

The role of leadership in fostering a culture of research and evidence use.

Introduction

Evidence-informed practice (EIP) is now viewed by educational policymakers in England as a significant facet of school and system self-improvement with school leaders' support for engagement with evidence regarded as the most important driver (Coldwell et al 2017). EIP requires school leaders to ensure that they and their staff seek out and engage with quality evidence in relation to issues of teaching and learning (both in terms of content and pedagogy) to improve pupil outcomes. This new emphasis requires new thinking and changes to the understanding and actions of school and college leaders. It is already clear that embedding research into the practices of organisations is not straightforward (EEF, 2017). This article is designed to examine key literature which helps establish what we already know about best practice in developing and embedding EIP. Secondly, it also draws on the perceptions of a variety of people who are linked to CEBE and are active in seeking to promote EIP. Their considerations of the possibilities and problems of leading EIP are examined. The third section of the paper draws together both the first two sections in order to offer useful and actionable steps for leaders in taking EIP forward in their own organisations.

Contextual factors influencing the development of Evidence Informed Practices

Godfrey (2016), using a biological analogy, argues for an understanding of the growth of a school research culture as occurring within an interconnected ecosystem suggesting that school leadership is not a simple process. Brown and Greany (2017) argue that to do so requires school leaders to focus on and address four distinct but overlapping and interdependent factors. These factors are: 1) the existence of teacher capacity (that is, ability) to engage in and with research and data; 2) school cultures that are attuned to evidence use whereby research-use becomes a cultural norm; 3) schools promoting the use of research as part of an effective learning environment; and 4) the existence of effective structures, system and resource that facilitate research-use and the sharing of best practice. Therefore, research-engaged leaders need to develop a research informed culture whereby they are able to synthesise research evidence with other forms of evidence (including school data and the experiences) as part of the repertoire of necessary leadership strategies and actions that can support school improvement (Coldwell et al 2017). Taking each of these factors in turn, the focus in the first half this paper examines key literature which reveals how leaders can most likely increase support for evidence informed change within schools and colleges and develop evidence informed practice by teachers in these organisations.

Developing teacher capacity for evidence use

In their evaluation of the progress of evidence informed teaching in England Coldwell et al (2017) found the most strongly research-engaged schools were highly effective, well-led organisations within which 'research use' meant integrating research evidence into all aspects of the school's work as part of an ethos of continual improvement and reflection. To

achieve this school leaders and teachers need to have the ability to engage in and with research and data; promoting the notion of developing EIP (Brown et al 2015). In the most highly research-engaged schools, senior leaders play a key role in developing this capacity for evidence use. Senior leaders need to ‘walk the talk’ (Brown and Zhang 2016) acting as intermediaries and facilitators of access to, engagement with and use of research evidence for staff in their schools. This is more likely to encourage high levels of trust which helps to mediate between those with and without such capacity (Brown and Zhang, 2016; Tschannen-Moran and Hoy, 2000,). In addition, in high trust schools, teachers feel supported by leaders in the “risk taking” innovations associated with EIP. Rather than responding to high stakes accountability by sticking to “tried and tested” methods teachers in high trust schools with research informed leaders feel supported to innovate to solve perennial school problems. To do this successfully, Coldwell et al’s (2017) evaluation found leaders often had direct access to research producers and were familiar with key intermediaries like the Education Endowment Foundation (EEF) the work of John Hattie (Hattie, 2008) and other reviews such as the Cambridge Primary Review (Alexander and Armstrong, 2010). They were confident in judging the robustness of research quality. In addition, Godfrey (2016) suggests school leaders need to be outward-facing, forging research-based partnerships with other schools and universities, offer their schools to be the focus of a research studies and use research to inform decision making at every level.

Making evidence use the cultural norm

If it is to be ‘the way things are done around here’ (Stoll and Fink, 1996), research-use needs to become a cultural norm. As such, it must stem first and foremost from a full commitment to EIP from school leaders (Galdin-O’Shea, 2015; Roberts, 2015). There are strong reasons for school and college leaders to build an institutional culture responsive to research. These include the desire to affect teaching and learning practices positively; an approach to school and improvement; developing teacher research to increase pupil academic attainment; encourage active learning; increase student enjoyment of lessons and lead to improvements in feedback, (Sharp, 2007, p. 12 in Godfrey 2017).

School leaders (that is, senior leaders such as headteachers or principles) are able to exert influence in their schools in a number of ways, including:

1. providing vision;
2. developing, through consultation, a common purpose;
3. facilitating the achievement of organizational goals and fostering high performance and expectations;
4. linking resource to outcomes;
5. working creatively and empowering others;
6. having a future orientation;
7. responding to diverse needs and situations;
8. supporting the school as a lively educational place;
9. ensuring that the curriculum and processes related to it are contemporary and relevant;
10. providing educational entrepreneurship. (Day and Sammons, 2013: 5.)

School leaders need to address both the ‘transformational’ and learning centred’ (or pedagogical) aspects of becoming research engaged (Brown 2015; Day and Sammons 2013). The former is described as a process based on increasing the commitment of those in a school to organizational goals, vision and direction (Bush and Glover, 2003), and has been shown to have positive impact in relation to the introduction of new initiatives, the remodelling or restructuring of school activity or in affecting school cultures (Leithwood, 1994). The latter is seen to relate to the efforts of leaders in improving teaching in their school and their focus on the relationships between teachers as well as the behaviour of teachers viz-a-viz their work with students (Timperley and Robertson, 2011). Stoll and Brown (2015) suggest that middle leaders have the potential to be the catalyst for evidence informed change; becoming ‘research champions’ or ‘opinion formers’ (Brown and Zhang 2016). This notion of ‘distributed’ leadership is concerned with shared forms of leadership across a school or organisation, often encompassing leadership by expertise rather than by position or experience. Middle leaders can often be the bridge between teachers and senior leaders necessary to facilitate EIP in schools and school leaders should harness the social influence of these informal leaders (Brown and Zhang 2016).

School leadership buy-in to research-use means they both set and promote the vision for and develop the culture of being a research engaged school (Brown and Greany 2017; Brown and Zhang 2016). Leaders are required to provide the resource and structures (for example, time and space) for sustained and meaningful research-use to become a reality (Stoll and Fink, 1996; Leithwood et al., 2006). In addition, it enables senior leaders to ‘walk the talk’: not only to demonstrate their commitment to evidence use but also to engage in learning-centred leadership practices such as ‘modelling’, ‘monitoring’ and ‘mentoring and coaching’, thus ensuring wider buy-in to research across the school (Southworth, 2009; Earley, 2013). Of these learning centred practices (of ‘modelling’, ‘monitoring’ and ‘mentoring and coaching’) Stoll (2015) argues that a key characteristic for senior leaders to model is having an ‘enquiry habit of mind’: for example, senior leaders actively looking for a range of perspectives, purposefully seeking relevant information from numerous and diverse sources and continually exploring new ways to tackle perennial problems in schools. To begin the process of making evidence-use a cultural norm within schools, leaders are required to engage primarily in ‘transformational’ modes of leadership; for example, setting and promoting the vision for research use. To embed it however, they must switch focus and engage in more ‘pedagogic’ or learning-centred leadership aspects, demonstrating their commitment to the vision through modelling, mentoring and coaching staff. This flags the importance of school leaders having the capacity to engage in a variety of modes of leadership if evidence-informed schools are to become a reality.

Schools as effective learning environments

Within evidence-informed schools, school leaders must also establish and build effective learning environments for teachers in which the development of research-informed culture and subsequently practice to flourish. In the most research-engaged schools, senior leaders encouraged “enquiry” as a dominant mode of professional learning (Coldwell et al 2017). It has been suggested that such environments are best represented by professional learning communities (PLCs) (Stoll 2014). Professional learning communities are groups of people within or across schools or, in their most ideal form, whole staff, who are driven by a

common desire to make a difference for all their pupils, and who collaborate as they investigate their practices and evidence to improve practice and promote the best learning (Stoll in Brown 2015; 56).

Research into PLCs suggests that schools become learning communities through their shared norms and values (i.e. their culture) in addition to a common focus, sharing practice, reflective dialogue and collaboration (Cain 2018). Underpinning these characteristics is the need for PLCs to be promoted by leaders as an environment that supports collaborative learning, rather than an imposition linked to accountability (Datnow et al., 2013). This has implications for developing a reflective culture, where levels of trust are high (Brown and Zhang 2016) and school leaders encourage evidence informed risk taking and experimentation, for example, trying out new teaching techniques to improve practice and increase pupil outcomes.

Establishing structures, systems and resources for evidence use

Underpinning capacity and culture are the structures, systems and resources required to support research-use to become a reality (Stoll and Fink 1996; Leithwood et al., 2006) First and foremost, it is paramount that school leaders make available and coordinate time and the space and budget required for teachers to engage in the capacity and learning related activity outlined above. “Lack of time” is the most regularly cited barrier to teacher engagement in research. Since teachers in England spend more time in the classroom than many of their counterparts in other developed countries this is an issue that school leaders may need addressing more widely (Godfrey 2016). For instance, they must: free up time within the school day to enable teachers to spend quality time engaging with evidence or in action research type activity; ensure the school timetable facilitates collaboration between teachers (and importantly between subgroups of teachers, such as those within subject departments); ensure there is access to evidence in its myriad of forms – ranging from data to academic research; ensure experienced facilitation and appropriate protocols exist to enable discussion around evidence; and ensure there are formal and informal processes for upskilling teachers so that they are able to engage critically with research, data and evidence, including opportunities for postgraduate training (Datnow et al., 2013; Goldacre, 2013; Micklewright et al., 2014).

In addition to increasing teachers’ access to research, school leaders must also have in place systems for operationalizing research use – formal systems for allowing teachers to work together in testing, implementing, and refining proposed approaches for improving practice. This is best achieved via methods such as Joint Professional Development (JPD), Lesson Study, Learning Walks, etc. School leaders need to mobilize the knowledge that results from this activity, i.e. ensure effective practice is shared and acted on. This can be achieved through engaging all staff in quality learning conversations even if they have not been actively testing and refining new approaches to practice.

Yet knowledge in relation to best practice often flows informally and interpersonal relationships and social interactions within a school are key (Daly, 2010; Greany, 2015). This implies that ‘relying strictly on formal mechanisms to diffuse information and knowledge

may thus leave critical practice gaps in the organization, potentially leading to a lack of depth and fidelity . . . or even threatening the sustainability of the effort' (Daly, 2010: 3). To achieve this informal flow of research knowledge school leaders must be able to: 1) identify who within their school (and sub groups such as departments) possesses the highest levels of explicit 'practitioner-based social capital' (PBSC) – PBSC can be thought of as the 'resources, information and support for effective teaching available through a teacher's network' and teachers with the highest levels of explicit PBSC will be those their colleagues are most likely seek out for advice (Baker-Doyle and Yoon, 2010: 118). Information will be both believed and acted on if its source is a trusted peer, (Greany, 2015; Daly, 2010), therefore, knowledge in relation to best practice often flows informally. This requires school leaders to ensure that informal social networks operate effectively and efficiently to allow this flow of quality knowledge.

CEBE Study

The authors used a number of online sources to invite reflections on experience from practitioners and leaders. Approximately 25 responded to share their views and experiences with the CEBE team. The sample is entirely opportunistic so no statistical inferences can be drawn from it. Four questions were asked and an overview of the responses is given here.

Qu. 1 Do you have suggestions for how, specifically, leaders can create conditions in which teachers engage with evidence-informed improvement?

In responses to this question, four themes emerged on how leaders could create conditions: the culture of the organisation; leaders leading by example; leaders creating opportunities through Continuing Professional Development and time.

Culture. Two elements emerge from the responses. Firstly, that engaging with EI practice should be "part of the day-to-day and not a bolt on". Some respondents pointed out that in daily work there are opportunities to use research. The second and more common element was about the willingness of staff at all levels to be able to experiment with new ideas and trust that this would be considered a benefit by those in leadership. This was described in a few responses as "openness". As one respondent put it: "There needs to be an open and supportive/trusting culture for this to work. There also has to be an openness within the leadership team for critique of their own practice and an energy & confidence to try new things/throw out the old based on research findings".

Leading by example. Perhaps as a way of establishing the culture, responders wrote the desire for leaders to model engaging with evidence. They should, "make it clear this is the expectation for all innovations and lead by example". One respondent specifically picked out the desire that leaders move from using the discourse of accountability structures to evidence-informed as a means of motivating improvement: "By speaking the language of pedagogy themselves; By shifting the dialogue from 'what Ofsted wants' to 'what the evidence shows'".

Creating opportunities through Continuing Professional Development. Respondents felt that leaders should create opportunities within CPD for teachers to engage. As one put it: "make a research based approach the focus for CPD. Get your most talented staff facilitating group conversations about articles and current thinking". This was not the only response which

acknowledged that not all staff will wish to engage and therefore there should be a recognition that this may not be for all. Another said: “Encourage staff wishing to attend events to be able to do so, and budget sensibly for it. You cannot force all staff to do this. All you can do is enable and support the most motivated and professional.”

Time. Leaders, in their role in running the organization, have significant control over time in schools and respondents were clear that setting time aside for engagement with research was a necessary condition, including how the amount of reading may be a challenge. Particular comments included: “Set time aside for opportunities for teachers to engage with evidence, plan, trial and bring back.” “Time is an issue offset against the amount of reading required. So slow, simplified, supported information”.

Qu. 2 What in your experience has been the most significant benefits of enabling evidence informed practice?

Responses to the question about benefits of enabling evidence informed practice (EIP) fall broadly into following themes: de-bunking myths; better professional learning; empowering and building teacher confidence, leading to improved practice. In relation to debunking myths and fads EIP enabled teachers to develop the confidence to question the validity of new ideas and practices and make educated judgements about whether x approach or practice would improve teaching and learning. Underpinning some comments was a view that teachers had been required to introduce new processes and strategies, often based on “whims” and “prejudices”, which had no benefit to students’ learning. To some respondents an EIP approach meant teachers no longer “dreading the next commercial fad” and staff spending “less wasted time on wastes of time”. Evidence also helped the thinking needed to “jettison” and unlearn doing “less effective things”.

An EIP professional development approach meant more time to reflect and owning the learning that followed which was both motivating and “rejuvenating” for staff who “catch the bug”. Through understanding the evidence base for existing or proposed teaching strategies, teachers are able make judgements about their practice thus enabling a ‘mature professionalism’ to emerge.

Respondents described the need for more “meaningful” and “credible” evidence informed strategies that encouraged teachers to become thinkers and learners rather than just unquestioning recipients of “gurus” or fads. The wider benefits for most respondents was that increasing teacher agency and interest in evidence would generate a “culture of improvement, reflection, refinement and collegiality”. Although not referred to as frequently in the short responses there was a link made to all of the above supporting better day to day classroom practice and learning for students.

Qu. 3. Can you identify any specific barriers or blocks which you have found get in the way of authentic evidence-informed culture in your organisation?

One of the key issues raised about the barriers and blocks to an evidence-informed culture related to uncertainty about trends and priorities in school, and whether an evidence-informed approach was merely another “fad which will go out of fashion and be replaced by something else.” Teachers stated that myths were perpetuated across the education sector

including within Initial Teacher Training and related to whether liaising with Higher Education Institutions or industry should be a priority. This illustrated that there was a lack of clarity about how schools should engage with evidence-informed practice.

To add to this lack of clarity about priorities, there was concern about teachers not having sufficient time or skill to engage with research. It “feels too hard/confusing/scientific”. “Few teachers possess a sufficient level of research literacy....it takes years to build this experience up”.

There was a sense in which some teachers felt marginalised from research. This was evidenced in terms of “an isolated and elite notion of research-users”, “research as something belonging to university” and a “perception amongst some teachers and leaders that research performed largely in mainstream education cannot inform our practice”. In conjunction with this view of teachers seeing research as external and elite to the classroom there were also issues of the extent to which evidence from research might change practice.

“Staff who are reluctant to embrace new ideas” seemed to provide a barrier. There were two particular versions of why this might be the case. Firstly, a “feeling of liminal space once what you know is discovered to be less effective”. Here the potential of new evidence was feared to undermine all previous practice. “Once you pull at a thread, it feels like a house of cards wanting to sweep everything away and start againbut we can’t”. The precariousness, which seemed to threaten if practices were to be changed based on new research evidence was certainly apparent.

The second strand associated with the potential change that evidence-informed practice might yield, related to teachers own convictions of the positive impact of their own current practices. “If teachers have experience of using a tool they may not want to change.” There may be a sense here that evidence-informed practice would impose change, which would be contrary to current practice.

The uncertainty expressed about how evidence-informed practice might be used to change current practice linked to the culture of the school and its leadership. There was only one statement indicating that the senior leadership team was rigorous in the way it drew on evidence for decision making. Other comments mainly indicated that senior leadership did not sufficiently support the use of research for more evidence informed practice. Where there are pockets of research activity “it is not picked up by leadership”. Leadership was also considered to be “too results focused” and “not engaging in research and being great role models”. This also indicated that research evidence would not help increase academic outcomes and was not part of the remit for senior leaders.

There was clearly a sense of lack of clarity, lack of direction and lack of understanding for how to make evidence-informed practice useful and relevant to the practise of teachers and the strategic leadership of the school.

Qu. 4 Is there a specific question or challenge which you would like to resolve in order to improve the culture of evidence-informed practice in your organisation?

Respondents identified several types of challenge to improving the culture of evidence-informed practice. The first was the external hindrances. There was concern about potential “damage caused by curriculum constraints, government agendas and budget cuts” and the pressure of chasing indicators, as in the Scottish government’s ‘How Good is Our School’.

Internal hindrances were also cited, including the need to allow teachers to trial and experiment, accepting that not all will be successful. The most frequently reported issue was how to generate the time needed to read and learn without cost; but the challenge was also acknowledged of changing mindsets towards greater reflection and readiness to change.

The third type of challenge lay with the nature of research evidence itself. Much research is written in inaccessible language and needs to be transformed for practitioner use. Easier access to high quality evidence is needed at lower cost to schools; and even where it is accessible, there remains the challenge of knowing whether evidence is sound or whether it has been cherry-picked to suit an agenda. Evidence on a wider range of issues for the full range of students is also needed: evidence to inform pastoral decision-making and about working with those with SEND (“no set answers for them”) were two examples given.

Suggestions were also made about meeting some of these challenges. It helps if leaders can provide examples that show how evidence can “inform lesson plans, learning objectives and activities”. “Mentors or teaching and learning coaches [can be used] to promote the use of evidence”. A very practical suggestion was to ask organisations that provide teacher-friendly evidence (such as the Chartered College of Teaching) to offer discounts for whole-school subscriptions. Some respondents also took the long view, acknowledging that “culture change takes time – evolution, build with whole team” and that there is a “need to be bold and try new things – [research can be] a great vehicle to reduce workload”.

Key factors for the development of effective strategies for leading evidence informed practice

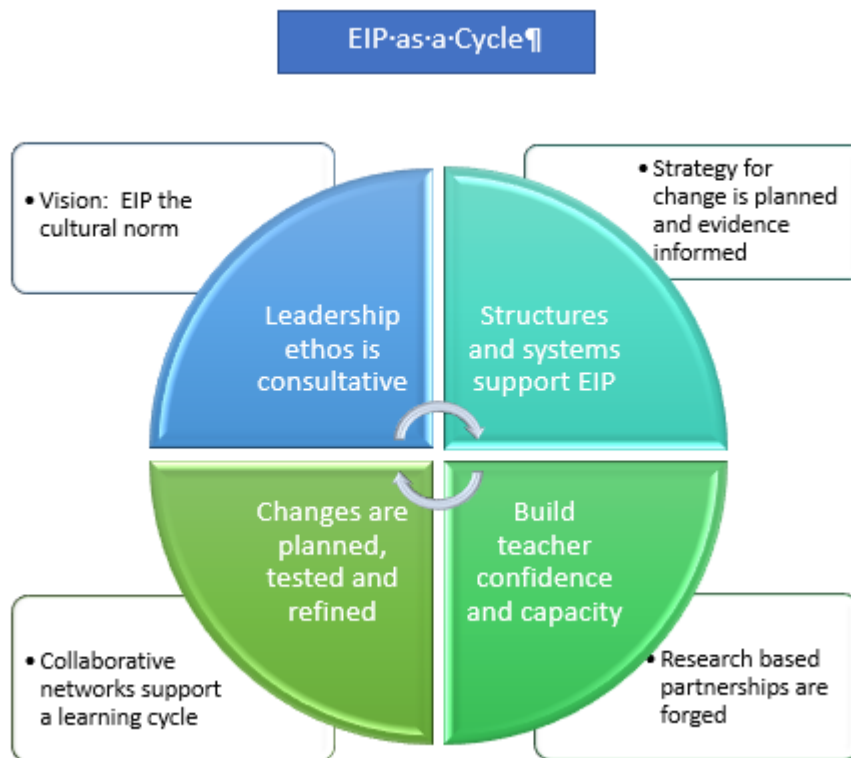
The purpose of this section is to draw together the insights from the research literature and combine it with the realities which practitioners face in their own schools and colleges, which have been exposed by those who have shared their experiences with CEBE in this study. The factors below are offered so that leadership teams can reflect on their current strategies, gauge their progress in establishing EIP and embedding it in their environment, and be proactive in further developments.

Key factors for developing a culture of EIP	Prompts and Suggestions
Establish a vision for the use of EIP and how it is shared (drawing on current evidence and best practice and aligned to the strategic goals of the schools)	<ul style="list-style-type: none"> • Whose vision is it? • How is it shared? • Why is it important? • Is it transformational (will it make a difference)? • How will it be enacted?
What is significant about EIP for your school/college	<p>What can EIP offer you? Eg</p> <ul style="list-style-type: none"> • Ability to make sound judgments about new initiatives (de-bunking myths) • Enable staff to spend more time on aspects of teaching and learning which are more likely to be productive

	<ul style="list-style-type: none"> • More agency for teachers to be able to be more reflective in considering the foundations for their own practice and development
Who will lead and champion this vision?	<ul style="list-style-type: none"> • Recognise that not all staff will be equally convinced or experienced about EIP. • Identify 'champions' who can influence and support different groups of staff through modelling and mentoring. • Ensure those who lead and champion are able to demonstrate the use of EIP
What will an embedded research culture look like in this organisation?	<ul style="list-style-type: none"> • Will your policies be shown to be founded on evidence? • When priorities are identified in the development plan, will evidence be drawn on the help move them forward? • How will staff be encouraged to look at evidence, to share it and to see how it best fits with their own area of responsibility? • Is time set aside for this to happen? • Are research-based resources available locally? • Do staff know where to look or who to ask? • Does research feature in staff meetings, with governors, for parents and in CPD? • What occasions are there for conversations about research evidence and its use?
Is your school or college networked with others who share an interest in using research evidence.	<ul style="list-style-type: none"> • Is the school/college associated with the Chartered College of Teachers? • Do you engage with research and resources from the Education Endowment Foundation or Society for Education and Training? • Do any staff attend ResearchEd conferences or are linked with organisations such as CEBE..... • Are their links with the education department of your local university?
Engaging with EIP might involve a change to current practices	<ul style="list-style-type: none"> • Are you able to recognise when staff feel that this is threatening? • How will you support staff in the process of change? • How will use of research be based on trust and co-operation across your school/college?
Engaging with EIP might involve supporting a few key staff to build their own capacity.	<ul style="list-style-type: none"> • How can you best use the resources and networks available to further empower your key staff in using EIP to the benefit of your institution?
How can your school contribute to new research ideas so that new research is informed by practitioner input?	<ul style="list-style-type: none"> • EIP requires productive relationships between those who do research and those who use it. • What are the areas in which you think more evidence could be available? • Who have you communicated this to? • Can your own school be more involved with research studies where research is carried out, such

	as EEF trial, or research carried out by teachers for their own professional development?
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Returning to Brown and Greany (2017) and to Godfrey’s notion of an ecosystem (2016) in which a culture for research engagement develops, the following diagram summarises core elements of both the literature and our findings to summarise the connections and interrelations of developing and sustaining evidence informed practice at a system level.



The diagram represents the way in which evidence informed practice can become embedded in organisational practice, with internal factors inside the chart. The boxes outside of the chart indicate outward-facing aspects that support the development of EIP becoming the norm.

Conclusion

To conclude, school research engagement is best seen as a conscious leadership strategy aimed at developing a school over a period of many years where school leaders can be positive drivers to increase engagement. School leaders must prioritise EIP as a school commitment for evidence use to be fully and meaningfully realised (Brown et al 2018). The pinnacle is to reach a culture in which research engagement is “embedded”, i.e. “a vision, a set of procedures which become integral to the structure and culture of the organisation. Over time, sooner or perhaps later, new ways of seeing and acting become habitual, reflexive and ingrained in practice” (Swaffield and MacBeath, 2006:202). As the self-improving school agenda requires school leaders to become more skilled at diagnosing their school's needs at a given point in time, developing people and building capacity are likely to

be necessary as part of this and a leadership skill requirement (Sammons in correspondence 2018). We argue there is a case for changes to England's OFSTED framework to ensure that evidence-informed school improvement is encouraged and that it underpins other school improvement activity; it is unlikely that evidence use will be fully utilised and sustained or that school leaders will prioritise evidence use until it is a recognised part of an education system's accountability regime (Brown et al 2018). The most research engaged leaders will be able to synthesise research evidence with other forms of evidence including context specific factors such as school data for school improvement and evidence informed decision making. The intention is to ensure that our schools provide the best systems, structures and professional practice for the very highest possible outcomes for our children.

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June 2019