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Schools and academies

Research matters: evidence use and school improvement

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Opinion piece

Resource

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Would you honestly be satisfied if doctors didn't know about and couldn't provide the very best treatments for your illness based on information about your symptoms and other relevant factors? We expect this of the medical profession. What's different about teaching? Using evidence and promoting its use are critical to school improvement and an essential feature of leadership for improvement. Different types of evidence can be valuable. Some of these are already in common use but others can be sidelined in the busy and often pressured world of many schools. In this piece I argue that headteachers need to ensure that their school's improvement strategies draw on three types of research-based evidence: being systematic about collecting, analysing and using data and impact evidence; promoting research and evaluation; and using externally generated research findings. I conclude that developing research-rich schools requires intentional leadership.

Systematically collecting, analysing and using data and impact evidence

Schools certainly aren't lacking in data, but is it always used purposefully? With so much available, it's too easy to start with the data you have and try to make sense of it rather than finding the data you need to answer your specific questions about school improvement to prepare your pupils for their future. I spoke to Lorna Earl, formerly of the Ontario Institute for Studies in Education, who is an international expert on data use. She argues that the purpose for using data is critical – data should help school leaders think differently or more deeply about the key issues in their schools. Headteachers should start by asking themselves what they need to know to improve their schools. Only then should they decide what kinds of data they might be able to find, or how the data they already have can help them understand the situation better and lead them to ways of improving their policies and practice. She and others, including Michael Fullan, warn of the dangers of only thinking about data in terms of numbers. There are many kinds of data. For example, pictures can be data: taking photos that characterise a particular issue and analysing them can lead to powerful insights. Several schools have asked students or parents to take photos, providing different perspectives on an improvement challenge.

Data is also useful in evaluating the impact of improvement interventions. Too often, people try something new but don't really know what difference it made. When it comes to impact, you need to start with the end in mind. So, for example, if a specific problem is identified with a group of pupils' wellbeing, it's important to understand the baseline against which later progress can be assessed, as well as collecting other relevant data to help get a better grasp of the issue before starting improvement activities. This may include talking to parents or observing pupils during break times. Once action is under way, activities inevitably need monitoring to check what's working and what needs adapting. At the end of the initiative, ways must also be found to evaluate the impact of the activities. If this sounds laborious, think of all the time and energy that is being invested in trying to improve these pupils' wellbeing.

Reflection question

- What kind of evidence do you use to inform your leadership decisions?

Promoting research and evaluation by individuals, groups and across schools

Do you know how much research is being carried out by staff in your school, academy or chain? There may be more than you thought. There's considerable potential for school-based research.

Traditionally, in most schools, the familiar model was a few individual teachers studying for a Master's degree at the local higher education (HE) institutions, usually disconnected from everything else going on in school and rarely considered as a resource for wider improvement. More than 15 years ago, a colleague and I designed a school-based MA in school development in collaboration with a secondary school. Now, Master's offered in schools as a partnership activity between the school and the local HE institution are more common. Some federations and chains have also developed Master's degrees and other accredited programmes for staff across their schools. While these programmes are often very successful in developing a culture of enquiry in participating schools, they throw up issues. For example, school leaders can feel they have the right to vet assignment topics, see data collected or read colleagues' assignments. But confidentiality is a research ethics issue.

Reflection question

- As a headteacher, how would you handle this, and what justification would you give for your action?

Not all schools choose to go down the formal study route. Action research offers an alternative that can involve many colleagues. It's intended to support leaders and teachers to focus on a specific aspect of their practice. Through a systematic and explicit cycle of collecting evidence about existing practice, planning, acting, observing, reflecting and revising the plan, it enables them to gather evidence to help them notice and learn from the effects of their practice and any changes they make to it. Studying practice in a sustained and systematic way enables leaders and teachers to engage with important dimensions of their work. This makes it more likely that they will change their practice than if they are taught something new by someone else.

Setting in place arrangements to bring teachers together to explore and develop aspects of their practice jointly can also be powerful. Originating in Japan, lesson study (*jogyo kenkyuu*) is one example. It's fundamentally collaborative enquiry on the teaching and learning process and can be a powerful professional learning experience. Teachers select a goal and related research questions about their practice to explore. Having co-planned the lesson, one colleague teaches it and others observe. They then discuss observations, jointly revise the lesson which another colleague then teaches. Through cycles of analysis, reflection and refinement, teachers develop and improve their practice.

Reflection questions

- As a headteacher, how would you go about establishing action research and collaborative enquiry in your school?
- What aspects of your own practice might you improve by taking an action-research approach to them?

Seeking out and using relevant research generated and produced by external researchers

Externally produced research can also be used to support improvement. Several factors come into play. If research answers questions that nobody asked – if it isn't relevant to leaders' or teachers' concerns – it doesn't tend to be influential, even if it's high quality. Similarly, if it focuses on issues outside schools' control, it's hard for headteachers to know how to use the findings. Some researchers seek input from school leaders and teachers into their research designs, and some even involve practitioners as team members.

Reflection questions

- Do you know about research that is being carried out at your local HE institution or perhaps in your local teaching school alliance?
- Are there ways your school might get involved or help influence the research agenda?

Sometimes relevant and potentially valuable research isn't used. Why not? Both researchers and practitioners may bear some responsibility. Researchers don't always know the best ways to convey their findings to a non-academic audience. Findings need to be brought to life so that school leaders and teachers can engage with the research in a way that helps them locate it in their context and in relation to prior experience and learning. This helps them make meaning and generate their own useable knowledge from the research. Researchers need to find the best ways to stimulate conversations about the research that can promote reflection, challenge the status quo and extend thinking.¹ Presenting research evidence in manageable 'bites' (units of meaning) and accessible formats helps, as does offering tools that help people structure their conversations, connect the research with their practice, experience and contexts, debate implications, self-analyse and prioritise, and identify possible first steps.

A change in mindset and culture in schools would also help, at least among some leaders and teachers. Headteachers need to show staff that they know about major new research findings as well as creating opportunities for colleagues to engage with research. Several schools and groups of schools have established book clubs. Others have set up enquiry and other working groups focused on key topics, supported by accessibly produced research findings, and have subsequently developed their own follow-up research projects. Some local HE institutions and the National College produce summaries of their research projects, as do various research organisations and the Department for Education. In *The tipping point*, Malcolm Gladwell describes mavens, gatherers of information and impressions, who are quick to pick up on trends.

Reflection question

- Who are the mavens in your school and how might their support be marshalled into seeking out accessible and useful research?

¹ See Stoll (2012) for more on how to stimulate learning conversations.

How do headteachers know whether the research they want to use is high-quality research? Most don't have a background in research and statistics. For example, can it be guaranteed that using the findings exactly as intended by the researchers will lead to the same positive outcomes in a different context? Many kinds of research can be valuable for improvement, including ones that have no direct relationship with improved outcomes. As we are understanding more about the ways people learn, there is a strong case to be made for schools using this research to develop practice which they then carefully evaluate as they go along. If schools evaluate what they are doing as they are trying out new research-informed practices, it provides the feedback needed to make necessary adjustments.

Reflection question

- As a headteacher, how would you ensure that evaluation is embedded into your school's culture?

Creating and leading research-rich environments

Engagement in and with research and data use as the norm for many members of staff is a result of an active decision on the part of school leaders, particularly the headteacher, to promote and stimulate a culture of collaborative enquiry. As Lorna Earl and her colleague Steven Katz (2006) describe it, these leaders themselves have an "inquiry habit of mind". Their whole approach is driven by the desire to base their improvement efforts on the best available knowledge, an ability to ask deep and increasingly focused questions and to marshal the necessary evidence to help answer these questions. They also understand that encouraging colleagues to interrogate their practice and use evidence is a powerful form of professional development. John Hattie, whose effect-size research findings are used by headteachers in many countries, concludes that "the biggest effects on student learning occur when teachers become learners of their own teaching" (2009:22). Research is a powerful way for teachers to learn about their own teaching. In research-rich schools they get many opportunities, facilitated by headteachers who understand that research and practice go hand-in-hand in ensuring improvement.

Reflection questions

- Is there a culture of engagement with data and research evidence in your school? If not, how can you go about stimulating such engagement?
- What will you do to develop a culture of enquiry and evidence-based decision-making when you are a headteacher?

References

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