Collaborative practice insight four:

Evidence at the heart

Education
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Trust

About this document

This one of a series of research informed briefs which bring together learning from Education Development Trust's School Partnership Programme (SPP).

SPP is a partnership-based approach to school improvement that has worked collaboratively with over 1,300 schools. Through the programme, groups of schools build capacity and capability in effective school self-review, peer review and school-to-school support and improvement.

These research informed briefs report what school partnerships have discovered about working together through peer review and how their experience compares with wider research findings.

This brief examines what one Multi-academy Trust has discovered about the process of gathering data and evidence to support the peer review process and subsequent school improvement to enhance outcomes for pupils.

Footnote: In this briefing, the term 'evidence' is used interchangeably to mean evidence which is internal to a school (i.e. the internal data and information used as part of the peer review process); or evidence which is external to a school (i.e. third party published research or best practice which is pertinent to the challenges faced by a school). The correct interpretation of the word will be apparent from the context.

It starts with curiosity. We wonder how things work – and why sometimes they don't. That leads to exploration and, often, experimentation. We make discoveries. And then it happens: learning.

Put that cycle into a managed process, and teams or organisations are able to use their learning to create knowledge. Together, they get better at what they do.

That's what this brief is about. It examines how peer review enables organisations to gather information, make sense of it, learn and create knowledge. It's about how organisations set about creating a culture of enquiry to drive improvement.

That has been the mission of Stef Edwards and her team in Leicestershire. Stef is the Chief Executive of the Learn Academies Trust (Learn AT), which currently consists of ten primary schools.

Working together, school leaders across the Trust have embraced the concept of enquiry. By gathering the right information and asking the right questions, they plan to embed evidence informed practice in more classrooms, more often. They're driven by a simple aim: to improve outcomes for children.

To do this, Trust leaders are using a combination of peer review (using the SPP model) and the practice of lesson study to identify areas for improvement and strategies for addressing them. They work well together as complementary processes.

'We started with lesson study, as a way of thinking more systematically about practice,' says Stef. *'We didn't know what we didn't know.'*

'Lesson study has helped our teachers and leaders to be more critical. It's given them an enhanced sense of their own professionalism.'

At Learn AT, lesson study is now the main vehicle for professional learning. Teachers are able to work in teams to identify a challenge they want to address, linked to their school's priorities.

'It has taken time to get the process right,' says Stef. *'We made lots of mistakes along the way – for example, we didn't allow enough time for research at the beginning, so we were just recycling what people already knew. Consequently, we weren't getting the impact we wanted.'* The Trust has refined its approach as a result. *'We've learned that teachers need dedicated time in the school day to make the process work. They need someone to facilitate. They need access to specialists.'*

What is lesson study?

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

The Japanese Lesson Study model has been advocated in the UK for some time, both by the (then) National College for Teaching and Leadership and its predecessor organisations.

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Lesson study and the SPP peer review process have many common characteristics. They work well together.

'Both lesson study and peer review are about enquiry,' says Stef. *'Lesson study embeds an enquiry-oriented approach at class teacher level – which reflects the enquiry cycle of peer review at school level. They feed each other.'*

'As a Trust, we had been thinking about peer review for a while. Schools wanted an external input to their own reviews and, together, we wanted a stronger sense of holding ourselves to account as a Trust. We knew we needed support to do this well, which is why we turned to SPP.'

It is still early days, but Stef Edwards hopes that the SPP peer review process will support the Trust's commitment to evidence informed practice. *'Relatively few of us have had experience of going into another school and sitting down as a team to think about the data and evidence that we want to draw together to understand what is happening. If it's done well, the peer review process should do more than tell us what we already know; it should be revelatory.'*

Gathering data for peer review

Alan Eathorne and Steve Roddy are both headteachers within Learn Academies Trust. Both have welcomed peer reviews in their own schools, as well as becoming lead peer reviewers of other schools in the Trust. They have seen the process from both sides.

'*Peer review has given us a formal approach to unpicking what is happening in our schools,*' says Alan, '*and a result, we have been able to identify where schools have similar areas of need and get deeper into the issues that we need to address together.*'

To realise the potential of the SPP peer review process, says Alan, schools should be bold in choosing the focus of their review. Select an issue that is a genuine development issue, he advises, not something where you think you already have a solution. Be open to possibilities.

Preparation for the review process is key. Evidence collection and analysis is critical throughout the peer review process. It begins with a school's own period of self-review. Both Steve and Alan agree that it pays to 'dig deep' at this stage. Reflecting on his own experience of being reviewed, Steve says: '*I would build in more time for the self-review process next time. We did it a week before the pre-meeting with the peer review team, but if we had planned it a month in advance with a sequence of meetings, we would have got more out of the day.*' With more time, Steve says he would involve a wider group of staff in the preparation next time, engaging more teachers directly in peer review as a positive developmental process.

When it comes to the pre-meeting with the review team, Steve Roddy advises schools and lead reviewers to be focused in their approach. '*Sharpen your enquiry questions,*' he says, '*so that you can get to the bottom of an issue. Don't be afraid to have a narrow focus if that's needed. Decide what you can realistically achieve in one day and agree goals that will genuinely inform future learning.*'

Alan agrees. As a reviewer, he has learned the importance of focus and challenge in the pre-review meeting. Reflecting on his experience, he feels he could have done more to help narrow the focus of the enquiry.

And he goes further. He believes reviewers should be prepared to push schools to focus on issues that will help them improve most. If schools are suggesting areas of enquiry simply to confirm solutions they have already identified, reviewers should be prepared to challenge. '*Be prepared to say "if you know that, there's not much point focusing on it in the review*",' advises Alan.

In preparation for undertaking reviews as lead reviewers, both Alan and Steve have drawn on external sources of research – for example, on the use of support staff and also on vocabulary development.

Data sources to support peer review

Prior to peer review, schools within the Learn Academies Trust share their self-evaluation information (SEF) which includes end-of-key-stage data from the previous year and in-school data for maths and English for the current year (including a breakdown by gender/group and the results of any standardised tests/comparative judgement outcomes for writing, etc.).

Other sources of data and information might include external school review visit reports, monitoring records, examples of children's work, pupil interviews, lesson study posters/reports.

As heads and reviewers assemble data and information to support the review process, both Steve and Alan urge leaders to 'think beyond the obvious'.

'This is not just about SATs data,' says Alan, *'although that might be part of it. If you are looking at the SATs data, be imaginative and use it in different ways. In one review, we used it to check for evidence of unconscious bias in the way targets were set for pupil premium children, for example, to guard against any pre-disposition to give disadvantaged pupils lower attainment targets.'*

Fellow reviewer, Dave Turner, advocates a similarly thoughtful approach to the use of data. 'One of the big bits of learning for me (as a peer reviewer) was not to go for too many evidence sources. Think carefully about your selection,' he says.

Steve Roddy underlines the difference between the peer review process and other forms of school accountability. *'This is not "mocksted",'* he stresses, *'so it need not follow the routes that other processes follow. With peer review, we're looking for a different outcome, so it might not be all about numerical data.'*

He gives the example of a review which explored reading and looked especially at making effective use of support staff. *'The voice of support staff themselves was really important,'* he said, *'and we made good use of that evidence in the review. It also made those staff feel valued and it engaged them in the process.'*

Alan Eathorne concurs: *'Make use of different voices. If you want to understand, say, children's attitudes to reading, ask them!'*

Sarah Bodicote was also a member of a review team which explored reading.

'We wanted to understand how reading was taught, so it wasn't just about the outcomes data,' she explains. The team sought out evidence in children's reading journals, their reading diaries (to see which children read regularly at home) and teachers' record-keeping folders, as well as watching lessons themselves. *'We even looked at the library and how reading was presented around the school to see how accessible books were,'* says Sarah.

'As a review team, we met up throughout the review day to talk through what we had seen and to triangulate findings. We were also able to test and check our thoughts with the headteacher during the day.' This approach helps review teams to ensure that their findings have breadth, depth and validity. Sarah continues: *'The value of the peer review process is that it is open and supportive. We all want to improve.'*

Overall, the message is clear: be open to different sources of data, not just the traditional Ofsted numbers. Data comes in different types and different sizes.

Big data, small data

Dr Pasi Sahlberg urges teachers to use both big and small data to investigate what is happening in the classroom.

Sahlberg has been both a classroom teacher and policymaker in Finland, and now studies education systems around the world, advising governments and international bodies on school reform.

School leaders are familiar with big data. It derives from whole-school systems: assessment data; student profiling data; progress tracking; and so on. It is deeply embedded in England's highly regulated school system.

Big data provides essential information for assessing performance – but it has limitations, says Sahlberg:

'Big data normally reveals only correlation between events, not causation. Correlation is important in understanding these relationships, but it doesn't mean that one thing would cause the other.'

'We need information that helps us to understand better those aspects of teaching and learning that are invisible or not easily measurable,' he continues. *'This is where "small data" can add further value.'*

'Standardised tests or opinion surveys may help to identify some general trends, but they are not able to reveal deeper secrets of pedagogy. Therefore, small data can be a good tool to find out what works best, and why, in schools.'

Pasi Sahlberg: three practices for collecting and using small data

- Peer coaching for professional learning. Peer coaching provides teachers with an environment in which it is safe to test new ideas and try new practices. Absence of fear and anxiety helps teachers also to see more clearly those tiny clues – or small data – in teaching that may lead to understanding something that can unlock further professional learning. Systematic attention to finding small data in interaction between teachers in school may therefore enrich the current cultures of collaborative practices in school.

- Use of authentic assessment in the classroom. One productive use of small data is through authentic student assessments that utilise judgements made by both teachers and students. Student self-assessment, whether it is a portfolio or reflection, is a great way to allow students to explain and speak about their learning. Students' narratives often include tiny clues — or small data — about their learning or your teaching that may uncover important features about improving what you do in school.

- Discovering students' beliefs about the topics you are teaching. I taught mathematics in school for many years. Back then I systematically collected small data (although I didn't call it that) to understand students' beliefs about the mathematical world. Research showed me that students' conceptions of mathematics, however erroneous, are often very difficult to change. Data from standardised tests cannot inform a teacher about these important hidden cognitive forces. Therefore, it is small data that can help teachers understand why some students don't learn as well as they could in school.

'Small data has always been part of the process for experienced teachers, doctors, social workers and psychologists. It is not new, except the name. Danish management adviser, Martin Lindstrom, calls tiny clues that reveal big trends small data.'

'In school, these small clues are often hidden in the complex fabric of values, behaviours and cultures that determine what teachers and students do in school. Understanding this complexity – in other words, being sensitive to weak signals and small data – must become a priority for improving education.'

So it's not just about data; it's also about critical thinking.

Crucially, Sahlberg emphasises that big and small data are not either/or options. *'Small data is not an alternative to big data,'* he says, *'but a valuable complement to*

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evidence-based practice and good data in schools.'

The experience of school leaders at Learn Academies Trust bears this out. Together, they are using peer review to uncover small clues which reveal new insights into bigger challenges.

Evidence informed improvement

Back in Leicestershire, Will Baylis is one of the Improvement Champions (ICs) working across the Learn Academies Trust. He picks up the school improvement baton from reviewers like Alan, Sarah and Steve, working with teachers to shape the output of peer review into tangible action plans.

How does Will (along with his IC colleagues) set about gathering the data needed to facilitate improvement?

'I start by going to the end-of-review wash up meeting to begin the process of gathering the information I need for the improvement workshop,' says Will. *'I find that really valuable.'*

Just as with peer reviewers, Alan and Steve, Will's initial goal is focus and clarity. *'Sometimes I will contact a headteacher again, after the wash up meeting, to get more clarity. The aim is to identify the small foci to work on that will deliver the greatest improvement.'*

It is a process he repeats, in part, at the start of each improvement workshop. He replays the headlines of the review with staff, inviting them to give their perspective. His aim is to continue a process which is working 'with' school staff, not doing things 'to' them.

Will believes that a key role of Improvement Champions is to bring intelligence from wider research to the table, complementing the review findings and teacher inputs. *'That's what gives us a wider perspective for developing actions,'* he says, *'which is one of the strengths of the (SPP) process.'*

'By going to the research to inform the improvement workshop, we can bring greater focus and direction. We can use information to identify what doesn't work as well as what does. It's not always about doing something new; it's also about stopping things that make no difference.'

By gathering the outcomes of the peer review alongside the findings from research, Will is bringing together two 'fields of knowledge'.

The first is the knowledge and experience of the Trust's own practitioners, as revealed through peer review and very much rooted in the Trust's own context.

> **The aim is to identify the small foci to work on that will deliver the greatest improvement**

The second is the knowledge and intelligence from research and published best practice.

When these are brought together in improvement workshops, a third field of knowledge can result: that is the evidence informed insights that teachers develop themselves through collaborative work and enquiry. These new insights are informed by the findings of peer review from their teachers' own context, balanced by evidence from wider systems.

Will offers a practical example: *'When we were looking at reading, for example, the peer review outcomes gave us a snapshot of school performance. The addition of the published research helped us to think about how we keep a consistent journey for reading throughout the school, across all year groups. Digging deeper, we found that we had been re-teaching the same skills from one year group to the next, instead of thinking about the whole picture. The new insight helped inform options for improvement.'*

It's not always straightforward. Will is the first to admit that finding pertinent source material from the research

is a challenge. It takes time, and research sources sometimes contradict each other, although Will says: *'That forces us to think critically.'*

Will is fortunate in that he has access to a university library for research; he also suggests tapping into the Chartered College of Teaching and the Education Endowment Foundation. Stef Johnson, another IC and a lead practitioner for NCETM (National Centre for Excellence in the Teaching of Mathematics) also recommends Twitter as a gateway to useful material – taking care to follow credible sources that have a track record for rigour.

Claire Rodi is also an Improvement Champion within the Trust and, like Will, has similarly found it challenging to find pertinent research data to support improvement workshops. *'Talk to your senior colleagues, too,'* she advises. *'I got useful recommendations for research to explore from other colleagues in the Trust.'*

Claire is clear that external research adds value to the process. *'It really helped us to widen the discussion,'* says Claire, *'and to avoid just falling back on what we've always done.'*

'Although the research was not an exact match for our enquiry, it still helped to open avenues for discussion as we considered options for the future. It also enabled us to benchmark what we were doing already and maintain effective practice. The workshops are not necessarily about throwing everything out and starting again.'

Claire has some straightforward advice for other Improvement Champions: *'Keep the focus of your improvement workshop as tight as possible. For example, we narrowed one workshop from "use of support staff" to a much tighter focus looking at "what effective guided practice looks like". It meant we could also be much more focused with the research input.'*

A smaller number of pertinent research inputs is preferable to a wider range of less relevant sources.

Tips for successful improvement workshops

Sarah Walker is an Improvement Champion at Learn Academies Trust. She believes that the key to a successful improvement workshop is to keep it tightly focused on an issue where participants can make a difference.

Leading an improvement workshop on writing, she distilled the review feedback into a key question: 'How can we improve subject knowledge and teaching sequences in writing?'

One of the sources she used was Strand 4 from the EEF document, 'Improving Literacy at Key Stage 2' recommendations.

Sarah put each of the recommendations onto separate A3 sheets. Staff engaged in a carousel activity, reviewing each recommendation to assess current strengths and gaps in practice.

The enquiry-based approach aligns well with Learn Academies' existing commitment to lesson study – which is also enquiry-based. There is scope to align these even more closely in the future.

Enabling professional learning

Claire's advice finds an echo in the work of academic, Helen Timperley. *'Having large quantities of information is not the same as having high quality information,'* Helen says, about considering the evidence that teachers need to identify ways to improve their practice.

Timperley, a Professor of Education at Auckland University, New Zealand, has become well known for her work on teacher development. She is passionate about the power of effective, evidence informed professional learning as a powerful tool to improve schools.

Often, the process of considering data and research is an iterative process, says Timperley:

'Quality (of evidence) tends to improve as teachers and their leaders engage in iterative cycles of enquiry to build their pedagogical content knowledge, identify better questions to ask and seek more detailed evidence to answer them.'

'As they become more sophisticated in analysing student needs, the evidence sought becomes a search for answers to specific questions about specific puzzles evident in students' learning profiles.'

Helen Timperley also sounds a word of caution when teachers use data to identify improvements: it's all about interpretation. Data, she points out, do not speak for themselves. Rather, people make sense of data to create information and insights. It is the meaning-making process that counts.

That means being aware of – and avoiding – personal bias.

It is a challenge that Improvement Champion, Will Baylis, recognises and advises colleagues to guard against. *'We all have our own biases about what we think works best,'* says Will. *'External research can be a good challenge to our own favourite ways of doing things and to consider other ways of approaching a problem.'*

Will's insight is a good one. Very often, individuals have an innate tendency to seek out evidence that confirms a favoured approach. Science writer, Ben Goldacre, describes this as our bias towards positive evidence, which can contribute to poor decision-making.

Under the provocative title 'Why clever people believe stupid things', Goldacre has written about the research which examines how individuals are prone to make questionable judgements, even in the face of contrary evidence. Put simply: people's assessment of new evidence is biased by their prior beliefs; they seek out confirmatory information for any given hypothesis and they overvalue such confirmatory information. Rarely do individuals seek out information which would disprove their preferred hypothesis (Goldacre, 2009).

Helen Timperley offers teachers a framework for avoiding bias in their search for improvement. She offers four components which make for open, evidence-informed conversations (Earl and Timperley, 2008).

First, says Timperley, use relevant evidence. By this she means locally derived data which has both reliability and validity.

Second, develop an enquiry habit of mind. 'Engaging in the enquiry and knowledge-building cycle both develops and becomes dependent on having an enquiry habit of mind. Facilitated engagement in the process itself creates (the habit),' she says.

Resource: Data Driven Dialogue Tool
This dialogue tool helps to replace hunches and feelings with data-based facts, examine patterns and trends of performance indicators, and generate 'root-cause' discussions that move from identifying symptoms to possible causes of student performance.

Timperley's third component involves building relationships of respect and challenge. 'Teachers cannot readily engage in cycles of enquiry and knowledge-building when they feel criticised or put down for not being good enough,' she suggests. In other words, data and evidence is not best used as a stick to beat people with.

At the same time, challenge must also be part of the equation. Discussions which only affirm current practice offer no challenge to improve.

Finally, Timperley's fourth component for evidence-informed discussions is access to expert knowledge. *'Enquiry without reference to what is already known raises the very real possibility of reinventing wheels. At worst it results in bringing ineffective strategies to urgent problems.'*

These components resonate with the principles which underpin SPP. Aspects of all four components are visible in the approach at Learn Academies Trust.

Creative use of resource

To facilitate access to expert knowledge in particular, the Trust has created so-called 'RIPL Leads' in every school.

RIPL stands for Research Informed Professional Learning. CEO, Stef Edwards, describes these leads as 'joiners of dots'. They are all either peer reviewers or Improvement Champions within the SPP process.

'RIPL Leads look at what CPD people have done, what impact it has had, how is being sustained and how it is being shared,' she explains. *'They are all senior leaders with time to commit to the role.'*

In addition, RIPL Leads support Improvement Champions to get access to good quality, pertinent research material by signposting to external sources.

RIPL Leads meet together, convened by a headteacher. The Trust aims to upskill each RIPL Lead with 'Leading Learning' training, provided by the EEF, as well as providing membership of the Chartered College for each Lead.

Of course, as a Multi-academy Trust, Learn Academies operates within a common financial and accountability framework. The creation of shared resources – such as RIPL Leads – is a relatively straightforward process. It is not an option so easily available to other types of school partnerships – be that federations, networks or looser collaborations. Such partnerships may need to look to alternative structures to develop a common resource, such as teaching school alliances, higher education partners and research schools.

Driving change at scale

Even if they cannot easily pool budgets, all school partnerships, whatever their form, are able to pool a more significant resource: the knowledge and insights gained from multiple peer reviews.

Just as Improvement Champions bring together local intelligence and published evidence to create new insights within individual schools (the so-called 'third field of knowledge'), so too can groups of schools working at a system level.

School partnerships also have access to two fields of knowledge, from which they can generate a third. By assessing the outcome of reviews across their partnership, reviewing relevant published research, school partnerships can begin to identify the trends (and solutions) which are shaping their own system.

At Learn Academies Trust, Improvement Champion Sarah

Walker emphasises the benefits that could flow to the wider Trust by harnessing this knowledge. She says: *'The more we can share the learning from reviews, the more we will benefit by being able to identify common areas for improvement.'*

'We have a central system in place to store data and findings from reviews. One of the headteachers is tasked with bringing themes to leaders' attention – areas that need work as well as areas that are strengths.'

The Trust is using this analysis to inform the work programmes of its RIPL Leads, as well as shaping future school-to-school support provision for its academies and its teaching school.

It will take time, but eventually Learn Academies Trust could contribute to the knowledge base of effective practice, as well as drawing from it.

Investing for the future

Stef Edwards recognises that it is still too early to assess the lasting impact of the Trust's engagement with the SPP process. She describes the project as a 'work in progress', underlining the need to let the process bed-in to realise its full potential to change practice.

'People look for quick fixes,' says Stef, *'but sometimes implementation takes time to get right. We may need more than one go around the peer review cycle.'*

Stef sees the commitment to peer review and professional learning as a long-term commitment to drive evidence-informed practice. She offers a striking metaphor: *'Sometimes you need hares and sometimes you need tortoises,'* she explains. *'When you have inadequate*

teaching in Key Stage 2, you need to make changes quickly. That's when you need a hare: it gets the job done – but it's unsustainable.'

'Peer review, by contrast, is a tortoise. It is about going deeper into the organisation's practice and putting lasting changes in place which bear fruit down the line – so you won't need any more quick fixes. It takes longer but embeds enduring improvement.'

'If you are always having to rely on hares, that's unsustainable. You must invest in tortoises too!'

In the end, we all know who won the race.

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