





Developing Great Leadership of CPDL

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Geoff Barton, General Secretary, Association of School & College Leaders

"As Einstein may have said: "Everything should be made as simple as possible, but no simpler".

In the world of education, it can sometimes feel as if we do the opposite – complicating things, clogging our world with systems, institutions, layers and myriad forms of accountability; or reducing complex evidence to simplistic nostrums.

That's why I like this analysis so much. It takes what matters most in education — learning about teaching and learning — and helps us understand the evidence or the lack of it. It does so, as Curee's work always does, by synthesising all the research that's out there, serving up the essentials of continuous professional development that will help leaders to lead and teachers to teach — better.

At a time when there are so many polar arguments about what matters and what doesn't, so much ideological snarkiness, here's a document that lifts itself above such approaches and, with hugely reassuring clarity helps guide us to an evidence-base that will help to improve teaching.

And because it's simple but not too simple, I suspect Albert Einstein would approve".

Nick Brook, Deputy General Secretary, NAHT, Chair of NAHT School Improvement Commission

"It is often repeated, but no less true for it, that schools are only as good as the people that work in them. Yet this simple fact has, at times, appeared forgotten in recent years.

In 2018, NAHT published the report of the Accountability Commission, 'Improving School Accountability'. In it, we reported that top down, high stakes accountability in England had driven a tick-box culture in too many schools, where compliance with what Ofsted was perceived to want had become the overwhelming driver of improvement activity. In short, fear of falling foul of a poor inspection judgement had skewed leadership priorities.

The Commission recognised that to improve our education system further we need to unleash greatness and therefore concluded that we must urgently rebalance holding schools to account with helping them to improve.

Great teaching is at the heart of all great schools. School improvement is more likely to be found through day to day, week to week, small-steps improvements to practice than from big-ticket system or structural reforms. Improvement comes from school leaders creating a supportive professional climate, investing in expert 'teacher educators' to provide practical in-school support and mentoring, and by affording sustained priority and focus to CPD over the long-term.

This paper from CUREE, that sets out the evidence on how schools can best embed effective professional learning in day-to-day practices and what research tells us about the leadership of CPDL, could not be more timely."

Alison Peacock, CEO The Chartered College of Teaching

This pamphlet summarizes key findings from the research literature about the impact of leadership on teachers' continuous professional development and learning. The teaching profession in recent years has recognized the importance of high-quality professional learning. CUREE's work shows that most often, this has greatest impact where teachers work together in a collegiate manner, over time.

The Chartered College of Teaching has been established to support professional learning for all teachers throughout their career. The findings highlighted here show how important it is for leaders to build teams where teachers embrace school development and improvement as a collective endeavour. Continuous professional development and learning should always be relevant, purposeful and offer practical application. Where school leaders are able to provide this in a positive climate, where teacher agency is understood, the impact is most likely to be strong. Here we also have positive recognition that when teachers develop and build their expertise collectively, wellbeing of both teachers and pupils improves. This is an important finding. When teachers and their pupils are well prepared and experience high challenge in a supportive manner, the outcome is an affirming sense of collective achievement.

INTRODUCTION

This is a map of evidence from high quality research reviews (including Best Evidence Syntheses) about Continuing Professional Development and Learning (CPDL). Building on earlier work, its focus on leadership is new and important and designed to provide school leaders facing unprecedented challenges with an overview of evidence about CPDL, a particularly powerful improvement tool in their armoury.

The policy context for continuing professional development and learning

School leaders the world over at the start of 2020 find themselves in a more complex world than a decade earlier and carry greater responsibilities than ever before. Most are responding to major changes in society and the backwash of their governments' responses to comparisons of national test results. Closer to home, school leaders in wales are currently tackling significant reports on every front and academisation in England means many schools have no support between them and the secretary of state. They want (and need) their leadership to be as well informed as possible and, by this stage of the 21st Century, there is a lot of evidence to work with. The authors of this work think systematic research reviews represent a best bet in sorting the wheat from the chaff for particular context. So, this leaflet provides a map of evidence from research reviews that updates our previous work about the vital role of teacher Continuing Professional Development (CPD) and the learning teachers take from it (CPDL) to enhance pupil outcomes. For everyone, stand-still school budgets and the decimation of support services have produced real-term cuts and holes in the infrastructure.

In England the demands on some schools amount to challenges to the very nature of a school as an entity. The 50% or so of the sector that have chosen or been forced to become an academy, structures and accountabilities are radically different, particularly for leaders working within Multi-Academy Trusts (MAT). Inspection gradings are still the UK system's highest profile accountability measure and inspection frameworks have evolved substantially in that period. School 'performance' is tested more frequently using more formal test-based measures. The results are published in ways which allow more sophisticated (but not necessarily fairer) comparison between schools.

School leaders (of individual and groups of schools) are required more than ever to engage with CPD(L) associated with teaching and learning and the curriculum, and the contribution of both to school improvement. Teacher retention and recruitment is again a major challenge with cumulative salary constraints forcing leaders to rely on non-monetary incentives (including professional development) to make teaching attractive. Various strategic government sponsored school improvement programmes engage school leaders in professional development programmes as consumers, providers or both. All this puts school leaders in the position of decision makers, as issues around school improvement, professional development and learning and, increasingly, early teacher preparation (ITT) had been decentralized to them.

The most recent update of the inspection frameworks expect schools to look closely at how the curriculum is being *delivered* and how it is *constructed*. Many welcome this shift which promises an education landscape in which educators have the opportunity to make professional and strategic contributions to the learning content which they are teaching. This should not obscure the challenge of meeting the professional learning need for the teachers and school leaders involved if they are successfully to occupy this space - and what research might have to offer by way of support for this journey.

Running in parallel across the UK lies increasing pressure from governments, inspectors and the Education Endowment Foundation (EEF) for the evidence-based rationale for school leaders' choices. Recently, EEF has moved the spotlight from its initial focus on increasing the knowledge to the use of

evidence from research both in the more accessible form of guidance notes and through seminars and workshops provided by the Foundation's Research Schools. Importantly for this work, the quality of the implementation of interventions and the quality of CPD and CPDL within that, has emerged as a core factor in the effectiveness of trials.

Evidence for school leaders

School leaders are thus being asked to navigate a complex, fragmented and high stakes accountability system which asks them to align research-informed pedagogy, curriculum and local community needs. The evidence we have surfaced helps them to do this through CPDL. This report, drawing from a brief and intense dive into high quality analyses of the evidence, aims to:

- Map what systematic reviews of research have to offer to support school leaders in four core fields: Continuing Professional Development and Learning (CPDL), the *leadership* of CPDL, CPDL and curriculum development, and the implementation of research-based interventions
- Highlight emerging headline findings from fields where the evidence from systematic reviews is relatively strong and moving forwards
- Identify:
 - some priorities for taking forwards the research in these stronger areas
 - o areas where the evidence is weaker than it should be, and the questions and types of research that might help

HEADLINE MESSAGES ABOUT CPDL, LEADERSHIP AND THE CURRICULUM

Key principles and evidence for action

This section summarises what school leaders can learn from research reviews about ways of refining school approaches to maximise opportunities for translating CPD support into embedded professional learning.

We identified two core principles for school leadership that can enhance pupil and teacher well-being at the same time as accelerating pupil achievement and professional growth. School leaders should:

- Model and orientate CPDL systems and activities towards building shared accountability among all staff for pupil achievement and well-being; and
- Model and use a commitment to being open to learning as a way securing this and ensuring that CPDL, similarly focuses on teacher development and well-being.

Effective leadership of CPDL in school

The evidence from reviews of research about leadership and about CPDL starts to build a new and textured picture of the kinds of support school leaders need to provide to maximise the benefit of high quality CPDL and link it effectively with school improvement. Effective school leaders need to:

- Model and promote evidence-rich professional dialogue which is open to the opportunity for professional learning, enriched by evidence, in every-day a process Viviane Robinson (2009) summarises as generating "openness -to- learning"
- Embed and reinforce **openness to professional learning** in school systems and routines and making this explicit to colleagues; (through, for example, the process of involving colleagues in reflecting on and refining new policies as they develop)
- Contribute to embedding CPDL in day to day practices such as phase and departmental meetings
 and planning schemes of learning work, through processes that build shared accountability for
 accelerating pupil progress and well-being at every level of school leadership

- Ensure that CPDL similarly focuses on **teacher development** and **well-being by ensuring**, for example, that tools, systems and protocols are designed to help teachers navigate the complexity of their work and of professional learning by taking account of the practical, cognitive and emotional demands they make on teachers.
- Ensure CPDL processes are aligned with the strengths and needs of the local community and with school values
- Use their own and senior colleagues' specialist knowledge to identify and recognise the contribution of specialist expertise (including, but also extending beyond subject knowledge) to CPDL in securing depth in professional learning. This involves, for example, careful commissioning, (whether internally or externally) of CPDL activities and tools and protocols for embedding new learning in day to day school practices.
- Understand and develop the skills and pedagogic content knowledge of CPDL facilitators
- Ensure **curriculum development and realisation is supported** by effective CPDL and also acts as a vehicle for and driver of professional learning.
- Recognise in practical ways, that CPDL is enacted though professional relationships and cannot
 be divorced from them even if workshops and opportunities to work with specialists have to
 happen elsewhere. This means ensuring that the types, depth, intensity and quality of interactions
 between individual teachers and their pupils and the partnerships between teachers, leaders and
 CPD facilitators are central to professional learning.

Just as the evidence from the research reviews about CPDL is increasingly emphasising the importance of the "L" in CPDL, combining evidence about leadership and CPDL starts to offer a leadership mirror image to the picture of pro-active, work-based professional learning for teachers.

Designing effective CPDL processes

Not all CPDL that is similarly designed leads to improved learner outcomes. There are more factors at work than simply choosing specific types of CPDL activities. What matters is how CPDL activities are designed *and aligned* to support active professional learning focussed on aspirations for pupils. The research reviews highlight the importance for designing effective CPDL by:

- Ensuring that CPDL is understood as a process for supporting pupil progress and well-being
- Creating time within activities designed to introduce new approaches to enable teachers to plan
 to incorporate them within day to day school routines such as planning, teaching and reviewing
 lessons and schemes of learning
- Focussing CPDL by:
 - Working from a nuanced understanding of what teachers do, what motivates them, and how they learn and grow - to help them develop new practices and practical theories side by side
 - recognising the importance of identifying teachers' starting points and building on them formatively, avoiding assumptions, processes and goals which ignore them
 - o Engaging with and building upon teachers' aspirations for their pupils
 - Working carefully with teachers' knowledge, ideas and skills, rather than attempting to roll new approaches over them
- Ensuring that collaboration, professional learning conversations and peer support:
 - o Are focussed on ambitious goals for pupil achievement and well being
 - Spring from experimenting with new approaches to expand ideas about what is possible and enable review of assumptions and beliefs; and
 - o Centre around evidence about pupils' responses to the changes teachers are exploring.
- Ensuring that CPDL processes together with tools and protocols for translating what has been learned into day to day practices, draw on specialist expertise including subject expertise and

- deep knowledge about the pupils and their community. This also points to a key role for middle leaders in considering and applying new learning in the context of specific subject areas.
- Ensuring that CPDL activities help **teachers consider how new ideas, knowledge and approaches** relate to their school's professional learning environment and its goals, systems and priorities.

As is evident from this list, designing effective CPDL needs to make embedding professional learning manageable, but this is not the same as codifying prescribed approaches in the interest of making life simple – the most effective CPDL enables teachers to question and understand underlying theories and assumptions and gives them choices around which strategies to adopt and challenges them to develop an underpinning rationale for them.

CPDL and the curriculum

There are no systematic research reviews of evidence about curriculum design and development with evidence about pupil impacts. But the reviews about CPDL and its leadership highlight interesting links with curriculum development and the contribution leaders can and should make to CPDL. These reviews position effective leadership of CPDL and the curriculum as an integrative, reciprocally reinforcing endeavour; one which needs to attend to pupil and staff well-being and progress together, in the context of ambitious goals for pupil and school achievement and the specific needs and strengths of the local and the school communities. The reviews also suggest that, to the extent that CPDL support for curriculum development requires external inputs, school leaders need to model taking shared responsibility for testing the expertise on which they are based and ensuring that such external expertise or support is effectively aligned with and applied to enhancing pupil learning and well-being in school.

In particular they highlight the important contribution of approaches combined with tools, resources, and protocols that:

- Ensure curriculum development and realisation is supported by effective CPDL and also acts as a vehicle for and driver of professional learning
- Help to secure coherence and sustainability in curriculum development across phases
- Avoid focusing on bodies of knowledge through approaches that are divorced from the practical ways in which such knowledge is brought to life in schools
- Select curriculum approaches and supporting resources carefully:
 - for the evidence and expertise on which they are based and their relevance to the needs of the communities served by the school
 - their capacity to help teachers manage the practical, cognitive and emotional demands they make on teachers
- Ensure that CPDL leaders and facilitators have the opportunity to work with subject, phase and departmental leads to align CPDL and curriculum development into a whole bigger than the sum of the parts

The cross over between CPDL design and leadership and curriculum development suggest that leaders should consider, in particular, making it explicit at every level, especially in SLT, that changes to curriculum development and planning depend on great CPDL and that asking colleagues to be explicit about what they have learned through the curriculum development process prompts colleagues to develop deeper awareness of what curriculum development is contributing to their professional growth as well as their pupils' learning.

Headlines

What emerges from this brief and intense dive into the evidence from high quality reviews ¹ and Best Evidence Syntheses² (BES)? In a nutshell we have been able to:

- identify new strengths and insights in the evidence about CPDL
- uncover interestingly detailed (albeit more tenuously supported) evidence from leadership BES (and from evidence about leadership from the CPDL reviews) about how leaders can support effective CPDL
- find some potentially powerful links between the two.

We can also highlight areas where more research is likely to be most helpful to school leaders in England in the early 2020s.

Disappointingly, although we found evidence in the reviews about the importance of *linking* CPDL and curriculum development, we also found significant limitations in the research review evidence *about* curriculum development and about the implementation process. Here, too, this map helps us to point out evidence-based ways of addressing these gaps.

Specifically, we found that the systematic review evidence **could** support some things and **could not** support others: The research about:

- **CPDL processes and outcomes** *supported* direct recommendations about CPDL practices, especially in relation to the ongoing, work based professional learning process.
- The leadership of CPDL provided some important and textured questions for school leaders and external CPDL facilitators to use to interrogate their practice
- The leadership of the curriculum fell short of a body of evidence capable of analysis through systematic reviews as a single entity although, evidence drawn from systematic reviews about CPDL and leadership does help cast a little light on this field
- Implementation of research-based interventions the reviews in this field tend to be overly narrowly defined by research drivers. New studies, like those currently being funded in the Education Endowment Foundation's Research Schools to underpin its much more broadly drawn Implementation Guidelines (which include several aspects of CPDL) are needed to prepare the ground for more useful and useable meta analyses.

More detail - CPDL processes and outcomes

The research field is starting to provide useful and textured insights into how CPDL practices can be effectively embedded in the professional learning environment in school, how school leaders can contribute to this and about the nature of work based professional learning for teachers and leaders. It also provides evidence that teachers can use to take an increasingly active role in their professional learning and to thread together different CPDL experiences into a more coherent and progressive whole.

This evidence is already capable of supporting both recommendations and questions for the leadership and facilitation of CPDL and for teachers' professional learning. This strengthening evidence base enables us to identify some key recommendations that practitioners (especially teachers and

By high quality we mean rigorous, robust examination of a body of research evidence on a particular topic using inclusive, systematic and transparent means of finding and analysing that evidence

A BES is a particularly thorough form of research review using both qualitative and quantitive evidence pioneered in New Zealand and supported by the NZ government

school and CPDL leaders) and researchers can use to explore the decisions they are taking in relation to CPDL.

More detail - the leadership of CPDL

Here, although the research is more tenuous than the research about CPDL, the evidence from systematic reviews and BES is capable of providing some important and textured questions for school and CPD leaders within schools and for external CPDL facilitators to use to interrogate how well they are creating an environment for professional learning.

More detail - the leadership of the curriculum and CPDL

The evidence from direct studies that make connections between practices and pupil outcomes is not yet sufficiently developed to support systematic reviews, as a field in its own right. But we did find evidence from other, related systematic reviews that helps cast at least some light on this field. Systematic reviews of both leadership and CPDL offer interesting and important evidence capable of identifying, if not recommendations, some promising and useful questions which are likely to be helpful to both school leaders and to researchers in interrogating their practice and identifying next steps.

Implementation

'Implementation' (of research-based interventions) in education has broadly been understood as a process of making interventions designed outside school work effectively in schools. Research reviews of implementation were conceptual in their orientation and focused mainly on structures, taxonomies, methodologies and other abstractions. They have looked at inputs and teacher, not pupil, outcomes. In particular we found none that followed the evidence trail through the connections between CPDL, the actions of leaders and teachers, and pupil learning. We found one review from the Danish What Works Clearinghouse (Dyssegaard et al., 2017) which, while defining implementation very broadly, explored these connections through to impact on teachers. We also found a scoping review Albers, B and Pattuwage, L. (2017) which was designed to enhance the way the field is conceptualised. Its question, "What is known about the role of implementation in providing effective teaching and generating positive learning outcomes for school aged children in primary and secondary education"? is helpful. But this review does not assess the quality of the studies nor does it base their analysis on evidence about pupil outcomes so we have not been able to include it. So, all in all systematic reviews we found that met our criteria, particularly those relating to pupil outcomes suggested that the, often narrowly defined, field of implementation is not yet ready to be examined through systematic review methods to inform practice in a way which improves outcomes for learners. The single broader ranging review offers more insights and, if developed further to filter for pupil impact, could make a powerful addition to this map. The scoping review is helpful in shaping the way forwards because of the clarity of its focus and question. In that context, the Education Endowment Foundation is seeking to develop a much expanded understanding of implementation capable of informing all aspects of school life through its Implementation Guidance, synthesising evidence from studies rather than just research reviews, across many fields including implementation science beyond education, the management of change literature and, of course, CPD. The EEF Research Schools are also currently being funded to carry out research and development in this field and initiatives like these will no doubt generate individual findings that do connect with outcomes for pupils, paving the way for a future map of research reviews that identifies in depth the overlaps between implementation, CPDL, leadership and curriculum development.

The different strength of the evidence across the different areas covered by this review, we present conclusions below that are reasonably robust in relation to CPDL and leadership, but which are far more tentative in relation to curriculum development and implementation.

IMPLICATIONS FOR EFFECTIVE LEADERSHIP OF CPDL ACROSS A SCHOOL

As noted above, the evidence about leadership in general is less robust than the evidence about CPDL. So here we identify implications as issues to explore whereas for CPDL we make specific recommendations.

Just as teaching and learning is conditioned by the learning environment created by teachers, effective professional learning by teachers is dependent on an effective environment for CPDL in school. The CPDL environment is shaped by the values leaders promote, the way they root them in their community, the way they enact them and the systems they design to operationalize them. We think school leaders will find it helpful to explore how far their own actions and assumptions:

- emphasise the importance of CPDL for their own work and that of their colleagues; and
- model openness to learning to shape their colleagues' CPD and CPDL experiences.

Similarly, we think school leaders and CPDL leaders will find it helpful to explore how far their actions and assumptions enhance both pupil and teacher achievement and well-being. In particular they are likely to find it helpful to explore how their leadership of the school and the environment it creates for CPDL helps teachers to:

- experience and understand CPD and CPDL as complementary activities designed to achieve their aspirations for their pupils
- build, with their leaders and their colleagues, a shared and ambitious sense of responsibility for pupil achievement and wellbeing
- work with their managers to thread together diverse professional learning experiences into coherent and cumulative personal professional learning experiences
- identify and build upon their current strengths
- use new ideas, knowledge, skills and practices to interrogate and refine existing day to day practices, assumptions and beliefs.

This is just as, possibly more, important for school leaders leading schools at early stages of the school improvement journey as for those leading schools where achievement and wellbeing for staff and pupils is already good. But in those settings where the pressure to provide a strong sense of direction can lead to a mistaken belief that, as it were, hiding the workings of your thinking and developing policies will increase confidence and that a strong emphasis on accountability concentrated on those who have not hitherto helped secure pupil achievement and wellbeing will accelerate success. What this evidence suggests is that it is always important to build shared responsibility for pupil achievement and wellbeing and to be explicit about how you are contributing to that shared enterprise as both a leader and a professional learner.

Implications for curriculum and CPDL

We also think that the evidence from CPDL and leadership BES suggests that it would be helpful for school leaders to explore how:

- initiatives to review and refine the curriculum are best supported by CPDL and how curriculum development can act as a vehicle for increasing the effectiveness of CPDL
- schools' systems and their own professional learning combine with curriculum development to create a powerful environment for CPDL
- using CPDL to link pedagogy and curriculum development could help to build coherence in school improvement.

Implications for teachers' professional learning

The textured evidence about teachers' professional learning alongside the evidence about effective CPD support offered to them highlights the importance of

- Teachers having active opportunities to explore new knowledge, ideas and skills encountered
 during CPD activities in their day to day working contexts on a sustained basis. If such processes
 are not embedded in programmes, teachers need to seek them through ongoing phase and/or
 subject/departmental meetings and/or through high impact CPDL processes structured through
 explicit protocols such as coaching, mentoring, lesson study or collaborative enquiry
- Ensuring that CPDL activities are designed to explore and build upon teachers' starting points and their aspirations for their pupils' achievement and well-being. Such developmental, formative assessment might reside in the school, in the CPDL activities or a combination of the two. But teachers should feel confident about asking specifically how diagnostic and formative assessment related to their own learning will be built into the CPD workshops, seminars etc. and into follow-up active professional learning activities organised by either or both the CPDL facilitators and by leaders in their school
- Ensuring that the content of CPDL support and tools and resources designed for sustaining learning are:
 - o based on appropriate specialist expertise and evidence related to both teaching and learning and its content and on a sound theory of action
 - o Take account of the practical, cognitive and emotional demands being made on them.

These demands require collaboration between different professionals and a shared language for exploring them. Teachers can help others meet their individual professional needs and aspirations for pupils more effectively by making them more explicit. *So, teachers should feel confident about:*

- o asking to see and understand the evidence and expertise on which the CPD they encounter is built; and
- o requesting clarification of how CPD activities and ongoing CPDL support are designed to take account of the cognitive, emotional and practical demands being made of them.

Implications for CPD facilitation and expertise

The evidence in these reviews extends and reinforces the evidence in previous reviews about the importance of CPDL facilitators planning to support ongoing professional learning, either through planning reflection during workshops or through resources and co-ordination with other colleagues in participants' schools.

Although teachers and leaders need access to specialist expertise which can't readily be provided in any single school it is also true that it is not enough simply to introduce and model new knowledge, skills and or approaches. It also reinforces earlier evidence about the importance of contextualising generic pedagogic CPDL for particular curriculum contexts, and sub-groups of pupils, extending this to the most demanding teaching and learning challenges (Cordingley et al., 2015). These characteristics of effectiveness require collaboration between different colleagues, often different organisations, and the reconciliation of different goals and logistical, financial and time constraints.

We think the first priority here is to use this evidence to develop a shared language through which school leaders, teachers and CPD facilitators, whether internal or external, can work together to identify win-win ways of reconciling the inevitable tensions. The Guidance that sits behind the DFE standards for CPD and the exemplification of the standards and the guidance that is currently being

planned by DFE provide a useful starting point for building an increasingly shared language about effective CPDL and shared goals about how to raise teachers' and school leaders' aspirations.

Implications for research

CPDL and leadership-The evidence from reviews and BES about CPDL is already capable of supporting both recommendations and questions for the leadership and facilitation of CPDL and teachers' professional learning. It is also at a stage where it would be timely to carry out another in depth best evidence synthesis building on the BES by Timperley et al. (2007), the umbrella review Cordingley et al, (2015) and extend the more recent review by Darling-Hammond and colleagues (2017) which aimed to map changes in teachers' practice to pupil outcomes. A similar updating of the leadership BES would also be helpful and timely as would considerations of the contribution of the first 100 or so published EEF reports and the light they shed on aspects professional learning and its leadership through engagement in research trials in England since 2011.

Curriculum - Curriculum choices at national and local level start with values rather than evidence. The curriculum development process tends to take those choices as a starting point. Debates and research around the curriculum have tended focus on these choices rather than how the choices and curriculum development processes combine to influence outcomes. So, it is unsurprising in some ways that it has been challenging to uncover research reviews that are useful and relevant to the situation facing school leaders in England in 2019. Leaders in England also face challenges about curriculum development, design and sequencing which run in a different direction from those being explored in other countries, where national specifications have a wider footprint and guidance and materials and textbooks are used extensively, alongside nationally supported CPD to support implementation. We think the field of curriculum design, development, sequencing and pacing needs to be carefully conceptualised and researched, in a range of ways over the next five years. We recommend strongly that the government should consider establishing dedicated research funding to

Implementation Although we started with questions about how research reviews about the implementation of research-based interventions could help leaders approach this issue, we believe there is more work to do before this can happen. We need reviews that contextualise implementation from a user perspective (as the Danish Clearinghouse review begins to do) and also explore connections between plans, actions and pupil impacts. Until then, systematic reviews about CPDL have more to contribute to guiding school leaders' decisions about implementation than reviews of implementation per se.

METHODS

support this.

This project set out to map the similarities, differences and links between evidence:

- about Continuous Professional Development (CPD);
- about the leadership of Continuous Professional Development and Learning (CPDL);
- · about the leadership of curriculum development; and
- about CPD designed to support the implementation of evaluations.

The map tries to build a synthetic, carefully calibrated overview across these fields to help inform school leadership and school improvement at a time of significant change in the education policy landscape in England in late 2019.

Review Approach

We started with systematic reviews of research and the Best Evidence Syntheses (BES), which included evidence about connections with pupil learning, because our timescale and resources were tightly constrained, we wanted to be as systematic as possible and because the time is right for a bird's eye rather than a close-up view of effective approaches.

Our questions were "What do we really know from research reviews about CPD, CPDL and their leadership? What connections can usefully be made between this evidence and:

- curriculum development and design; and
- the implementation of teaching and learning interventions that might help school leaders"?

Locating and calibrating reviews

We identified reviews relevant to our questions from searching public databases. In filtering reviews, we used the approach to calibrating quality that we had created for the Developing Great Teaching review (Cordingley, et al., 2015) to identify the best fit studies for our map. We found a very small number of reviews with evidence which met our admittedly exacting quality criteria i.e. evidence that connects these quite abstract phenomena and activities with pupil learning and well-being.

Our detailed methodology section describes the resulting process and the reviews explored on the way in more detail, and provides a detailed table summarizing the rigour of what we found (see appendix). Here we simply summarise the core reviews on which this map is based, including:

- the Developing Great Teaching umbrella review of research reviews of CPDL Cordingley, et al.,
 (2015)
- Timperley et al., 'Teacher Professional learning and development: Best evidence synthesis iteration' (2007), a BES which formed the cornerstone for the review of reviews
- Two high quality reviews of CPDL published since we completed our systematic review of systematic reviews in this field:
 - o Darling-Hammond et al., 'Effective Teacher Professional Development' (2017)
 - o Kennedy, 'How does professional development improve teaching?' (2016)

One high quality BES which offers a high quality distillation of the evidence about leadership connected with pupil impacts and which also explored in some depth leaders' contributions to the leadership of CPDL and the curriculum: Robinson et al., 'School Leadership and Student Outcomes: Identifying What Works and Why Best Evidence Synthesis Iteration (2009).

We could not find high quality systematic reviews of evidence about the leadership of CPDL and of the curriculum which made connections with pupil outcomes or explored connections between intervening variables. But we did find some pockets of relevant evidence within all of the CPDL and leadership reviews identified above.

Because reviews are necessarily abstract, we also set out to contextualise our map and findings with two studies that provide important, contextual information about national policy for school leaders exploring these issues in England in late 2019. These two studies are:

- OFSTED's descriptive review of the research evidence as the basis for analysing their study of the practices of effective schools (Ofsted, 2019) and
- a single, large scale comparison of how different jurisdictions create the context for curriculum reform and CPDL (Creese, Gonzalez, & Isaacs, 2016).

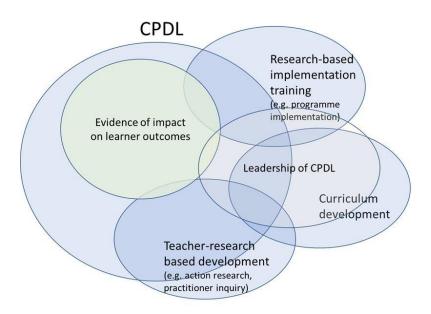
Data extraction and analysis

Having weighed and selected our core evidence sources we extracted key data from our selected reviews to identify the key contours of the available evidence. We identified key patterns within each

field and the similarities and differences in the findings of the reviews in relation to those patterns. We separately identified areas of overlap and connections between the different fields.

This analysis revealed a series of areas where the field of CPD and CPDL research is moving forward in ways that are helpful to the current, rapidly changing policy landscape gaps in the field revealing research questions which need to be addressed, and questions for policy makers and practitioners to consider and all of which are reported here.

The diagram below (graphic 1) illustrates graphically the way in which a focus on evidence about connections between CPDL and pupil outcomes affects/is affected by the kinds of research available in each of the fields we set out to map/explore. As can be seen, each of these fields of activity, in sitting a little apart from direct teacher and pupil interaction struggles to surface evidence about connections with pupil outcomes. The biggest overlap between fields is evidence about pupil outcomes related to well-being and to progress and evidence about CPDL. Whilst the field of research about leadership of CPDL and implementation appear at first glance to make connections between inputs and pupil outcomes to a similar degree, in fact the fields are very different. Whilst the evidence from the leadership BES explores in some depth the activities and process that sit between input, or leaders' contributions, and outcomes, the reviews of implementation do not because their focus is the impact of the researchers' intervention as an end in itself rather than developing an understanding of what that intervention might mean and how it is experienced in a school content. The graphic also illustrates the close links between leadership of CPDL and the curriculum.



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