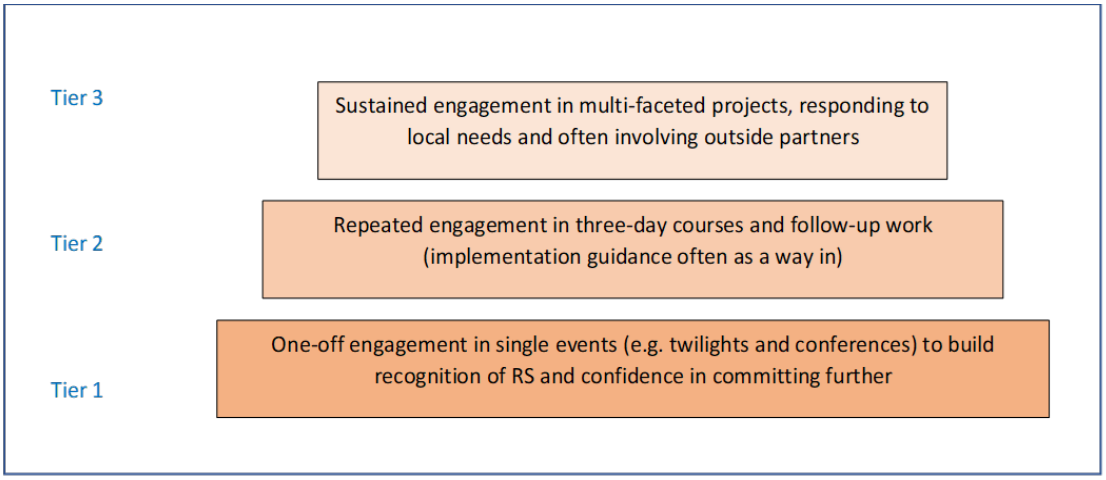
3. Programmes—tiered provision and engagement

Our visits to five RSs in the third year pointed to a tiered provision of programmes and support ranging from light touch provision of one-off information sharing events to three-day CPD and training that required more sustained commitment to engage to funded bespoke programmes that intended to bring about change and improvement in practice within and across all or targeted schools in specific localities. These tiers are summarised in Figure 14.

All the five RSs began their provision with Tier 1 programmes with an intention to disseminate their offers to schools within a short timeframe. Although they continued to offer one-off events for information-sharing purposes over the three years of the evaluation, their focus of programme developments and provision had moved onto Tier 2 from Year 2 and increasingly Tier 3 in the third year. For example, in the case of RS1, which is centrally located in a small OA, brief twilight events based on the EEF's guidance reports were used to 'hook' schools initially with a view to building confidence in committing to the full RS offer: 'They are light touch but do fuel further engagements …We make these events as high profile and successful as possible; they are our window into future engagement' (RS1 Lead). The annual conference, with attendance growing from 250 in its first year to a projected 750 for its third (with more than 50% attendees from the OA), was another means of 'raising our profile, getting our name out there, helping schools to know about us' (RS1 Lead).

This then generated uptake for the second tier of three-day programmes, metacognition being especially popular, with follow-up work. At the pinnacle was a nine-day KS3 literacy project, funded by the OA and including two days per week for a senior leader to lead implementation in school: 'The KS3 literacy project took it to the next level and is something that we hope is likely to lead to long-term sustained change across the whole town' (RS1 Lead). This had come at a large cost (c. £900,000) but the RS Lead argued that: 'If you want to work at a really significant level—system change at town level—it takes time and investment.' Embedding these practices, therefore, required significant commitment and buy-in from the OA.

Figure 14: Tiers of engagement



It is important to note that the extent of these tiers of programme provision varied across the OA RSs. In the case of RS1, for example, they were explicit and the RS Lead described the progressive levels of engagement as a strategy. In contrast, some RSs tended to see Tier 2 as a single, coherent offer and, over time, the shift was to a more bespoke, local offer.

Tier 1: communication

Especially in the first year, using light-touch, one-off events—either organised by RSs themselves (such as launch conferences or twilight sessions) or by other parties (such as local leadership conferences, briefing sessions for

SLEs)—this was a strategic priority for all OA RSs to communicate who they were and what they would do to support change in practice in schools.

Tier 2: CPD and training

Over time there was a clear shift in focus from communication-oriented activities to working with more intensive and sometimes targeted groups of schools through multiple-day CPD courses aimed at, as the RS6 Lead put it, 'building confidence in schools through heads and practitioners being able to access evidence-informed CPD that supports their journey and providing opportunities to engage other schools'. Both the EEF and the RSs described CPD and training courses as the vehicle to bringing about change in practice. In RS4, three-day programmes with gap tasks and follow-up work had become the norm. There was, too, a more sustained, OA-commissioned project on leading teaching and learning involving collaboration with a local. RS8 had also settled on the three-day programme with follow-up as the core offer and, like RS4, had often found work on the implementation guidance to be a successful starting point for engagement. The regional lead explained: 'It's about the order: if you've got the schools into that mindset of effective implementation, then you can move forward into more specific subject improvement.' Strategic plans over the next two years were to focus on commissioned and sustained work: 'It's about a group of schools commissioning a course that's specific to their needs in their area and the plans are changing more in line with that' (OA8 Regional Lead).

In RS6, twilight sessions and three-day guidance report training were the basis of the RS offer and their top-level programme was a mathematics transition project. This had grown out of the KS2 and KS3 mathematics guidance report and had developed into a sustained project over a number of years involving pairing up primary and secondary schools. Collaboration with a local university and maths hub had been part of this and an innovation grant secured in order to evaluate its impact. The headteacher of a local TSA reflected on the new ways that schools were working together and commented that it was 'a long time since those conversations about maths vocabulary have taken place in this area'. The DfE OA Lead also spoke of 'a big impact and level of recognition' locally as a result.

Tier 3: more intensive and sustained engagement

At the top, in Tier 3, it was notable that programmes often had a more local orientation, linking to earlier observations about the importance of local intelligence. These bespoke programmes, which represented the RSs' efforts to begin to work beyond their original contracted remit with the EEF, were usually funded by OAs (as for RS1, above) or local authorities (as for RS4, see below). Although they all had a bespoke local focus, the boundaries of locality were not necessarily limited to OAs.

For those RSs that were proactively looking for opportunities to branch out, attracting bespoke, place-focused programmes was regarded as part of the evolution of the RS strategy with a view to being sustainable in future. For example, RS4 was approached by a neighbouring local authority outside its OA that had heard about its work but 'they felt, "We're not an Opportunity Area and we're missing out here"' (RS4 Lead). This initial contact led eventually to a multi-faceted programme in the local authority, which offered 'a whole suite of things for schools to access':

> *'So it's some training, some extended training, some follow-up support, Pupil Premium reviews, governor training, access to promising projects. It's a whole suite of things for schools to access, with the local authority determining which bits for which schools' (RS4 Lead).*

Delivering such a programme highlighted the need for capacity. Following its selection criteria for 'credible partners' (RS4 Lead), RS4 worked closely with a local secondary school that was part of a TSA with an 'outstanding' Ofsted inspection that offered 'excellent outcomes for disadvantaged pupils' and a headteacher who was an National Leader of Education (NLE). The project funding was jointly provided, a third each, by the EEF, the local authority, and schools in the local authority. This funding model was seen as a new way of working—not just for future RSs' involvement in school improvement but for the EEF more broadly:

> *'The EEF are really keen to test out a new way of working for the Research Schools. Not simply delivering programmes. We know that delivering a programme on its own will have a minimal effect in school. There needs to be a whole raft of other things' (RS4 Lead).*

The Regional Lead had operated as 'a neutral enabler and facilitator' in negotiations and discussions were underway with other nearby LAs along similar lines.

Moving forward as a place-based school improvement model, the RS Lead believed that it was necessary to review the ways in which the projects were funded to ensure that they were sustainable: 'If we can get those models and ways of working successful and evaluated, we need to design something that relies on less funding.' This might involve more LA funding or perhaps philanthropy.

4. See the systems

Taken together, the key findings presented in this chapter provide strong evidence that all OA RSs had invested an immense amount of time and energy to build the capacities, expertise, and relationships required for them to play a leading or supporting role in the place-based model for school improvement in OAs. However, the place-based model for improvement was unlikely to succeed in effecting change in schools and classrooms in the absence of integrated and coherent strategic planning and actions from other change agents—including the EEF's backing and support, their Regional Leads as the mediating brokers of local intelligence, knowledge, and partnerships, and local school leaders as catalysts for change.

The national level—the backing of the EEF's brand

As evidenced in the previous chapter, the association of RSs with the EEF was perceived by participating schools as a stamp of quality. Such perception enabled RSs to gain credibility as leaders of research-informed practice—especially for those whose leaders were relatively unknown in the local area—and helped them to grow their own influence and reputation as schools with 'a role with a clear definition that is externally facing' (RS2 Lead). In the view of this headteacher, for example, the RS work provided access to the EEF:

> *'It's useful to go to one place that can broker relationships to the EEF. It provides a level of access to the EEF. Getting the EEF to pay attention to you is difficult and the Research School can act as a conduit to that' (RS2, headteacher of partner school).*

For RS3, linking up with the EEF was felt to have given their offer of CPD programmes an important status at local and national events: 'It feels that you are getting into the national policy level, and helps to raise your profiles at local levels' (RS3 CEO). This RS appreciated the resources, training events, and materials that EEF had provided, as well as the opportunity to access the national delivery network: 'It has been a beneficial experience to be in the EEF family' (RS3 CEO).

For all OA RSs, the EEF had also provided the necessary expert and brokering support that enabled RSs to shape the provision of their programmes and to tap into the regional systems. Such support was reported to be especially valuable in the initial phase when RSs were building the relationships and establishing the organisational and network mechanisms that were needed to fulfil their mission of improving schools' capabilities for evidence-informed practice. Building on the initial positive experiences, all interviewed RS Leads pointed to the ways in which a more reciprocal, responsive, and trusting relationship with the EEF had evolved over time. The flexibility to develop in different ways, but safe in the knowledge that support was at hand when needed, was valued. As the RS4 Lead put it:

> *'There's been a subtle shift from us taking support or needing support—and we still need that, of course we do—but we're moving into the realms now of giving it as well … We've always had the support when we've needed it, but it doesn't feel like there's someone breathing down our necks all the time' (RS4 Lead).*

Similarly, the RS7 Lead appreciated the relationship of trust that the EEF had grown in them:

> *'[The EEF] have been very quick to respond to need … It felt a bit nannying last year and I guess maybe that was deliberate because they didn't know how we were going to do. This year it feels more like there's a relationship of trust. There's still the challenge, but not quite as in your face as it was last year. That feels more comfortable and reflects a maturing relationship and an understanding of our strengths' (RS7 Lead).*

The mediating role—the EEF's Regional Leads

The appointment of the Regional Leads in late 2019 was intended to strengthen the EEF's brokering support for RSs within and across the school systems. They were also expected to act as mediators in the school system, supporting and challenging the development of RSs and enhancing their communication with the EEF. Interviews with the RS Leads and different key stakeholders in the OAs pointed to a shared view that this was indeed a strategically important role in ensuring quality and brokering partnerships and new opportunities for the RS work. Reflecting on their experience of liaising with local maths hubs to build evidence into their training using the EEF's early maths guidance report, an EEF Regional Lead (OA8) commented that coordinating RS provision with other offers in the system was particularly important: 'Just doing some joined-up thinking in what is quite a messy system ... trying to make sure we don't replace what's there but bring evidence into the system more' (EEF Regional Lead).

There was also a view that the effectiveness of this role in preventing overlaps between projects, matching provision to need, signposting opportunities, extending the buy-in from local schools, and creating more collaborations and reducing competition within a region relied heavily on the calibre of the individuals in the post. Put differently, the areas of responsibility that this role assumed and the breadth and depth of local knowledge, skills, and credibility required for this role were seen by some as challenging and ambitious for a single person to take on. An interviewed

Regional Lead, for example, reported that the diverse skillsets required for this role included local knowledge, knowledge of the EEF's evidence base and practices, relationship-building skills, and, above all, capabilities for a good mediator that 'nobody has entirely'. The RS4 Lead expressed similar initial concerns but was pleased that the individuals in the role had made it work well in their area:

> *'I must admit I worried a bit when they first proposed this role… It worried me about the amount of time it would take them to develop those relationships: who are the key players, who do we need to talk to, what's happening where … It's difficult. When you create a new role you can't always get people with the local intelligence or credibility' (RS Lead).*

Interviews with other RS Leads provided supporting evidence that the Regional Leads had operated as enablers and facilitators in negotiations and discussions with local authorities, MATs, and groups of schools that helped the RSs to diversify, expand, and align their work with the school improvement partners *within*, but *primarily outside,* the OAs.

Evidence from the telephone interviews with OA key stakeholders also pointed to the limited role that the Regional Leads had played in brokering strategic partnerships and embedding the RS work *within* the OAs. The reasons for this were multifaceted. As the Regional Leads came into post late into OA delivery, some felt that their ability to have an impact on how the role of the RS was embedded within OA delivery was constrained. They found it difficult to articulate in detail the school improvement priorities within their associated OAs, and there was limited evidence that the interviewed Regional Leads were in direct, regular dialogue with the OA leads. Instead, one observed that the role of the RS was very much as another CPD provider that was advertising its offer to schools rather than being central to OA delivery. This was despite the fact that this particular RS sat on all the OA Partnership Boards:

> *'The Research School isn't at the heart of OA delivery. Instead, it's seen as a "nice addition" to the OA. For example, the Research School have developed a group of evidence advocates that are representatives that meet to discuss research and evidence, but they do this in silo without the power to influence the wider school improvement focus within the OA' (EEF Regional Lead).*

Moreover, whilst most interviewed OA key stakeholders were primarily concerned about how RSs were able to promote and support evidence-based practice for the issues and challenges that were particularly pertinent to OA areas, the reported strategic focus for interviewed Regional Leads had become to challenge RSs to 'expand their horizons beyond the OA' (Regional Lead). This was because, in their view, most OA RSs had already consolidated their capacity and partnerships, and with the end of the OA initiative and funding almost in sight, developing more *sustainable* new streams of work beyond the geographical boundaries of OAs had taken the priority.

For example, a DfE Head of Delivery articulated some confusion about the EEF's expectations for the RS to support school improvement priorities in their OA. The OA RS's proposal to partner up with another OA RS and expand their offer of support on a more regional level was perceived as a cause of concern:

> *'It's clear that schools want local expertise and local tailored support, but it's not clear how far they should be taking the work outside of the Opportunity Area and the extent of their involvement with other Research Schools. … It's not clear what the EEF's mission for the Research School model in an Opportunity Area is and how that compares to … the OA's vision for the role of the Research School' (DfE representative).*

In contrast, the interviewed Regional Leads expressed their concerns that OA RSs' narrow geographical focus would constrain their potential impact and their ability to sustain: '[RS] haven't grown as other Research Schools have. They've just focused on that small geographical area whereas other Research Schools have opened up their offer to a wider area. … The whole concept of OA's had made them very inward looking and insular.'

Taken together, the evidence presented here suggests that the Regional Lead model had not been able to operate its brokering role effectively within the OA context.

Local school leadership as the catalyst for change

In developing the three tiers of engagement, almost all RSs had shifted the focus of their work towards engaging school leaders as the necessary agents of change. For some RSs, the intention to be connected with senior leaders, especially headteachers, was a deliberate strategy to build 'real relationships' that were likely to result in a change in practice and culture in schools:

> *'We connected with X school and we didn't even know that they existed but they came to us, and now we have this real relationship but that was because the head is driving it and she wanted to learn more. So*

you have to get the heads on board and that is why standing up at the heads' meeting and drip feeding things in is so important … You've got to go at it completely to engage every head' (RS3 Lead).

Reflecting on their efforts to embed evidence-based practice in OA schools, the RS8 Lead described the local school leaders as the necessary change agents in the process and was pleased that 'we're winning the hearts and minds of the heads.' The EEF's Regional Lead echoed her view on the importance of school leadership's buy-in and commitment: 'They had to see it as a problem they need to jointly solve. It's really key to get that buy-in around the reason we are doing this and getting that vision really clear' (OA8 Regional Lead).

For the Regional Lead associated with OA9, the buy-in and support of the leadership team needed to be reflected in the extent to which, and in what ways, they placed the RS work at the heart of their CPD strategy:

'The most depressing thing is a middle leader attending training and then not being able to implement what they have learnt in school. There needs to be the buy-in of the [senior] leadership team and the activities being at the heart of the CPD strategy' (OA9 Regional Lead).

This observation offers further evidence to support the major 'take-away' messages from the SEM model that we presented in the previous chapter: the centrality of local school leadership in enabling the RS's input to be taken forward in school and realise the intended change in individuals, school culture, and pupil engagement.

Key Findings 3: Is there evidence of intended impact at school and area level?

Introduction

This chapter responds to the third and final Research Question:

> *What is the overall impact of RS' work on school improvement processes and outcomes at school and area level?*

To understand *what* their impacts were, it is necessary to revisit two key issues identified from our data which, individually and in combination, shape *how* and *why* RSs were able (or not able) to achieve their intended impact in promoting evidence-based practice and culture within and across OA schools.

First, we have demonstrated in the previous chapter how RS leaders had strategically used the RS initiative to create the professional learning and development opportunities that enabled them to continue to grow the professional capacity and expertise in their own schools or groups of schools (for example, MATs or TSAs). Consistent with the findings in other research (for example, Bryk et al., 2010; Gu et al., 2016, 2020), this evaluation shows that becoming and effectively leading a RS begins with and rests upon outward-facing, learning-focused leadership. Encapsulated here were purposeful leadership choices and decisions that buffered and aligned external, intellectual, material and relational, social resources to nurture the knowledge and skills of the whole staff and expand their capabilities and horizons for further improvement. Key in this regard was that these resources had been used to enrich organisational learning, which then created the necessary organisational capabilities that enabled RSs to continue to model how the EEF's evidence could be translated and used in different classrooms and schools.

Second, evidence from the interviews with RS Leads and OA key stakeholders also suggests that how the OA Partnership Boards had operated and how the RS approach to improving practice was perceived by them as fit for purpose within the OA influenced profoundly the impact that the RSs were able to achieve at school and regional level.

In this chapter we present research findings relating to the impact of the place-based, systems-focused school improvement initiative—as perceived by senior leaders of RSs, participants in their programmes, and other relevant key stakeholders—in contributing to reported change in practice within and across schools in OA areas. As we have outlined in the Introduction of this report, we recognise that the RS programme did not operate as a single 'intervention' in each OA so in this evaluation we do not consider establishing 'impact' as a matter of identifying a single effect. Rather, we focus upon identifying, triangulating, and synthesising the reported differences that the RS activity had made to the capacity and practices of participating teachers and school leaders within (as well as beyond) OA schools.

The data sources for discussion in this chapter include RSN surveys, the CPD pro forma surveys, telephone interviews with OA key stakeholders, telephone interviews with the ten RSs, and the light touch visit to a subsample of five RSs.

Key Findings 3: Impact—Is there evidence of intended impact at school and area level?

Impact at school level, based on the survey of those who engaged with the RSN

- Results of the follow-up RSN survey suggest that overall most survey respondents were positive about the impact of their engagement with the RSs on the practice and culture of evidence-use in their schools, albeit based on their self-reported views rather than any rigorous and independent measurement of change.

- Nearly three-quarters of respondents reported that they had made a change to their teaching practice as a result of their engagement with the RSs; senior leaders were slightly more likely than those not in senior leadership positions to report implementing changes.

Impact at school level, based on the CPD attendees' surveys

- Results of the analysis of the CPD pro forma follow-up survey show that the training programmes had resulted in reported changes to practice for 95% (n = 144) of respondents.

- Respondents were most likely to report significant positive impacts in their use of the research-based evidence to inform most decisions about professional practice and in areas of their professional beliefs and behaviours.

The promise of change in evidence-informed culture in OAs

- Interviews with key stakeholders in the OAs and RS Leads suggest that the provision of RSs' CPD and training was perceived to have played a crucial role in bringing about a discernible shift to a more evidence-informed culture in many participating schools.

- However, for school leaders who were convinced that their schools had already established a culture of evidence-based practice before engaging with the RSs, their reported RS impact tended to be more mixed.

The promise of expanding and enhancing the reach in OAs

- Some RSs were moving towards a CPD and training model that involved post-training follow-up support. Involving strategic partners in this process helped to engage schools in longer-term, sustained activities for change and improvement.

- As well as sharing evidence-based practice through CPD within the OAs, most RSs were increasingly putting evidence at the centre of local school improvement decisions through participation in locally funded projects.

The promise of improving collaborations in OAs

- Although evidence from the interviews shows that the RS identity received mixed views from some key stakeholders, most were positive about the important role that the RSs had played in challenging local insularity and harnessing local school improvement partnerships.

- RS leaders' enthusiasm and passion for the evidence-based approach to improvement, their professional commitment to nurture local evidence champions, and their approach to partnership working were reported by most interviewees as having played a key role in fostering collaborations within the OAs.

The commitment to support OAs' priority schools

- The OAs' explicit funding and intelligence support had enabled the RSs to reach and support schools that were deemed as vulnerable before the EEF's publication of its list of priority schools.

- Supporting the schools most in need was regarded by RS Leads as a key function of their designated role in the OA. Such a function, however, had created a focus not necessarily seen in the national RSN. A shared view amongst the RS Leads was that the EEF's priority school strategy had little impact on their actions or activities in OAs.

Legacy of school improvement

- Being part of an OA was seen as beneficial in enabling RSs to build a legacy of school improvement within the local areas. This was achieved by working closely with different school improvement partners to develop capacity, foster school-to-school support partnerships, and provide resources and expertise for change in practice and culture. Engaging system leaders, such as MAT CEOs and local authorities, was reported to be crucial in achieving this ambition.

Looking to the future: the legacy of school improvement?

- OA RSs had begun looking towards a wider audience, beyond the OA, for their future activity, especially more strategic, commissioned work, rather than the CPD offers based on the EEF's evidence and guidance reports alone.

- Interviews with the RS Leads and OA key stakeholders suggest that much clarity is needed around the role of the EEF in the OA-focused improvement agendas. For some stakeholders, it was unclear to what extent the EEF had expanded its focus from *advocates of evidence on what works* to *advocates of school improvement* through the RS activity.

- The term 'school improvement' was said to be used by different parties to mean quite different things, which further complicated matters. Given this, the reported confusion around the EEF's approach to supporting school improvement within OAs seemed almost inevitable.

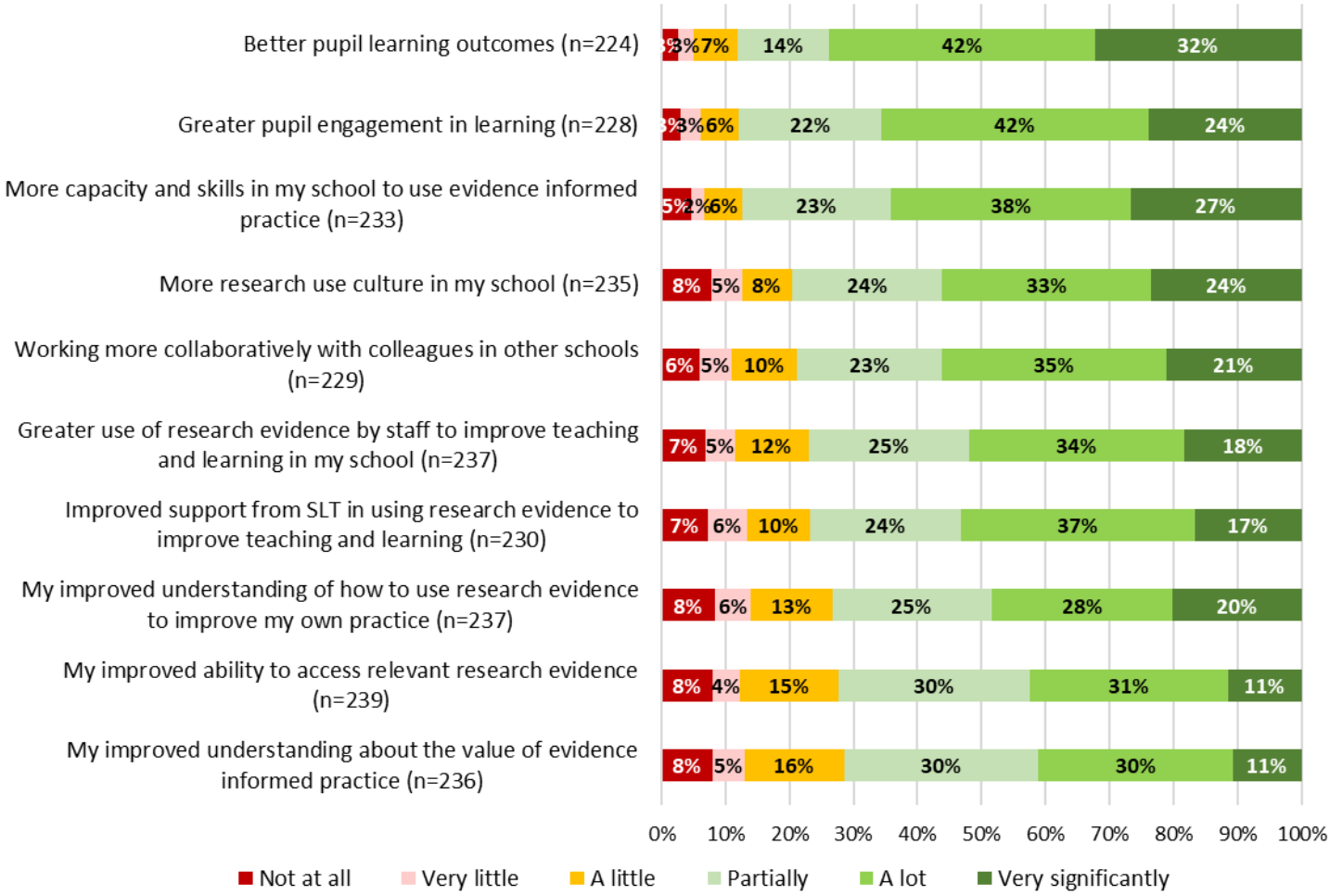
Perceptions of impact on change in practice

Results of the follow-up RSN survey suggest that, overall, most survey respondents were positive about the impact of their engagement with the RSs on the practice and culture of evidence use in their schools (Figure 15). However, caution must be exercised when interpreting these results because of the potential positive bias in respondents' perceptions of their own impact on pupils. Slightly more than one in four (27%) reported 'very significant' impact on 'more capacity and skills in my school to use evidence-informed practice' and nearly a quarter (24%) felt that engaging with a RS had resulted in 'very significant' impact on 'more research-use culture in my school'. In addition, more than half reported that the engagement with RSs had 'a lot' or 'very significant' impact on the following areas of change:

- 'working more collaboratively with colleagues in other schools' (56%);
- 'my improved understanding of how to use research evidence to improve my own practice' (54%); and
- 'improved support from SLT in using research evidence to improve teaching and learning' (52%).

The two areas of impact that received the highest combined proportion of 'a lot' and 'very significantly' responses were better pupil learning outcomes (74%) and greater pupil engagement in learning (66%).

Figure 15: Perceived impacts of engagement with RSs on different areas, follow-up RSN survey respondents



Additionally, nearly three-quarters of respondents reported that they had made a change to their teaching practice as a result of their engagement with the RSs (Figure 16)—with senior leaders slightly more likely than those not in senior leadership positions to report change. In total, 174 respondents attributed 343 changes that they had made to their engagement with the RSs. These reported changes cover three main areas: most referred to (a) utilising specific techniques and approaches within the classroom (such as metacognition or literacy or numeracy pedagogy) followed by (b) changes pertaining to staff training and CPD, and (c) school improvement priorities and behaviour management policies. In addition, another recurring theme referred to awareness and use of research evidence, for example, promoting and raising awareness of the research evidence, staff undertaking their own research, and building capacity to access, understand, and disseminate research evidence. These changes reflected, on the one hand, the contents of the EEF's guidance reports that underpinned the RSs' CPD and training programmes and, on the other hand, the leadership roles of some of the respondents.

Against each change they described, respondents were then asked to identify which RS activity had contributed most to them making this change. More than half of the changes described were attributed to the RS CPD and training and nearly a fifth were said to be due to involvement in more than one activity strand (Table 16).

Figure 16: Whether respondents to the follow-up RSN survey have made changes to teaching practice as a result of engaging with the RSs

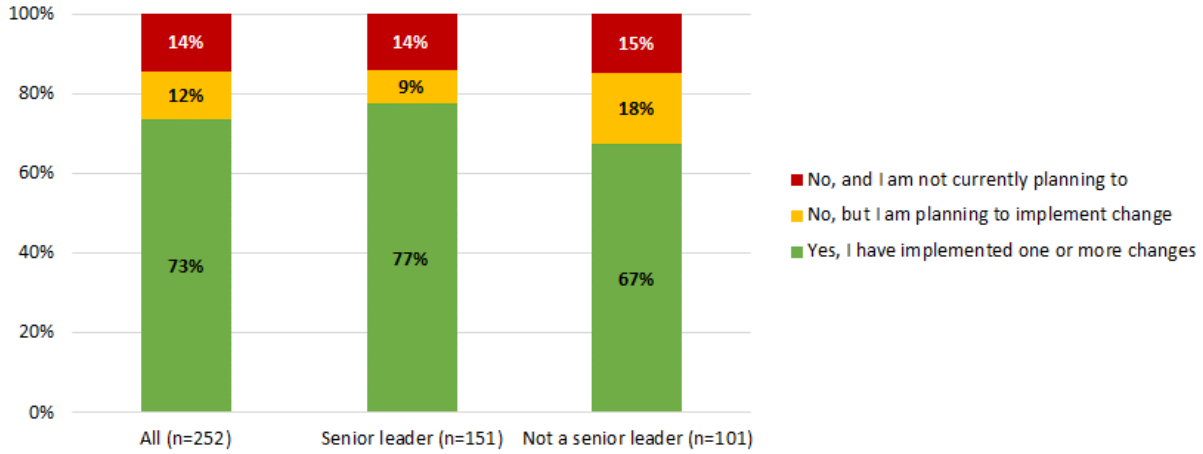


Table 16: RS activities that contributed most to the changes made by respondents to the follow-up RSN survey

Type of RS activity	n	% of changes
Training or CPD	191	56%
More than one of these	61	18%
Communications from or with the Research School(s)	56	16%
Involvement in an innovation project[17]	35	10%
Total	**343**	**100%**

Impact of CPD and training on reported change in professional beliefs and practice

Analysis of the follow-up CPD pro forma survey

A standardised CPD pro forma was developed to assess the extent to which, and how, the CPD and training activity that spanned over two or more sessions had made a difference to participants' knowledge, skills, and practice over time. The follow-up survey, conducted the term after completion of the CPD and training programme, focused especially on exploring the changes in practice or professional attitudes that participants would attribute to their

[17] Innovation projects were not a formalised strand of activity for the OA RSs but had been an integral part of the offering from the first five RSs. For the OA RSs, 'innovation projects' referred to any support received from the RS to develop or evaluate innovative ways of teaching and learning. Previously funding grants had been made available by the IEE to support these projects and the RSs also assisted schools in applying for the funding. However, these grants are no longer available.

engagement with the RS programmes. Among the 153 responses to the follow-up surveys, we identified 146 individuals from 111 different schools who attended 25 courses offered by the ten OA RSs.

When considering the impacts, the nature and subject matter of the courses must be borne in mind because not all courses aimed to address the full spectrum of good teaching practice that was covered in the survey. It is also necessary to interpret the data in the context of respondents' slightly greater propensity to express positive views about their training experience overall (for example, participants who had particularly positive experiences might be more likely to respond to the surveys). Our analyses therefore focused on *what* the most reported changes were, rather than how positive they were.

Results of the analysis show that the training programmes had resulted in self-reported changes to practice for 95% (n = 144) of respondents and that they were most likely to report significant positive impacts in their use of the research-based evidence to inform most decisions about professional practice (with 34% claiming 'very significant' impact and 53% 'a lot') and in areas of their professional beliefs and behaviours (Figure 10.1 in Appendix 10). For example, three out of four (75%) respondents felt that their attendance at RSs' CPD programmes had 'a lot' or 'very significant' impact on their 'understanding of how to monitor and reflect on the effectiveness of changes I make to my practice' and on 'working collaboratively with other colleagues in my school'. More than 70% of respondents reported 'a lot' (46%) and 'very significant' (26%) impact on their 'understanding what adjustment I must make to maximise pupil learning outcomes'. In addition, 'a lot' and 'very significant' impacts were reported by around two in three respondents regarding 'understanding how pupils learn' (25% 'very significantly', 42% 'a lot') and 'understanding the role of teaching in the learning process of pupils' (24% 'very significantly', 42% 'a lot').

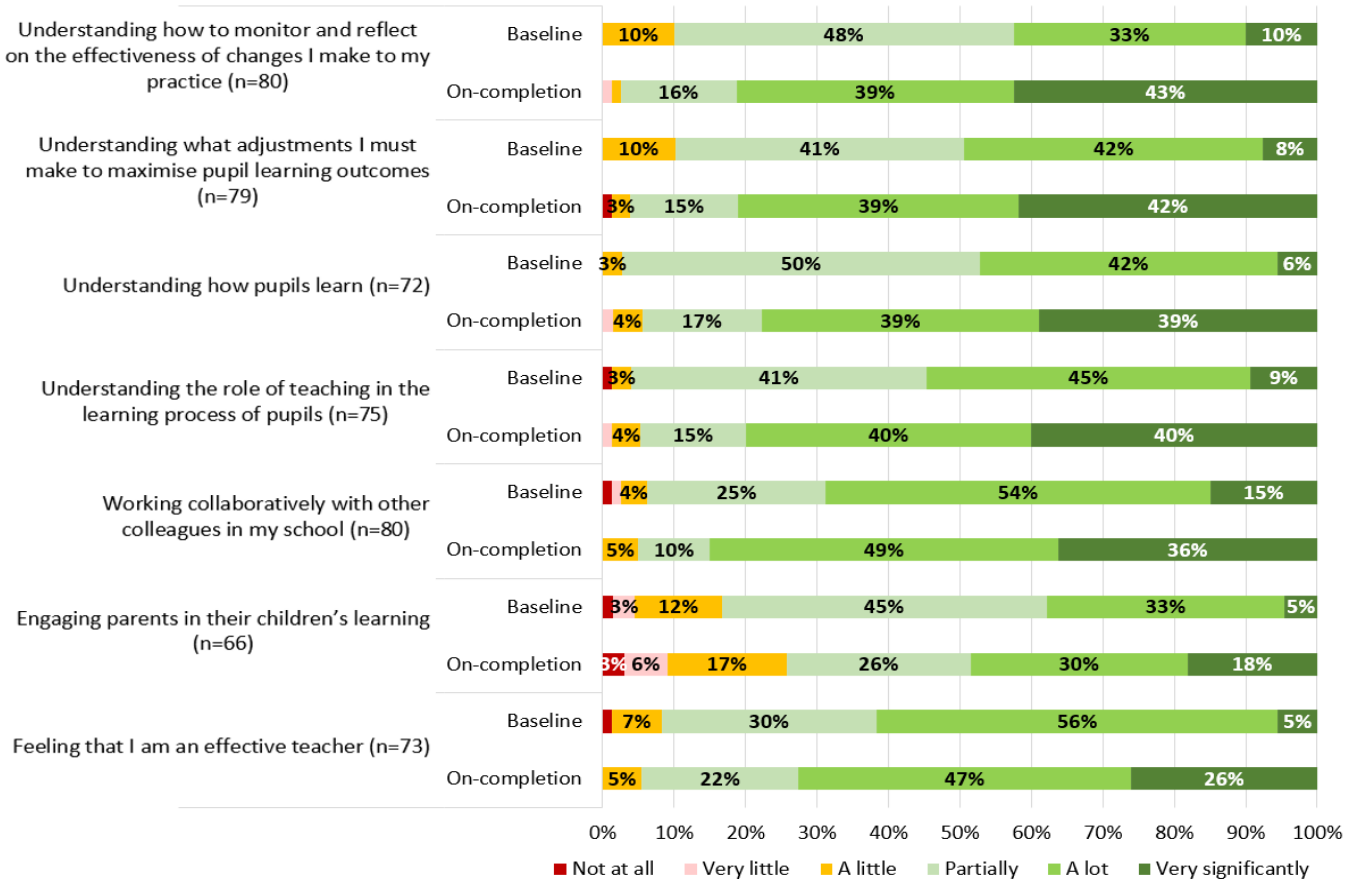
The reflections of a deputy headteacher of a primary school in OA9 during a telephone interview exemplify how established relationships with the RS and access to their CPD opportunities on literacy, metacognition, and early years had helped her school to focus on what it needed to improve—moving from going to other schools and adopting their practice to really looking at what would work in their own context. Reflecting on her school's journey of going through special measures, she realised that only when they had come out of the other side of that experience were they able to start realising the benefits of evidence-based practice in improving the school's capacity to make constructive changes in teaching and learning.

> *'It's [engaging with the RS programmes] completely changed the way we approach teaching and learning in school. It points you in the right direction but in a way of self-discovery. It is very well structured and planned out by the RS. They give you the tools to do it yourself, so it becomes personable to you and your school. … We've seen a real benefit in school from this project [preparing for literacy in the Early Years]. We didn't jump in feet first with this project. We looked at where the data was to back it up. We linked it to the use of language and words and having a language-rich curriculum in the Early Year and the use of tiered vocabulary. It allowed us to put a real action plan in place that had a significant impact in school' (OA9, Deputy Head).*

Tracking change in the matched baseline and on-completion sample

The patterns of change in the above areas of professional belief and behaviour are much clearer and pronounced when examining the perceptions of the 81 respondents who had completed *both* the baseline survey and the on-completion survey. Figure 17 presents the 81 respondents' levels of confidence in relation to each area of their professional beliefs and behaviours before they started the RSs' multiple-session CPD and training programmes and the extent to which their participation had impacted on their confidence upon completion of the training. The marked difference in perceptions between the baseline and on-completion surveys suggests that the RS CPD and training had facilitated most respondents' reflection on aspects of their professional beliefs and behaviours and giving careful and informed consideration to any changes to support pupil learning.

Figure 17: Professional beliefs and behaviour—levels of confidence at baseline and impact (or expected impact) on completion of the training programmes, only respondents who responded to both CPD pro forma surveys

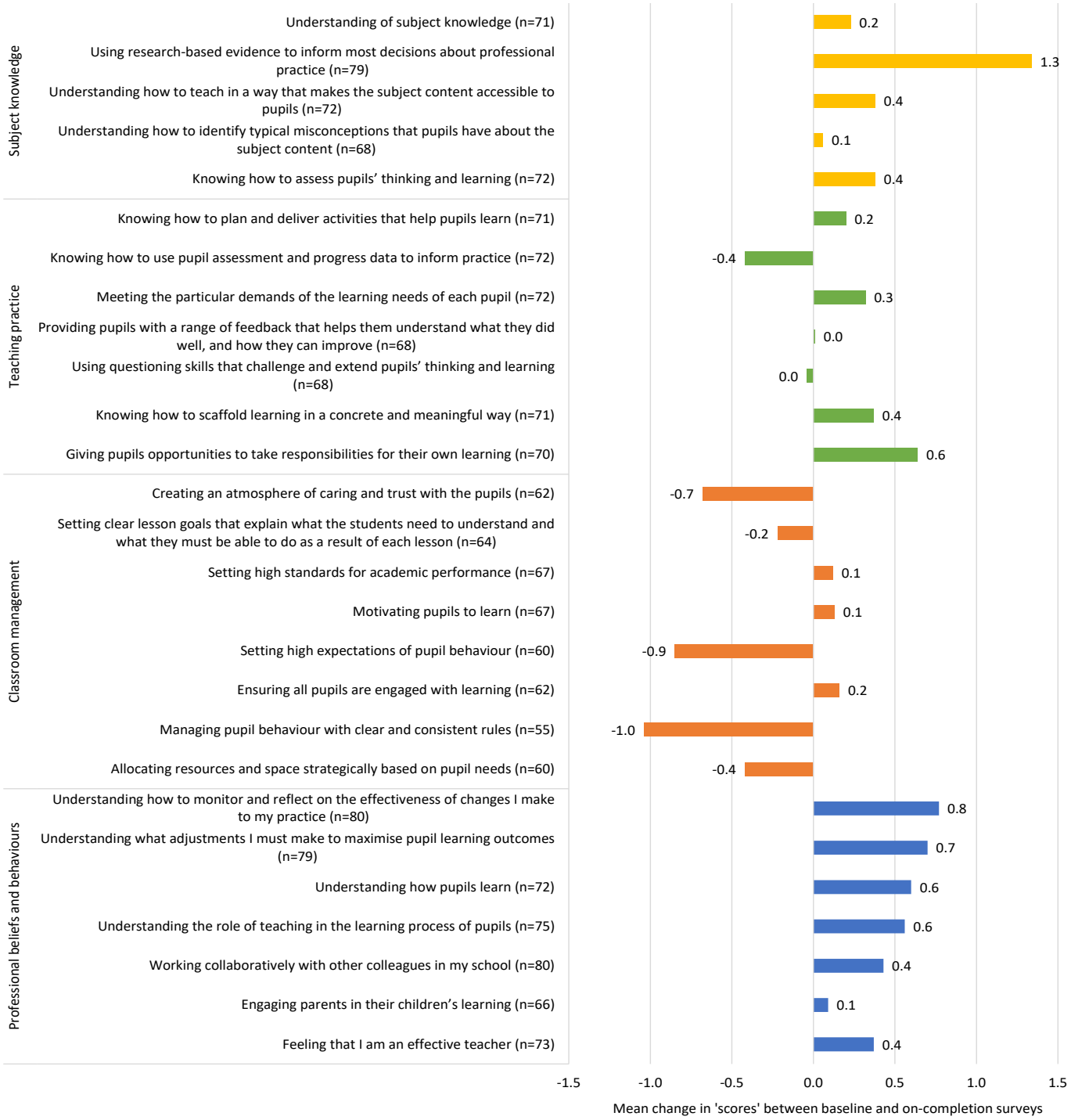


Drawing together the reported levels of confidence at the baseline and the extent of any impacts as a result of the training across the four domains (subject knowledge, teaching practice, classroom management, and professional beliefs and behaviour), we could identify some patterns of change in training impact. Across all statements within each of the four domains, mean 'improvement scores' were calculated to give an overall picture of how much difference the programmes had made against each aspect of teaching. As explained in the methodology section, these four domains have been shown by robust evidence as having significant impact on valued student outcomes (Coe et al., 2014; Timperley, 2008). Detailed analysis procedures of the impact scores are presented in Appendix 10.

Figure 18 shows the mean change in 'scores' between the baseline and on-completion survey for the subset of 81 respondents who had completed both surveys across the relevant areas. This confirms that of the four domains, professional beliefs and behaviour was the one that saw consistent improvements across all aspects measured, although note that the mean score is less than one in each case, indicating that the magnitude of the impact expressed relative to initial levels of confidence, was, on average, marked but not especially substantial. Classroom management was the domain with the lowest mean improvement scores suggesting that confidence was already high or that the extent to which the training could and did impact on these areas was somewhat limited, most notably in relation to managing and setting high expectations of pupil behaviour and creating and atmosphere of caring and trust with pupils.

The single aspect which saw the highest mean improvement score was 'using research evidence to inform most decisions about professional practice', which achieved a substantial mean improvement score of 1.3—supporting the results of the analysis of the on-completion survey, which show almost half of the 81 respondents (48%) reported 'very significant' impact of the CPD training in this area with another 41% reporting 'a lot' of impact. This finding provides positive and encouraging evidence in support for the EEF's and OA RSs' endeavour to promote and embed evidence-based practice in schools through CPD and training programmes and follow-up school improvement support.

Figure 18: Mean 'improvement scores' between confidence at the baseline and impact in the on-completion survey, matched respondents only



Taken together, it is important to note that the areas against which respondents were most likely to report a highly positive impact appeared to be centred upon enabling participants to reflect on and better understand how they should approach pupil learning and how teaching may be improved to maximise pupil learning. This observation is in itself interesting and important because, as research shows, professional development models associated with gains in student learning provide sufficient feedback opportunities to help teachers to bolster their own learning by thinking reflectively, collaboratively, and thoughtfully about making changes to their practice (Darling Hammond et al., 2017). The evidence here lends support to the perceptions of high-quality RS CPD claimed by many interviewed key stakeholders and its impact on participants' increased awareness and understanding of the benefits of using evidence to inform and strengthen their own practice or the practice and behaviour in schools. As the DfE Lead from OA5 put it,

> *'The Research School was part of a group that managed to move a cohort of teachers from not knowing what evidence-based practice was, to scepticism... to intrigue and then to some understanding and enthusiasm about the benefits of an evidence-based approach.'*

Similarly, the DfE Lead in OA2 reported the benefits of engaging with RSs in encouraging schools to reflect on their practice: 'It's getting them to stop and pause and think about what their issues are. It's encouraging them to take a diagnostic approach.' Such a view was also endorsed by this headteacher and NLE in the same OA:

> *'If you've been in school for a long-time, you don't always lift your head up and think about how you should be implementing things. It helps to make you think about doing one thing well rather than throw lots of things at a problem…. It [engaging with the RS] gives you a credibility as what you're suggesting to the schools has been tested and there's a depth to the documents. But it's also the fact that the documents don't say that these are the only way to do things; it gives you options and doesn't claim to be a magic wan.' (OA2, RS partner).*

Enabling change: exploring the matched on-completion and follow-up sample

Figure 19 explores the correlations between the reported impacts of RS CPD on each of the four domains of teaching in the on-completion and follow-up CPD pro forma surveys as well as their associations with the perceived quality of CPD provision and leadership support. Drawing upon matched data from 50 respondents who had completed both an on-completion survey and a follow-up survey, a principal component analysis (PCA) was carried out for each of the four questions measuring the four domains of teaching. One factor was identified for each domain in both surveys. The PCA for Q1 (six items) on quality of CPD and Q2 (six items) on senior leadership support in the on-completion survey also identified one factor for each question. Detailed PCA outputs are included in Appendix 10.

Figure 19: Correlations between the four domains of teaching in on-completion and follow-up CPD pro forma surveys

		FU Q2	FU Q3	FU Q4	OC Q3	OC Q4	OC Q5	OC Q6	Training experience	Senior Leadership
FU Q1: Subject knowledge	Pearson Correlation	**.680****	**.645****	**.592****	**.438****	**.378***	.214	.220	**.368***	**.339***
	Sig. (2-tailed)	.000	.000	.000	.003	.014	.216	.178	.010	.028
	N	47	41	45	44	42	35	39	48	42
FU Q2: Teaching practice	Pearson Correlation		**.733****	**.711****	**.450****	**.503****	**.433***	**.357***	**.350***	**.370***
	Sig. (2-tailed)		.000	.000	.002	.001	.010	.028	.016	.017
	N		41	44	43	41	34	38	47	41
FU Q3: Classroom management	Pearson Correlation			**.776****	**.350***	.310	**.366***	.234	.264	**.425****
	Sig. (2-tailed)			.000	.031	.065	.036	.176	.095	.010
	N			40	38	36	33	35	41	36
FU Q4: Prof beliefs & behaviours	Pearson Correlation				**.323***	**.360***	**.358***	.281	**.407****	**.544****
	Sig. (2-tailed)				.037	.024	.038	.097	.006	.000
	N				42	39	34	36	45	40
OC Q3: Subject knowledge	Pearson Correlation					**.822****	**.689****	**.593****	**.508****	.254
	Sig. (2-tailed)					.000	.000	.000	.000	.118
	N					39	35	38	44	39
OC Q4: Teaching practice	Pearson Correlation						**.885****	**.737****	**.424****	.253
	Sig. (2-tailed)						.000	.000	.005	.136
	N						33	36	42	36
OC Q4: Classroom management	Pearson Correlation							**.832****	**.374***	.222
	Sig. (2-tailed)							.000	.027	.229
	N							35	35	31
OC Q5: Prof beliefs & behaviours	Pearson Correlation								**.325***	.026
	Sig. (2-tailed)								.041	.879
	N								40	36
Training experience	Pearson Correlation									**.641****
	Sig. (2-tailed)									.000
	N									44

The associations relating to school leadership support are highlighted for attention.

The change in levels of associations between different factors across the two surveys points to at least three key observations:

- the overall positive associations between the four domains of teaching across the two surveys suggest that over time the respondents continued to feel positive about the impact of their engagement with RS training on their subject knowledge, teaching practice, classroom management, and professional beliefs and behaviours;

- the perceived quality of their training experience was felt to be positively associated with such impacts—both immediately upon completion of the training and one term after; in addition, the impact on professional beliefs and behaviours was found to be associated with their training experience *relatively more strongly* (on-completion: r = 0.325; follow-up: r = 0.407) as time went on: and

- in-school senior leadership support was perceived to be positively and strongly associated with respondents' perceived quality of their training experience (r = 0.641).

Regarding the latter point, importantly, the contribution of leadership support to the perceived impact of RS training on change in subject knowledge, teaching practice, classroom management, and professional beliefs and behaviours did not become visible to these 50 respondents until one term after they had completed the RS programmes.

Although these observations were only based on tracking data collected from 50 respondents, taken together, they offer additional evidence supporting the findings from the SEM analysis of the RSN survey that the quality provision of RS training contributed to individual participants' change in practice and professional behaviours. They also reinforce the earlier observations from the RSN survey analysis and interviews with RS Leads that initiating, embedding, and sustaining the impact of high-quality RS provision on culture and practice change is highly unlikely to occur in the absence of leadership support at the school level. The following quote from the RS3 Lead exemplifies this observation:

> *'The Opportunity Area and the different mechanisms that we have, offering all these different programmes to the schools… some of our schools have such broken leadership and that's the problem. … When they were in the space, they were learning, they were enjoying thinking of Guskey. They were learning. They enjoyed the new learning. They were obviously thinking about it. Their implementation plans were getting there. They had the tools. But the blocker is that level of being able to integrate it into the school whilst you have lots of other moving parts and actually their capacity to translate it. It's very difficult because they've got to get buy-in from the head up here' (RS3 Lead).*

The impact of Research Schools in Opportunity Areas: promises, challenges, and legacies

The promise of change in evidence-informed culture in Opportunity Areas

Interviews with key stakeholders in the OAs and RS Leads suggest that the provision of RSs' CPD and training was perceived to have played a crucial role in bringing about a discernible shift to a more evidence-informed culture in many schools that had been engaged with the RSs in the OAs and, through this, the nurture and development of professional capacity in these schools. As the RS9 Lead put it,

> *'We will make a contribution but ours is a slow burn as we are changing teacher mindsets and, therefore, we're not being held accountable for these targets … We're developing professional capacity and teachers' knowledge base, then as a consequence pupil results will raise. But it's complex' (RS9 Lead).*

The RS Leads were committed to encouraging 'all schools [to] use evidence to inform their decision-making and planning' (RS6 Lead) and importantly, 'getting more teachers and schools to engage with the evidence in a meaningful and sustained way' (RS1 Lead). In OA4, the CEO of a MAT talked of a new approach to decision-making in their Trust: 'The decisions we're making, we're looking at what research underpins it. We probably wouldn't have done that years ago' (CEO MAT). In response to this interest in research and evidence use, schools in the Trust started a teacher journal club. The OA4 Lead highlighted that the training on the EEF's implementation guidance had been particularly 'powerful' in enabling schools to enact change: 'Schools are fascinated by it, the content, the potential for it. We're in a position where we're informing people and it's changing culture.'

In OA7, a senior leader of a MAT gave examples of how as a Trust they were putting research at the front of curriculum development (for example, by running a research-led CPD project for staff) and how they had moved the focus of their performance management from staff having to meet quantitative targets to an action, research-oriented approach which focused on staff delivering their own action-research projects to demonstrate their impact on specific areas of pupil learning. The senior leader felt that their involvement with the RSN had changed the conversations they had with staff in that they began to challenge staff more by pushing to embed a culture and attitude that moved them away from a tokenistic and superficial approach to teaching: 'If a staff member talks about meta-cognition, we push them now and say what does that actually mean, what does that actually look like in practice, rather than broad terms being thrown about in a tokenistic manner.' The RS7 Lead also reported that a mindset shift in seeing research use as

a change process that would take time and investment appeared to emerge in the ten primary schools that had participated in their programme on deputy coaching:

> *'To implement effective change you've got to treat implementation much more as a process than an event. That's really the crux of all of this, that schools under pressure in challenging circumstances are often trying to solve all of their problems immediately and then, a year later, they realise they'd have been better off just narrowing it down to the ones they really have capacity to address properly. I think that's far more fundamental to the system than an individual piece of research on literacy or metacognition. It's giving things the best possible chance of success that's actually critical often' (RS7 Lead).*

We note here, again, the critical role of school leadership in fostering a culture of openness to change in their schools. However, for school leaders already convinced that their schools had an established a culture of evidence-based practice before engaging with the RSs, their reported impact tended to be more mixed. For example, the headteacher of a secondary school in the same OA, who was also a member of the OA Partnership Board, believed that evidence-based practice was critical in schools:

> *'Teachers are lifelong learners and taking an evidence-based approach makes that real on the ground. A teacher can say that they have a class and they can focus on what aspect of their teaching they want to make better. Then they can use that class to test new approaches that are grounded in research and evidence. That's how teachers get better and it enthuses them because it has that grounding in academia without them having to sit down and write an essay' (OA7, Headteacher).*

This headteacher acknowledged that 'the RS has done a remarkable job in the parameters it is working within' and that some of the projects that RS7 had put in place were 'excellent' and that those that had focused on teaching and learning had been 'transformational', particularly for schools that were in the 'requires improvement' Ofsted category and could embrace the support and approach. She also recognised that engaging with the RS programmes had—

> *'allowed our Research Lead to bring a sharper edge on professional inquiry. We are seeing some soft outcomes of that work, particularly around inclusivity and an appreciation of the challenges that are faced by disadvantaged outcomes, but we haven't seen the impact on hard outcomes yet, although that might come with time' (OA7, Headteacher).*

However, she felt that for schools like hers that had already started to embed evidence-based practice *before* the engagement with the RS, the impact from the RS's input on improvement appeared to be less visible. Because of this, she was less convinced that her school would miss the provision of the RS if it was no longer there in the future.

The promise of expanding and enhancing reach in Opportunity Areas

While RSs were moving towards a model centred on 'tier two' engagement involving post-training follow-up support, they recognised that engaging schools in longer-term, sustained activities for change and improvement could place heavy demands on their capacity. In some cases, involving strategic partners in building evidence-use into other mechanisms of the school improvement system seemed to be working in this direction. In OA8, a decision had been made to team up with NLEs and maths hubs to 'use the capacity in the system' through the work of these partners. As the Regional Lead explained in relation to the involvement of NLEs:

> *'We can't go into schools and check the monitoring of whether this approach to phonics has been delivered so it's got to be a partnership. It's got to be some kind of agreement from those schools that they are willing to take this work back into their own schools, to monitor, evaluate, rigorously implement it, and keep the key messages going. That's why [implementation guidance] has been such a crucial part of the training and this year it's been part of the NLE training … We're building evidence-informed NLEs. It's upskilling existing NLEs but having the evidence-informed approach' (Regional Lead).*

The idea of building evidence into other school improvement organisations was echoed in OA4, where strong links were now being developed with the local authority and 'their lightbulbs seem to be coming on' (RS Lead). In this development of school improvement relationships, both within and beyond the OA, the Regional Lead played an increasingly prominent role as a broker. The Regional Lead, in arguing for a shift from *course deliverer* to *'key school improvement partner*', also highlighted the necessity for targeting the tier above individual school leaders, such as the CEOs of MATs, to improve sustainability: 'I think the RS has targeted the tier below and schools have got involved but haven't been able to sustain or implement.'

As well as sharing evidence-based practice through CPD within the OAs, most RSs were increasingly putting evidence at the centre of local school improvement decisions through participation in local projects and decision-making. This was most notable in those RSs with close links to OA Boards, as in the case of RS3. In the views of the two interviewed DfE representatives, there had been significant and long-lasting school improvement issues in OA3. Most of the weak schools were in the areas of high socioeconomic disadvantage suffering from weak leadership, poor-quality teaching, and high leadership turnover. Although the relationship between the LA and MATs had been historically poor, there were signs of improvement since the OA was established.

Both of the DfE representatives commented that the role of the RS in supporting school improvement priorities in the OA had evolved over time—moving from a generic CPD offer to a more targeted and tailored provision of support:

> *'They've still got the core offer [linked to what the EEF was producing across all of their RSs]. In the first year we did some light touch consultation with schools about what support they needed. In the second year we got a lot more input from schools about what they wanted, which made the offer more tailored … What they've done is sit down with school leaders and see how they can make it work. They're incredibly open and happy to tailor support around what the schools need … As time has gone, it has evolved and the Research School is central to delivery' (DfE Delivery Lead for OA3).*

Now that the RS was represented on the OA Partnership Board and the primary strategy group, they were reported to have influenced school improvement priorities for the primary sector and brought an evidence-based approach to the decision-making process. The OA worked with school leaders to undertake diagnostics about their improvement needs and the RS had been directly involved in this, which placed them in the centre of the OA's approach to school improvement.

> *'The way we've kind of developed the diagnostic was with school leaders from the start, so a lot of the barriers and issues were well recognised by school leaders. The work that we've funded from the Research School has been about improving leadership and getting an understanding of the evidence-base, and what it is that schools need to improve themselves. So absolutely their work aligns to what we want to achieve in the OA' (OA3, DfE Head of Delivery).*

Moving into Year 4, the OA was going to be targeting schools serving communities with high levels of socioeconomic disadvantage—in the Ofsted categories of 'requires improvement' and 'special measures' or with persistent absentees and under-performing profiles. For these schools, the OA was pulling together a team that would involve a range of key stakeholders, including the RS, RSC, NLEs, and National Leaders of Governance (NLGs), who, through a discussion panel, would undertake a diagnostic deep dive in schools to draw up action plans to address the pertinent issues in those schools. The RS was regarded as 'part of the eco-system' (DfE Delivery Lead for OA3) supporting specific local school improvement initiatives in partnership with the OA:

> *'The more and more we are working with the Research School as partners, then the more that the argument gets won. ... It's just helping schools realise why there might be benefits of working with a Research School and in every case a Research School isn't going to be the answer … the more schools see how other schools have been supported by them and the benefits, then the more that they're likely to think that it might work for them' (OA3, DfE Head of Delivery).*

The promise of improving collaborations in Opportunity Areas—local relationships as an impact

As Figure 14 showed, more than half of the respondents to the follow-up survey (56%) reported that engagement with a RS had 'a lot' or 'very significantly' impacted on 'working more collaboratively with colleagues in other schools'. Although evidence from the interviews shows that the RS identity received mixed views from some key stakeholders—such as being viewed as an outsider to the locality or 'suspiciously' (RS partner, OA2) because of their multiple identities relating to a TSA or a MAT—most were positive about the important role that the RS had played in challenging local insularity and harnessing local school improvement partnerships. RS4, for example, was seen by interviewed key stakeholders as a means to local cohesion. A system built on competition was perceived to have worked against collaboration with the RS at times, particularly related to its association with a TSA, however, the prior reputation and local knowledge of the RS Lead and her colleagues from the TS also played to their advantage as it enabled them to 'get a foot in the door' (OA Board member). The respect and trust that the RS had gained from its work in the area was perceived by interviewed headteachers and OA Board members as the 'glue and an underpinning' in a fragmented local landscape with 'too many disparate projects' (OA Vice Chair). The RS's presence in the OA Partnership Board was reported to have bridged the gap between primary and secondary and helped to foster 'seamless' offers of support in the OA (LA representative): 'Being there at the table and bringing evidence into the conversation … has been really helpful … [the RS Lead] is very good at bridging all the divides' (OA Board member).

RS leaders' enthusiasm and passion for the evidence-based approach to improvement and their professional commitment to build and nurture local evidence champions and partnership working with local schools were reported by most interviewees to have played a key role in improving and fostering collaborations in OAs. The DfE Delivery Lead for OA3, for example, thought that 'people and relationships' had been central to the RS's approach being positively received and successful in the OA: 'The Research School staff are very approachable. They're very good at explaining complex things. They've got real passion and enthusiasm.' The DfE Head of Delivery added that 'because they come from schools and are peers of the heads and leaders across the city, they are known and recognised, which really helps … With the clout of the EEF behind them, it's been quite easy for them to say how they can help and benefit others.'

OA6 was a 'close-knit' area and TSAs had linked up with RS from the start—'all working to same goals, [wanting] the same outcomes for children, working with the same schools' (TSA Director). The RS described how its work with schools in the OA was 'very locally- and context-driven' and decided by the needs of the schools and through discussions with the other TSAs and the DfE OA lead. A maths transition project was described by different interviewed key stakeholders as a success story that exemplified how stronger links were created between schools. A local TSA Lead commented that schools were working together, noting that '[it's been a] long time since those conversations about maths vocabulary have taken place in this area'. Although it was too early to see the impact of the project on pupil outcomes, the RS6 Lead was pleased that around half of the primary and secondary schools that had hardly worked together before were now working collaboratively. Building the confidence of schools was seen as having helped them to become more outward facing: 'building confidence in schools through heads and practitioners being able to access evidence-informed CPD that supports their journey and providing opportunities to engage other schools' (RS6 Lead).

Taken together, the evidence from the interviews shows that the RSs that had played a leading role in fostering partnerships and shaping school improvement agendas in the OAs tended to be those that were represented at the OA Partnership Boards, benefited from the ready-made local networks within the TSAs or MATs with which they were associated, and had received OA funding for targeted improvement projects deemed to be strategically important for the OA. Based on related interview evidence in the first two years of the evaluation, we selected five RSs for school visits in the third year with a specific purpose of understanding 'what has worked'. We then carried out further analysis of the RSN engagement data to explore the extent to which the observed differences between the five visited RSs and the remaining other five had impacted on their reach and engagement within the OAs.

There were some notable differences in the characteristics of engaged schools according to whether the school was located within an OA and its Ever FSM 6 banding. Table 17 shows the proportions of newsletter subscribers and training participants from the OA schools that had engaged with the five visited RSs and the remaining 'other five'. In 2017/2018, while 53% of subscribers to the newsletters hosted by the visited RSs were from a school within an OA, only 36% of the newsletter subscribers to the remaining five RSs were from schools within an OA. In 2018/2019 the difference had narrowed somewhat but still stood at 41% versus 32%.

The differences were particularly marked for the training programmes in the 2017/2018 academic year when 80% of participants in the visited RSs' training programmes were from schools within the OAs and 44% of attendees at training offered by the other five RSs were from OA schools (although note the relatively low numbers, particularly in relation to training in 2017/2018). For 2018/2019 the gap once again narrowed to 54% compared to 47%. The observed differences suggest that the visited RSs had reached and engaged relatively more schools within the OAs compared to the other five, particularly in the first academic year of their operation.

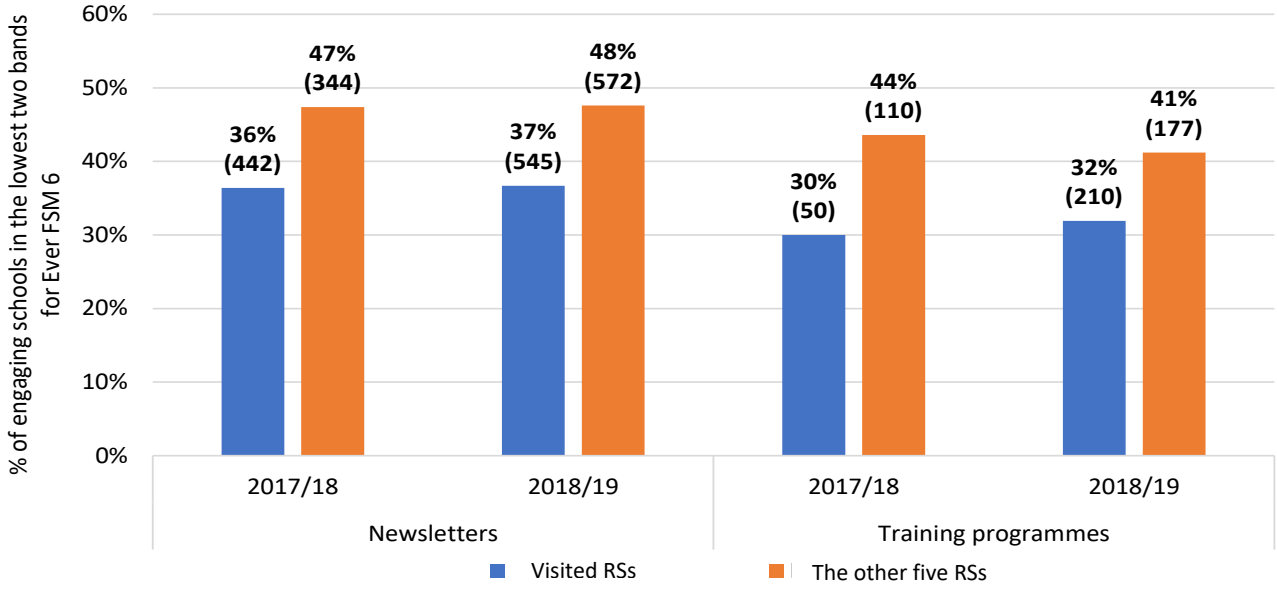
Table 17: Proportion of those engaged with the newsletters and training from the five visited RSs and the other five RSs who were from schools located within the OAs

	% of newsletter subscribers from schools located in the OAs				**% of participants in training programmes from schools located within the OAs**			
	Visited RSs		**The other five RSs**		**Visited RSs**		**The other five RSs**	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**
2017/2018	259	53%	143	36%	44	80%	52	44%
2018/2019	252	41%	204	32%	125	54%	90	47%

As Figure 20 shows, there were also differences in terms of Ever FSM 6 bands between those who engaged with the newsletters and training offered by the five visited RSs compared to the 'other five' RSs: that latter attracted more subscribers from schools with lower FSM levels. Given that Ever FSM 6 is a proxy for disadvantage, the results suggest that the visited RSs had reached and engaged with a higher proportion of schools serving communities of greater levels of socioeconomic disadvantage than the 'other five' RSs.

The difference here may also be related to the above observation that the visited RSs had attracted relatively more schools from the OAs in their key RS activities. Importantly, the results here lend support to the evidence presented in this report that the difference in RSs' practices and strategies to engage schools in different contexts and of different performance profiles in the OAs, as well as the historical, geographical, and organisational or partnership conditions for their ability to engage, impact on whether their provision of support was able to 'trickle down to affect practice in the classroom' (RS1 Lead) across OA schools.

Figure 20: Proportion of those engaging with the newsletters and training offered by visited RSs and the 'other five' RSs who are from schools with Ever FSM 6 in bands 1 or 2 (0–21% Ever FSM 6)



Numbers in brackets beneath the percentage labels show the number on which the percentages are based, for example, for newsletters in 2017/2018, 36% is based on a total of 442 subscribers to the successful RSs newsletters, 36% of whom were from schools with low levels of Ever FSM 6 (in bands 1 or 2).

The commitment to support priority schools in Opportunity Areas

In late 2019, the EEF identified 2,500 priority schools as their key school improvement targets for all RSs. Interviews with the EEF's Regional Leads in 2020 suggest that the plans for the next stage of development were to move RSs towards partnership work supported by priority school funding: 'It's about a group of schools commissioning a course that's specific to their needs in their area and the plans are changing more in line with that' (EEF Regional Lead).

However, evidence from our visits to five OA RSs and telephone interviews with the key stakeholders suggest that they all had already been working with many of the EEF's priority schools in their OAs. A shared view from the interviews with RS Leads was that the EEF strategy had not resulted in much change in their engagement strategies to support targeted schools in their areas. In addition, a lack of clarity from the EEF on how they expected this strategy to be implemented from the outset was reported by the majority as having made the initial planning especially difficult:

> *'The clarity around working with priority schools: things weren't communicated very well. They weren't clear and it took a long time for us to get the information … we were drip fed information … If we're trying to anticipate work coming up, we need to build capacity in advance and you can't build capacity unless you know at least a term in advance, if not two terms' (RS4 Lead).*

Related to the above was that most of the interviewed RS Leads did not see the need to apply for the EEF's priority school funding. As the RS6 Lead put it, '[Priority schools] are the exact schools we are working with anyway as they are in [an] OA … It wouldn't feel right that we are taking additional funding for these schools when they were already being funded through the OA' (RS6 Lead). The OAs' explicit funding and intelligence support had enabled the RSs to reach schools that were deemed vulnerable before the EEF's publication of its priority list. For example, in OA4 a group of 25 priority schools were identified (the 'OA 25') and this group largely corresponded to the EEF's list. Each of the OA 25 schools was given a £1,000 training bursary and their progress had been closely monitored by the OA. The RS Lead reported that the uptake from the OA 25 schools on some RS programmes increased by 95% across the

second year. However, the DfE OA Lead was concerned that some schools in both the EEF's priority list and the LA's 'target intensive' category of schools risked being overloaded with initiatives.

RS7 had also plotted its schools, ranked them by engagement and then worked with the OA to offer targeted, funded opportunities. In OA9, the 'virtual wallet' of funding for RS training offered by the OA was differentiated partly according to local deprivation, providing an added incentive for some schools in this particular category of need. Because of its history of targeting and supporting local schools in need, RS1 Lead too felt that they were 'one step ahead' of the non-OA RSs in working with priority schools:

> *'[The focus on supporting priority schools] would be completely different for RSs working outside of OAs. This will be very new to them. They will be used to getting schools to sign up to their training programmes, and some are extremely good at that and their work is very high quality. But perhaps they aren't so much focused on approaching schools and MATs. This is what we do all the time' (RS1 Lead).*

For RS3, the reluctance to take up more priority schools from the EEF's list stemmed from the decision to focus on working intensively with a smaller number of priority schools with whom it had established sustained relationships and supporting them to move on.

> *'I will be asking to work very sustained with a small number of schools and not going for the scatter gun, get as many bums on seats as possible because I think we're definitely wanting to work with those … vulnerable schools … that need a helping hand, that need the scaffolding and leadership support' (RS3 Lead).*

Taken together, evidence suggests that a fundamental question for all RSs was the extent to which they were able to engage the OA schools that were seen as most in need of support in terms of school performance or their association with areas of particular deprivation. Supporting the schools most in need was regarded by RS Leads as a function of their designated OA-oriented role, which, by definition, had created a focus not necessarily seen in the wider, national RSN. An OA Programme Director endorsed this view:

> *'The RS has been fundamental to school improvement in the area, partly because they are an excellent school and a big player in school improvement. They had already been doing that [supporting priority schools] prior to being under the banner of being a Research School' (OA7, Programme Director).*

The challenge to reach the 'hardest-to-reach schools'

The reasons some schools chose not to engage with RS support provision are complex and multifaceted. In this report we have addressed a wide range of issues that have, individually and in combination, affected schools' decision to engage. As the DfE representative from OA3 commented, if some schools choose not to engage then the ability for the RS to support school improvement priorities in those schools is more difficult: 'If a school has decided that something is not for them, then it's difficult for [the RS] to persuade them otherwise.'

Evidence from the interviews also suggests that the 'hardest-to-reach schools' are not a homogeneous group. Some were seen as in crisis mode, 'walking the corridors and firefighting', as an OA Board Vice Chair put it. They were likely to suffer from a lack of capacity in terms of having to prioritise stabilising the school first. One headteacher in OA4, for example, explained that her school had to get onto an upward trajectory first: 'We knew we needed to get ourselves sorted and then, once we got to the point where we were ready to look externally, [the RS] was the first place we went.'

A similar observation was made by the DfE representative in OA2 who believed that 'for smaller schools that just want Ofsted off their back, their first port of call is not necessarily the Research School'. The OA had tried to address this through an improvement programme that they had developed by using NLEs to work with schools to facilitate those improvements whilst making it a condition that schools had to engage with the RS around implementation and monitoring training. Nonetheless, it was acknowledged that building trust and relationships with these schools and transforming their 'reactive' mindsets to engage with the RS to support change and improvement would take time.

The prevalence of a lack of joined-up provision of school improvement activities and programmes in the OAs was also reported as having contributed schools' lack of capacity and ability to engage. For example, the DfE Head of Delivery in OA3 commented that schools only had a certain capacity to engage:

> *'There's always a barrier to how much activity a school can receive. The fact that there is a lot of school improvement activity going on in [OA3] and the fact that in addition to that the OA have funded school improvement activity in [OA3] mean that we've got a number of programmes going into primary and*

secondary. So there is that point where schools are over done by the amount of support we're trying to give them ... so, rightly so, schools have to pick and choose what's right for them' (OA3, DfE Head of Delivery).

The DfE representative in OA10 expressed a similar comment that schools' decisions around whether to engage with the RS could be reflective of the size and structure of the schools—some of which did not have the critical capacity to engage extensively with the RS activity:

'I would say that the level of engagement is what schools in the OA can bear. Some are very small and don't have the capacity to engage in a large school improvement programme. Some of the schools will have felt that the Research School offer was valuable but still didn't want to engage with it for other reasons' (OA10, DfE Representative).

Moreover, it was believed that some schools remained inward-looking or complacent and would not release staff because, as the RS8 Lead suggested, 'they believe all the answers are inside their four walls'. This was regarded as particularly the case for some large MATs that were 'more likely to include [schools from] inside of their own Trust to support school improvement' (OA2, DfE representative). A shared view across many interviews was that some 'good' schools (judged by Ofsted) were in a comfortable position and did not see the 'real hook' (RS7 Lead) for their schools to become involved in RS activities. As the RS6 Lead put it, most of the schools that were reluctant to engage with RS6 were 'OKish, not special measures, not outstanding [schools] … But we don't have personal links with them and they were not seen to be generally outward facing.'

Looking to the future: financial sustainability in question

The sustainability of the RS itself was reported by all RS Leads to be their central concern. In some cases, there were signs of optimism that the RS could become self-sustaining. RS1, for example, suggested that there would be no redundancies if it stopped being a RS: 'We're getting to a point now where we can see this could run and run … We've got various avenues we could go down in terms of capacity … It's a good situation to be in, but we know it's not the situation across every RS' (RS1 Lead). RS5, RS7, and RS10 also expressed a cautious hope that with continued growth or more 'sensible' charging the RS might be able to support itself.

Elsewhere, the outlook was perceived to be less promising. RS2, where recruitment to courses had been challenging, could not envisage surviving unless their programmes changed 'significantly'. RS4, despite its success in creating many project and programme revenues within, and increasingly outside, the OA, expressed concerns over its financial sustainability because the income from courses charged for was 'peanuts compared with what we need to keep the team running':

'We're absolutely nowhere near being financially sustainable and I don't know what we do to remedy that … I don't see how RSs can be self-sufficient. We need that RS grant to make us financially viable. We can't run without it at the moment' (RS4 Lead).

A similar concern over financial sustainability was also commented on by the RS8 Lead:

'One of the key issues for me will be the financial planning. The reduction of the guaranteed income to £40k makes it hard for me to set aside as much time for the RS work as I currently do. As an academy we are not allowed to set an in-year deficit budget—carrying forward doesn't count. I think the role of RS Lead needs some thought as to the amount of work involved and the numbers of hours required and costed accordingly. The need to raise additional income to pay the salary of core team members such as admin and marketing is also on top of this and both give some perverse incentives. For example, the temptation to do more one-day programmes because they raise most income for least cost; the temptation to run as much as you can yourself in order to guarantee you can pay salary bills ... I don't think the EEF have thought these aspects through enough' (RS8 Lead).

As we have documented in this report, OA RSs had begun looking towards a wider audience, beyond the OA, for their future activity, especially more strategic, commissioned work rather than the CPD offers based on the EEF's evidence and guidance reports alone. It was felt that the designation of TS Hubs in February 2021 would be a particularly significant new milestone that affects the landscape of local partnerships going forward.

Looking to the future: legacy of school improvement?

In discussions with RS Leads about the impact of their work, a consistent message coming through their passion and commitment to make a real difference to teaching and learning was that they had increasingly positioned RSs as

school improvement partners (as opposed to CPD providers) in the complex and somewhat fragmented school systems. Being part of an Opportunity Area was seen as beneficial in enabling them to build a legacy of school improvement within local areas—by working closely with different school improvement partners to develop capacity, fostering school-to-school support partnerships, and providing resources and expertise for change in practice and culture in schools. Engaging system leaders, such as MAT CEOs and local authorities, was reported to be crucial in achieving this ambition.

For some, the legacy was the 'high-quality' programmes that they had developed through the OA funding that gave the RSs 'a really strong foundation … to have a legacy of impact' (TS CEO). Accountability associated with the OA funding had meant that the RS programmes were often evaluated and quality assured. Others took professional pride in the legacy of reported change in culture, thinking, and evidence-oriented practice in many schools that they had worked with and supported:

> *'The OA will go, the funding will go. How we do stuff and the culture of how we do things and why has to remain. That's all we've got as a legacy' (OA4 School Improvement Lead).*

For example, in the view of the DfE representative in OA9, the academy system created a sense of non-partnership working but the OA had brought people together in a way that did not happen before. Even in the early phases of planning and development, RS9 had started to envisage and prioritise 'legacy rather than sustainability' (RS9 Lead). 'Legacy' was described as having enabled some schools in the area to gain the knowledge, skills and capacity to engage with research and use it to inform and improve their practice. The 'evidence advocates' could be the physical embodiment of that role, and 'their energy could be magnets for others':

> *'It's [the RS model] a positive initiative and teachers in [the OA] would be poorer without the evidence base. This needs to go beyond their own experience … We're developing professional capacity and teachers' knowledge base, then as a consequence pupil results will raise. But it's complex' (RS9 Lead).*

For most interviewed EEF regional leads, the RS role in supporting school improvement was about improving the quality and practice of teaching and learning. For some, the RS model was believed to 'have the best chance of anything I have seen in education over the last decade to improve teaching and learning'. 'Using evidence does not guarantee to make things change in school, but we know that schools need help accessing the evidence and need support in implementing, evaluating, and testing it' (Regional Lead 10). Developing the ways in which RSs understood and exemplified evidence was 'always a continuing learning journey … as the evidence base evolves and the context evolves' (Regional Lead 4). Others emphasised that the potential of the RS model to improve teaching and learning resided in its supportive way of working in partnership and that the shift in the model to focus more on bespoke support for targeted schools:

> *'We were just another provider in the marketplace that was providing training to schools that they could already access. Moving to a more partnership way of working and providing bespoke support means that we can better meet the needs of schools rather than them just rocking up to a training session' (Regional Lead 9).*

There was also a more cautious view about the EEF's ability to influence the local energy, politics, and decisions for improvement and what the RS model could achieve within such contexts.

> *'You've got to think about our ability to influence that [schools receiving the training and support that they needed]. We [the EEF] are not—and the Research School Network is not—a school improvement vehicle for the country. This is a really classic example of … what our job really is to try and influence. Well, it's not our job, what we do is try and influence decision-making and school improvement decisions to try and get them to reflect their evidence base.*
>
> *[…]*
>
> *'In my role supporting the OAs, I had a conversation with [OA Lead] about that not being ideal in terms of what the evidence around implementation is and the reality of schools being able to pick things. So what they do is they don't have a good enough understanding of what their issues really are and the disconnect between the issues that are presented and the actual problems, the classic stuff in the literature around school improvement. So, we can play a challenged role. But ultimately we can't decide, and we don't decide and we can't make up the way in which the school improvement is structured and the infrastructure around that' (Regional Lead 3).*

However, the experiences of the RSs that we have documented in this report show that some had managed to navigate through local politics and partnerships and be trusted to play an influential role in supporting the OA's strategic decision-making about improvement priorities and approaches.

Most RS Leads' professional enthusiasm and passion about making a real difference to the standards and achievements of local schools, local teachers, and local pupils came across strongly in the data. Nonetheless, irrespective of such passion and commitment, some struggled to be recognised as an integral part of the systemic improvement efforts in their OAs. In those areas, a commonly reported view amongst the interviewed key stakeholders was that the ways in which RSs were expected to support the OAs should have been 'bottomed out'—'it's not clear what the EEF's mission for the Research School model in an Opportunity Area is and how that compares to … the OA's vision for the role of the Research School' (OA7, DfE representative). It was perhaps, then, no surprise that the perceived roles of the RS activity tended to be rather limited in these areas in that the RS was regarded as no more than 'a local hub of the collection of evidence-based practice' and 'a local model for dissemination' (OA10, DfE representative).

Reflecting on the key lessons learned, an OA5 board member commented that the EEF needed to rethink the dilemma inherited in the OA RS model overall. Given the political reality embedded in the place-based model of school improvement, if the RSs were to change and transform the culture and practice of teaching and learning, the RS model needed to be better aligned with, and strategically placed within, a package of evidence-informed, clearly-defined school improvement priorities in the OAs from the outset.

In sum, as we have documented throughout the report, although the RSs' commitment and capacity to act as change agents for school improvement mattered, the nature and strength of the essential human, technical, and social supports and conditions in the OAs was equally critical for the realisation of their commitment. In some areas, where the RS was being cast more as a CPD provider, the likelihood for them to connect with the local expertise and capacity and, through this, to support the area level effort to improve its systems of schools appeared to be low. Therefore, in terms of promise of sustainability, there is substantial variation across OA RSs.

Especially important in this regard was how the EEF conceptually positions and operationally supports the roles of RSs within the OAs and, by extension, within a school system that is rarely short of centrally driven reforms into transforming the structural and social foundations of education. Interviews with the RS Leads and OA key stakeholders suggest that much clarity is needed around the extent to which, and in what ways, the EEF would direct its energy and focus from being an *advocate of evidence* on what works to an *advocate for school improvement* through RS activity. What added to the complications was that people used the term 'school improvement' to refer to many different things, so the reported confusion around what the EEF's approach to supporting school improvement actually was seemed almost inevitable.

Conclusions and observations

Key findings

This report details the results of a mixed methods evaluation of the extent to which, and in what ways, the ten RSs in OAs had supported schools to enact evidence-based practices in their classrooms. The three-year longitudinal data set provided a time frame and different lenses (qualitative and quantitative evidence) to examine the structural and cultural conditions that had enabled or constrained the intended roles and impact of RS activities in the place-based model of school improvement. This formative evaluation was centred upon three research questions.

Research Question 1: What are the structural and cultural barriers to, and conditions for, engaging schools with evidence-based practices in the OAs?

1.1 The combined evidence from the surveys and interviews in this evaluation pointed to six essential structural, cultural and organisational conditions (outlined below) that that were most commonly and frequently cited as being instrumental in enabling or constraining schools to be effectively engaged with RS activity and use their provision of support as resources to achieve the intended improvement in teaching and learning.

1.2 Whilst the OA's structural and cultural conditions were found to have affected the RSs' ability and capacity to engage local schools for change and improvement, they had influenced concomitantly how the local school systems understood and responded to the RS provision. The evidence attests that these conditions have strong interactions with one another and the consequences of this interactivity shaped the vision and the professional and social capacity of the local systems for change, innovation, and improvement. The important implications for the local schools were that they were then *pulled* or *pushed* through the condition of funding, for example, to take up the RSs' offers of support.

1.3 Three structural conditions were found to be instrumental in shaping the major opportunities and barriers that were available to RSs in geographically defined OAs. By extension, they also had a profound impact on the processes and operations that RSs had developed to seek engagement from and instigate change in local schools:

1.3.1 Effective and strategic coordination of targeted support for improvement within the OA was perceived by interviewed RS Leads as an especially important condition for a place-based approach to improvement. Such coordination was critical in opening up channels of communication between varied local school communities and enabling RSs to align their provision and expertise with the overall improvement efforts within the OA.

1.3.1.1 However, in a fragmented local landscape with perceived saturation of too many disparate projects, initiatives, and interventions, achieving local cohesion in the OAs was seen by most RSs as a major challenge. More often, though, to avoid their offer 'stepping on toes', RSs found themselves having to negotiate local school improvement networks without much structural support.

1.3.1.2 Where local authorities still had influence, they were useful and supportive partners for RSs to navigate in a complicated and, at times, politically sensitive local landscape.

1.3.2 RSs' strategic position within the OA Partnership Board influenced profoundly the extent to which, and in what ways, their input was intrinsic to the OA's improvement offer to schools. The ten RSs were situated on a continuum of OA strategic engagement. This ranged from those at the heart of, and indeed *driving*, OA strategic decision-making to those with less influence but a harmonious working relationship as another CPD provider in the marketplace through to those working much more loosely with the OA (especially when scepticism about them as a geographical outsider to the OA remained strong).

1.3.3 Building the local credibility of the RS brand required the backing of the EEF, especially at the beginning of the journey, and the professional commitment and expertise of the professionals who led the RS work. Although the EEF's 'brand' was still very much valued as a 'door opener', adapting its national, standardised guidance reports and programmes into tailored local offers, informed by detailed local knowledge, was reported to be important and necessary in securing schools' trust in the local credibility of the RSs and their identity and expertise.

1.4 Two cultural conditions influenced, positively or negatively, the breadth and depth of local schools' engagement with the RS activity.

1.4.1 School leaders' appetite for improving evidence-informed practice and motivation to change were found to be a key condition that had either encouraged or inhibited them from taking up the RSs' provision of support.

1.4.2 In terms of local social capital, the history, breadth, and depth of the relationships and interconnections between schools and other key stakeholders within each OA were essential ingredients of a place-based social system. These connections influenced the systemic engagement and uptake of RSs' training and support and, by extension, the extent to which RSs were able to embed evidence-informed practice in defined geographical areas. Put simply, where positive, these social relationships and ties could provide valuable social resources for change.

1.5 One organisational condition was identified: sustained and effective take-up of the RS provision that can result in organisational change and improvement is found to be highly unlikely to occur in the absence of strong leadership at the school level.

1.6 The SEM analysis in particular shows that high-quality RS provision acted as an important mediator of change. However, *initiating* and *sustaining* engagement with the provision—and, importantly, orchestrating their input effectively in school improvement processes to ensure its meaningful enactment in context—depended upon local leadership's sustained commitment to foster professional learning and development in their schools.

1.6.1 Three interconnected key findings need to be highlighted here:

1) First, engaging with RS activities was perceived by survey respondents as a high-quality professional learning and development opportunity that school leaders purposefully introduced and embedded in school improvement processes to enhance the *existing* in-school support for evidence-based culture and practice.

2) Second, RS inputs and support were found to have had *direct* effects on improving *individuals'* ability and understanding, but *not* on in-school research culture or change in practice.

3) Third, improved in-school research-use culture was found to have significant mediation effects in enabling change in staff's practice and perceptions of greater pupil engagement and better learning outcomes. Leadership support for professional learning and support was the prerequisite to change in research-use culture and, subsequently, in practice.

Research Question 2: How do RSs embed evidence-based practices and cultures in their own school and in the local school systems in the OAs?

2.1 *Within RS*. Becoming a RS had been used by RS leaders as an opportunity to revitalise the professional capacity and culture for evidence-based practice in their own schools (or groups of schools). A key common leadership strategy was to involve the whole school community in the RS work and use the opportunity to challenge their thinking and practice and create the collective capacity required to align the outward-facing RS work with the improvement needs of the RS.

2.2 *Within RS partnerships/networks*. Where possible, building the capacity from within their MAT, TSA, or other close networks provided the RSs with the ready-made intellectual and social capital and infrastructure for them to grow and expand the knowledge, skills, and expertise required to develop their USP and a sustainable model of delivery. Increasing the supply of human, intellectual, and social resources from across their organisational networks—both within and beyond the geographical boundaries of an OA—and then harnessing them into complementary and coherent 'systemic RS capacity' was regarded by RS Leads as a key to success.

2.3 *Drawing upon relational and organisational resources within local school systems.* Almost all RSs drew on a complex network of relationships locally that very often predated or existed alongside relationships developed specifically for RS purposes. These relationships and connections were used as leverage to RSs' advantage because they provided the necessary relational and organisational resources that enabled the RSs to build *new* capacities and expand their reach and engagement *up* and *down* the local school systems as well as *out* into the larger community outside the OAs.

2.4 *Shifting to bespoke, place-focused projects within local systems*. Our visits to five RSs in the third year pointed to a tiered provision of programmes and support. This ranged from light touch provision of one-off information-sharing events to three-day CPD and training that required more sustained commitment to engage through to funded bespoke programmes that intended to bring about change in practice in targeted schools in specific localities. For those RSs that were proactively looking for opportunities to branch out, providing bespoke, place-

focused programmes was regarded as part of the evolution of the RS strategy, with a view to being sustainable in future.

2.5 *Change agents within the locality*. There is strong evidence that all OA RSs had invested an immense amount of time and energy to build the capacities, expertise, and relationships required for them to play a leading or supporting role in the place-based model for school improvement in OAs. However, the place-based model for improvement was unlikely to succeed in effecting change in schools and classrooms in the absence of *integrated and coherent strategic planning and actions from other change agents in the systems*—including the EEF, their Regional Leads as the mediating brokers of local intelligence, knowledge, and partnerships, and local school leaders as catalysts for change.

2.6 *Role of regional leads*. The EEF's Regional Leads were reported to have operated as facilitators in negotiations and discussions with local authorities, MATs, and groups of schools that helped RSs to diversify, expand, and align their work with the school improvement partners within, but primarily outside, the OAs. Evidence from the telephone interviews with OA key stakeholders also pointed to the limited brokerage role that the Regional Leads had played *within* the OAs.

Research Question 3: What is the overall impact of RS work on school improvement processes and outcomes at school and area level?

3.1 *Impact at school level.* Nearly three-quarters of respondents to the follow-up RSN survey reported that they had made a change to their practice as a result of their engagement with a RS. Amongst these, senior leaders were more likely to report change than those who were not. Evidence from the CPD pro forma surveys suggests that reported changes centred on the 'use of the research-based evidence to inform most decisions about professional practice' and 'areas of professional beliefs and behaviours'.

3.2 *Reach and engagement within and outside OAs*. Although the ten OA RSs had expanded their reach to schools substantially through RSN e-newsletters and CPD and training programmes over the period of 2017–2020, proportionally, the majority of the engaged schools tended to be from outside the OAs (although this varied across different OAs).

3.2.1 Overall, only around a third of schools across the ten OAs subscribed to RS e-newsletters and most subscribers were not necessarily engaging with the content. Reach via e-newsletters was by no means extensive within the OAs.

3.2.2 RSs' formal CPD and training programmes attracted participation from more schools from outside the OAs than from within. Although, proportionally, an increasing number of schools known to be located within OAs had participated in the formal CPD and training over the evaluation period, they accounted for a decreasing proportion of all schools participating in RS CPD and training programmes. By the final year, they accounted for under half of all participating schools. In comparison, the proportion of schools from outside of the OAs amongst all participating schools had increased at a greater pace each year.

3.2.3 The proportion of secondary schools from outside OAs engaging with the communication and training activities was considerably higher than the national distribution of secondary schools and these non-OA secondary schools tended to be higher-performing schools. The risk of the 'Matthew Effect' was raised by some RS Leads who questioned whether the RS model was just making the good ones better and whether the RSs were reaching the schools that most needed to engage.

3.2.4 CPD and training programmes attracted proportionately more schools serving socioeconomically disadvantaged student intakes from the ten OAs compared to the overall school profiles within the OAs (and nationally).

3.3 *The promise of change in evidence-informed culture in OAs*. Evidence from the interviews suggests that the provision of RSs' CPD and training was perceived to have played a crucial role in bringing about a discernible shift to a more evidence-informed culture in many participating schools. However, for school leaders who were convinced that their schools had already established a culture of evidence-based practice before engaging with the RSs, their reported RS impact tended to be more mixed.

3.4 *The promise of improving collaborations in OAs*. Although evidence from the interviews shows that the RS identity received mixed views from some key stakeholders, most were positive about the important role that the RSs had played in challenging local insularity and harnessing local school improvement partnerships and collaborations.

3.5 *The commitment to support OAs' priority schools.* The OAs' explicit funding and intelligence support had enabled the RSs to reach and support schools that were deemed vulnerable before the EEF's publication of its list of priority schools. Supporting the schools most in need was regarded by RS Leads as a key function of their designated role in the OA. Such a function, however, had created a focus not necessarily seen in the national RSN. The take-up of the EEF's priority school funding had been rather limited amongst OA RSs.

3.6 *Looking to the future—the legacy of school improvement.* Almost all OA RSs had begun looking towards a wider audience, beyond the OA, for their future activity, especially more strategic, commissioned work rather than the CPD offers based on the EEF's evidence and guidance reports alone.

3.6.1 Being part of an Opportunity Area was seen as beneficial in enabling them to build a legacy of school improvement within the local areas. This was achieved by working closely with different school improvement partners to develop capacity, fostering school-to-school support partnerships, and providing resources and expertise for change in practice and culture in schools.

3.6.2 Engaging system leaders, such as MAT CEOs and local authorities, was reported to be crucial in achieving this ambition.

What we have learned

This evaluation provided a unique opportunity to investigate the journey of change that the ten OA RSs have experienced over the first three years. These RSs represented the EEF's sustained efforts to scale up and embed its evidence for improved teaching and learning across the school system. As we have outlined at the outset of this report, these OA RSs had a distinctive and unique focus on improving practice in geographically defined OAs. We have learned four key lessons about this place-based approach for change.

1. Leadership comes first.

First, we have learned that school leadership comes first amongst the six structural, cultural, and organisational conditions that influence the take-up, enactment, and impact of RS activity. The quality and professional capability of leadership defines the extent to which individual schools are to be engaged with externally initiated improvement effort and the ways in which the new learning is to be aligned with, as well as advance, the existing culture and capacity for change and sustained improvement. This finding reaffirms what we have learned from our evaluation of the first five RSs (Gu et al., 2020). It also confirms what we already know from the leadership literature: that school leaders' ability to drive professional development and improvement in their own schools (leader self-efficacy) and to develop sustained collaboration with other leaders and schools (leader collective efficacy) shapes the base capacity to be engaged with improvement initiatives (such as the RS activity) within local school systems and 'the *new capacities* that must be developed to sustain and extend these initial efforts over time' (Bryk et al, 2010, p.220, italics in original; also Leithwood and Louis, 2012).

Empirical results in this evaluation attest strongly to RS Leaders' recognition of the significant role of leadership in shaping local schools' effective engagement with the RS activity. However, the evidence on how such recognition had been integrated and sustained in the EEF's or OAs' system-wide strategies to transform the cultural mindset and practice about teaching and learning across different schools varied considerably. If the RSs are expected to continue to act as *a* change agent in the place-based model for improvement, the success and sustainability of the model lies in a sustained recognition of the centrality of leadership and a coherent and sharp focus on how better to improve the *base* leadership and organisational capacity for improvement within the area. Otherwise, the Matthew Effect that we identified in this evaluation on scaling-up campaigns may continue to manifest itself and adds to concerns about systemic and structural inequality in educational improvement.

2. Scaling-up changes in practice must take into account local context.

Second, we have learned that top-down initiatives for improvement need to respect and consider local knowledge, relationships, and skills. At the wider system level, each structural and cultural condition identified in this evaluation mattered in its own right; together, they create complex local contexts that must be taken into account. For system-wide improvement campaigns, a key challenge is to provide sufficiently bespoke support to vulnerable schools that might lack the requisite capacity and experience to understand and enact promising interventions in ways that impact on learning. Our analysis in this evaluation identified that to be successful, RS support for scaling-up of promising practice had to be based on individual and bespoke support to develop staff capacity, build an ethos of evidence-based improvement, and help leadership to support new approaches; and in doing so, take account of schools' context, conditions—including other support being provided—and capacity.

Similarly, at school level, the organisational condition shapes the professional, material, and social base for change to take root. The reported concerns to engage the hard-to-reach schools in OA-wide improvement initiatives are not new

and the reasons for these are complex. The decades of research on school improvement reminds us that there are distinctive phases of school turnaround and school improvement (Day et al., 2011; Day, Gu and Sammons, 2016) and that 'Each of these phases is dependent on school leaders' ability to create, nurture, and sustain the rational, emotional, organizational, and community conditions that will support and drive change forward' (Leithwood, Harris and Strauss, 2010, p.254). The socioeconomic disadvantage of pupil intake is *a constant challenge to be managed* as schools advance into different phases of improvement. An important implication for this evaluation is that any external change effort that aims to transform teachers' practice but fails to consider the internal conditions—the capacity and capabilities of an individual school, which determine not only what but also how teachers learn and teach—is likely to be short-lived.

The question, going forward, is perhaps whether holding up certain RSs as models—on the basis that their approach might be replicated—is appropriate or whether local conditions are so different that this is likely to be counter-productive. Rather than replication, an alternative aim would be tailored support for specific school improvement goals for local schools recognising context and capacity. This is especially relevant given the recognition in this evaluation and our previous evaluation of the first five RSs (Gu et al., 2020) that changing school cultures towards evidence-based practice is not a quick-fix solution to transform practice. Rather, it is inherently a longer-term approach to (re)shape new cultures and mindsets about how to best support pupil learning and outcomes. For vulnerable schools that are in the very early phases of improvement, the focus of strategies and actions must be about fixing the 'basics' and creating the technical and relational foundations to bring a halt to under-performance rather than developing, enriching, or renewing professional rigour (Day, Gu and Sammons, 2016).

3. Social resources are significant.

Third, we have learned about the significance of social resources in shaping the landscape of improvements in this place-based model for change. Although the RSs' commitment and capacity to act as change agents for school improvement mattered, the nature and strength of the essential professional, material and social supports, and conditions in the OAs was equally critical for the realisation of their commitment. Amongst these, local schools' capacity and appetite for collaboration could make or break RSs' effort for engagement and improvement. In the evaluation of the first five RSs, we concluded that the old lessons that we observed in the past about the politics, the power, and the relationships would continue to play a fundamental role in facilitating or challenging the sustainability of the partnerships, delivery, and impact in the RS work (for example Gu et al., 2016 and 2019). Evidence from this evaluation adds that such local social politics are the realities of change that require systems-oriented improvement effort to consider and manage. Any effort to reshape and reorganise structural and systemic conditions for improvements would be of little value unless they seek to *build on* as well as *strengthen* the relational resources in the areas of interest and use them as social foundations for deep engagement and change over time.

4. The role of the EEF needs to be made clear.

Last but not least, we have learned that much clarity is needed around the role of the EEF in the school improvement agendas. For some stakeholders, it was unclear to what extent the EEF had directed its energy and focus from 'advocate of evidence on what works' to 'advocate of school improvement' through the RS activity. The endeavour to influence and improve the practice and outcomes of the 2,500 priority schools exemplified its attempted shift in focus. However, as our data shows, the term 'school improvement' was used by different parties to mean quite different things, which further complicated matters. Given this, the reported confusion around the EEF's approach to supporting school improvement within OAs seemed almost inevitable. The clarity of communication about the EEF's role in school improvement is particularly important in an OA area which, by its nature, will have seen an overload of other initiatives and interventions.

Limitations

The limitations of this evaluation are summarised as follows:

- We would have liked to collect more interview data from individuals and schools that chose not to be engaged with the OA RS activity to identify reasons for non-engagement and their implications for the take-up of this scale-up model; however, these non-engaged schools were harder to reach by the evaluation, given their non-engagement.
- The data collected during the evaluation was limited due to poor response rates to the surveys and the self-selecting nature of the participants in both the surveys and interviews, which may mean we have captured information from the subset of those who are engaged with RSs who are particularly positive about the role of research evidence in teaching practice. This is a common problem affecting evaluations where, of course, participation is voluntary.
- It would have helped to develop more nuanced multilevel and multi-perspective measurements to capture evidence of impact (or lack of impact) of the different strands of RS activity on change in behaviour and culture in individual schools.

- It would also be useful to have a more in-depth research design that allowed the evaluation to capture the processes of implementation of the different strands of RS activity at individual, school, and OA levels.

Future research and publications

It is important that future research on scaling-up school improvement initiatives considers a research design that is able to capture the variation and complexity of contexts and, importantly, the ways in which they impact on the quality of implementation processes and variability in outcomes. Drawing on Bryk's (2015) critique of the 'what works' approach, perhaps more productive questions to pursue are:

- What scale-up models are more likely to work, and where?
- For which schools and pupil populations?
- Under what conditions?

The findings of this report suggest that using RSs as knowledge and practice brokers to encourage schools to take up evidence-based interventions has promise. There would be merit in evaluating RSs' latest place-based cluster/hub models in the future to explore their impact on the sustainability and degree of school engagement with research use and the resulting influence on various school improvement goals. The evaluation team intends to publish academic papers based on this work in journals such as the *Oxford Review of Education* and *British Educational Research Journal*.

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Appendix 1: Data protection and privacy statements

Throughout the project, wherever data were collected from participants, an appropriate data protection statement was provided, the statements used are presented below.

Registration forms for CPD events, suggested wording for RSs to use:

The information provided here will be shared with the research team at University College London, which has been commissioned by the Education Endowment Foundation to independently evaluate the Research Schools Network programme, and will treat all the data in strict confidence.

Statement used on the Newsletter sign-up form for new subscribers

I understand that by signing up to receive the Research School newsletter my contact details will be kept by the Research School, EEF and Mailchimp for the purpose of delivering these emails and I agree and accept the privacy terms.

☐ I agree *

Can we share your details with the University College London? They will use this data to evaluate whether the Research Schools Network is being successful in meeting its goal of putting research evidence into practice in classrooms. They may contact you as part of the evaluation.

☑ I agree

Subscribe

Research Schools Network surveys:

Your answers will be treated in the strictest confidence and all findings will be anonymised so that responses cannot be traced back to individuals or their schools.

CPD pro forma surveys:

The survey will be analysed independently by the University of Nottingham / University College London. Please be assured that your answers will be treated anonymously and held with the highest degree of confidentiality and that and no individual school or staff member will be identified in any analysis or reporting.

Privacy statements for interviews and case studies

All the data obtained will be coded anonymously, be strictly confidential and non-accessible to individuals outside the research team. All research data will be recorded in a durable form with appropriate references. They will be stored securely in their original form, and retained intact for a period of ten years after the study has been completed.

Appendix 2: Management of the RSN database

Composition of the database The databases comprised information as summarised below:

Newsletters
This section of the database was populated with the distribution of the e-newsletters which was conducted by IEE (and subsequently EEF) on behalf of the RSs using the Campaign Monitor mailing platform (but switching to the Mail Chimp platform in September 2019 when EEF took on the management of the newsletters). Twenty-four newsletters were sent out during the course of the evaluation for each of the ten RSs (although not every RS sent a newsletter every time) and IEE sent the Evaluation Team the mailing lists for each newsletter alongside information on the number of opens and click-throughs (i.e. how many clickable links within the email were clicked on) for each recipient (where collected). When the newsletter distribution moved to EEF and the Mail Chimp platform in September 2019, it was no longer possible to track engagement in the form of open and clicks at individual subscriber level. Instead, only summary totals for each newsletter were provided. At the point of signing up to a newsletter, subscribers were informed that their data would be shared with University College London for the purposes of this evaluation, and only those who agreed to this had their data shared with the evaluation team. These data were imported into the databases and, where possible, school URNs (six-digit unique reference numbers assigned to each school and used for school identification purposes by bodies such as the DfE and Ofsted) were added against each subscriber from a school to identify which school they represented.

Training
Information on attendees at training courses and events was requested directly from the RSs. At the beginning of each academic year, the RSs sent the evaluation team details of their planned training and CPD events and then, nearer the time, they were asked to send lists of attendees, ideally in the form of the registration form as provided by the Evaluation Team which included a statement on data sharing. The information from these registration lists was then imported into the databases and URNs were added wherever it was possible to identify which school the attendee was from.

Data management Effort was expended on cleaning the data to maximise its quality.

Challenges There were some issues and challenges imposed by the methods of data collection used to populate the databases.

First, there were often difficulties in establishing which school a newsletter subscriber was from, especially where they did not use a school email address (for example, where they provided a personal email address for the newsletters to be sent to). Wherever possible the evaluation team used other information from the subscribers' sign-up forms to establish whether they were from a school and if so, which school (e.g. the school postcode, or the domain from their email address where a school email had been provided) but it was not always possible to establish this.

Second, there were problems with gathering full and standardised data on attendees at training events. The UCL Team provided a standard registration form for RSs to use which collected the data that was needed to facilitate the database analysis. However, many RSs were already using their own registration forms or systems and had not incorporated all of the fields required into this (e.g. participants' role in school). The extent of missing data meant that analyses based on the fields affected was not possible. There were also similar issues with identifying which school individual participants were from where full information was not provided, and as discussed in relation to the newsletter subscribers above, this often required a great deal of investigation based on email domains, and postcodes/towns, as well as reference to individual school websites to establish whether named staff members worked at the schools.

Data cleaning The first strategy was to restructure the data. A primary question for this analysis was whether individuals were engaging in multiple types of events, and the degree of 'transferral' between types of events, and indeed between research schools. As such, it was critical to identify whether one individual appeared in several of the spreadsheets. However, due to the different ways in which RSs recorded attendance at conferences, twilights and training, this was very challenging. Sometimes email addresses were recorded only, sometimes a first name and last name, and sometimes just a last name. Therefore, the bulk of the data management work was expended on identifying individuals recorded in different ways across the spreadsheets. Records were identified as being the same individual according to the following rules:

- Having the same email address
- Having the same first name, last name and organisation
- Having the same last name, organisation and role

The data was also compared manually to identify people who were marked as different under these rules but only due to a miss-spelling or typographical error.

Deduping data is the logical equivalent to re-establishing the relational architecture of a database, and therefore the decision was taken that during the deduping the database the relational architecture should be re-created. The databases were consolidated and then separated into four related tables with a further three lookup tables. The purpose of lookup tables is to reduce the size of the database by deduping at a granular scale. The relational database was then supplemented by tables of DfE data comprising Schools Census, Absence, Key Stage 2 and Key Stage 4 results, as well as data about the schools, such as the type of school, location, and size.

Appendix 3: RSN Survey Questionnaires

The baseline and follow-up survey questionnaires are reproduced below. Please note that both surveys were developed on the Bristol Online Surveys platform. The questions asked are listed below with any routing information presented in blue text. However, this does not represent the final format and look of the online survey.

Note that because the distribution list was based largely on subscribers to the RS newsletters, the survey was sent to both school staff and non-school staff who had subscribed (e.g. local authority officers, governors, parents, students, researchers, and academics). The first few questions in the survey were intended for all respondents, regardless of whether they work in a school or not, but the bulk of the questions about barriers and enablers, changes to practice, outcomes and impacts were asked only to those respondents who indicated at the beginning of the survey that they are members of staff in a school.

Baseline RSN Survey

Introduction

Thank you very much for taking part in this important research. It will gather **much-needed evidence** to help develop successful approaches for promoting research use and evidence-based practice in schools.

The survey should take 10-15 minutes to complete. Your answers will be treated in the **strictest confidence** and all findings will be anonymised so that responses cannot be traced back to individuals or their schools.

If you have any queries about this survey, please contact <<project administrator details>>

Please click on '>>' below to begin the survey.

A: About you

Q1 Do you currently work in a school?

- ❍ Yes **>> go to Q2**
- ❍ No **>> go to Q3**

Q2a Are you..? (Please select all that apply)

- ❍ Classroom teacher
- ❍ Middle leadership responsibility
- ❍ Senior leadership responsibility
- ❍ Teaching assistant
- ❍ Other, please specify _____

Q2b How long have you worked in schools? (Please enter the number of years to the nearest whole number)

[ ]

Q2c Is your current school in a new Opportunity Area?

- ❍ Yes
- ❍ No
- ❍ Don't know.

Only those who answered 'no' to Q1 are asked this question

Q3 Which of the following best describes your role?

Please tick the one that best fits the role in which you engaged with the Research School(s)

- ❍ A researcher / part of a research organisation
- ❍ A public sector organisation / body
- ❍ A private company / organisation
- ❍ A student
- ❍ A parent
- ❍ Other, please specify _____

B: Your engagement with the Research Schools Network

Q4 Which of the Research Schools have you engaged with (e.g. by receiving communications from them, participating in training/CPD events, etc.)? (Please select all that apply)

- ❍ Blackpool Research School at St Mary's Catholic Academy
- ❍ Bradford Research School at Dixons Academies
- ❍ Derby Research School at Wyndham Primary
- ❍ Doncaster Research School by Partners in Learning
- ❍ East Cambridgeshire and Fenlands Research School at Littleport Community Primary School
- ❍ Hastings Research School at Ark Blacklands Primary Academy
- ❍ Norwich Research School at Notre Dame High School
- ❍ North Yorkshire Coast Research School by Esk Valley Alliance
- ❍ Oldham Research School by The Greetland Academy
- ❍ Stoke-on-Trent Research School by The Keele and North Staffordshire Alliance
- ❍ West Somerset Research School at The Blue School, Wells
- ❍ Another Research School (please specify):
- ❍ Don't know

Q5 Which of the following types of activities offered by the Research School have you participated in? (Please select any that apply)

- ❍ Communications (e.g. signed up to the e-newsletter, followed on Twitter, attended a conference, etc.)
- ❍ Training (e.g. attended a training course or CPD event or completed online training offered by the Research School)
- ❍ Innovation (e.g. received support from the Research School to develop innovative ways of improving teaching and learning)
- ❍ Other, please specify _____

Q6a Which of the following motivated you to engage with the Research School(s)? (Please tick **<u>up to three</u>** most important motivations)

- ❍ I was interested in finding out more about Research Schools
- ❍ I was encouraged to by senior leaders / managers in my workplace
- ❍ I work in a Research School
- ❍ I wanted to learn more about research evidence
- ❍ I wanted to learn more about how to make evidence-informed decisions about my/our practice
- ❍ I wanted to reflect on and improve my/our practice through action research
- ❍ I wanted to share practice and resources
- ❍ I wanted to improve my/our effectiveness as a teacher/teachers
- ❍ I wanted to improve my leadership of teaching and learning
- ❍ I wanted to learn about using research for improvement in practice from schools with credibility/ experience in this area

- ❍ I read about the Opportunity Areas which included information about Research Schools
- ❍ I wanted to know how the Research School supports local schools to improve
- ❍ I was encouraged by school improvement groups (or partnerships) in the Opportunity Area to engage with the Research School
- ❍ Other please specify: _____

Q6b How did you make the *initial* contact and become engaged with the Research School(s)? (Please select one only)

- ❍ I signed up to the Research School newsletter
- ❍ Our school signed me up to the Research School newsletter
- ❍ I contacted the Research School directly
- ❍ Our school sent me on a training course by the Research School
- ❍ I attended events brokered by the local authority (or Opportunity Area school improvement groups/boards)
- ❍ I contacted the local authority who referred me to the Research School(s)
- ❍ Other (please specify):
- ❍ Not applicable

(Anyone who indicated 'no' in response to Q1 (i.e. said that they do not work in a school), skips to the end of the survey after this question)

Q7 Please indicate the extent to which you agree that senior leaders (SLT) in your school do the following:

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A
Senior leaders in my school promote evidence-based approaches to teaching.	❍	❍	❍	❍	❍
There are incentives in my school which encourage all staff to consider new ideas for their professional practice.	❍	❍	❍	❍	❍
Innovations introduced to my school by senior leaders often result in competing demands and fragmentation of effort.	❍	❍	❍	❍	❍
Senior leaders in my school make effective use of wider networks for school improvement.	❍	❍	❍	❍	❍
Senior leaders in my school demonstrate high expectations for pupil achievement in everyday activities.	❍	❍	❍	❍	❍
School leaders are actively involved in promoting professional learning and development opportunities for staff.	❍	❍	❍	❍	❍
There is a clear sense of shared purpose in my school.	❍	❍	❍	❍	❍

Q8 Please indicate the extent to which the following have acted as either enablers or barriers to you engaging with the Research School(s) activities:

	A major enabler	A minor enabler	No influence	A minor barrier	A major barrier	Not applicable
My own beliefs /opinions about the value of evidence based practice	❍	❍	❍	❍	❍	❍
My views about the trustworthiness of the evidence base	❍	❍	❍	❍	❍	❍
The time and resources available to me	❍	❍	❍	❍	❍	❍
The accessibility of relevant research evidence	❍	❍	❍	❍	❍	❍

	A major enabler	A minor enabler	No influence	A minor barrier	A major barrier	Not applicable
My understanding of how to use research evidence to improve my own practice	❍	❍	❍	❍	❍	❍
The quality of inputs or support from the Research School(s)	❍	❍	❍	❍	❍	❍
The relevance of inputs or support from the Research School(s)	❍	❍	❍	❍	❍	❍
Support from SLT in using research evidence to improve teaching	❍	❍	❍	❍	❍	❍
Support from other colleagues (non-SLT) in my school in using research evidence to improve teaching	❍	❍	❍	❍	❍	❍
Support from colleagues in other schools in using research evidence to improve teaching	❍	❍	❍	❍	❍	❍
Encouragement from school improvement groups (or partnerships) in the Opportunity Area	❍	❍	❍	❍	❍	❍
Funding in the Opportunity Area to enable people to attend Research School training/events	❍	❍	❍	❍	❍	❍
Research School offering as part of the school improvement initiatives in the Opportunity Area	❍	❍	❍	❍	❍	❍
Other (please specify): _____	❍	❍	❍	❍	❍	❍

C: The impact of your engagement with the Research Schools Network

Q9 Please indicate whether you have noticed any changes in the following areas as a result of your and/or your colleagues' engagement with the Research School(s):

	A lot	Some	No/little change	Too early to say	Not applicable
My improved understanding about the value of evidence based practice	❍	❍	❍	❍	❍
My improved ability to access relevant research evidence	❍	❍	❍	❍	❍
My improved understanding of how to use research evidence to improve my own practice	❍	❍	❍	❍	❍
Improved support from SLT in using research evidence to improve teaching and learning	❍	❍	❍	❍	❍
Greater use of research evidence by staff to improve teaching and learning in my school	❍	❍	❍	❍	❍
Working more collaboratively with colleagues in other schools	❍	❍	❍	❍	❍
More evidence based culture in my school	❍	❍	❍	❍	❍
More capacity and skills in my school to use evidence based practice	❍	❍	❍	❍	❍
Greater pupil engagement in learning	❍	❍	❍	❍	❍
Better pupil learning outcomes	❍	❍	❍	❍	❍

Q10a So far, have you implemented any changes to your teaching practice as a result of your engagement with the Research School(s)?

- ❍ Yes, I have implemented one or more changes **>> go to Q10b**
- ❍ No, but I am planning to implement change **>> go to Q10c**
- ❍ No, and I am not currently planning to

Only those who answer 'yes, I have implemented one or more changes' to Q10a are asked Q10b

Q10b Please detail below up to three changes you have made as a result of your engagement with the Research School(s) and against each, please indicate which type of activity contributed to this change, and what the impact of your change has been.

Briefly describe each change	Which type of engagement with the Research School(s) contributed most to the change?	Has there been any impact as a result of this change? (please tick one)
Change 1.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above	❑ Yes, a positive impact (things have got better) ❑ No impact ❑ Yes, a negative impact (things have got worse) ❑ Too early to say
Change 2.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above	❑ Yes, a positive impact ❑ No impact ❑ Yes, a negative impact ❑ Too early to say
Change 3.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above	❑ Yes, a positive impact ❑ No impact ❑ Yes, a negative impact ❑ Too early to say

Only those who answer 'no, but I am planning to implement change' to Q10a are asked Q10c

Q10c Please list below up to three changes you are planning to make to your teaching practice as a result of your engagement with the Research School(s) and against each, please indicate which type of activity that contributed to you planning this change

Briefly describe each planned change	Which type of engagement with the Research School(s) contributed most to the change?
Planned change 1.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above
Planned change 2.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above
Planned change 3.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above

D: Your future engagement with the Research Schools Network

Q11a Do you plan to continue to engage with the Research School(s) over the next two years?

- ❍ Yes, at the same level that I currently engage
- ❍ Yes, and I will become more involved/engaged **>> go to Q11b**
- ❍ Yes, but I will become less involved/engaged **>> go to Q11c**
- ❍ No I will not continue to engage with the Research School(s) **>> go to Q11d**
- ❍ Don't know

Only ask this question if the answer to Q11a is 'yes, and I will become more involved/engaged'

Q11b Which of the following activities do you plan to become more involved/engaged with? (Please select any that apply)

- ❍ Communications (e.g. follow e-newsletters, follow on Twitter, attend a conference, etc.)
- ❍ Training (e.g. attend CPD events)
- ❍ Innovation (e.g. develop innovative ways of improving teaching and learning)
- ❍ Other, please specify _____
- ❍ Don't know

Only ask this question if the answer to Q11a is 'yes, but I will become less involved/engaged'

Q11c Please tell us why you wish to be less engaged with the Research School(s) and whether anything could be changed about the Research School offering that might encourage you to remain engaged at your current level or to become more engaged

Only ask this question if the answer to Q11a is 'no I will not continue to engage with the Research School(s)'

Q11d Please tell us why you are not planning to remain engaged with the Research School(s) and whether anything could be changed about the Research School offering that might encourage you to remain engaged

Q12a Please use the space below to add any further comments or suggestions about the Research Schools Network

Q12b Please tell us which school you work at (the school name and town / city / area)

School name:	
School town / city / area or postcode:	

This information will help us to assess any overall trends in engagement with Research Schools (e.g. geographical distributions) - it will not be used to attribute any of your survey responses to your school, and individual schools will not be identified in any reports.

Thank you very much for completing this survey.

Follow-up RSN Survey

Introduction
Thank you very much for taking part in this important research. It will gather **much-needed evidence** to help develop successful approaches for promoting research use and evidence-based practice in schools.

The survey should take 10-15 minutes to complete. Your answers will be treated in the **strictest confidence** and all findings will be anonymised so that responses cannot be traced back to individuals or their schools.

At the end of the survey, there is the opportunity to enter **a prize draw** to win **a Kindle** or a box set of **The Blue Planet [DVD]** (Complete BBC Series). Full terms and conditions of the prize draw are provided in the prize draw entry section of the survey or can be requested by contacting us.

If you have any queries about this survey, please contact <<project administrator details>>

Please click on '>>' below to begin the survey.

A: About you

Q1 Do you currently work in a school?
- ❍ Yes **>> go to Q2**
- ❍ No **>> go to Q3**

Q2a Are you…? (Please select all that apply)
- ❍ Classroom teacher
- ❍ Middle leadership responsibility
- ❍ Senior leadership responsibility
- ❍ Headteacher
- ❍ Executive Headteacher or CEO of a MAT
- ❍ Teaching assistant
- ❍ Other, please specify _____

Q2b How long have you worked in schools? (Please enter the number of years to the nearest whole number)

[ ]

Q2c Is your current school in an Opportunity Area?
- ❍ Yes
- ❍ No
- ❍ Don't know.

Q3 is only for those who answered 'no' to Q1.
Q3 Which of the following best describes your role?
Please tick the one that best fits the role in which you engaged with the Research School(s)
- ❍ A researcher / part of a research organisation
- ❍ A public sector organisation / body
- ❍ A private company / organisation
- ❍ A student
- ❍ A parent
- ❍ Other, please specify _____

B: Your engagement with the Research Schools Network

Q4 Which of the Research Schools have you engaged with (e.g. by receiving communications from them, participating in training/CPD events, etc.)? (Please select **all** that apply)

- ❍ Blackpool Research School at St Mary's Catholic Academy
- ❍ Bradford Research School at Dixons Academies
- ❍ Derby Research School at Wyndham Primary
- ❍ Doncaster Research School by Partners in Learning
- ❍ East Cambridgeshire and Fenlands Research School at Littleport Community Primary School
- ❍ Norwich Research School at Notre Dame High School
- ❍ North Yorkshire Coast Research School by Esk Valley Alliance
- ❍ Oldham Research School by The Greetland Academy
- ❍ Stoke-on-Trent Research School by The Keele and North Staffordshire Alliance
- ❍ West Somerset Research School at The Blue School, Wells
- ❍ Another Research School (please specify):
- ❍ Don't know
- ❍ None

Q5 Which of the following types of activities offered by the Research School have you participated in?

	I currently engage with this	I used to engage but no longer do so	I have never engaged with this	Don't know
Communications (e.g. signed up to the e-newsletter, followed on Twitter, attended a conference, etc.)	❍	❍	❍	❍
Training (e.g. attended a training course or CPD event or completed online training offered by the Research School)	❍	❍	❍	❍
Innovation (e.g. received support from the Research School to develop a project(s) funded by the Institute for Effective Education (IEE) and/or EEF)	❍	❍	❍	❍
Other, please specify: _____	❍	❍	❍	❍

Routing info >> If they answer 'none' to both Q4 and Q5, route to Q7, and then on to Q12a and Q12b. Otherwise, please proceed to Q6a and complete the rest of the survey.

Q6a Which of the following aims (if any) were you hoping to achieve by engaging with the Research School(s)? (Please tick **up to three** most important aims)

- ❍ To learn more about accessing research evidence
- ❍ To learn more about how to make evidence-informed decisions about my/our practice
- ❍ To reflect on and improve my practice through action research
- ❍ To share practice and resources
- ❍ To access evidence-based training programmes
- ❍ To improve my effectiveness as a teacher
- ❍ To improve my leadership of teaching and learning
- ❍ To improve evidence-informed practice across our school
- ❍ To learn from schools with credibility / experience about evidence-informed practice
- ❍ To improve pupil performance / outcomes
- ❍ Other please specify: _____
- ❍ I did not have any specific aims in mind when engaging with the Research School(s)

Q6b Overall, to what extent have your aims and expectations been achieved/met?

- ❍ Not at all
- ❍ Very little

- ❍ A little
- ❍ Partially
- ❍ A lot
- ❍ Very significantly
- ❍ Don't know

Q6c Please use the space below to comment on *how* your aims and expectations have / have not been met, and to suggest any changes that could have been made to the Research School offering to further assist you in achieving your aims:

(Anyone who indicated 'no' in response to Q1 (i.e. said that they do not work in a school), skips to the end of the survey after this question)

Q7 Please indicate the extent to which you agree with the following statements:

	Agree strongly	Agree moderately	Agree slightly	Disagree slightly	Disagree moderately	Disagree strongly	N/A
Senior leaders in my school promote evidence-based approaches to teaching.	❍	❍	❍	❍	❍	❍	❍
There are incentives in my school which encourage all staff to consider new ideas for their professional practice.	❍	❍	❍	❍	❍	❍	❍
Research is seen as a useful source of information in my school.	❍	❍	❍	❍	❍	❍	❍
We are genuinely encouraged to use research as part of our ongoing work.	❍	❍	❍	❍	❍	❍	❍
Innovations introduced to my school by senior leaders often result in competing demands and fragmentation of effort.	❍	❍	❍	❍	❍	❍	❍
Senior leaders in my school make effective use of wider networks for school improvement.	❍	❍	❍	❍	❍	❍	❍
Senior leaders in my school demonstrate high expectations for pupil achievement in everyday activities.	❍	❍	❍	❍	❍	❍	❍
School leaders are actively involved in promoting professional learning and development opportunities for staff.	❍	❍	❍	❍	❍	❍	❍
There is a clear sense of shared purpose in my school.	❍	❍	❍	❍	❍	❍	❍

Q8 Please indicate the extent to which the following have acted as either enablers or barriers to you engaging with the Research School(s) (RSs) activities:

In this question, we define 'enablers' as factors that have encouraged or facilitated your engagement and 'barriers' as factors that have inhibited or prevented your engagement with the RS activities.

	A major enabler	A minor enabler	No influence	A minor barrier	A major barrier	N/A
The value of research evidence provided through RS activities in helping me make informed decisions	❍	❍	❍	❍	❍	❍
The trustworthiness/credibility of the evidence base provided through RS activities	❍	❍	❍	❍	❍	❍
The time and resources available to me	❍	❍	❍	❍	❍	❍
The *accessibility* of research evidence provided through RS activities	❍	❍	❍	❍	❍	❍
The *relevance* and *applicability* of research evidence provided through RS activities	❍	❍	❍	❍	❍	❍
The quality of inputs or support from the Research School(s)	❍	❍	❍	❍	❍	❍
Support from SLT in using research evidence to improve teaching	❍	❍	❍	❍	❍	❍
Support from other colleagues (non-SLT) in my school in using research evidence to improve teaching	❍	❍	❍	❍	❍	❍
Support from colleagues in other schools in using research evidence to improve teaching	❍	❍	❍	❍	❍	❍
Funding in the Opportunity Area to enable people to attend Research School training/events	❍	❍	❍	❍	❍	❍
Other (please specify): _____	❍	❍	❍	❍	❍	❍

C: The impact of your engagement with the Research Schools Network

Q9 Please indicate whether you have noticed any impacts in the following areas as a result of your and/or your colleagues' engagement with the Research School(s):

	Very significantly	A lot	Partially	A little	Very little	Not at all	N/A
My improved understanding about the value of evidence informed practice	❍	❍	❍	❍	❍	❍	❍
My improved ability to access relevant research evidence	❍	❍	❍	❍	❍	❍	❍
My improved understanding of how to use research evidence to improve my own practice	❍	❍	❍	❍	❍	❍	❍
Improved support from SLT in using research evidence to improve teaching and learning	❍	❍	❍	❍	❍	❍	❍
Greater use of research evidence by staff to improve teaching and learning in my school	❍	❍	❍	❍	❍	❍	❍
Working more collaboratively with colleagues in other schools	❍	❍	❍	❍	❍	❍	❍
More research use culture in my school	❍	❍	❍	❍	❍	❍	❍

	Very significantly	A lot	Partially	A little	Very little	Not at all	N/A
More capacity and skills in my school to use evidence informed practice	❍	❍	❍	❍	❍	❍	❍
Greater pupil engagement in learning	❍	❍	❍	❍	❍	❍	❍
Better pupil learning outcomes	❍	❍	❍	❍	❍	❍	❍

Q10a So far, have you implemented any changes to your teaching practice <u>as a result of</u> your engagement with the Research School(s)?

❍ Yes, I have implemented one or more changes **>> go to Q10b**
❍ No, but I am planning to implement change **>> go to Q10c**
❍ No, and I am not currently planning to **>> go to section D**

Only those who answer 'yes, I have implemented one or more changes' to Q10a are asked Q10b

Q10b Please detail below up to three changes you have made as a result of your engagement with the Research School(s) and against each, please indicate which type of activity contributed to this change, and what the impact of your change has been.

Briefly describe each change	Which type of engagement with the Research School(s) contributed most to the change?	Has there been any impact as a result of this change? (please tick one)	Please briefly describe the impacts (positive or negative)
Change 1.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above	❑ Yes, a positive impact (things have got better) ❑ No impact ❑ Yes, a negative impact (things have got worse) ❑ Too early to say	
Change 2.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above	❑ Yes, a positive impact ❑ No impact ❑ Yes, a negative impact ❑ Too early to say	
Change 3.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above	❑ Yes, a positive impact ❑ No impact ❑ Yes, a negative impact ❑ Too early to say	

Only those who answer 'no, but I am planning to implement change' to Q10a are asked Q10c

Q10c Please list below up to three changes you are planning to make to your teaching practice as a result of your engagement with the Research School(s) and against each, please indicate which type of activity that contributed to you planning this change

Briefly describe each planned change	Which type of engagement with the Research School(s) contributed most to the change?
Planned change 1.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above
Planned change 2.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above
Planned change 3.	❑ Communications from/with the Research School(s) ❑ Training or CPD ❑ Involvement in an innovation project ❑ More than one of the above

D: Your future engagement with the Research Schools Network

Q11a Do you plan to continue to engage with the Research School(s) over the next two years?

- ❍ Yes, at the same level that I currently engage **>> go to Q12a**
- ❍ Yes, and I will become more involved/engaged **>> go to Q11b**
- ❍ Yes, but I will become less involved/engaged **>> go to Q11c**
- ❍ No I will not continue to engage with the Research School(s) **>> go to Q11d**
- ❍ Don't know **>> go to Q12a**

Only ask questions 11bi and 11bii if the answer to Q11a is 'yes, and I will become more involved/engaged'
Q11bi Which of the following activities do you plan to become more involved/engaged with? (Please select any that apply)

- ❍ Communications (e.g. follow e-newsletters, follow on Twitter, attend a conference, etc.)
- ❍ Training (e.g. attend CPD events)
- ❍ Innovation (e.g. develop innovative ways of improving teaching and learning that will be funded by EEF or other external organisations)
- ❍ Other, please specify _____
- ❍ Don't know

Q11b.ii. Please explain what you would like to achieve through your greater engagement:

Only ask this question if the answer to Q11a is 'yes, but I will become less involved/engaged'
Q11c Please tell us why you wish to be less engaged with the Research School(s) and whether anything could be changed about the Research School offering that might encourage you to remain engaged at your current level or to become more engaged

Only ask this question if the answer to Q11a is 'no I will not continue to engage with the Research School(s)'

Q11d Please tell us why you are not planning to remain engaged with the Research School(s) and whether anything could be changed about the Research School offering that might encourage you to remain engaged

Q12a Please use the space below to add any further comments or suggestions about the Research Schools Network

Q12b Please tell us which school you work at (the school name and town / city / area)

School name:	
School town / city / area or postcode:	

This information will help us to assess any overall trends in engagement with Research Schools (e.g. geographical distributions) - it will not be used to attribute any of your survey responses to your school, and individual schools will not be identified in any reports.

Would you like to be entered into a prize draw to win one of five **Kindles** or one of ten box sets of **The Blue Planet [DVD]** (Complete BBC Series)?

- ❍ Yes **>> Please enter your details for the price draw**
- ❍ No **>> Please leave the prize draw section blank**

Prize draw entry

Please provide your details below if you wish to be entered into the prize draw:

Please note that these details will be used for the purposes of the prize draw only and will be stored securely and separately from your survey responses.

First name:_____

Last name: _____

Email address: _____

Phone number [optional]: _____

Prize draw terms and conditions:
The prize draw is for the opportunity to win one of five Kindles, or one of 10 box sets of The Blue Planet [DVD] (Complete BBC Series). No cash alternative will be offered. The prize draw will take place on **24th April 2020** and the winners will be notified by email by **30th April 2020**. Prize winners will be drawn at random; the first five will win a Kindle and the next ten will win a box set of The Blue Planet on DVD. A list of prize winners can be provided on request, but winners have the right to remain anonymous, in these instances the geographical location of the winners will be provided in lieu of personal details.

Thank you very much for completing this survey.

Appendix 4: CPD Pro Forma and Distribution

(1) Example of the three-stage pro forma (for school leaders)

Baseline Survey: Programme Name (Leading Learning)

We would like to find out how this innovative training programme will contribute to change in your leadership of teaching and learning. This is the **baseline** survey which will enable us to identify and track the impact of the training on your understanding and practice upon its completion. Please note that this is a generic instrument designed for all training programmes offered by Research Schools. Please select "Not Applicable" (N/A) if some items do not appear to be relevant to the specific programme you have chosen.

The survey will be analysed independently by the University of Nottingham. Please be assured that your answers will be **treated anonymously** and held with the **highest degree of confidentiality** and that and no individual school or staff member will be identified in any analysis or reporting.

We ask for your school name and email address below, so that we can assess whether and how the programme makes a difference to YOUR practice. Your details will not be used for any other purpose or passed to anyone outside of the evaluation team. Should you wish to withdraw your data from this project at any stage, please contact the Project Administrator (**email address redacted**). If you agree to participate in this research please complete this survey, if you **do not** wish to participate, please tick this box ❑ and do not continue with the survey.

Name of your school: _____

Your email address: _____

Please tick only **one box** for each item throughout.

1. **To what extent do you currently feel confident in supporting your staff to *improve* the following:**

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Understanding of subject knowledge	❍	❍	❍	❍	❍	❍	❍
b) Using research-based evidence to inform most decisions about professional practice	❍	❍	❍	❍	❍	❍	❍
c) Understanding how to teach in a way that makes the subject content accessible to pupils.	❍	❍	❍	❍	❍	❍	❍
d) Understanding how to identify typical misconceptions that pupils have about the subject content	❍	❍	❍	❍	❍	❍	❍
e) Knowing how to assess pupils' thinking and learning	❍	❍	❍	❍	❍	❍	❍

2. **To what extent do you currently feel confident in supporting your staff to *improve* the following aspects of their teaching practice:**

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Knowing how to plan and deliver activities that help pupils learn	❍	❍	❍	❍	❍	❍	❍
b) Knowing how to use pupil assessment and progress data to inform practice	❍	❍	❍	❍	❍	❍	❍
c) Meeting the particular demands of the learning needs of each pupil	❍	❍	❍	❍	❍	❍	❍
d) Providing pupils with a range of feedback that helps them understand	❍	❍	❍	❍	❍	❍	❍

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
what they did well, and how they can improve							
e) Using questioning skills that challenge and extend pupils' thinking and learning	❍	❍	❍	❍	❍	❍	❍
f) Knowing how to scaffold learning in a concrete and meaningful way	❍	❍	❍	❍	❍	❍	❍
g) Giving pupils opportunities to take responsibilities for their own learning	❍	❍	❍	❍	❍	❍	❍

3. To what extent do you currently feel confident in supporting your staff to *improve* the following aspects of their classroom management:

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Creating an atmosphere of caring and trust with the pupils	❍	❍	❍	❍	❍	❍	❍
b) Setting clear lesson goals that explain what the students need to understand and what they must be able to do as a result of each lesson	❍	❍	❍	❍	❍	❍	❍
c) Setting high standards for academic performance	❍	❍	❍	❍	❍	❍	❍
d) Motivating pupils to learn	❍	❍	❍	❍	❍	❍	❍
e) Setting high expectations of pupil behaviour	❍	❍	❍	❍	❍	❍	❍
f) Ensuring all pupils are engaged with learning	❍	❍	❍	❍	❍	❍	❍
g) Managing pupil behaviour with clear and consistent rules	❍	❍	❍	❍	❍	❍	❍
h) Allocating resources and space strategically based on pupil needs	❍	❍	❍	❍	❍	❍	❍

4. To what extent do you currently feel confident in supporting your staff to *improve* the following aspects of their professional beliefs and behaviour:

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Understanding how to monitor and reflect on the effectiveness of changes I make to my practice	❍	❍	❍	❍	❍	❍	❍
b) Understanding what adjustments I must make to maximise pupil learning outcomes	❍	❍	❍	❍	❍	❍	❍
c) Understanding how pupils learn	❍	❍	❍	❍	❍	❍	❍
d) Understanding the role of teaching in the learning process of pupils	❍	❍	❍	❍	❍	❍	❍
e) Working collaboratively with other colleagues in my school	❍	❍	❍	❍	❍	❍	❍
f) Engaging parents in their children's learning	❍	❍	❍	❍	❍	❍	❍
g) Feeling that I am an effective teacher	❍	❍	❍	❍	❍	❍	❍

5. What is your current role in the school? *Please select one only.*

a. Classroom teacher	❍
b. Middle leadership responsibility	❍

c. Senior Leadership Responsibility	❍
d. Support staff	❍
e. Other (please specify):	❍

6. What is the total number of years that you have been a teacher? Please enter the number in the box:

7. What is the total number of years that you have been employed in your current school? Please enter the number in the box:

8. If there are any other specific areas of practice that you would like to improve through this training programme, please enter below.

Survey *on Completion* of Training: Programme Name (Leading Learning)

We would like to find out how this innovative training programme will contribute to change in your leadership of teaching and learning, and the workplace conditions that have facilitated or hindered the impact of the training on change (or lack of change). Please note that this is a generic instrument designed for all training programmes offered by Research Schools. Please select "Not Applicable" (N/A) if some items do not appear to be relevant to the specific programme you have chosen.

The survey will be analysed independently by the University of Nottingham. Please be assured that your answers will be **treated anonymously** and held with the **highest degree of confidentiality** and that and no individual school or staff member will be identified in any analysis or reporting.

We ask for your school name and email address below, so that we can assess whether and how the programme makes a difference to YOUR practice. Your details will not be used for any other purpose or passed to anyone outside of the evaluation team. Should you wish to withdraw your data from this project at any stage, please contact the Project Administrator (**email address redacted**). If you agree to participate in this research please complete this survey, if you **do not** wish to participate, please tick this box ❑ and do not continue with the survey.

Name of your school: _____

Your email address: _____

Please tick only **one box** for each item throughout.

1. **Indicate the extent to which you agree that each statement characterises your experience of the training programme:**

	Disagree strongly	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree strongly	N/A
a) I am persuaded that the promoted practice will make a difference to the learning of my pupils.	❍	❍	❍	❍	❍	❍	❍

	Disagree strongly	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree strongly	N/A
b) I have the opportunity to discuss how I view my existing practice on the training programme.	❍	❍	❍	❍	❍	❍	❍
c) Different types of training activity on the programme will enable me to apply new learning in my own workplace.	❍	❍	❍	❍	❍	❍	❍
d) The training programme challenges my existing assumptions about effective practice.	❍	❍	❍	❍	❍	❍	❍
e) The training programme is based on sound research about teaching and/or student learning.	❍	❍	❍	❍	❍	❍	❍
f) I am clear about the theory that informs the new practice promoted in the training programme.	❍	❍	❍	❍	❍	❍	❍

2. Indicate the extent to which you agree that senior leaders in your school do the following:

	Disagree strongly	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree strongly	N/A
a) Senior leaders in my school promote evidence-based approaches to teaching.	❍	❍	❍	❍	❍	❍	❍
b) There are incentives in my school which encourage all staff to consider new ideas for their professional practice.	❍	❍	❍	❍	❍	❍	❍
c) Innovations introduced to my school by senior leaders often result in competing demands and fragmentation of effort.	❍	❍	❍	❍	❍	❍	❍
d) Senior leaders in my school are well aware of the research evidence on effective pedagogy.	❍	❍	❍	❍	❍	❍	❍
e) Senior leaders in my school demonstrate high expectations for pupil achievement in everyday activities.	❍	❍	❍	❍	❍	❍	❍
f) School leaders are actively involved in promoting professional learning and development opportunities for staff.	❍	❍	❍	❍	❍	❍	❍

3. To what extent has your experience on the training programme had (or will have) an impact on your ability to support your staff to improve the following?

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Understanding of subject knowledge	❍	❍	❍	❍	❍	❍	❍
b) Using research-based evidence to inform most decisions about professional practice	❍	❍	❍	❍	❍	❍	❍
c) Understanding how to teach in a way that makes the subject content accessible to pupils.	❍	❍	❍	❍	❍	❍	❍
d) Understanding how to identify typical misconceptions that pupils have about the subject content	❍	❍	❍	❍	❍	❍	❍

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
e) Knowing how to assess pupils' thinking and learning	❍	❍	❍	❍	❍	❍	❍

4. To what extent has your experience on the training programme had (or will have) an impact on your ability to support your staff to improve the following aspects of their teaching practice?

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Knowing how to plan and deliver activities that help pupils learn	❍	❍	❍	❍	❍	❍	❍
b) Knowing how to use pupil assessment and progress data to inform practice	❍	❍	❍	❍	❍	❍	❍
c) Meeting the particular demands of the learning needs of each pupil	❍	❍	❍	❍	❍	❍	❍
d) Providing pupils with a range of feedback that helps them understand what they did well, and how they can improve	❍	❍	❍	❍	❍	❍	❍
e) Using questioning skills that challenge and extend pupils' thinking and learning	❍	❍	❍	❍	❍	❍	❍
f) Knowing how to scaffold learning in a concrete and meaningful way	❍	❍	❍	❍	❍	❍	❍
g) Giving pupils opportunities to take responsibilities for their own learning	❍	❍	❍	❍	❍	❍	❍

5. To what extent has your experience on the training programme had (or will have) an impact on your ability to support staff to improve the following aspects of their classroom management:

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Creating an atmosphere of caring and trust with the pupils	❍	❍	❍	❍	❍	❍	❍
b) Setting clear lesson goals that explain what the students need to understand and what they must be able to do as a result of each lesson	❍	❍	❍	❍	❍	❍	❍
c) Setting high standards for academic performance	❍	❍	❍	❍	❍	❍	❍
d) Motivating pupils to learn	❍	❍	❍	❍	❍	❍	❍
e) Setting high expectations of pupil behaviour	❍	❍	❍	❍	❍	❍	❍
f) Ensuring all pupils are engaged with learning	❍	❍	❍	❍	❍	❍	❍
g) Managing pupil behaviour with clear and consistent rules	❍	❍	❍	❍	❍	❍	❍
h) Allocating resources and space strategically based on pupil needs	❍	❍	❍	❍	❍	❍	❍

6. To what extent has your experience on the training programme had (or will have) an impact on your ability to support staff to improve the following aspects of their professional beliefs and behaviour:

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Understanding how to monitor and reflect on the effectiveness of changes I make to my practice	❍	❍	❍	❍	❍	❍	❍
b) Understanding what adjustments I must make to maximise pupil learning outcomes	❍	❍	❍	❍	❍	❍	❍
c) Understanding how pupils learn	❍	❍	❍	❍	❍	❍	❍
d) Understanding the role of teaching in the learning process of pupils	❍	❍	❍	❍	❍	❍	❍
e) Working collaboratively with other colleagues in my school	❍	❍	❍	❍	❍	❍	❍
f) Engaging parents in their children's learning	❍	❍	❍	❍	❍	❍	❍
g) Feeling that I am an effective teacher	❍	❍	❍	❍	❍	❍	❍

7. Which one of the following statements best reflects your views on making changes to your practice (or practice in your school) as a result of attending this training programme?

- ○ The training has provided me with what I need to make changes. [*Please go to Question **8** below*.]
- ○ The training has provided me with a good basis for making changes but I will need some additional training before I can implement them. [*Please go to Question **8** below*.]
- ○ I would like to make changes but the training has not provided me with the knowledge and skills to do so. [*Please go to Question **9** below*.]
- ○ I would like to make changes, but I am unlikely to for other reasons. [*Please go to Question **9** below*.]
- ○ I am not planning to make any change to practice as a result of attending this event. [*Please go to Question **9** below*.]

8. If applicable, list up to three areas to which you will make changes as a result of attending this training programme.

9. If applicable, please explain what changes that you would like to make but <u>cannot</u>, and why.

10. If you have any other comments about the impact of the training programme on you and/or your practice, please enter below.

11. What is your current role in the school? *Please select one only.*

a. Classroom teacher	❍
b. Middle leadership responsibility	❍
c. Senior Leadership Responsibility	❍
d. Support staff	❍
e. Other (please specify):	❍

12. What is the total number of years that you have been a teacher? Please enter the number in the box:

13. What is the total number of years that you have been employed in your current school? Please enter the number in the box:

Follow-Up Survey: Programme Name

We would like to find out how this innovative training programme will contribute or has contributed to change in your leadership of teaching and learning, and the workplace conditions that have facilitated or hindered the impact of the training on change (or lack of change). Please note that this is a generic instrument designed for all training programmes offered by Research Schools. Please select "Not Applicable" (N/A) if some items do not appear to be relevant to the specific programme you have chosen.

The survey will be analysed independently by the University of Nottingham. Please be assured that your answers will be **treated anonymously** and held with the **highest degree of confidentiality** and that and no individual school or staff member will be identified in any analysis or reporting.

We ask for your school name and email address below, so that we can assess whether and how the programme make a difference to your practice. Your details will not be used for any other purpose or passed to anyone outside of the evaluation team. Should you wish to withdraw your data from this project at any stage, please contact the Project Administrator (**email address redacted**). If you agree to participate in this research please complete this survey, if you **do not** wish to participate, please tick this box ❑ and do not continue with the survey.

Name of your school: _____

Your email address: _____

Please tick only **one box** for each item throughout.

5. On reflection, what was the impact of the training programme on your ability to support your staff to improve the following?

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Understanding of subject knowledge	❍	❍	❍	❍	❍	❍	❍
b) Using research-based evidence to inform most decisions about professional practice	❍	❍	❍	❍	❍	❍	❍
c) Understanding how to teach in a way that makes the subject content accessible to pupils.	❍	❍	❍	❍	❍	❍	❍

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
d) Understanding how to identify typical misconceptions that pupils have about the subject content	❍	❍	❍	❍	❍	❍	❍
e) Knowing how to assess pupils' thinking and learning	❍	❍	❍	❍	❍	❍	❍

6. On reflection, what was the impact of the training programme on your ability to support your staff to improve the following aspects of their teaching practice?

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Knowing how to plan and deliver activities that help pupils learn	❍	❍	❍	❍	❍	❍	❍
b) Knowing how to use pupil assessment and progress data to inform practice	❍	❍	❍	❍	❍	❍	❍
c) Meeting the particular demands of the learning needs of each pupil	❍	❍	❍	❍	❍	❍	❍
d) Providing pupils with a range of feedback that helps them understand what they did well, and how they can improve	❍	❍	❍	❍	❍	❍	❍
e) Using questioning skills that challenge and extend pupils' thinking and learning	❍	❍	❍	❍	❍	❍	❍
f) Knowing how to scaffold learning in a concrete and meaningful way	❍	❍	❍	❍	❍	❍	❍
g) Giving pupils opportunities to take responsibilities for their own learning	❍	❍	❍	❍	❍	❍	❍

7. On reflection, what was the impact of the training programme on your ability to support your staff to improve the following aspects of their classroom management:

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Creating an atmosphere of caring and trust with the pupils	❍	❍	❍	❍	❍	❍	❍
b) Setting clear lesson goals that explain what the students need to understand and what they must be able to do as a result of each lesson	❍	❍	❍	❍	❍	❍	❍
c) Setting high standards for academic performance	❍	❍	❍	❍	❍	❍	❍
d) Motivating pupils to learn	❍	❍	❍	❍	❍	❍	❍
e) Setting high expectations of pupil behaviour	❍	❍	❍	❍	❍	❍	❍
f) Ensuring all pupils are engaged with learning	❍	❍	❍	❍	❍	❍	❍
g) Managing pupil behaviour with clear and consistent rules	❍	❍	❍	❍	❍	❍	❍
h) Allocating resources and space strategically based on pupil needs	❍	❍	❍	❍	❍	❍	❍

8. On reflection, what was the impact of the training programme on your ability to support your staff to improve the following aspects of their professional beliefs and behaviour:

	Not at all	Very little	A little	Partially	A lot	Very significantly	N/A
a) Understanding how to monitor and reflect on the effectiveness of changes I make to my practice	❍	❍	❍	❍	❍	❍	❍
b) Understanding what adjustments I must make to maximise pupil learning outcomes	❍	❍	❍	❍	❍	❍	❍
c) Understanding how pupils learn	❍	❍	❍	❍	❍	❍	❍
d) Understanding the role of teaching in the learning process of pupils	❍	❍	❍	❍	❍	❍	❍
e) Working collaboratively with other colleagues in my school	❍	❍	❍	❍	❍	❍	❍
f) Engaging parents in their children's learning	❍	❍	❍	❍	❍	❍	❍
g) Feeling that I am an effective teacher	❍	❍	❍	❍	❍	❍	❍

9. To what extent do you consider that these things have changed since you completed your training:

	Too early to say	Much worse now	Worse now	No change	Better now	Much better now	N/A
My approach to learning	❍	❍	❍	❍	❍	❍	❍
The engagement of pupils in learning	❍	❍	❍	❍	❍	❍	❍
Pupil attainment	❍	❍	❍	❍	❍	❍	❍
Pupil progress	❍	❍	❍	❍	❍	❍	❍
Pupil behaviour	❍	❍	❍	❍	❍	❍	❍
Pupil motivation for learning	❍	❍	❍	❍	❍	❍	❍
Relationships with pupils	❍	❍	❍	❍	❍	❍	❍
Parental involvement in pupil learning	❍	❍	❍	❍	❍	❍	❍

10. Since completion of the training, have you made any changes to your practice (or practice in your school) as a result of what you learned during the training?

- ○ Yes [Please go to Question **7**.]
- ○ No [Please go to Question **8**.]

11. a) List up to three major changes that you have made as a result of attending the training programme.

b) List up to three factors which you consider have <u>enabled</u> you to make the changes outlined in 7 (a).

c) Please state if any of the above changes have had a positive impact on pupil learning and achievement, and why/why not.

12. If applicable, please explain what changes that you would like to make but cannot, and why.

13. If you have any other comments about the impact of the training programme on you and/or your practice, please enter below.

14. What is your current role in the school? *Please select one only.*

a. Classroom teacher	❍
b. Middle leadership responsibility	❍
c. Senior Leadership Responsibility	❍
d. Support staff	❍
e. Other (please specify):	❍

15. What is the total number of years that you have been a teacher? Please enter the number in the box:

16. What is the total number of years that you have been employed in your current school? Please enter the number in the box:

(2) Respondent profiles: CPD pro forma survey

This section presents a profile of respondent characteristics for the two data sets from the CPD pro forma survey which have been referred to in this report, i.e. the follow-up survey (n=153) and the dataset of matched individual respondents who completed bother a baseline and on-completion survey for the training they attended.

a) Follow-up CPD pro forma survey – respondent profile

Table 4.1 shows that respondents to the follow-up survey represented 25 courses offered by eight of the ten RSs.

Table 4.1: Which RSs and courses are represented in the follow-up survey data set

RS	Course name	n	%
RS 1	Developing Literacy at Key Stage 3	1	1%
	Developing Memory and Metacognition	6	4%
	Developing School Research Leads	10	7%
	Improving Mathematics in Key Stage 2 and 3	10	7%
	Improving Science Teaching	3	2%
	Leading Learning	3	2%
RS 2	Improving Literacy at KS2	3	2%
	Maximising Memory and the Science of Learning	3	2%
RS 3	Metacognition and Self-Regulation	3	2%
RS4	Metacognition & Self-Regulated Learning	7	5%
	Preparing for Literacy EYFS	10	7%
	Pupil Premium	7	5%
RS 5	Maximising the Impact of TAs	4	3%
RS 6	Early Years Teaching	8	5%
	Improving Maths in Key Stage 2 and 3	4	3%
	Leading Learning	11	7%
	Long Term Learning	8	5%
	Secondary Science	9	6%
RS 9	Early Years Literacy	3	2%
	Key Stage 1 & 2 Literacy	2	1%
	Metacognition and Self-regulated Learning	8	5%
	Pupil Premium	2	1%
RS 10	Improving Maths in KS2 and KS3	2	1%
	Leading Learning	23	15%
	Making Sense of Metacognition	3	2%
	Total	**153**	**100%**

Among the 153 responses to the follow-up survey, it was possible to identify which school 146 individuals were from and these individuals represent 111 different schools.

Respondents were asked to give some basic information about their roles. As Table 4.2 shows, just over three-quarters of respondents were senior or middle leaders, while just under a fifth were classroom teachers.

Table 4.2: CPD follow-up survey – roles of respondents

Role	n	%
Senior leadership responsibility	71	47%
Middle leadership responsibility	47	31%
Classroom teacher	27	18%

Other	6	4%
Support staff	1	1%
Total	**152***	**100%**

* 1 missing data

Table 4.3: Phase of schooling respondents' schools cover, compared to the national figures

	n	%	State-funded schools in England (2019-20)[18]
Primary	70	67%	76%
Secondary	34	32%	16%
Other	1	1%	8%
Total	**105**	**100%**	**100%**

Table 4.4: Ofsted overall effectiveness rating for respondents' schools, compared to the national figures

	CPD survey respondents		State-funded schools in England (Aug 2019)[19]
	n	**%**	**%**
Outstanding	20	20%	20%
Good	60	60%	66%
Requires improvement	19	19%	10%
Inadequate	1	1%	4%
Total	**100**	**100%**	**100%**

b) CPD pro forma survey data set of matched individuals who completed a baseline and on completion survey – respondent profile

The matched data set of 81 respondents represents 14 courses offered by six of the 10 RSs, as summarised in Tables 4.5 and 4.6.

Table 4.5: Which RSs provided the courses represented in the matched data set

	n	%
RS 2	19	23%
RS 3	32	40%
RS 4	8	10%
RS 7	15	19%
RS 9	1	1%
RS 10	6	7%
Total	**81**	**100%**

[18] Source: Department for Education (2020) Schools, pupils and their characteristics: Academic year 2019-20. Available: **https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics** [Accessed 22 September 2020]

[19] Source: Ofsted (2019) State-funded school inspections and outcomes as at 31 August 2019: Main findings. Available: **https://www.gov.uk/government/statistics/state-funded-schools-inspections-and-outcomes-as-at-31-august-2019** [Accessed 22 September 2020]

Table 4.6: Which RSs and courses are represented in the matched data set

RS	Course name	n	%
RS 2	Improving Literacy at KS2	4	5%
	Improving Science Teaching in Secondary Schools	6	7%
	Leading learning	3	4%
	Maximising Memory and the Science of Learning	6	7%
RS 3	Effective use and Evaluation of the Pupil Premium	12	15%
	Effective Use of the Pupil Premium Autumn 2019	6	7%
	Metacognition and Self-Regulation	14	17%
RS 4	Metacognition & Self-Regulated Learning	1	1%
	Preparing for Literacy EYFS	3	4%
	Pupil Premium	4	5%
RS 7h	Leading learning	11	14%
	Long Term Learning	4	5%
RS 9	Metacognition and Self-regulated Learning	1	1%
RS 10	Leading Learning	6	7%
Total		**81**	**100%**

Among the 81 responses, it was possible to identify which school 79 individuals were from (the two respondents that were not attributed to a school were from a Multi Academy Trust and a Teaching School Alliance rather than individual schools). The 79 individuals from schools represent 64 different schools; the maximum number of respondents from any one school is 3, the mean is 1.2, the mode and median are both 1.

Just over half of respondents were from primary schools (Table 4.7), whereas nationally, 76% of schools are primary schools, therefore primary schools are under-represented and secondary schools are over-represented in the survey data when compared to the national figures. Table 4.8 shows the Ofsted overall effectiveness ratings of respondents' schools and compares this to the national figures (for August 2019) and shows that respondents' schools are a fairly good representation of the national proportions of schools in each category, with the only minor differences being that outstanding schools are slightly under-represented and requires improvement schools are marginally over-represented in the survey data.

Table 4.7: Phase of schooling respondents' schools cover, compared to the national figures

	n	%	State-funded schools in England (2019-20)
Primary	41	52%	76%
Secondary	36	46%	16%
Other	2	3%	8%
Total	**79**	**100%**	**100%**

Table 4.8: Ofsted overall effectiveness rating for respondents' schools, compared to the national figures

	CPD survey respondents		State-funded schools in England (Aug 2019)
	n	**%**	**%**
Outstanding	11	14%	20%
Good	53	68%	66%

Requires improvement	10	13%	10%
Inadequate	4	5%	4%
Total	**78**	**100%**	**100%**

As Table 4.9 shows, just over a third of respondents are senior leaders in their schools.

Table 4.9: Whether respondents are senior leaders or not

	n	**%**
Senior leader	31	38%
Non-senior leader	50	62%
Total	**81**	**100%**

Appendix 5: Qualitative Survey Questions and Analysis Recording Framework

Baseline Qualitative Survey Questionnaire (online)

Introduction

Thank you very much for taking part in this important research. It will gather **much-needed evidence** to understand how Research Schools contribute to school improvement in new Opportunity Areas.

There are nine questions in the survey – which should take 15 minutes to complete. Your answers will be treated in the **strictest confidence** and all findings will be anonymised so that responses cannot be traced back to individuals or their schools.

If you have any queries about this survey, please contact Project Administrator (email).

Please click on '>>' below to begin the survey.

A: About you

Q1 Please describe i) your role (e.g. Headteacher), and ii) the nature of your organisation (e.g. secondary academy; local authority).

Q2 Which Research School(s) have you mostly engaged with? *Please select all that apply.* [*Dropdown box – 10 RSs*, allowing more than one selection]

Q3 Please describe your roles and activities in relation to *i)* the above selected Research School(s) and *ii)* the Opportunity Area(s) with which the Research School(s) is associated.

B: About the Opportunity Area

Q4 a) In your view what are the major challenges for school improvement in the above selected Opportunity Area(s)? Please give examples.

b) What are the major strengths and/or possibilities in the same Opportunity Area(s)? Please give examples.

Q5 Do you agree with the published education priorities identified for the above selected Opportunity Area(s)? (***https://www.gov.uk/government/publications/social-mobility-and-opportunity-areas***) In your view, are they fit for purpose? Why/why not? Please give examples.

C. About the role of the Research School in the Opportunity Area

Q6 a) In your view, is the above selected Research School(s) playing an effective role in supporting the school improvement priorities identified for the Opportunity Area(s)? If *YES*, how and why? If *NO*, why not? Please give examples.

b) Has your view on what the Research School(s) can offer to support school improvement priorities in the related Opportunity Area(s) changed over time? If *YES*, how has your view changed and why? If *NO*, why not? Please give examples.

Q7 a) Are there any cultural (e.g. relationships between schools), organisational (e.g. leadership capacity), or structural (e.g. local school improvement partnership) features in the Opportunity Area(s) that are helping the Research School(s) support school improvement? Please give examples.

b) Are there any barriers that prevent the Research School(s) from supporting school improvement in the Opportunity Area(s)? Please give examples.

c) Are any of the above reported positive features or barriers likely to change in the future? If *YES*, how and why? If *NO*, why not?

Q8 a) In your view, does the Research School model as a whole have the potential to improve the practice of teaching and learning in schools within and/or beyond a locality? How, and why/why not? Please give examples.

b) More specifically, does the Research School model as a whole have the potential to improve the practice and performance schools that are in need of support but are not yet engaged or choose not to be engaged? How, and why/why not? Please give examples.

Q9 If you have any additional comments to make about the role of Research Schools in supporting school improvement in their related Opportunity Areas, please add them here.

PARTICIPANT INFORMATION

Role	
Executive Headteacher	4
Teaching School Director	2
Headteacher	4
Deputy or Assistant Headteacher	3
School Improvement Professional	1
School Improvement Consultant	1
Chair of Partnership Board	1
Educational Partnership Lead	1
OA Programme Director	3
OA Facilitator	2
Total	**22**

Organisational level	
Local (school-based)	14
Regional (Teaching School, LA, OA)	5
National (DfE, multi-regional role)	3
Total	**22**

Follow-up qualitative telephone survey: Questions for OA/DfE Leaders/EEF Regional Leads

About the Opportunity Area

1) In your view what are the major challenges for school improvement in the above selected Opportunity Area(s)? What are the major strengths and/or possibilities in the same Opportunity Area(s)? Please give examples.

2) In your view, are the published education priorities identified for the above selected Opportunity Area(s) fit for purpose? Why/why not? Please give examples.

About your role

3) Please describe your roles and activities in relation to the OA and the RS.
   a. In your view, what has worked well?
   b. What have been the major challenges?

About the role of the Research School in the Opportunity Area

4) In your view, is the Research School in your OA playing an effective role in supporting the school improvement priorities identified for the Opportunity Area(s)? If YES, how and why? If NO, why not? Please give examples.
5) Has your view on what the Research School can offer to support school improvement priorities in your OA changed over time? If YES, how has your view changed and why? If NO, why not? Please give examples.
6) Are there any **cultural** (e.g. relationships between schools), **organisational** (e.g. leadership capacity), or **structural** (e.g. local school improvement partnership) features in the Opportunity Area that are helping the Research School support school improvement? Please give examples.
7) Are there any barriers that prevent the Research School from supporting school improvement in the Opportunity Area? Please give examples.
8) Are any of the above reported positive features or barriers likely to change in the future? If YES, how and why? If NO, why not?
9) In your view, does the Research School model as a whole have the potential to improve the practice of teaching and learning in schools within and/or beyond a locality? How, and why/why not? Please give examples.
10) More specifically, does the Research School model as a whole have the potential to improve the practice and performance schools that are in need of support but are not yet engaged or choose not to be engaged? How, and why/why not? Please give examples.

11) Finally, anything we haven't covered that you wanted to say about…
    a. what is working well
    b. what could you, the OA Board(s) and/or Regional Lead have done differently
    c. if the RS programme is going to make a strong contribution to improving practice in the vulnerable/ hard-to-reach schools, what would be the conditions and support that they need?

PARTICIPANT INFORMATION

Role	Numbers
EEF Regional Leads	5
DfE leads	10
Headteacher/Deputy Heads	5
CEO/Exec Headteacher	3
Wider RS partners (SI consultant, SCITT Director, TSA manager)	4
Partnership Board member	2
LA lead	1
TOTAL	**30**

Analysis Recording Framework

Interview Participants:

OA Area(s)	
Research School(s) involved	
Participant's roles in relation to OA and RSs	

1) Participants' views and experiences of research and evidence use

2) Feasibility of the implementation of the RS activity/model in the OA(s): barriers and enablers

Participation: Conditions for effective take -up	*Enablers*:
	Barriers:

3) Evidence of promise: take-up (participation) by schools/individuals and delivery by RSs in the OA(s)

Observation of schools' participation in RS activity	*Dissemination of information: e-newsletters; conferences; one-off twilight sessions; Twitter* *CPD training programmes* *Other activities*
Implementation	*The extent to which, and how, the information and evidence-based practiced that they have accessed/learned has been* ***implemented*** *by participants or in their schools; and why/why not (e.g. constraints in own contexts; quality of evidence and/or provision)*
Impact *within and across schools in the OA(s)*	*Perceived impact in terms of changes in practice, attitudes and culture*
	Factors that have enabled or prevented change to take place in their own practice and/or in their schools

4) Scalability

Roles of the Research Schools Network model in the education system	
Fulfilling the potential	*What could have they done better?*

5) Other comments and reflective remarks by interview participants and/or the researcher

Appendix 6: Example of Interview Schedules

Purpose for the visit
The main purpose of this visit is to identify **evidence of 'what works'** with regard to Research Schools' (RS) reach and engagement activities, provision of CPD programmes, and impact on change in practice in schools in Opportunity Areas (OAs) (and beyond). Five OA RSs have been selected.

We would like to learn from the selected five OA RSs:

1) their views of the **identity** and **role of Research Schools in OAs**, and in the wider "school-led" education system in England; whether and how working within an OA presents distinctive challenges and opportunities for a RS that are different from those encountered by other RSs;
2) their **strategies and practices** to develop and implement RS activities;
3) how they have used other **local and regional partnerships** (e.g. TSAs or LA/school partnerships) to achieve their aims in relation to school improvement;
4) evidence of **promising impact** on embedding evidence-informed practices in schools and through this, improvements in teaching and leadership outcomes.
5) the **roles of EEF and IEE** in supporting the development of the RS work and how these have changed over time;
6) their views about the **future of the programme** (i.e. financial and capacity sustainability, and scalability), including supporting vulnerable schools and the effectiveness of such support.

Selection of Participants
We would like to speak with the following people and we would be most grateful if you [RS Lead] could help to arrange the interviews with them. The interviews may take place in person during our visit to your Research School, or on the phone following our visit.

Within RSs

- Executive head/CEO and Headteacher of RS
- RS strategic lead (together with CEO/Headteacher if possible – 1.5-2 hours)
- Focus groups of i) SLT and ii) Middle Leaders (e.g. Faculty Heads, Head of Department; Subject Leaders; key stage leaders)

OA Leaders (Face to face if possible; otherwise, telephone interviews)

- DfE Rep & EEF regional lead
- One or two strategic leads from OA Board (e.g. primary/secondary school improvement boards) - recommended by DfE Rep and/or RSs
- Local authority representative

School improvement partners (Face to face if possible; otherwise, telephone interviews)

- Headteacher/senior leader of Associate RSs (if applicable)
- Senior leaders/headteachers of other school improvement partners (e.g. MATs, TSAs)

We are suggesting to each of the research schools we are visiting that the individual interviews might last approximately 45 minutes, and if possible that we have slightly more time with you and the Headteacher.

Questions _RS Senior Leaders

Capturing major developments in strategies, practices and activities

1. **What have been the major developments and successes since our previous conversations?**
   i. Have there been any key personnel or other capacity changes?
   ii. How have your strategies and practices to develop the RSN and deliver the RS activities changed? Why? Please could you provide one or two examples?
   iii. What have been the major achievements? Please tell us about the most effective two or three examples of projects or activities led by the RS and their associated changes or impact in the schools that you have been working with.

2. **What have been the key issues and challenges in the delivery of the RS work this year?**
   i. Are there currently any structural (e.g. local school improvement mechanisms; leadership of the Regional Lead/DfE/OA Board/LA) and/or cultural (e.g. relationships between schools) enablers or barriers to engaging schools with evidence-based practices in your locality, and beyond?
   ii. What are the three main reasons why schools have not engaged with your RS offer?
   iii. How are you managing the workload, organising yourselves internally, and finding capacity and resources in order to deliver the plans? How has this changed over time?

3. **How has your RS responded to local or regional school improvement needs?**
   i. How does your RS learn about SI needs within the OA and what is your current working relationship with the OA Board(s), DfE Representative, and the EEF Regional Lead?
   ii. How have you been able to respond? What key work have you undertaken in the last 12 months or so?
   iii. To what extent and how have you managed to engage the harder to reach schools within the OA? To what extent, and how, is the expectation of supporting the priority schools identified by EEF aligned with your work in the OA?
   iv. How have you utilised local and regional partnerships to help you (explore work with local TSAs, MATs, LA/school strategic partnerships, or LAs)?
   v. To what extent does this depend on pre-existing professional connections and to what extent has this been developed over the last two years? To what extent, and how, will the appointment of the Regional Lead help?
   vi. What have been the main barriers that you have needed to overcome?
   vii. What evidence do you have of changes in practice?

Leadership and governance of the RSs and the programme

4. What are your views about the **key roles and responsibilities of the RS Lead, and the compatibility of this role with other school-based responsibilities**?
   i. How has the role developed and changed over time? Is the workload manageable?
   ii. How does the role work in support of, or in conflict with, other school-based responsibilities?
   iii. How have you changed or expanded the capacity to lead the RS?
   iv. Where the RS Lead has changed, how effectively has the transition been supported and managed? What has been the impact on relationships and the work of the RS?

5. To what extent and how have you used local/regional partners – either pre-existing or new - to help with the leadership and delivery of the RS's activities?
   i. How were these partners attracted to the RS?
   ii. How sustainable is their involvement?

6. How would you describe the **roles that EEF and IEE have played** in relation to the delivery of your Research School work?
   i. How has support for RSs changed over time?
   ii. Has the appointment of the Regional Lead made a difference to the work of your Research School? Why/why not?
   iii. Is there anything that they could have done differently or better to support the development and impact of a) your own Research School work; and b) the broad Research School programme?

7. How has your own **governance structure for your RS** changed and developed over time? What does it look like now?

8. To what extent **should RSs grow and develop organically over time**?
   i. How much consistency should there be between the RSs in terms of their identities, how they engage schools, and how they deliver the RS work? Has this been achieved?
   ii. How have you worked with other RSs either formally as part of a role or informally in supporting the delivery of some of their RS offer?
   iii. What sort of differentiated support and facilitation might be needed for RSs in OAs (as opposed to other RSs)?

Roles of Research Schools and their Networks

9. Has your **view of what a Research School is changed over time**?
   i. What outcomes would your RS like to achieve? How confident are you about achieving these outcomes?
   ii. How are you balancing the need to deliver EEF national programmes with the need to respond to local schools' priorities and OA priorities?
   iii. How confident are you in making a real difference to the practice and outcomes of priority schools identified by the EEF?

10. In your view, what **outcomes should the RS programme as a whole seek to achieve** in the school-led system? Are you confident that these outcomes will be achieved?
    i. To what extent do you feel part of a national RS network?
    ii. Should there be differences in terms of strategies, practices and outcomes between the RSs in OAs and others?

Reach and engagement with schools and others

11. Who has been, and will continue to be, the **main target audience for your RS work** (school leaders, teachers)? Please give examples and explain why.

12. How does decision-making work in the OA? Has this changed since we last spoke?

13. To what extent does the OA currently fund any OA activity? Has this changed since we last spoke?

14. Have you **worked with any other RSs** to deliver programmes or offer support?

15. Is there a **place for HEIs** to play in the programme? Does your RS have the necessary expertise and capacity to lead and evaluate the progress and impact of the CPD work and innovation work?

Future: sustainability and impact, and the future of the programme

16. To what extent and how has becoming a Research School **made a difference within your own school** (in terms of culture, capacity, school improvement priorities etc.)?

17. Is there a **strategy in place to sustain the legacy and impact of the RS model** when the funding terminates?
    i. What do you hope to go on to achieve?
    ii. To what extent do you anticipate this will be driven by the RS itself?
    iii. To what extent do you anticipate future work to be specifically focused on the OA?

18. What are your views, and the views of others at your RS, about the **plans for the future of the national RS programme**? (Explore **focus on vulnerable schools** and role of regional leads)
    i. How achievable/difficult do you think it will be to work with hardest-to-reach schools? To what extent has this concern been resolved by the focus on supporting EEF nominated priority schools?
    ii. What, if anything, will you need to do differently as a result of these recent changes? How might you need to adapt what you offer to schools?
    iii. To what extent and how do you think these RSs in OAs are affected by the changes in different ways from other RSs?
    iv. How do you expect the regional leads to be able to help? What other support will you need?
    v. What evidence do you have from your RS work to date that this approach can improve practice in targeted schools? How confident are you that you can make a difference for these schools?

19. Finally, **anything we haven't covered** that you wanted to say about…
    i. *what is working well*
    ii. *what could you or your school have done better*
    iii. *if the RS programme is going to make a strong contribution to improving practice in some of the vulnerable schools, what internal and external support* would your school need?

Questions for <u>Research School Partners</u>

1) What do you understand to be the role of being a Research School? In your view, why did your school/academy decide to become a partner of the Research School Network? What is the role of your school in the Network?

2) How have you and your school been engaged by the Research School? How does this build on existing relationships?

3) Please describe what and how your school will be contributing to the delivery of the Research School activity.

   Prompt: perceptions of their strengths in terms of history, profiles and capacity of their school (thus contributions); relationship with the Research School; expectations and anticipated benefits

4) What have been (or in your view, will be) the key benefits of becoming a partner in a Research School Network? Or do you see your connection with the RS as being part of a 'network'? Is there (or are you expected to see) any discernible change in your school's culture and practice as a result?

5) Are there any particular challenges that your school may face in order to participate in Research School activities? What have been the key achievements? What about major challenges?

6) In your view, how important is it to promote a research-literate culture in schools? Why?

7) In your view, does the Research School model provide value for money in terms of promoting the use of research is an *effective* and *efficient* (in terms of value for money) way of scaling up evidence-based practices in schools? How?

8) What, if anything, is distinctive about the role of a Research School in an Opportunity Area?
   a. In your view, do RSs have a role to play in terms of improving the practice of school leaders and/or teachers in *ALL* schools in the OA? What are the necessary conditions that enable them to achieve this?
   b. How other, harder to reach, schools within the OA might be engaged?

9) On reflection, could you identify: *what is working well*, *what could your school and/or the Research School have done better,* and *what internal and external support* would be necessary to make the Research School Network work in terms of changing the practice and culture in schools?

10) How do you think the Research School project might make a difference to your day-to-day work in the future?

Questions for <u>OA/DfE Leaders/EEF Regional Leads</u>

About the Opportunity Area

12) In your view what are the major challenges for school improvement in the above selected Opportunity Area(s)? What are the major strengths and/or possibilities in the same Opportunity Area(s)? Please give examples.

13) In your view, are the published education priorities identified for the above selected Opportunity Area(s) fit for purpose? Why/why not? Please give examples.

About your role

14) Please describe your roles and activities in relation to the OA and the RS.
    a. In your view, what has worked well?
    b. What have been the major challenges?

About the role of the Research School in the Opportunity Area

15) In your view, is the Research School in your OA playing an effective role in supporting the school improvement priorities identified for the Opportunity Area(s)? If YES, how and why? If NO, why not? Please give examples.

16) Has your view on what the Research School can offer to support school improvement priorities in your OA changed over time? If YES, how has your view changed and why? If NO, why not? Please give examples.

17) Are there any **cultural** (e.g. relationships between schools), **organisational** (e.g. leadership capacity), or **structural** (e.g. local school improvement partnership) features in the Opportunity Area that are helping the Research School support school improvement? Please give examples.

18) Are there any barriers that prevent the Research School from supporting school improvement in the Opportunity Area? Please give examples.

19) Are any of the above reported positive features or barriers likely to change in the future? If YES, how and why? If NO, why not?

20) In your view, does the Research School model as a whole have the potential to improve the practice of teaching and learning in schools within and/or beyond a locality? How, and why/why not? Please give examples.

21) More specifically, does the Research School model as a whole have the potential to improve the practice and performance schools that are in need of support but are not yet engaged or choose not to be engaged? How, and why/why not? Please give examples.

22) Finally, anything we haven't covered that you wanted to say about…
    a. what is working well
    b. what could you, the OA Board(s) and/or Regional Lead have done differently
    c. if the RS programme is going to make a strong contribution to improving practice in the vulnerable/ hard-to-reach schools, what would be the conditions and support that they need?

Appendix 7: Path Analysis Procedures and SEM Model Building

The path analysis, carried out in Stata (StataCorp, 2019a), included latent variable construction procedures, investigating the paths of influences for different latent variables of interest. There are two methods of fitting the structural models and estimating the parameters in Stata (using command structure of 'sem' and 'gsem') which use different numerical machinery (StataCorp, 2019b). They both fit standard linear (involving only single level, continuous variables) and generalised (also allowing multilevel and categorical variables) structural models respectively. 'sem' is used in the study for performing confirmatory factor analysis (CFA) to construct the latent variables. The missing data in responses was found to be small and was understood to be random without resulting in biased inferences. The missing data for latent variable construction was addressed by selecting the 'MLMV' (Maximum likelihood with missing values) estimator option. MLMV aims to retrieve maximum information plausible from the observations containing missing values unlike other estimators (ML or ADF) which delete the missing values (Acock, 2013). However, the estimator assumes the missing values are at random and follow normal distribution for observed variables.

After constructing the latent variables using CFA, the analysis was succeeded by building path models using 'gsem'. 'gsem' fits generalized linear models with latent constructs using maximum likelihood (ML) estimator with numerical integration instead of WLSMV used in Mplus. It implemented the most commonly occurring distribution functions associated with generalized linear models and its numerical integration accommodated for ordinal and multinominal variables (Skrondal & Rabe-Hesketh 2004). One of the benefits of using this estimator is that it allows for an option to also accommodate for the missing data to build the models instead of imputing the missing values beforehand. It is different from using MLMV estimator as it adopts equation wise deleter (Acock, 2013). The dynamics of missing data is not discussed in detail for using 'gsem' as in this case, it is addressed by constructing the variables used in building path models using MLMV estimators.

However, there are also some compromises in building models in Stata or using gsem (ML estimator). One of them is, gsem only gives unstandardised regression coefficients for each of the items in the model and the other, and also more significant one, is its inability to produce absolute fit for constructed models when they involve categorical variables. This shortcoming was addressed by examining the relative fit (AIC/BIC) values for various plausible models and the most fit model was chosen and presented.

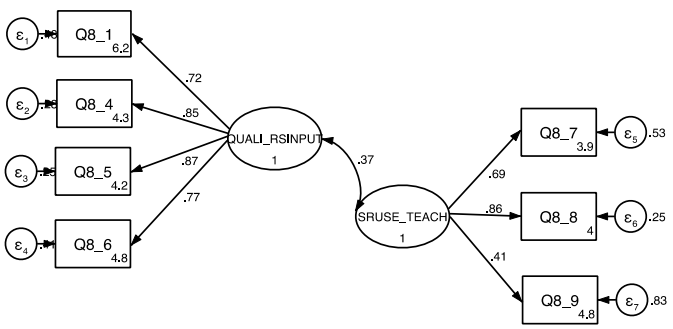
The construction of latent variables, using the observed variables from the survey, was driven by theoretical underpinning and informed by previous research literature. Confirmatory factor analysis was used to build the latent constructs and the goodness of fit measures for each of the models were estimated. Among the plethora of available measures of goodness of fit, the prominent or widely used ones have been reported (Kline, 2015). The indicators fell well within the accepted range of fit indices of RMSEA [<0.08], CFI, TLI [>0.9] and SRMR [<0.08] (Hu & Bentler, 1999). The CFA models below (Figure 7.1, 7.2 & 7.3) also highlight the standardised regression coefficients, along with the accompanying error terms, for various observed variables which were used in calculating the values/scores of latent variables (see Table 7.1 below for latent and observed variables identified in the CFA models). The missing data among the observed items, used for latent variable construction of QUALI_RSINPUT ('quality inputs and support from RSs') and SRUSE_TEACH ('support on research use to improve teaching'), were between 6-10% (15 to 24 observations out of 252). Likewise, for construction of variable of PSN_RUSE ('personal ability and understanding of research use'), CUL_RUSE ('research use culture and capacity in school') and PUP_LENG ('pupil engagement and learning'), missing values were between 5-12% (13 to 28 observations out of 252). They are handled by the choice of estimator (MLMV) as mentioned above. In the case of latent constructs, LS_RUSE ('leadership support for research use') and LS_PDI ('leadership support for professional learning and improvement'), less than 2% (less than 5 observations) were found to be missing. except for one of the items, Q7_5, with 5% (or 13 observations) missing.

Table 7.1: Latent variables and observed (measured) variables

Latent Variables	Observed (Measured) Variables
LS_ RUSE: Leadership support for research use	7.1 Senior leaders in my school promote evidence-based approaches to teaching. 7.3 Research is seen as a useful source of information in my school. 7.4 We are genuinely encouraged to use research as part of our ongoing work. 7.5 Innovations introduced to my school by senior leaders often result in competing demands and fragmentation of effort.
LS_ PDI: Leadership support for professional learning and improvement	7.6 Senior leaders in my school make effective use of wider networks for school improvement. 7.8 School leaders are actively involved in promoting professional learning and development opportunities for staff. 7.9 There is a clear sense of shared purpose in my school.
SRUSE_TEACH: Support on research use to improve teaching	8.7 Support from SLT in using research evidence to improve teaching 8.8 Support from other colleagues (non-SLT) in my school in using research evidence to improve teaching

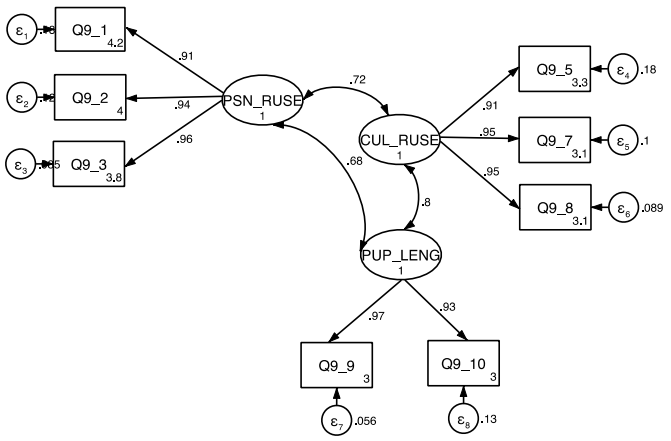
Latent Variables	Observed (Measured) Variables
	8.9 Support from colleagues in other schools in using research evidence to improve teaching
QUALI_RSINPUT: Quality inputs and support from RSs	8.1 The value of research evidence provided through RS activities in helping me make informed decisions 8.4 The *accessibility* of research evidence provided through RS activities 8.5 The *relevance* and *applicability* of research evidence provided through RS activities 8.6 The quality of inputs or support from the Research School(s)
PSN_RUSE: Personal ability and understanding of research use	9.1 My improved understanding about the value of evidence informed practice 9.2 My improved ability to access relevant research evidence 9.3 My improved understanding of how to use research evidence to improve my own practice
CUL_RUSE: Research use culture and capacity in school	9.5 Greater use of research evidence by staff to improve teaching and learning in my school 9.7 More research use culture in my school 9.8 More capacity and skills in my school to use evidence informed practice
PUP_LENG: Pupil engagement and learning outcomes	9.9 Greater pupil engagement in learning 9.10 Better pupil learning outcomes

Figure 7.1: RS input and support on research use: latent variables of QUALI_RSINPUT and SRUSE_TEACH



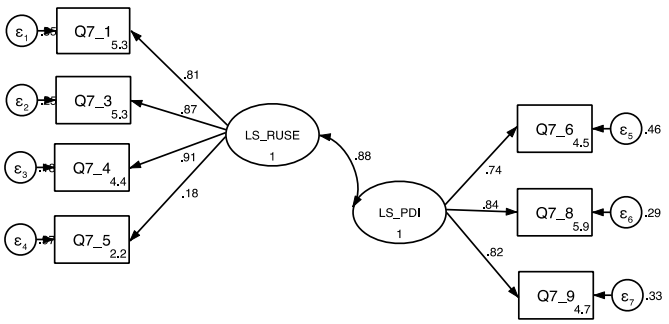
Goodness of fit: RMSEA = 0.048; CFI = 0.988; TLI = 0.981

Figure 7.2: Impact on individuals, school culture and pupils: Latent variables of PSN_RUSE, CUL_RUSE and PUP_LENG



Goodness of fit: RMSEA = 0.065; CFI = 0.992; TLI = 0.987

Figure 7.3: Leadership support: Latent variables of LS_PDI and LS_RUSE



Goodness of fit: RMSEA = 0.071; CFI = 0.985; TLI = 0.976

The seven latent variables constructed and predicted using confirmatory factor analysis fed into the next stage of the analysis for charting out the path of influence among the variables of interest. Path analysis is a more suitable technique over others given the context of the current study. Unlike other techniques such as multivariate regression analysis, Anova, or cluster analysis, path analysis helps in visualising the complex interaction of different latent and observed variables. It gives scope to investigate direct and indirect effects by adding mediating variables and also have multiple outcome variables. Therefore, path analysis is employed to assess the direction and magnitude of influence for variables of interest.

Table 7.2 below gives a picture of important summary statistics (observations, means, standard deviation values, range) of the relevant latent and observed variables in the study.

Table 7.2: Summary statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
Leadership support for research use = LS_RUSE	252	0.00	0.79	-3.17	0.77
Leadership support for professional learning and improvement = LS_PDI	252	0.00	0.79	-3.35	0.75
Quality inputs and support from RSs = QUALI_RSINPUT	252	0.00	0.46	-1.72	0.55
Support on research use to improve teaching = SRUSE_TEACH	252	0.00	0.64	-2.29	0.91
Personal ability and understanding of research use = PSN_RUSE	252	0.00	1.00	-3.33	1.19
Research use culture and capacity in school = CUL_RUSE	252	0.00	1.19	-3.10	1.62
Pupil engagement and learning outcomes = PUP_LENG	252	0.00	1.25	-3.05	1.93
Ofsted*	233	1.94	0.60	1.00	3.00
CHANGE	252	0.86	0.35	0.00	1.00
Opportunity Area*	215	0.71	0.46	0.00	1.00

******The reduction in number of observations from 252 is due to the missing values*

The values of all the seven latent variables above were estimated using standardised regressions within the CFA. The means of the latent variables are zero as shown above. Due to the estimator used and the nature of factor analysis, there were no missing values observed in any of the latent variables. There were missing values in knowing if the

respondent's school was located within or outside the OA. Similarly, the Ofsted judgement results were not known in the case of 19 observations.

Before constructing the path analysis models, the correlation matrix (Table 7.3) helps in assessing the direction of relationship between variables in the model. There is a positive correlation (significant at 99% levels) among all the latent variables and hence all these variables tend to change in the same direction. A significant, although low, negative correlation can be observed between Ofsted and LS_RUSE and LS_PDI variables. Ofsted variable can be observed to be poorly correlated to any of the perceived latent variables (mostly non-significant).

Table 7.3: Correlations between latent variables

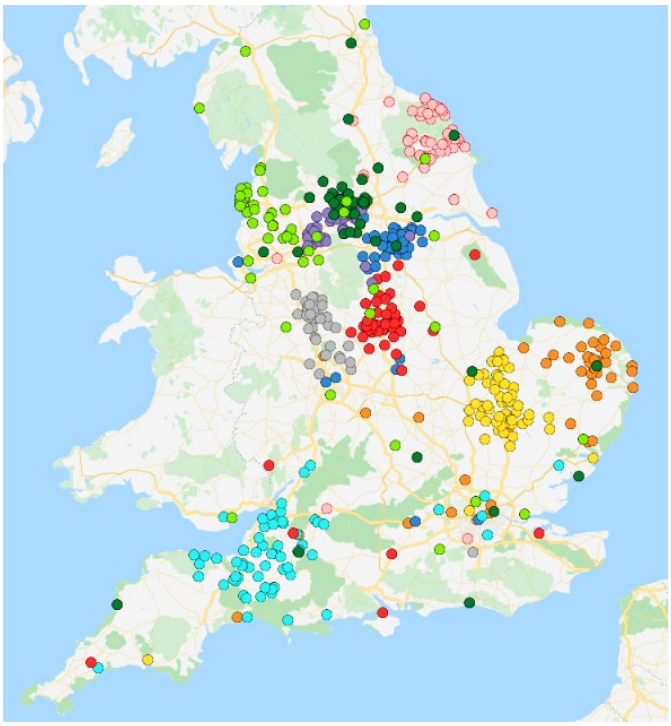
	LS_RUSE	LS_PDI	QUALI_RSINPUT	SRUSE_TEACH	PSN_RUSE	CUL_RUSE	PUP_LENG	OFSTED
LS_RUSE	1.00							
LS_PDI	0.95	1.00						
	0.00							
QUALI_RSINPUT	0.24	0.25	1.00					
	0.00	0.00						
SRUSE_TEACH	0.52	0.54	0.42	1.00				
	0.00	0.00	0.00					
PSN_RUSE	0.23	0.21	0.65	0.29	1.00			
	0.00	0.00	0.00	0.00				
CUL_RUSE	0.51	0.47	0.54	0.50	0.76	1.00		
	0.00	0.00	0.00	0.00	0.00			
PUP_LENG	0.35	0.35	0.54	0.42	0.72	0.84	1.00	
	0.00	0.00	0.00	0.00	0.00	0.00		
OFSTED	0.18	0.17	-0.08	-0.03	-0.12	-0.08	-0.03	1.00
	0.01	0.01	0.23	0.65	0.05	0.24	0.65	

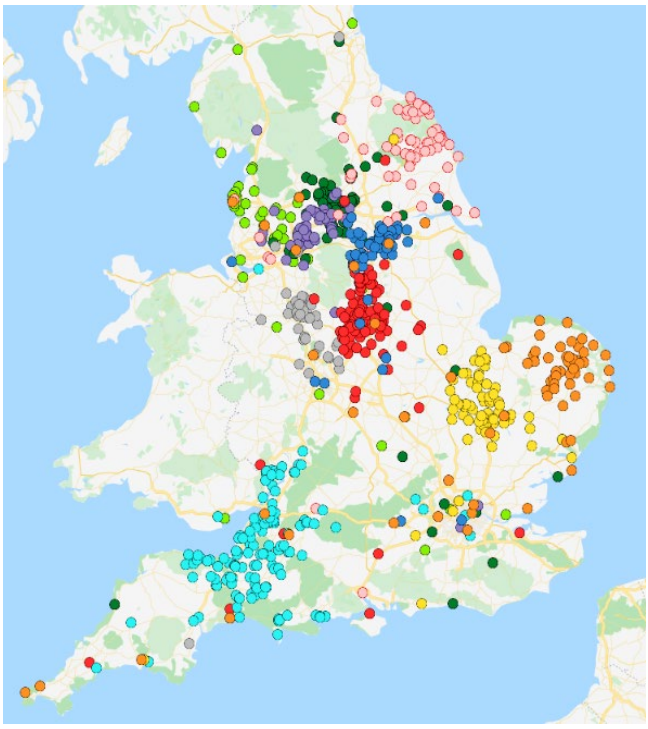
Table 7.4: Coefficients in path analysis

VARIABLES	Research use culture and capacity in school	Pupil engagement and learning outcomes	CHANGE	Support on research use to improve teaching	Leadership support for research use	Personal ability and understanding of research use	Quality inputs and support from RSs	Ofsted	
Personal ability and understanding of research use	0.77***								
	(0.04)								
Leadership support for research use	0.41***			0.42***					
	(0.06)			(0.04)					
Research use culture and capacity in school		0.84***	0.69***						
		(0.04)	(0.15)						
Leadership support for professional learning and improvement					0.94***			0.48***	
					(0.02)			(0.18)	
Support on research use to improve teaching	0.32***					0.03	0.30***		
	(0.07)					(0.08)	(0.04)		
Quality inputs and support from RSs						1.40***			
						(0.12)			
CHANGE		0.42***							
		(0.13)							
Constant	0	-0.36***	2.03***	0	0	0	0		
	(0.04)	(0.12)	(0.21)	(0.03)	(0.02)	(0.05)	(0.03)		
var(e.CUL_RUSE)									0.39***
									(0.04)
var(e.PUP_LENG)									0.44***
									(0.04)
var(e.PSN_RUSE)									0.57***
									(0.05)
var(e.LS_RUSE)									0.07***
									(0.01)
var(e.QUALI_RSINPUT)									0.17***
									(0.02)
var(e.SRUSE_TEACH)									0.30***
									(0.03)
Observations	252	252	252	252	252	252	252	252	252
Standard errors in parentheses									
*** p<0.01, ** p<0.05, * p<0.1									

Appendix 8: Reach and Engagement by Newsletters and CPD and Training

Figure 8.1: Location of schools identified as subscribing to the RS OA newsletters 2017/18 and 2018/19





2017/18 **2018/19**

Notes: The coloured points represent different RSs, but a key has not been provided to retain the anonymity of individual RSs.

Figure 8.2: Location of schools identified as participating in the RS training programmes 2017-20

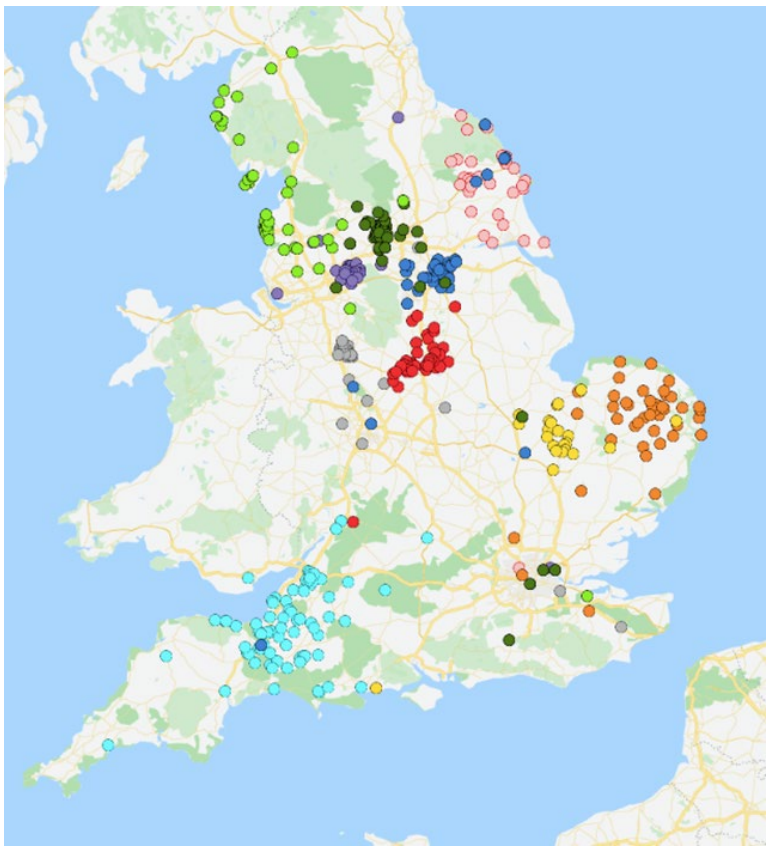


Table 8.1: Number and percent of schools subscribed to the newsletter that are within the OA by RS

Research School	Academic year	Number of schools identified in the subscriber database	Number of schools located with the OAs	% of all subscriber schools that are within the OA	% of schools in the OA that have subscribed to the newsletter
RS 1	2017/18	67	15	22	36
	2018/19	67	12	18	29
RS 2	2017/18	90	48	53	21
	2018/19	174	89	51	40
RS 3	2017/18	133	46	35	46
	2018/19	245	69	28	70
RS 4	2017/18	130	100	77	84
	2018/19	102	64	63	54
RS 5	2017/18	81	29	36	34
	2018/19	102	34	33	40
RS 6	2017/18	73	51	70	16
	2018/19	92	52	57	16
RS 7	2017/18	73	29	40	27
	2018/19	104	34	33	32
RS 8	2017/18	85	44	52	44
	2018/19	115	50	43	50
RS 9	2017/18	72	23	32	29
	2018/19	92	21	23	27
RS 10	2017/18	78	8	10	25
	2018/19	172	13	8	41
Total	**2017/18**	**882**	**393**	**45**	**33**
	2018/19	**1265**	**438**	**35**	**36**

As Tables 8.2 and 8.3 show, there was considerable variation in the numbers of individuals and schools taking part in these training activities across the ten RSs and over the different academic years. However, this might be due to changes in the training offering across the time period covered and/or missing data caused by RSs not sharing participant lists with the evaluation team.

It is also necessary to note that the numbers below only refer to *formal CPD and training programmes that lasted two days or more*. They exclude conferences, short courses and one-off, information sharing oriented twilight sessions. For example, there were no recorded formal CPD and training programmes for RS 6 and only one for RS 3 in the 2017/18 year. However, we know from our RSN engagement database that they both had run conferences and training events in the first year.

Table 8.2: Individuals and schools that participated in RS training programmes (2017-20)

Research School	Academic year	Number of schools represented by participants	Number of individual school staff that participated	Average school staff participants per school (mean)
RS 1	2017/18	9	15	2
	2018/19	54	106	2
	2019/20	25	36	1
RS 2	2017/18	23	44	2
	2018/19	52	83	2
	2019/20	26	41	2

Research School	Academic year	Number of schools represented by participants	Number of individual school staff that participated	Average school staff participants per school (mean)
RS 3	2017/18	1	28	28
	2018/19	57	80	1
	2019/20	42	66	2
RS 4	2017/18	13	20	2
	2018/19	68	154	2
	2019/20	38	56	1
RS 5	2017/18	11	19	2
	2018/19	11	44	4
	2019/20	10	12	1
RS 6	2017/18	0	0	0
	2018/19	42	73	2
	2019/20	8	8	1
RS 7	2017/18	14	20	1
	2018/19	57	98	2
	2019/20	42	87	2
RS 8	2017/18	32	23	1
	2018/19	11	13	1
	2019/20	39	69	2
RS 9	2017/18	28	39	1
	2018/19	39	76	2
	2019/20	11	12	1
RS 10	2017/18	41	60	1
	2018/19	31	46	1
	2019/20	38	49	1
All	**2017/18**	**172**	**268**	**2**
	2018/19	**422**	**773**	**2**
	2019/20	**279**	**436**	**2**

Table 8.3: Number and percent of schools participating in the training programmes that are within the OA by RS

Research School	Academic year	Number of schools identified as participating in the RS training programmes	Number of schools participating in the RS training programmes that are located with the OAs	% of all schools participating in the RS training programmes that are within the OA	% of schools in the OA that have participated in RS training programmes
RS 1	2017/18	9	7	78	17
	2018/19	54	18	33	43
	2019/20	25	9	36	21
RS 2	2017/18	24	17	74	8
	2018/19	52	29	56	13
	2019/20	26	14	54	6
RS 3	2017/18	1	1	100	1
	2018/19	57	26	46	26
	2019/20	42	11	26	11
RS 4	2017/18	13	10	77	8
	2018/19	68	51	75	43
	2019/20	38	30	79	25

Research School	Academic year	Number of schools identified as participating in the RS training programmes	Number of schools participating in the RS training programmes that are located with the OAs	% of all schools participating in the RS training programmes that are within the OA	% of schools in the OA that have participated in RS training programmes
RS 5	2017/18	11	5	45	6
	2018/19	11	7	64	8
	2019/20	10	3	30	3
RS 6	2017/18	0	0	0	0
	2018/19	42	22	52	7
	2019/20	8	4	50	1
RS 7	2017/18	14	8	45	8
	2018/19	57	27	47	25
	2019/20	42	21	50	20
RS 8	2017/18	32	26	81	26
	2018/19	11	8	73	8
	2019/20	39	24	62	24
RS 9	2017/18	28	18	64	23
	2018/19	39	23	59	29
	2019/20	11	9	82	12
RS 10	2017/18	41	4	10	13
	2018/19	31	1	3	3
	2019/20	38	5	13	16
All	**2017/18**	**172**	**96**	**56**	**8**
	2018/19	**422**	**212**	**50**	**18**
	2019/20	**279**	**130**	**47**	**11**

Appendix 9: Factor analysis outputs

The Principal Component Analysis (PCA) was conducted for Q7 (9 items), 8 (10 items) and 9 (10 items) in the follow-up survey. The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis (KMO= 0.91, 0.82 and 0.92 respectively), exceeding the recommended value of 0.6, and the Barlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix. Four factors were identified across the three questions. The tables 9.1-3 below show the factors loading after rotation.

Table 9.1 Rotated component matrix (Question 7) (n=242)

Component Matrix[a]	**Q7 Senior leadership**	**Communality**
Q7-4 We are genuinely encouraged to use research as part of our ongoing work	.88	0.77
Q7-8 Senior leaders in my school are actively involved in promoting professional learning and development opportunities for staff	.86	0.73
Q7-9 There is a clear sense of shared purpose in my school	.85	0.72
Q7-3 Research is seen as a useful source of information in my school	.85	0.72
Q7-1 Senior leaders in my school promote evidence-based approaches to teaching	.84	0.70
Q7-6 Senior leaders in my school make effective use of wider networks for school improvement	.76	0.57
Q7-2 There are incentives in my school which encourage all staff to consider new ideas for their professional practice	.70	0.49
Q7-7 Senior leaders in my school demonstrate high expectations for pupil achievement in everyday activities	.69	0.47
Eigenvalues	5.17	
% of variance	64.58	
α	0.92	

Extraction Method: Principal Component Analysis.
a. 1 components extracted.
KMO = 0.91

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.909
Bartlett's Test of Sphericity	Approx. Chi-Square	1371.125
	df	28
	Sig.	.000

Table 9.2 Rotated component matrix (Question 8) (n=253)

Pattern Matrix[a]	RS Input & support	Support for RU	Communality
Q8-1 The value of research evidence provided through RS activities in helping me make informed decisions	.85		0.68
Q8-6 The quality of inputs or support from the Research School(s)	.84		0.68
Q8-5 The relevance and applicability of research evidence provided through RS activities	.83		0.69
Q8-2 The trustworthiness/credibility of the evidence base provided through RS activities	.80		0.59
Q8-4 The accessibility of research evidence provided through RS activities	.79		0.67
Q8-10 Funding in the Opportunity Area to enable people to attend Research School training/events	.49		0.37
Q8-8 Support from other colleagues (non-SLT) in my school in using research evidence to improve teaching		.92	0.77
Q8-7 Support from SLT in using research evidence to improve teaching		.76	0.59
Q8-9 Support from colleagues in other schools in using research evidence to improve teaching		.62	0.41
Q8-3 The time and resources available to me	.39	.39	0.42
Eigenvalues	4.32	1.54	
% of variance	43.22	15.39	
α	0.86	0.64	

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 4 iterations.
KMO= 0.82

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.817
Bartlett's Test of Sphericity	Approx. Chi-Square	770.670
	df	45
	Sig.	.000

Table 9.3 Rotated component matrix (Question 9) (n=251)

Component Matrix[a]

	Impacts	Communality
Q9-8 More capacity and skills in my school to use evidence informed practice	.91	0.83
Q9-7 More research use culture in my school	.89	0.79
Q9-5 Greater use of research evidence by staff to improve teaching and learning in my school	.88	0.78
Q9-9 Greater pupil engagement in learning	.87	0.75
Q9-4 Improved support from SLT in using research evidence to improve teaching and learning	.86	0.75
Q9-3 My improved understanding of how to use research evidence to improve my own practice	.86	0.73
Q9-2 My improved ability to access relevant research evidence	.85	0.73
Q9-10 Better pupil learning outcomes	.83	0.68
Q9-1 My improved understanding about the value of evidence informed practice	.80	0.64
Q9-6 Working more collaboratively with colleagues in other schools	.79	0.62
Eigenvalues	7.31	
% of variance	73.14	
α	0.96	

Extraction Method: Principal Component Analysis.
a. 1 components extracted.
KMO=0.92

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.919
Bartlett's Test of Sphericity	Approx. Chi-Square	2558.373
	df	45
	Sig.	.000

Table 9.4 Correlation analysis of factor scores for Q7 (senior leadership), Q8 (RS training and support), Q9 (impacts) and Q6b (Meeting expectation)

		Q8-1 RS Input & support	Q8-2 Support for RU	Q9 Impact	Q6b Meeting expectation
Q7 Senior leadership	Pearson Correlation	**.163***	**.499****	**.462****	**.299****
	Sig. (2-tailed)	.029	.000	.000	.000
	N	178	178	209	244
Q8_1 RS input & support	Pearson Correlation		**.362****	**.651****	**.497****
	Sig. (2-tailed)		.000	.000	.000
	N		184	168	182
Q8_2 Support for RU	Pearson Correlation			**.404****	**.198****
	Sig. (2-tailed)			.000	.007
	N			168	182
Q9 Impacts	Pearson Correlation				**.550****
	Sig. (2-tailed)				.000
	N				212

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Appendix 10: CPD Pro Forma Analysis Outputs

(1) Figure 10.1: Extent to which the RS training programme attended has impacted on aspects of respondents' knowledge, practice and beliefs – CPD pro forma follow-up survey

(2) Developing positivity and improvement scores: analysis of the 81 participants who had completed the baseline and on-completion surveys

Drawing together the reported levels of confidence at the baseline and the extent of any impacts as a result of the training across the four domains (subject knowledge, teaching practice, classroom management and professional beliefs and behaviour) we can see some trends in where the training programmes are most likely to have made a difference. The mean change in 'scores' between the baseline and on-completion survey across the areas gauged by the survey was calculated by allocating a numeric value to the responses to both the confidence and impact questions as follows:

- Not at all = 1
- Very little = 2
- A little = 3
- Partially = 4
- A lot = 5
- Very significantly = 6

For each respondent, the difference between the numeric value of the impact rating in the on-completion survey and the confidence rating in the baseline survey was calculated. It was only possible to calculate scores for respondents who had answered the statements in both the baseline and on-completion surveys; responses of 'not applicable' were treated as missing and hence not included any calculations.

This calculation generated an 'improvement score' as an indicator of the relationship between initial confidence reported in the baseline survey and the level of impact resulting from the training reported in the on-completion survey. Where, for example, a respondent reported very low levels of confidence in the baseline survey, but then high levels of impact in the on-completion survey, the score would be relatively high; and a high score therefore suggests that there was a need for the training to address that area (because confidence was relatively low) and that the training has had a substantial impact on that area (because the respondent rated the level of impact as relatively high). Across all statements within each of the four domains, mean 'improvement scores' were calculated to give an overall picture of how much difference the programmes have made against each aspect of teaching.

(3) Principal Factor Analysis for on-completion (OC) and follow-up (FU) surveys

3-1. Factor analysis result FU Q1 Subject knowledge (n=48)

Component Matrix[a]

	Component 1
Q1-4 Understanding how to identify typical misconceptions that pupils have about the subject content	.882
Q1-5 Knowing how to assess pupils' thinking and learning	.830
Q1-3 Understanding how to teach in a way that makes the subject content accessible to pupils	.700
Q1-1 Understanding of subject knowledge	.622
Q1-2 Using research-based evidence to inform most decisions about professional practice	.493
Eigenvalues	2.59
% of variance	51.71
α	0.75
KMO	0.74

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

3-2. Factor analysis result FU Q2 Teaching practice (n=47)
Component Matrix[a]

	Component 1
Q2-4 Providing pupils with a range of feedback that helps them understand what they did well, and how they can improve	.856
Q2-5 Using questioning skills that challenge and extend pupils' thinking and learning	.793
Q2-1 Knowing how to plan and deliver activities that help pupils learn	.764
Q2-3 Meeting the particular demands of the learning needs of each pupil	.749

Q2-2 Knowing how to use pupil assessment and progress data to inform practice	.747
Q2-6 Knowing how to scaffold learning in a concrete and meaningful way	.743
Q2-7 Giving pupils opportunities to take responsibilities for their own learning	.654
Eigenvalues	4.05
% of variance	57.79
α	0.87
KMO	0.77

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

3-3. Factor analysis result FU Q3 Classroom management (n=41)
Component Matrix[a]

	Component 1
Q3-3 Setting high standards for academic performance	.928
Q3-5 Setting high expectations of pupil behaviour	.926
Q3-1 Creating an atmosphere of caring and trust with the pupils	.885
Q3-2 Setting clear lesson goals that explain what the students need to understand and what they must be able to do as a result of each lesson	.874
Q3-7 Managing pupil behaviour with clear and consistent rules	.867
Q3-6 Ensuring all pupils are engaged with learning	.858
Q3-4 Motivating pupils to learn	.848
Q3-8 Allocating resources and space strategically based on pupil needs	.806
Eigenvalues	6.12
% of variance	76.54
α	0.95
KMO	0.85

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

3-4. Factor analysis result FU Q4. Professional beliefs and behaviour (n=45)
Component Matrix[a]

	Component 1
Q4-4 Understanding the role of teaching in the learning process of pupils	.840
Q4-5 Working collaboratively with other colleagues in my school	.812
Q4-1 Understanding how to monitor and reflect on the effectiveness of changes I make to my practice	.796
Q4-2 Understanding what adjustments I must make to maximise pupil learning outcomes	.795
Q4-3 Understanding how pupils learn	.697
Q4-7 Feeling that I am an effective teacher	.694
Q4-6 Engaging parents in their children's learning	.597
Eigenvalues	3.95
% of variance	56.47
α	0.85
KMO	0.76

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

3-5. Factor analysis result OC Q3 Subject knowledge (n=44)
Component Matrix[a]

	Component 1
Q3_3 Understanding how to teach in a way that makes the subject content accessible to pupils	.848
Q3_4 Understanding how to identify typical misconceptions that pupils have about the subject content	.794
Q3_5 Knowing how to assess pupils' thinking and learning	.792
Q3_2 Using research-based evidence to inform most decisions about professional practice	.766

Q3_1 Understanding of subject knowledge	.763
Eigenvalues	3.14
% of variance	62.89
α	0.83
KMO	0.81

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

3-6. Factor analysis result OC Q4 Teaching practice (n=42)
Component Matrix[a]

	Component 1
Q4_6 Knowing how to scaffold learning in a concrete and meaningful way	.910
Q4_4 Providing pupils with a range of feedback that helps them understand what they did well, and how they can improve	.900
Q4_3 Meeting the particular demands of the learning needs of each pupil	.892
Q4_7 Giving pupils opportunities to take responsibilities for their own learning	.889
Q4_5 Using questioning skills that challenge and extend pupils' thinking and learning	.868
Q4_2 Knowing how to use pupil assessment and progress data to inform practice	.792
Q4_1 Knowing how to plan and deliver activities that help pupils learn	.756
Eigenvalues	5.18
% of variance	73.97
α	0.94
KMO	0.89

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

3-7. Factor analysis result OC Q5 Classroom management (n=35)
Component Matrix[a]

	Component 1
Q5_5 Setting high expectations of pupil behaviour	.923
Q5_1 Creating an atmosphere of caring and trust with the pupils	.920
Q5_2 Setting clear lesson goals that explain what the students need to understand and what they must be able to do as a result of each lesson	.920
Q5_4 Motivating pupils to learn	.914
Q5_3 Setting high standards for academic performance	.880
Q5_7 Managing pupil behaviour with clear and consistent rules	.866
Q5_8 Allocating resources and space strategically based on pupil needs	.847
Q5_6 Ensuring all pupils are engaged with learning	.812
Eigenvalues	6.28
% of variance	78.52
α	0.96
KMO	0.82

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

3-8. Factor analysis result OC Q6 Professional beliefs and behaviour (n=40)
Component Matrix[a]

	Component 1
Q6_4 Understanding the role of teaching in the learning process of pupils	.887
Q6_2 Understanding what adjustments I must make to maximise pupil learning outcomes	.878
Q6_1 Understanding how to monitor and reflect on the effectiveness of changes I make to my practice	.874
Q6_5 Working collaboratively with other colleagues in my school	.813
Q6_7 Feeling that I am an effective teacher	.791
Q6_3 Understanding how pupils learn	.790
Q6_6 Engaging parents in their children's learning	.716

Eigenvalues	4.75
% of variance	67.79
α	0.91
KMO	0.85

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

3-9. Factor analysis result OC Q1 Training experience (n=50)
Component Matrix[a]

	Component 1
Q1_3 Different types of training activity on the programme will enable me to apply new learning in my own workplace	.750
Q1_1 I am persuaded that the promoted practice will make a difference to the learning of my pupils	.688
Q1_4 The training programme challenges my existing assumptions about effective practice	.637
Q1_6 I am clear about the theory that informs the new practice promoted in the training programme	.597
Q1_2 I have the opportunity to discuss how I view my existing practice on the training programme	.538
Q1_5 The training programme is based on sound research about teaching and/or student learning	.311
Eigenvalues	2.18
% of variance	36.41
α	0.63
KMO	0.44

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

3-10. Factor analysis result OC Q2 Senior Leadership (n=44)
Component Matrix[a]

	Component 1
Q2_6 School leaders are actively involved in promoting professional learning and development opportunities for staff	.935
Q2_4 Senior leaders in my school are well aware of the research evidence on effective pedagogy	.892
Q2_1 Senior leaders in my school promote evidence-based approaches to teaching	.885
Q2_2 There are incentives in my school which encourage all staff to consider new ideas for their professional practice	.867
Q2_5 Senior leaders in my school demonstrate high expectations for pupil achievement in everyday activities	.709
Q2_3 Innovations introduced to my school by senior leaders often result in competing demands and fragmentation of effort	-.448
Eigenvalues	3.91
% of variance	65.12
α	0.71
KMO	0.88

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

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