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Embedding change: leadership of professional development in English schools

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Strand Report 3



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Summary

In this research study, our intention was to develop greater understanding of how to make change relating to teacher Professional Development (PD) happen, through:

- the implementation of professional development innovations and programmes in relation to policy, teacher entitlements and the school environment;
- the leadership of processes, practices and conditions which underpin and support change.

We wanted to understand the actions, behaviours, policies and practices which support the effective implementation of professional development at multiple system levels. In identifying these ‘mechanisms for change’, we hope to support stakeholders including school leaders, teachers and policy makers in making decisions which lead to sustained, embedded improvement in teachers’ professional development in England.

We used a mixed methods approach combining three complementary strands of research: a systematic review of the national and international literature, interviews with leaders of ‘Hub’ models of professional development in science and mathematics (Department for Education, 2023), and, the focus of this report, primary data collection with schools in England looking at the implementation of teacher PD in the current school context.

In this strand of the study, we aimed to answer questions related to how school leaders’ actions can influence the implementation of PD. We used mixed methods primary data collection, with a survey and case studies, garnering insights into professional development roles, practices, and support structures in English schools.

Our findings offer insights into how school leaders contribute to the development and implementation of effective PD in English schools, providing insights into leadership characteristics, policies, and practices that foster professional learning outcomes. Three mechanisms emerged from the data, shedding light on leadership-related aspects influencing professional development provision and support:

- Investing in professional development through time, money and leadership
- Building collective efficacy for and through professional development
- Enabling collaboration in and through professional development

Our findings exemplify the importance of these mechanisms in the leadership of schools’ professional development, in a variety of school contexts. They show how school leaders play a crucial role in leading professional development, including building a vision for professional learning, setting its direction, and promoting and maintaining professional development within the school culture. Against the many challenges faced by school leaders within the current system, the role of professional development was valued and maintained.

Introduction

Background to the study

Teacher professional development is important. There is a strong, and growing, international consensus that teacher professional development leads to improvements in teaching and thereby improved educational outcomes for children and young people (OECD, 2019). Effective engagement with good professional development can lead to changes in teachers' practice, increased pupil attainment and is associated with positive career experiences and retention (Coldwell, 2017; Day & Gu, 2010; Fischer et al., 2018; Meissel et al., 2016).

In spite of this body of evidence around teacher professional development, there continues to be limited sustained movement, in England at least, towards a goal of all teachers being able to participate in high quality professional development throughout their careers (Van Den Brande & Zuccollo, 2021; Zuccollo & Fletcher-Wood, 2020). To address this, greater understanding is needed of how to make change happen.

Our approach

Through this study, our intention was to develop greater understanding of how to make change relating to teacher professional development (PD) happen, through:

- the implementation of professional development innovations and programmes in relation to policy, teacher entitlements and the school environment;
- the leadership of processes, practices and conditions which underpin and support change.

We wanted to identify the actions, behaviours, policies and practices which support the effective implementation of PD at multiple system levels. In identifying these 'mechanisms for change', we hope to support stakeholders including school leaders, teachers and policy makers in making decisions which lead to sustained, embedded improvement in teachers' professional development in England.

This study, carried out over two years, was funded by Wellcome (grant reference 224016/Z/21/Z). A mixed-methods approach (Table 1) combined three complementary strands of research. These were: a systematic review of the national and international literature, interviews with leaders of 'Hub' models of professional development in science and mathematics (Department for Education, 2023), and case studies of schools in England looking at the implementation of teacher professional development in the current school context.

The study followed Sheffield Hallam University ethical protocols, receiving approval from the university research ethics committee¹ (references ER43465841 and ER43438613). All participants in data collection gave informed consent before completing surveys, interviews or focus groups. Further details of ethical protocols relevant to this strand of the study are given below.

¹ Sheffield Hallam University Research Ethics and Integrity webpages: www.shu.ac.uk/research/excellence/ethics-and-integrity

Table 1. Our approach to the study

Strand 1	Leadership for professional development: supporting schools and empowering teachers to be PD ready	Systematic evidence review of national and international research	Identifying what is known about leadership in the school environment that has led to sustained, effective teacher professional development
Strand 2	System leadership: policy implementation in mathematics and science professional development	Analysis of policy implementation in mathematics and science professional development	Exploring ‘Hub’ models of professional development in science and mathematics, and mapping the implementation of large-scale, sustained policy initiatives relating to professional development for teachers of STEM subjects
Strand 3	Embedding change: leadership of professional development in English schools	Primary mixed methods data collection: survey and case studies	Understanding the leadership of teacher professional development in the current school context in England

Theoretical framing

We drew on previous research, such as that mentioned above, relating to professional development and its leadership. In addition, we applied insights from theory-based evaluation, implementation science and systems and complexity theory (Belcher et al., 2020; Maxwell et al., 2022; Nilsen & Birken, 2020) to explore how change relating to professional development can be embedded in practice. We also used information about how research evidence can be used to support decision-making in policy and practice (Langer et al., 2016). These approaches acknowledge and work with the complexity inherent in the education system, enabling professional development to be examined in relation to other parts of the system.

The importance of leadership

As the study progressed, leadership of professional development emerged as an essential repeating theme operating across multiple system levels. Therefore, we chose to investigate, in depth, this aspect of professional development as being of major importance, especially since it has often been overlooked and under-represented in research. The professional development leadership roles we identified and explored included:

- practitioners who have specific professional development leadership roles, both internal and external to schools, such as in-school PD leads and those who design and facilitate professional development activities, workshops and courses (Perry & Boylan, 2018)
- school senior leaders and headteachers whose roles include responsibility for or oversight of professional development

The ways in which leadership is conceptualised within each strand of the study vary depending on its particular focus, but the common themes for investigation included:

- the formal and informal roles of professional development leaders
- the processes and resources which support professional development leaders to carry out their roles
- the processes and practices by which professional development leaders support others in their professional development
- the interactions between professional development leadership at different system levels

This focus on leadership is not to downplay the importance of other aspects of PD implementation. Instead, our intention was to identify how leaders of professional development at multiple system levels can support its successful implementation, and thereby contribute significant learning about this vital, but often under-valued, aspect of professional development.

Reporting

A summary report brings together findings from the three strands of the study. This includes a detailed background to the study including the research and policy landscape of teacher professional development, further details of our overarching approach and theoretical framing, a summary of each strand's major findings, a synthesis of those findings, their implications for policy and practice and recommendations for policy makers, school leaders and other stakeholders, and for further research. Meanwhile, the project website² contains summaries of emerging findings and outputs from dissemination events.

Each strand of the study has its own report, which describes in detail its aims, methods, findings and implications. This report focusses on Strand 3, which used mixed methods to gather data to inform our understanding of how leadership in English schools supports effective professional development.

In the next section, we describe our methods, including data collection and analysis, and an overview of the limitations of this part of the study. We then share the findings of our analysis of the survey of in-school PD leads and of the school case studies, using eight in-depth case studies to exemplify the findings of the whole set. Following this we discuss the findings as a whole, identifying leadership mechanisms: actions which school and professional development leaders can take which support the implementation of effective professional development in their schools. Finally, we offer some recommendations for school leaders, policy makers and other stakeholders based on our findings.

² <https://research.shu.ac.uk/psemc/>

Embedding change: leadership of professional development in English schools

We set out to identify what school leadership characteristics and actions enable school leaders in England to implement effective professional development. The research questions which guided this strand of the study reflected those of the study overall, that is:

In professional development interventions implemented effectively in English schools, what change mechanisms:

- underpin school leader activity to prioritise professional development?
- establish effective professional learning cultures in schools?
- support change-readiness in the school environment?
- underpin system leaders and policy makers' support for all schools to create the conditions for professional learning?
- embed professional development in teachers' careers?

Therefore, we focused on gaining understanding of the systems, cultures and practices of English schools by examining current practice, through primary data collection. As described above, we focussed in particular on leadership, investigating the actions and strategies of school leaders, including headteachers, other members of school senior leadership teams and schools' professional development leads.

Methods: survey and case studies

We used a mixed quantitative-qualitative design (Creswell et al., 2003), combining a survey of PD leads with case studies of PD in English schools (Table 2).

Table 2. Methods

Method	Participants	Purpose
Survey	In-school PD leads	Provide data about the structures and processes that support PD in schools
Case studies	Headteachers, Governors, PD leads, Classroom teachers, Teaching assistants	Provide data about what works well in differing school contexts such as phase and setting and generate a rich picture of a range of participant experiences within their situation.

We developed a survey to gain an overview of the roles, practices and support for PD leads in English schools, and to learn more about their experiences of the implementation of effective professional development. The survey also supported a series of case studies, to identify what works well in different school contexts and build up a rich picture of PD implementation in schools. This combination of approaches offered us in-depth insights into a range of participant experiences within their particular contexts.

Survey of school PD leads in England

The survey was designed to be completed by staff in schools in England who hold a professional development leadership role. Our intention was to learn more about the structures and processes within the school environment which support professional development such as how those with PD leadership roles are supported.

A small group of professional development leads known to the project team through professional connections piloted the survey in summer 2022. Following revisions, the final survey was open for completion online from September to December 2022. It was promoted through professional networks by email and social media.

Forty-six PD leads completed or partially completed the survey. Of those respondents (27) who provided information about their schools, the data shows that they were broadly evenly split between those working in primary and secondary phases, and between those in academies and in maintained schools. Eleven schools were academies, with nine of those in Multi-Academy Trusts (MATs). One respondent worked in a university technical college, also part of a MAT, and one respondent worked at MAT level across several schools.

Geographically, most respondents’ schools were located in Yorkshire and the Humber and the East Midlands.

The survey contained a mixture of closed, Likert-scale questions and open-ended responses (Appendix 1). The first part of the survey focused on PD leads’ roles, PD policies and strategies in their schools and Multi-Academy Trusts and the PD leads’ perceptions of the culture of PD in their schools. In the second part of the survey, PD leads were asked to identify an example of effective PD in their contexts. They provided some details of the PD

activity and then responded to a series of prompts relating to the ways in which the PD activity was supported and resourced in their schools.

Data from the survey was tallied and tabulated and, where appropriate, analysed thematically. Results from the survey are outlined in the Findings section below.

Case studies of English schools

A case study approach was used to identify successful practices in different school contexts such as phase and setting and build up a rich picture of a range of participant experiences within their particular context. We identified eleven case study schools, using purposive sampling (Campbell et al., 2020) whereby selection is based on the characteristics needed for the sample, through survey responses, existing networks and contacts, and suggestions from the project advisory group. Selection was also based on recent PD activity which they were involved in, willingness to participate in the study, mix of phase, type, and geographical contexts (Table 3).

In each school, we carried out semi-structured interviews with headteachers, PD leads and school governors, and focus groups with 2-5 classroom teachers. Questions (Appendix 1) centred on participants' perceptions of effective PD, in order to avoid discussion of barriers and challenges to PD since these are already well documented within existing literature, and instead, gain understanding of teachers' perceptions of what works well in their contexts.

Interviews and focus groups were audio recorded, transcribed and then imported into Nvivo software (Jackson et al., 2019) for analysis. We also produced summary notes of each case study visit to complement the interview and focus group transcripts and collected relevant documents such as PD plans and records of PD interventions.

Ethics

As mentioned above, the study received ethical approval from Sheffield Hallam University research ethics committee³ (references ER43465841 and ER43438613).

All participants in data collection gave informed consent before completing surveys, interviews or focus groups. Each participant was provided with a project information sheet detailing the purpose and process of the research and a copy of a privacy notice. They were also asked to complete a consent form prior to participation and all participants were informed of their right to withdraw from the research at any time.

All data was transferred and protected on an encrypted drive maintained by Sheffield Hallam University. All data was anonymised with references to schools and individuals removed. Schools have been given pseudonyms.

³ Sheffield Hallam University Research Ethics and Integrity webpages: www.shu.ac.uk/research/excellence/ethics-and-integrity

Table 3: Participating schools and characteristics (school names have been changed to maintain anonymity)

Pseudonym	Characteristics	Interview and focus group participants
Willow Specialist School	Special school, 11 – 19	Headteacher, PD lead, three classroom teachers
Cedar High School	Secondary school, 11-16	Headteacher, PD Lead, four classroom teachers
Yew Academy and Sixth Form	Specialist technical academy and sixth form, 14-18	Deputy Head/PD Lead, four classroom teachers
Rowan Primary School	Local Authority maintained community primary school, 3-11	Headteacher, PD Lead, one school governor, one teaching assistant, one classroom teacher
Hawthorn School	Mixed secondary school and sixth form college, 11-16	Headteacher, PD Lead, five classroom teachers
Oak Primary Academy	Primary school, part of a Multi-Academy Trust, 4-11	Headteacher (responsible for leading PD), three classroom teachers including curriculum lead
Blackthorn School	Church of England secondary school, 11 – 16	Headteacher, PD Lead, three classroom teachers
Sycamore Grammar School	Grammar school, specialist status in science and mathematics, 11-18	Headteacher, PD Lead, three classroom teachers
Spruce Primary School	Primary school, part of a Multi-Academy Trust, 4-11	Headteacher (responsible for leading PD), three classroom teachers
Beech Primary school	Local Authority maintained community primary school, 4-11	Headteacher, PD lead (x2), two classroom teachers
Buckthorn Primary School	Primary school, part of a Multi-Academy Trust, 4-11	Headteacher (responsible for leading PD), two classroom teachers

Analysis

We used a thematic approach to the analysis of qualitative data, drawing on Braun and Clarke's (2006) six key stages of thematic analysis (Table 4).

Table 4: Stages of thematic analysis

Familiarisation with the data	Regular meetings were held between researchers to discuss all data sets prior to, and during data analysis. Ideas and concerns were noted while reading and re-reading data.
Generation of initial codes	Initially, codes were predesigned (for example: teacher collaboration, PD structure, PD culture) to reflect data analysis undertaken in strands one and two of the study. We allocated units of text (sentences, paragraphs) from the data to each relevant code systematically and across interview and survey data sets, framed by our research questions and underpinning questions.
Searching for themes	We collated all codes into potential themes, gathering all data relevant to each potential theme. Themes represented key features emerging from the data (for example, characteristics and actions of leadership related to professional development provision and support).
Reviewing themes	Further discussion between the team enabled checking to ensure the themes were applicable in relation to the coded extracts and the entire data set.
Defining and naming themes	Our analysis then led us to refine the specifics of each theme, which provided an overall story the analysis told us. This enabled us to generate clear mechanisms supported by relevant themes. We cross-checked our findings with the findings of other strands of the study (particularly the systematic review of national and international research) for common features. Case studies were then discussed and defined to represent certain unique features as well as use of the identified mechanisms.
Reporting	Through the first five stages we were able to provide a rich and detailed description of PD practice and policy within the participating schools supplemented by eight detailed case studies. From the eleven participating schools, we selected eight case studies. The remaining three cases are not presented as they demonstrate, largely, similar mechanisms to the eleven we have chosen. Therefore, to avoid unnecessary repetition, we present eight case studies that demonstrate some uniqueness as individual cases.

Limitations

This study was contextually situated in a limited number of schools. Our findings are intertwined within the environmental, professional, and cultural factors of the school and survey participants. Because of this we do not claim that findings are representative of all schools in England. We did triangulate findings with the other strands of this study, so a degree of generalisability is supported by a cross-strand reading of the findings.

While the response to the survey was modest, the accumulated data provided a useful foundation for our understanding of the roles, practices and support of PD leads, as well as offering access to several schools for the case studies.

We did not ask any questions relating to the impact of COVID-19 on teachers' professional development, but participants' responses should be placed in the context of the challenges teachers faced as a result of the pandemic and its legacies.

Therefore, while not being, or claiming to be, classically generalisable, the study is one that other school leaders and teachers might find 'relatable' (Bassey, 1990). The descriptions and details provided through our case studies are robust and likely to be applicable to teachers beyond the sample working in similar situations, offering them the opportunity to relate their decision-making to our findings.

Findings

In this section we provide an overview of the survey’s findings and offer key emerging issues. Then we present eight case studies which bring to life different mechanisms and approaches to PD used by the eight schools. Finally, we detail findings from our interviews with headteachers and school governors, and from focus groups with classroom teachers and teaching assistants.

Survey of school PD leads

The findings from the survey (full details are provided in Appendix 1) illustrate the importance of school leaders, particularly those with a formalised PD leadership role, in planning, coordinating and delivering professional development in schools, and in developing policies and practices within schools which support teachers’ engagement in professional development activities. Findings suggest that, even when schools have varying contexts and staff professional development needs, it is possible to build cultures of professional development through actions and mechanisms which support staff participation and changing practice.

Numbers of respondents were limited and so, while we do not suggest that these findings are representative of the entire PD system in English schools, they do provide a snapshot of, and valuable insights into, the leadership of professional development in the current system. They also provide additional, wider context to situate the findings from the case study schools.

Survey participants and response rates

The survey was disseminated and promoted to school leaders through emails, professional networks and social media. We intended for it to be completed by those in schools with a designated leadership role relating to professional development, who we refer to throughout as PD leads. Overall, the response rate was low. This might be attributed to several reasons, for example, a lack of time for school staff to spend in activity not directly related to their jobs, a lack of clarity over who the PD lead is and therefore who should complete the survey or only a minority of schools having this role in place. We did not include any questions relating to the impact of COVID-19 on professional development, but participants’ responses should be placed in the context of the challenges teachers faced as a result of the pandemic.

Table 5: Survey Responses

Forty-six PD leads completed or partially completed the survey	These were roughly split between those working in primary and secondary phases and those based in academies and maintained schools.
Most responses were from Yorkshire and the Humber	Most respondents’ schools were located in Yorkshire and the Humber and the East Midlands.
Response rates vary throughout the survey	To maximise response rates, respondents could complete individual sections of the survey and individual questions as they chose. Numbers of responses therefore vary from question to question.

PD leadership roles, reporting and resources

This section of the survey focused on PD leads' roles. The responses show the complexity of PD leadership for those in schools, holding multiple roles and responsibilities alongside leadership of professional development.

Table 6: PD Leadership Roles, Reporting and Resources

PD leads typically hold other leadership responsibilities	The PD leads responding to the survey rarely held this role in isolation of other duties, instead it was combined with other roles, most frequently as part of a wider leadership role such as assistant principal or deputy headteacher.
PD leads have multiple reporting routes	Most frequently, the PD leads reported to the headteacher, school principal or executive headteacher. Other common reporting routes are to other senior leaders and to school governors.
Most PD leads receive no time or additional payments specifically for the role	Only a minority of PD leads reported receiving additional time or payment specifically for their PD leadership role, perhaps because of the way in which the role is often combined with other leadership responsibilities.

School and Multi-Academy Trust PD policies

In this section we first asked those whose schools were in Multi-Academy Trusts (MATs) whether they had a shared or collaborative approach to PD. Next, bearing in mind that one potential role for PD leads is the writing of PD plans and strategies for their schools, we asked about who has responsibility for, and oversight of, PD policies and plans.

Table 7: School and Multi-Academy Trust PD policies

Most Multi-Academy Trusts (MATs) have some collaboration in PD approaches	Most PD leads whose schools were in a MAT said that there is at least partial collaboration in PD approaches across schools within the Trust.
Governor or director oversight of PD is more likely at MAT level than school level	A minority of PD leads reported that their school had a governor with responsibility for PD. Of those whose schools were in MATs, more PD leads reported that a MAT director or trustee had responsibility for PD, although an equal number said that they did not.
PD policies and plans appear to be more common at school level than MAT level	Most schools, whether in MATs or outside them, had a PD policy or strategy and an annual PD plan. Fewer MATs had these, although there was some uncertainty about this from the PD leads.

Responsibilities for MAT-level PD strategies and plans lie with directors, trustees and MAT PD leads	A minority of PD leads in MATs said that their MAT had a MAT-level PD policy or strategy and/or an annual PD plan. Where they did, responsibility lay with directors, trustees and MAT PD leads.
Little difference in responsibilities for school-level PD strategies and plans between schools in and outside of MATs	Most PD leads reported having a school-level PD policy or strategy and/or an annual PD plan. These were written, most commonly, by various senior leaders, including the PD lead.

School PD culture

This section explored cultures of PD within schools, firstly asking about whether and how PD is prioritised through time, funding and resources, and secondly about staff attitudes towards professional development. Overall, the findings suggest quite positive cultures around professional development, although there is some variation between schools.

Table 8: School PD Culture

Most PD leads say that funding and time for PD are prioritised and resources are available to enable access	Over three-quarters of PD leads said that time for PD is always or almost always prioritised. A smaller majority said the same for funding, with a similar number agreeing that staff are able to access technology, resources or materials to support participation.
PD does not always continue in the face of other priorities	Just over half the PD leads said that PD always, or almost always, continues even when other priorities are taking up time, although this suggests that a sizeable number of schools sometimes struggle to continue PD in the face of competing priorities.
A third of schools always evaluate the impact of PD	Around two-thirds of schools keep a record of PD, but only a third say that they always evaluate its impact.
Staff are generally positive about professional development	Two-thirds of PD leads stated that staff were always or almost always positive about PD and that staff are always or almost always able to share knowledge, expertise and practice with peers.
Varied responses relating to staff choices of PD and awareness of PD needs	Compared to other responses, there was less consistency in the responses relating to staff choices of PD and awareness of professional development needs, although overall the picture was positive.

Delivering effective PD

In this section of the survey, PD leads were asked to identify what they perceived to be an example of effective PD in their contexts. They provided some details of the PD activity and then responded to a series of prompts

relating to the ways in which the PD activity was implemented in their schools. Twenty-two PD leads completed all or most of this section. We left the definition of ‘effective’ open to interpretation by survey respondents, while offering our definition of PD as a point of reference (Appendix 1) to include a range of professional development activities and exclude statutory training.

The responses in this section indicate the important role played by school leaders in identifying professional development needs, leading, coordinating or delivering professional development, and in providing systems and structures which can support school staff to both participate in and then instigate change following professional development.

The first group of questions gathered information about the content and delivery of the effective PD.

Table 9: Delivering Effective PD

PD leads identified a broad range of examples of effective PD	Examples included in-school and external professional development, activities targeted at particular teachers or groups of teachers and models of coaching and mentoring. The largest groupings focused around literacy and phonics and activities taking place in school and/for the whole school.
Most examples of effective PD included a focus on content, pedagogy or assessment	Over half the examples included a focus on content, pedagogy/instruction or assessment, and most was intended for teachers or all school staff.
Most examples of PD were sustained over several terms, taking place during the school day or in twilights/evenings	Over half the examples took place over two-three terms or longer, most took place in the previous year or two before the survey and most were described as a series of linked events or activities, taking place either during the teaching day or in twilight/evening sessions.
Most PD took place in school, in person and delivered by staff members	Over two-thirds of the examples of effective PD took place in school and most was delivered in person. Over half was delivered, at least in part, by senior leaders or other staff members from the school or the Multi-Academy Trust. This resonates with findings from strand 1 of our study (systematic literature review) although, this may be an artefact of our screening process, and we do not suggest that in-school forms of PD are more effective than other forms.

The next section explored how the need for the PD was identified and its coordination and leadership.

Table 10: Coordination and Leadership

PD needs are identified through multiple sources, with school leaders playing an important role	The need for the PD was identified through sources including in-school and external evidence, and from school, Multi-Academy Trust or teachers’ development and improvement plans. School leaders and evidence gathered in school played important roles in this.
Most examples of effective PD built on and/or complemented other activity	There was strong agreement that the PD built on and complemented previous professional development and school improvement activities.
Senior leaders play important roles in PD leadership	Senior leaders frequently had roles in the oversight, coordination and planning of the effective PD and those with this responsibility were supported to carry out these roles.

Next, we explored the resourcing of the PD through time, funding and resources.

Table 11: Resourcing of PD

The PD was frequently adapted to context and in response to challenges	Almost all PD leads reported that the PD was tailored to school contexts and/or to the contexts and needs of the participating staff, and that approaches to the PD were modified when challenges were experienced.
Staff were supported to participate with time and resources	While almost all the PD leads said that staff had dedicated time to participate in the PD, only half said that they were given time off timetable to do this. Most PD leads said that staff were supported to participate with resources.
Responses relating to the costs of the PD varied	Over half the PD leads agreed that they had prioritised funding to deliver the PD, with slightly fewer agreeing that they had purchased new technology, resources or materials to support participation. Almost 40% said that the PD was free.

The next section considered the choices staff were able to make in relation to their participation in the example of effective PD.

Table 12: Staff Choices

Staff had limited autonomy in their participation	Fewer than a third of PD leads said that staff were able to choose whether or when to participate or had a role in agreeing how the PD was delivered. Findings from strand 1 suggest that the centrality of agency and autonomy is needed for PD to be successful. So, if teachers are not provided with that autonomy, it is likely that will have implications for the effectiveness of the PD.
Staff were able to collaborate	All PD leads agreed that staff were able to collaborate during the PD.
Staff remained engaged throughout	Most PD leads agreed that participating staff remained engaged throughout the PD.

The final section of questions asked about how change, following the PD, was led and supported. There was strong agreement in this section that staff made changes to their practice and that this was supported by school leaders.

Table 13: Leading Change

School leaders were responsible for change	Most PD leads said that a named school leader took responsibility for leading, supporting and/or monitoring changes to practice following the PD. This included establishing a reasonable timeframe for change and adopting strategies to mitigate barriers to change.
Staff were supported to make changes with time and autonomy	Responses indicate that most staff were given time to implement changes to practice following the PD, and they were able to choose whether and how to change their practice.
Most staff made changes to their practice	Most PD leads agreed that participating staff made changes to their practice following the PD.

Case studies of English schools

The following section offers eight representative case studies, intended to bring to life the actions that school leaders in our study implemented to ensure effective PD provision within their schools (Table 14). The remaining three schools demonstrated largely similar approaches to those we have chosen, so, to avoid repetition, we have not included them here.

Table 14. Case studies of implementation of effective professional development

Case study 1	Willow Specialist School	Using a system-based approach to planning and monitoring professional development
Case study 2	Cedar High School	Investing in professional learning culture
Case study 3	Yew Academy and Sixth Form	Developing and sustaining teacher buy-in to professional development through collaborative action
Case study 4	Rowan Primary School	Devolving authority, empowering leadership
Case study 5	Hawthorn School	Trusting teachers to lead professional development
Case study 6	Oak Primary Academy	Designing the curriculum through professional development
Case study 7	Blackthorn School	An evidence-based, whole school approach to professional development
Case study 8	Sycamore Grammar School	Professional learning through a collaborative carousel

Each case study has the following structure:

- **Context:** school information to set the context for the case
- **PD implementation:** description of the overall approach to professional development
- **Action:** leadership action(s) that enable effective professional development
- **Summary:** a general summary of the case

Where we use the term ‘senior leaders’ we refer to participating headteachers, PD leads, and members of the senior leadership team. Each school has been given a pseudonym to ensure anonymity.

Case study 1.

Willow Specialist School: Using a system-based approach to planning and monitoring professional development

Context

Willow Specialist School is a community special school that hosts 217 pupils with severe and complex learning difficulties aged between 11 – 19. The school is situated in an urban location on the edge of a small city. The headteacher, formally deputy head, had taken up the post on a one-year temporary basis prior to her retirement. At the time of our visit the school had 85 teaching staff and were in negotiation to join with a Multi Academy Trust (MAT). The most recent Ofsted judgement was ‘good’.

PD Implementation

The school PD plan is decided by the headteacher and the PD lead, a member of the Senior Leadership Team (SLT) who has dedicated time for the role. The PD Lead has implemented an online system which acts as a hub for managing professional learning within the school. The system offers five modules (monitoring teaching and learning, school development planning, staff development, professional learning, self, and peer review) that enable users to structure, monitor, evaluate, and address school development goals, as well as a platform for storing relevant information (for example, individual staff requests for PD). The school does not adhere to a written PD plan, instead preferring to operate the online system to log details of PD interventions.

The structure of the school’s PD approach includes three distinct components:

- Carousel training
- Targets for teachers and Teaching Assistants
- Outcomes for pupils

A carousel model, where learners experience a variety of activities within one session and move round from one activity to another, is used every two years to implement statutory training such as ‘moving and handling pupils’, ‘safeguarding’ and ‘Makaton’ training. The carousel training takes approximately two weeks (usually at the beginning of the new school year) and is completed in-house either through online training programmes or in person sessions led by the PD lead or other staff.

Performance reviews take place at the beginning, middle and end of the school year and are led by the headteacher and PD lead. Teachers identify two objectives related to the School Improvement Plan (SIP) and one personal objective, and Teaching Assistants one objective related to the SIP and one personal objective. These objectives are then assessed by the headteacher and PD lead based on relevance to the SIP.

The SIP is developed by the headteacher and SLT members and is specifically designed to address pupils’ needs and outcomes within the school with the PD plan responding to that, as emphasised by the headteacher:

Our professional development always links to our school development. So that it’s part of where we see the direction that we see the school moving in and what we feel our young people need (Willow, headteacher).

The headteacher and PD lead meet once per week, throughout the year, to review PD progress, discuss development objectives and decide on personal requests. Personal requests are granted depending on budget

and relevance to the SIP. At the time of our visit the PD lead informed us that three staff members were involved in planning a whole school phonics PD session, assessment training for teaching staff had recently been delivered, and other members of staff were undertaking different courses such as ‘Attention Autism’ training, together with specific provision for early career teachers.

Action

The action in this case is the use of an online system to monitor, manage, and review the implementation of PD within the school. Staff have been trained how to use the system and all information regarding PD in the school, and the SIP, is stored on the system. This provides easy access for the PD Lead and headteacher when reviewing teachers’ and TAs’ engagement with PD, activities undertaken, perceived outcomes (through classroom observations and discussions with teachers and TAs), and performance review objectives. Staff submit requests for individual PD interests and record their involvement in PD. The PD lead acknowledged experiencing some teething issues using the system but felt that overall, it provided a solid structure for storing and accessing information regarding PD quickly and effectively. The conditions that enable the use of the system are the financial resource allocated and agreed by the headteacher and the designated PD lead having time to implement and manage the system.

Summary

Teachers at Willow Specialist School engage in a wide range of professional development activity, particularly statutory training required of this type of school. The PD lead highlighted the complexity of managing this activity, stating ‘yes, it’s a real complicated jigsaw to put together.’ While other schools we visited mentioned the use of technology to gather and/or store data regarding PD, Willow were the only school to specifically highlight the use of an online platform as a hub for managing their PD approach. The system offers the PD lead a method of school knowledge management that strengthens their ability to collect and disseminate information about the professional learning of the school’s staff. However, it was acknowledged by the headteacher and PD lead that further adaption of the system needs to include an evaluation element to monitor the impact of professional learning on staff, practice and pupil outcomes. The data monitoring of PD activity is also one of the headline themes emergent from our systematic evidence review (strand 1 of the study), reinforcing its importance to effective implementation and future planning.

Case study 2.

Cedar High School: Investing in a professional learning culture

Context

Cedar High School is a rural comprehensive school that hosts approximately 950 pupils aged 11 to 16. Pupil intake is predominantly from the local area. The school was rated ‘good’ in its most recent Ofsted inspection. The Headteacher has been at the school for twelve years and argues for investment in staff (both financial and procedural) based on a belief that all staff that work at the school should be continually learning alongside their teaching role. In support of this, the headteacher has allocated funding for a designated PD lead. The headteacher stated that all staff understand the culture and aims of the school and work together to address the challenges they face within the current school climate. The Head has an overview of the PD process/strategy but emphasises that he trusts the PD lead, Senior Leadership Team (SLT) and Heads of Department (HoDs) to develop and maintain the PD approach.

PD Implementation

The school operates a structured PD plan that aims to support collaboration, with colleagues sharing learning across departments and the whole school. The PD lead communicates regularly (at least once per month) with three ‘Curriculum Leads’ and HoDs and liaises with members of the SLT. Monthly line management meetings take place throughout the school which include a focus on professional development. SLT members and HoDs identify professional learning priorities through regular classroom observation drop-ins and book reviews, collectively referred to as analytics. The school also deploys a staff survey once every two years to gather responses towards PD priorities to take the pulse of teaching staff and respond, where possible, accordingly.

The PD plan consists of three components: statutory training (for example, safeguarding), curriculum development work (for example, retrieval principles), and individual development (for example, external courses and programmes). Whole school, non-subject specific development activities also take place which are focused on ‘high quality teaching’. Teachers then discuss the interventions in subject groups and apply learning to their subject practice.

Action

The key action in this case is ‘investment in staff’, both financial (for example, appointing a PD lead, funding external courses) and investment in the ethos of professional learning. While the PD approach covers the expected school improvement plan (SIP) priorities it is the embedded culture and commitment to developing staff that stands out, as expressed by the Headteacher:

We believe that if you come and work here you should be learning as well as the students, and we are willing to support you in learning. Actually, we’ve got quite an impressive list of everything from really small things like somebody who wants to do a first aid course through to people who want to do a further degree (Cedar, headteacher).

The above message is outlined in the SIP and fully supported by school governors. Currently, three members of the SLT are undertaking the National Professional Qualification for Headship (NPQH) study even though it is acknowledged that not all the individuals in question aspire to becoming headteachers. The drive here is developing leadership skills that will serve the individuals in a wider context and consequently the school.

Another example is the support of a Teaching Assistant to undertake a Master's degree that was only loosely related to her work as a special needs assistant within the school.

The actions here reinforce the evidence of investment in individuals' professional development even if the professional learning is only tangentially related to current practice. In terms of subject expertise, during the past three years, three teachers have been given time to participate in a long-term programme of subject-focussed PD, while other departments have invested in subject expertise interventions for individuals. While funding PD is a constant issue that requires careful negotiation, the SLT and PD Lead appear to manage that well. Where possible, the school identifies external courses which are free. However, there is a modest PD budget which can also be accessed.

During our focus group with classroom teachers, it became clear that staff buy-in to the PD plan and vision is absolute. Staff are motivated through the commitment the school offers their development as emphasised by one teacher in the focus group:

The headteacher keeps repeating the same message, and I can see from doing the course it's doing it to embed that change and to show that this is what's expected and I think the school really does value its staff and they bend over backwards to support your career development (Cedar, classroom teacher).

Summary

I would argue that what we get back from that is a team of people who without having to be told to work harder, because I never ever tell them to work harder, they just work bloody hard because we invest in them and therefore, they invest in what we're trying to do (Cedar, headteacher).

The comment above, from the headteacher, essentially describes the reasoning behind the dedicated action of investing in staff. A combination of committed belief in the value of professional learning, a well-coordinated and structured PD plan underpinned by a commitment to investing in staff provides a solid action that drives the schools PD vision. Both financial investment and 'engaged leadership' to develop an ethos of PD are also supported by key findings from Strand 1 of our study.

Case study 3.

Yew Academy and Sixth Form: Developing and sustaining teacher buy-in to professional development through collaborative action

Context

Yew Academy is a specialist academy and sixth form where potential pupils can opt to join at year 9 or year 12. The curriculum has been designed in collaboration with industry, healthcare providers, universities and professional sport organisations. It is broad and balanced, whilst being focused on the needs of specialist sectors. The school is situated in a suburban environment close to a small city. The school is relatively small and hosts approximately 500 pupils.

PD Implementation

Prior to COVID-19 the school's approach to PD was unstructured, predominantly relying on one-off interventions identified by the SLT with little or no long-term strategy or connections. During our focus group, classroom teachers suggested that this approach placed them in a situation of PD being 'done' to them, rather than offering an opportunity to enhance their practice.

After the COVID-19 period, the SLT decided to reset their approach to PD and deploy a more structured and consistent approach across the school. The team consulted departments and identified three priorities for the school year, the first of which was 'feedback'. The PD lead worked with individual departments to identify the most effective feedback methods to ensure that feedback is effective for pupils and to reduce staff workload. As each subject has different methods of pupil feedback the move to a more whole school feedback policy was difficult. However, taking recommendations from each department, the SLT was able to develop a generic policy that works for the whole school. Term two focused on 'revision and recall' with term three concentrating on 'questioning'.

At the time of our visit the PD lead had led or planned to lead, short sessions introducing three themes and techniques based on the Education Endowment Foundation (EEF) guide to effective feedback (Collin & Quigley, 2021). The introductory sessions are led by the PD lead and then supported by two components intended to encourage a collaborative approach to PD:

- Walk Throughs
- Staff Share

Walk throughs are observations focussed on the priority theme for that term while also allowing for observations based on general practice. Teaching staff asked to organise their own classroom 'walk throughs' in pairs, from the same or different departments. SLT members also engage in walk throughs of each other's practice as well as casual observations of teaching colleagues. The main idea behind walk throughs is to trial and observe techniques based on the identified themes so that good practice and/or concerns can be shared. Weekly 'staff share' meetings provide opportunities for staff to learn from each other. Feedback is produced from the walk throughs from those involved which is collated by the PD lead, supported by other SLT colleagues, so that all school staff can learn from, and comment on, the feedback.

Action

The action implemented by the SLT in this case is 'collaboration'. In deciding to establish a more structured approach to PD, the PD Lead and other SLT members acted on feedback from colleagues to establish an approach that ensures collaborative action. As one teacher described:

It allows for peer discussion and people to share their own ideas and how they've implemented it, people learn a lot from other practitioners and it is really, really valuable (Yew, classroom teacher).

The action of designing and embedding a policy of collaborative PD within and across departments has secured high levels of teacher buy-in. The PD lead stated that the approach is building a positive culture towards PD within the school as staff feel involved in decision-making and empowered to share and develop their own learning in a collaborative environment. An important characteristic of the collaboration appears to be its task-related focus; teachers working and reflecting together to develop practice and implement and embed learning. Focus group conversations showed that the teachers involved value the collaborative learning of the nature described in this case and ascribe to its worth and usefulness.

Summary

Collaboration is defined in this case as joint interaction in the establishment of a process and subsequent tasks that are required to undertake the PD approach. It is not static or uniform. Different types of collaboration occur with varying depths such as the initial enquiry for feedback from teaching staff regarding the new PD approach, and the collaborative processes teachers engage in through a formalised structure. In developing their PD policy and approach, the PD lead and SLT involved teaching staff in decision-making, maximised teacher buy-in, and have developed a positive PD culture.

Case study 4.

Rowan Primary School: Devolving authority, empowering leadership

Context

Rowan Primary School is a small Local Authority (LA) maintained community primary school in a mixed socio-economic area. There are 200 pupils on role ranging from 3 – 11 years. The school's most recent Ofsted rating was 'Good'. At the time of our visit the school employed approximately twenty-four teaching staff (including teaching assistants). The Headteacher has been at the school for 10 years and is described by staff as having a 'paternalistic' approach seeing the school community as a family where wellbeing, relationships, trust, and open-door communication are encouraged.

The School Improvement Plan (SIP) and other priorities are identified through a collaborative approach which involves teaching staff, school governors and teaching assistants. There is no confirmed PD plan or allocated budget and no formal PD lead. Instead, the headteacher encourages individual staff members at all levels to approach him or members of the SLT with ideas and suggestions that either meet SIP priorities or have relevance to the school ethos. The headteacher then discusses the potential idea with the staff member and decides on the appropriate action.

PD Implementation

The school's most recent PD intervention focused on 'behaviour management' with a view to updating the school behaviour policy but also addressing a perceived increase in disruptive behaviour since the full return from COVID-19. The Special Educational Needs Coordinator (SENCO) and Early Years Foundation Stage (EYFS) Lead had become concerned about pupil behaviour and, after consulting the headteacher, were encouraged to speak with the Chair of the school governors who had introduced a particular approach to behaviour in her own school where she is headteacher. The Chair of governors is a trained 'Thrive' (Gibby-Leversuch, Field, & Cooke, 2019) practitioner and agreed to deliver a whole school PD session on the principles of Thrive followed by the SENCO and EYFS Lead making two visits to the governors' own school to observe the approach in practice. Through the whole school twilight session and three subsequent whole staff meetings, a new behaviour policy and implementation strategy was developed and agreed by the headteacher and SLT and endorsed by staff.

The SENCO informed us that, as a consequence of the PD intervention, the school had updated its behaviour policy and put their learning into practice underpinned by a restorative justice plan to support pupils to deal with conflicts:

I think there's a higher recognition now of children that are struggling so much with their mental health. It's more about the reasons why children behave and opening people's eyes to, there's a reason for this and they're telling us something, and it's our job to investigate that (Rowan, SENCO).

Action

The new approach to behaviour management was stimulated by an idea discussed by the SENCO and EYFS Lead based on their observations of pupil behaviour. However, the action that the Headteacher implemented was devolving 'authority' and 'power' to his two colleagues to be able to represent their idea in a responsible, defined and self-determined way, through acting on their 'own' authority. By offering them the autonomy to explore and develop their idea he empowered them to act while offering support and belief in his colleagues' intentions.

In this context, ‘empowerment as action’ demonstrates both the process of self-empowerment (SENCO and EYFS Lead having the autonomy to pursue their idea) and the professional support of people (Headteacher offering autonomy to professional colleagues), which enables them to overcome any potential notion of powerlessness, and to recognise and use their drive and expertise as a resource. The Headteacher also provided ‘validation’ of the idea by piloting the Thrive approach and taking feedback from the SENCO who observed him practising the approach.

Summary

Testimony from classroom teachers and teaching assistants, as well as the Headteacher, demonstrates that a strong component of his leadership approach is ‘empowerment’ of staff. His actions in this case show how he implements empowerment through his willingness to acknowledge the ideas and expertise of others to support the development of the school as a whole as well as individuals. Through listening and encouraging others to accept autonomous behaviours with authority and responsibility, the headteacher enabled the SENCO and EYFS Lead to develop an idea which led to positive and effective whole school change.

The headteachers’ actions influence school staff as they buy-in to two distinct processes:

1. Allowing individual members actions to substitute for another’s
2. Being open to the influence of others and being willing to accept the ideas of other’s

When these two processes exist ‘positive interdependence’ is achieved and the group recognises a need to work together to achieve identified goals which is emphasised through the ethos of the school.

Case study 5.

Hawthorn School: Trusting teachers to lead professional development

Context

Hawthorn School is a mixed secondary school and sixth form college with academy status located in a suburban area. The sixth form is a specialist arts college in the performing arts, with a secondary specialism in mathematics and computing. The school currently hosts 1695 pupils aged 11 – 18. The most recent Ofsted ranking was ‘Good.’

PD Implementation

Two members of staff have specific responsibility for PD organisation and provision within the school—the deputy headteacher is responsible for individual professional development which has replaced the previous staff appraisal system, while a professional tutor has responsibility for leading the whole-school approach. Individual staff are asked to identify up to three personal ‘ambitions’ (formerly objectives) one of which is related to the whole school focus of that particular year (for example, the current year is focused on pupil misconceptions). Other ambitions are related to developing practice (for example, master’s degrees, subject specific external courses).

The whole school-approach involves three main components:

- Early Career Teacher (ECT) training
- New staff induction
- Priority theme

ECT training follows the nationally agreed framework which is a two-year programme of support in collaboration with an external deliverer, while the induction programme for new staff is a one-year programme and covers information such as school systems and culture. The priority theme is identified by the SLT and professional tutor in response to the SIP. For the priority theme, the headteacher and professional tutor identify cross-curricular ‘Teaching and Learning Groups’ (TLG). Two staff members are allocated to facilitate each group and are trained by the headteacher and professional tutor to deliver specific content related to the priority theme. For example, fifteen strategy cards were developed for the current theme of pupil misconceptions based on existing published evidence (for example, from the Education Endowment Foundation and academic research), each TLG member trialled specific strategies and kept a journal for reflective notes which are shared during PD sessions across all groups. As well as trialling strategies, each card has selected reading references which teaching staff are encouraged to consult and use to inform their development and feedback. The approach also includes departmental input that is later fed into TLG meetings to demonstrate how strategies have been implemented in subject groups and offered for reflective discussion to other departments and subject groups. Regular TLG meetings are scheduled throughout the year supported by departmental PD meetings and a buddy system where pairs of teachers observe each other trialling strategies that have been identified. TLG facilitators rotate each year with staff, of any experience level, able to volunteer to become a facilitator.

Action

The approach to PD in this school is dominated by a teacher-led model. The approach is embedded in the school’s implementation of PD and built on a foundation of ‘trust’ engendered in staff by the headteacher, as described below during a focus group with staff:

One thing that I have been struck with is making use of talent within the trust and within the school and it's been really teachers teaching teachers. I really respect the headteacher's wisdom and the trust that she invests in us (Hawthorn, classroom teacher).

While there is some monitoring of engagement (through individual professional development meetings) the headteacher and SLT trust staff to engage in TLG activity, share their learning, reflect and discuss practice, and share methods of embedding learning. Interestingly, focus group data shows that becoming a facilitator of a TLG is viewed by staff as a valuable professional learning opportunity in itself. The drive behind the success of this approach is a belief from the SLT that teachers can develop and share expertise tailored to their own context, both departmental and school-wide using existing evidence and evidence gained from practice to support teachers. The teachers in this case report high levels of buy-in to the approach and value the relevance to their practice and context.

Summary

Hawthorn School deploys a highly structured approach to PD that uses individual and collaborative learning processes to good effect. While traditional components such as individual requests for PD opportunities and compulsory training (for example, safeguarding) are still present, the use of groups of teachers discussing and sharing practice, centred on a specific theme identified through the SIP, appears to be an effective method in galvanising the interest and engagement of the staff body in PD that is intended to respond to school contexts and needs, as well as individual and whole-school professional development.

Case study 6.

Oak Primary Academy: Designing the curriculum through professional development

Context

Oak Primary Academy is part of a Multi Academy Trust (MAT) and hosts 431 pupils. The Senior Leadership team comprises 6 members, including the headteacher, and 54 teaching staff. The MAT encourages the use of research evidence to inform school development plans; the headteacher stipulated that she was ‘evidence lead’ for a different school in the MAT and engages with existing research evidence regularly to inform their PD approach. The school’s latest Ofsted rating was ‘Good.’

PD Implementation

The headteacher leads PD within the school and takes a predominantly whole school approach based on research evidence and theory. Staff are also supported to take up individual opportunities such as National Professional Qualifications (NPQ), early career teachers negotiating the Early Careers Framework (ECF), and subject specific interventions. The whole school strategy is based on the school improvement plan (SIP) and tends to focus on a specific theme. For example, when we visited, the focus was ‘English’, while the previous year the theme was ‘wider curriculum.’ The strategy for the year is delivered during a training day in September followed by a review meeting at half term and a second training day in January. In between meetings, staff are encouraged to discuss and share ideas regarding the specific focus.

Action

The action in this case is theory-driven⁴ curriculum mapping. The headteacher felt that the teaching of the wider curriculum in the school lacked coordination and had become a little ad hoc. So, the two wider curriculum leads and the headteacher discussed findings from research studies they had agreed to read. Discussions led to the identification of priorities and non-negotiables (for example, Do Now’s, independent investigation, vocabulary) and together developed curriculum maps for each subject as well as lesson structures. These were then offered to staff to explore, trial and feedback. Individual subject leads were asked to take the basic structures and add more meat to the bones (headteacher).

A review took place six months after launching the strategy through a series of staff meetings which led to modifications to curriculum maps and lesson structures. They decided, mapped against the National Curriculum, which year groups would teach specific content and when, but beyond that staff were asked to be innovative and explore the approach to work out what particular styles of learning and what particular bits of knowledge their pupils enjoyed and engaged with.

Staff began to share practice experience and suggestions about specific subjects (through meetings and email) to the extent that the headteacher began to collate shared feedback and materials to prevent individual workloads increasing as described below:

Actually, I have to hold them back now. They’ll be sending staff emails out all the time saying, for science I want this, or geography try this. I’ve had to get them all together and say right, stop doing that, I know you’re all really keen but actually its creating a workload for each of you. Send them to me, I’ll curate

⁴ Theory-driven here means theory derived from existing literature by the headteacher and other colleagues.

them, and we'll just send them out every so often all together. But it's because they're keen and want to collect evidence, they want to go and see this particular lesson (Oak, headteacher).

Summary

The action described above is a theory driven wider curriculum mapping action. This began with the head and wider curriculum leads engaging in quite an extensive review of extant literature on the subject. A top-down process then followed with the trio undertaking a curriculum mapping exercise for each subject including lesson structures. However, the headteacher was confident that staff didn't feel isolated by the top-down approach suggesting that what they needed was something to hang their hat on, and then have the freedom within that to make small changes. Focus group interviews endorse this view with subsequent engagement from staff having to be managed carefully to avoid an unnecessary increase in workload due to the enthusiasm of staff.

It appears that explaining the theoretical underpinning and asking staff to 'play' with, or 'explore' the concept and supporting materials before modifying and rolling out the strategy stimulated a feeling of ownership, further explained by the headteacher below:

Yes, because the enthusiasm for teaching wider curriculum is tangible now because staff have been involved in developing it. I've not just said this is the structure, go and do it. They've all been given time to do it, and they've all been given ownership of it. We listen to what they're saying. If they're saying no this is not working, I'm not having time for that, or when we do the writing bit, I'm not getting enough reading in....we solve problems together (Oak, headteacher).

Recognition of the role of research and evidence in schools has increased over recent years with bodies such as the Education Endowment Foundation publishing resources to support teachers' use of evidence (Education Endowment Foundation., 2024). The above case demonstrates how school leaders may effectively introduce research and evidence to inform professional learning.

Case study 7.

Blackthorn School: An evidence-based, whole school approach to professional development

Context

Blackthorn is a large Church of England secondary school. It hosts 1500 pupils and is a single academy trust working with other schools in the regional partnership. The school has been designated a ‘research school.’ At the time of our visit there were 210 teaching staff. The school is located in a leafy suburb of a small cathedral city. The latest Ofsted rating was ‘Good.’

PD Implementation

The headteacher stated that the approach to PD is underpinned by Quality First Teaching. He insisted that improving the quality of teaching leads to improvement in pupil outcomes. Therefore, investing substantially over a longer period in professional learning is a priority within the school. The headteacher stated that the school is an ‘evidence-informed’ school and uses existing evidence and empirical evidence, gathered through the school, to inform PD content and decisions, and that that has stimulated a drive towards developing a ‘collective efficacy’ based on existing theories of the concept as stated below:

...built up on this being an evidence informed school which has been really important to us, we are trying to work towards a collective efficacy and taking some of the studies about collective efficacy that work whereas a body of staff we are all working in a similar pattern. So that collective efficacy is fundamental to making the principles of what we’re doing work (Blackthorn, headteacher).

The relationship between collective efficacy and pupil outcomes depends on reciprocal relationships among collective efficacy beliefs, teachers’ sense of efficacy, teachers’ practice, and teacher’s potential influence over teaching and learning decision making in school.

Action

The action in this case begins with a regular series of, what the PD lead called, ‘Progress Walks’ which are conducted by the eight members of the SLT. These are essentially classroom observations that focus on what the pupils are receiving and gaining from their learning. During the school year approximately 500-600 progress walks are conducted.

SLT members look at the work pupils are producing and their participation during lessons. Each senior leader completes a feedback form which are collated by the assistant headteacher and then discussed in SLT meetings to identify emerging issues that may require attention. For example, inconsistency in the ‘embedding’ of formative assessment emerged regularly from progress walks in the year prior to our visit as the headteacher stated:

...we felt that we were seeing assessment being too inconsistent across school. We saw some brilliant practice, and we saw some less than brilliant practice, and we felt that it was a running theme that came through in a lot of different observations. And so, there is a reasonably strong evidence base (headteacher).

Once the priority theme has been agreed by the SLT, based on the evidence gathered, ‘coaching groups’ within the school are deployed as the vehicle for delivering PD sessions. Coaching groups had been established in the

school some years previously to support PD delivery and consisted of heads of department and experienced classroom teachers providing support for less experienced teachers. Coaching groups meet once per month to design and deliver PD sessions and, in this instance, were based on the Education Endowment Fund (EEF) guidance for teachers on assessment and feedback (Education Endowment Foundation, n.d.).

Summary

The evidence-based whole school approach to PD described above is founded on a drive to inspire a spirit of collective efficacy among teaching staff. Collective efficacy in this context is defined by the headteacher as the belief and confidence an individual has in his or her team to affect the team's overall performance. When a team of individuals share that belief, their collaborative efforts can overcome barriers and produce intended results.

Although the approach is top-down in its structure, being led by SLT members, the desire is to produce a collective efficacy that will engender teacher buy-in and demonstrate a commitment from the SLT to developing the whole staff body. Decisions about the content of PD interventions emerge from gathered evidence, both existing literature and evidence collected through regular progress walks. The headteacher and PD Lead refer to the process of progress walks as a substantial quality assurance system that leads to effective decision making about the nature and content of effective PD designed to address evidence-based themes.

Case study 8.

Sycamore Grammar School: Professional learning through a collaborative carousel

Context

Sycamore is an all-boys grammar school with specialist status in science and mathematics. The school hosts 1124 pupils, of whom 319 are in the sixth form. The staff body consists of approximately 60 teachers including SLT members. Until recently the school was a local authority maintained school but is now a member of an Multi-Academy Trust. The school is located in a suburban area and the Ofsted rating at the time of our visit was ‘Good.’

PD Implementation

In the main, a whole school approach to PD has been adopted. The PD lead informed us that staff requested a whole school approach so that they could collaborate as much as possible within and between departments and then apply their learning to their own subjects. A thematic design underpins the PD approach and at the time of our visit the SLT, in consultation with heads of department had identified ‘quality first teaching, behaviour for learning, and assessment for learning’ as the three themes they wanted to focus on during the school year. Alongside the whole school thematic approach, the school engages with statutory professional learning such as safeguarding and data protection training which they outsource to an organisation that supply eLearning modules.

The PD lead shares her role with the Director of Studies (DoS); she is responsible for whole school PD and facilitating PD interventions, whereas the DoS is the PD budget holder. The PD lead described her role as:

...the logistics of organising PD, in line with what the leadership group decide is best for the school and that comes from the school development plan that we have, so it’s looking at professional development for all staff. (PD lead)

The role also involves signposting opportunities for individuals such as government-funded National Professional Qualifications (NPQ) programmes, funded master’s degrees, and local network group meetings.

Action

The action in this case is the use of a carousel model. In its first instance, the carousel focused on the theme of Quality First Teaching (QFT). The SLT began by unpacking existing definitions of QFT and found that a range of definitions with subtle differences were already conflated with school teaching and learning practice. So, the SLT and PD lead decided to unpick what QFT meant to them as a staff body through a whole school staff seminar led by the PD lead. The outcome of the seminar was for individual departments to discuss as a group what their definition would be and identify what aspects of QFT work in their departments. Departments were then asked to share their reflections through a carousel model with the whole school sharing ideas across departments. Each department was allotted twenty minutes to talk about the strongest aspects of QFT in their departments over a two-hour period. The outcome was a range of different aspects that were shared among staff across the school with outcomes identified and trialled through practice.

After taking feedback from staff, the carousel for the second theme (behaviour for learning) was tweaked slightly to accommodate a request for peer-to-peer learning. Rather than asking heads of department to lead discussions and present findings through the carousel, the PD lead identified staff from different departments to talk about an aspect of their teaching that the PD lead perceived as a particular individual strength regarding

behaviour for learning. Part of her role involves leadership group visits and department deep dives which meant she had a keen knowledge of staff that could represent the theme well, as she described below:

So, I have asked specific people if they would like to deliver on strengths of their teaching in relation to behaviour for learning. I've gone to one of our English teachers and said your strength, as I've seen it in the past, is engaging boys who don't really engage with English, and who would be happy to get a six, and you always manage to really get them to engage and push themselves to get a seven or an eight (PD lead).

The aim of the modification to the initial carousel approach is to get to a point where staff are keen to volunteer to share expertise rather than heads of department or the PD lead selecting them. The PD lead views this as a way of motivating engagement, buy-in, and sharing expertise through a peer-to-peer process.

Summary

Developing a carousel model in the way described above has enabled a whole-school approach to PD that uses the practice strengths of staff through sharing of expertise within and across departments. The carousel model is relatively time efficient and brings staff together in a collaborative environment. While the choice of themes for the PD year are identified by the SLT and PD lead to meet the requirements of the school development plan, staff do not feel isolated from the process, rather by using their expertise and encouraging peer-to-peer interaction (something staff requested through feedback on the first carousel) staff realise a sense of buy-in, which was emphasised during focus group discussions, and viewed as a positive move away from a perceived laissez faire approach to PD during previous years.

These representative case studies offer illustrations of the effective implementation of professional development in the current English schools context. In the next section, we look across the full set of case studies, and the survey data, to consider what our findings tell us about the actions which can be taken by school leaders to build structures and processes which enable this implementation to take place.

Leadership mechanisms: investment, collective efficacy and collaboration

The case studies and survey provide insights into the ways in which school leaders are successfully implementing professional development in the current English context.

From our analysis of the data from all eleven schools we visited, and supported by survey responses, we identified three overarching leadership mechanisms that enable the implementation of effective professional development in schools described in Table 15:

Table 15: Leadership mechanisms

Mechanism	Description	Key themes	Examples
Investing in professional development through time, money and leadership	School leaders invest in PD to provide a necessary condition for PD to take place, demonstrating symbolically that a school values professional learning, which can lead not only to changed practice, but also supports teacher engagement (knowing they are valued), development, and potentially retention. This ultimately provides for a better pupil learning experience.	<ul style="list-style-type: none"> • Negotiation of budgetary issues to invest in PD • Communication of purpose, context, structure of PD • Supporting all staff and all pupils 	Case studies 1 and 2
Building collective efficacy for and through professional development	School leaders build a sense of collective efficacy via a shared vision for the school by engaging staff in conversation. This involves a shared commitment to high quality teaching which requires a focus on quality PD and this is reinforced by senior leaders visibly engaging in their own learning.	<ul style="list-style-type: none"> • Vision for learning, shared vision • Culture of PD togetherness • Teacher buy-in • Modelling behaviours 	Case studies 3, 6, 7 and 8
Enabling collaboration in and through professional development	School leaders develop a collaborative sense of teacher professional development with features including togetherness which can instil collegial learning, risk taking and curiosity.	<ul style="list-style-type: none"> • Supportive environment, praise • Team/team cohesion • Sharing knowledge and expertise 	Case studies 3, 4, 5 and 8

Given the complexity of school cultures and, particularly, teacher professional development, each mechanism is exemplified in multiple case studies, several case studies offer examples of more than one mechanism, the mechanisms, and their key themes, overlap and interact, and some themes might equally be placed within other mechanisms. Notwithstanding these complexities, we next explore each mechanism, using extracts and quotes from school staff to illustrate how they support the implementation of professional development.

Investing in professional development through time, money and leadership

School leaders invest in PD to provide a necessary condition for PD to take place, demonstrating symbolically and practically that a school values professional learning, which can lead not only to changed practice, but also supports teacher engagement (knowing they are valued), development, and potentially retention. This ultimately provides for a better pupil learning experience.

The key themes which underpin investment are:

- Negotiation of budgetary issues to invest in PD
- Communication of purpose, context, structure of PD
- Supporting all staff and all pupils

Perhaps not surprisingly, most participating schools had limited PD budgets, with typical allocations ranging between £10,000-20,000 annually. This is agreed by school leaders and based on school development plans and priorities. One PD lead captured a consensus across all participating schools:

It's a constant juggling act. That is the biggest implication and we have to look at what our priorities are for our school development plan and we have to think really carefully about what is the best way to spend our money (Beech, PD lead).

Nevertheless, the school leaders involved in our study found ways to navigate budgetary issues and ensure that PD is not deprioritised. For example, one primary school (Spruce Primary School) had joined a behaviour hub (Department for Education, 2023) which funded their participation. Others employed learning supervisors who provide cover support for classroom teachers to engage in professional development activity, thus reducing the need for cover costs.

There are also issues of ensuring value for money in terms of investment in PD, whether through investing in an external programme or investing in staff time to develop and run in-house activity. The headteacher below highlights her preferred view of value for money:

It's hard to know that that investment, to prove in that way that sometimes Ofsted want, that you're having value for money but I would say for us that it's about the quality of student outcomes, the quality of the classroom experience, the retention and wellbeing of staff, you know, there are better ways to quantify the value for money but they are harder to put on a spreadsheet, aren't they! (Hawthorn, Headteacher).

While the schools stated that they invest in external PD activity, particularly where individuals have identified a specific event or programme, a few headteachers stated that there is little appetite for external activity most of the time:

We spend very little money on outside courses. And there is actually very little demand from staff to go on outside courses (Blackthorn, headteacher).

The design of professional development structures and activities fell mainly within the PD lead's role, supported by the headteacher and/or other senior leaders. For example, one school reported that they work to a 'benchmarking cycle' for subject leads (Spruce Primary School), where staff undertake development activity, trial certain tasks, and feedback to colleagues. The content of the cycle is decided in response to the school development plan. Two schools (Hawthorn School and Blackthorn School) identified themselves as 'evidence-informed' schools and indicated that they invest in a range of resources such as journal clubs where groups read a journal article and share their perceptions, as well as strategy cards that describe particular approaches and provide links to further sources of information.

Other schools scheduled 'classroom walk throughs' where colleagues team up to reflect on each other's practice with a particular focus (e.g. Cedar High School and Yew Academy and Sixth Form). The key was deciding on a PD structure which enables school staff to understand the purpose, vision, and activity of the professional development for the academic year. This, in turn, allowed staff to plan accordingly and manage their time effectively.

Although the schools in our study used a variety of in-house approaches to PD, many of them also mentioned engagement with external PD programmes and providers. This was often context-dependent with senior leaders seeking the most appropriate fit for school and individual teacher requirements measured against cost and time for teachers to engage (e.g. Cedar High School).

Another component of investment is that school leaders communicate 'purpose' and 'context' which supports 'structure'. This is an investment in clear communication through time dedicated to planning. Communication was of critical importance in building cultures of professional development. Most of the PD leads and headteachers we interviewed emphasised that they engaged in regular discussions regarding their PD approach, activity, and message. This, they said, eradicated the potential for mixed messages and any confusion about purpose and vision, and brought clarity to their professional development plan and structure, enabling a collective vision for professional learning.

Identifying purpose requires a clear delineation of why school leaders are promoting a specific professional development theme and/or structure, for example, how it relates to the school development plan, a response to Ofsted, or developing a whole school approach to PD:

They (staff) were on the same page, they understood what was going on. They appreciated the training....it was like, 'oh, it was a bit of an eye opener'. I think for teachers it was like, yes that's why we do what we do. But certainly, the vibe that I had afterwards, was that, 'yeah, no I agree, thanks for bringing this to my attention' (Rowan, PD lead).

Presenting clarity of purpose to school staff was mentioned frequently by senior leaders as an important aspect of communicating the PD vision and obtaining buy-in from staff. 'Structure' also emerged as important, since providing a clear structure for the identified PD approach or intervention supports a message of professional development being valued by the school.

One PD lead explained that prior to introducing a new structure the school's approach was ad hoc with individuals essentially identifying activity at random points during the school year which they felt relevant to them and/or the school. He stated that take up was infrequent and that since the introduction of a more defined structure staff commitment and buy-in has been maximised:

Having the new PD structure...because it's a 15 minute slot, it's nice and quick, it's every week, so the staff know the expectations now and they've got then the other 15 minutes to do the other research or emailing a member of staff saying can I come and visit you. So, we've given them time and we have considered their workload in terms of what we expect from it. We want you to embed it in to your practice but we are going to give you a term to just focus on three strategies (Yew, PD lead).

Teachers from the same school endorsed this perception, agreeing that the new structure is less 'disjointed' than previous years, which helps understanding of the purpose and enables reflection on embedding in practice:

You can see the whole process I think. And you know where the theory or the information comes from and how that can be put into practice and then you get kind of the reflective part of it as well in terms of improving practice (Yew, classroom teacher).

Deploying the components of communicating the overall PD message, clarity of purpose, and clear structure emerged from data across all the cases and were implemented through strategic leadership. These components, put together as a process, supported buy-in from teachers and enabled them to visualise a clear route through interventions followed by embedding in practice.

During interviews, participants frequently referred to ethical and moral obligations in the context of advocacy. Generally, this related to an obligation to pupils to provide the best possible learning experience, which relies on continually developing teaching practice, as this PD lead emphasised:

It always starts with INSET; we are always having INSET and it is always around sort of the values, the ethos, vision of the school. So that obviously is about doing the right thing for students (Sycamore, PD lead).

While the ultimate responsibility is to pupils, senior leaders recognised that they have a moral and practical responsibility to invest in the individual development of. Essentially, the message was that to provide the best learning experience for pupils, teachers and support staff need to be operating to high standards. This message emerged strongly from our data and is emphasised by one classroom teacher below:

The headteacher will always invest in our progress and how we want to individually progress. I have got a huge amount of respect and I don't think that I would want to teach anywhere else. She [the headteacher] will listen to what's needed. She doesn't just respond to whatever the latest government initiative is. So, she won't force us down a route because somebody in government says that we've got to go that way. She's got the wisdom to say what do you actually need, what do we need as a school, what do students need (Hawthorn, classroom teacher).

This was supported by a head of department at a different school who stated that leadership for learning is a high priority and supporting teachers to become better teachers is central to that:

I mean leading learning is not just about setting a good example, it's about standing up in front of people and showing an enthusiasm for teaching as a thing to do, as a valuable thing to do. I've put leadership of learning as the top bullet point within the department, being the best teacher and making other people better teachers, helping other people to become better teachers (Sycamore, classroom teacher).

Building collective efficacy for and through professional development

The school leaders within our study build a sense of collective efficacy via a shared vision for the school by engaging staff in conversation. This involves a shared commitment to high quality teaching which requires a focus on quality PD and this is reinforced by senior leaders visibly engaging in their own learning.

The key themes that emerged from our data analysis which underpin building collective efficacy are:

- Vision for learning/shared vision
- Culture of PD
- Togetherness
- Teacher buy-in
- Modelling behaviours

Collective efficacy theorises that a group's confidence in its abilities is likely associated with greater success. Moreover, the belief and confidence an individual has in their team affects the team's overall performance. When a team shares that belief, their collaborative efforts can overcome barriers and produce intended results (Donohoo et al., 2018). The school leaders we spoke to established collective efficacy to bring about a sense of togetherness among school staff particularly in the context of PD.

School leaders are central to school performance and effectiveness (Murphy et al., 2007) and, as such, set the 'vision for learning'. A particular feature of vision for learning that emerges from our data was enacting a 'shared vision'. Having a shared vision for learning meant that staff have team cohesion and understand the school's direction of travel regarding PD. The PD lead below explained the importance of a shared vision:

It's that shared vision of where we're going, particularly on the curriculum journey that's important. I think that everybody – if you talk to any member of particularly teaching staff here about the curriculum, they know the messages that they need to (Cedar, PD lead).

One headteacher described how he sought the views of teachers prior to taking up a new post and then chose to act upon their responses to enable him to develop a shared, collective vision for learning for the school:

I wrote to all members of staff before I got here and I asked them for their opinions on school and I asked them for the top three things about the school and the three things they would like to improve and as soon as I arrived. Day one inside the school...I'm able to say to them look what you told me. You told me this. It's not what I say but you told me this, and you told me this...so this is what we are going to do and this is where we're going to go (Blackthorn, headteacher).

This particular headteacher went on to explain that a key component of the schools' vision is specifically based on 'collective efficacy':

We are trying to work towards a collective efficacy and taking some of the studies about collective efficacy that work where, as a group, as a body of staff we are all working in a similar pattern and working that forwards (Blackthorn, headteacher).

While not specifically mentioned by others, this theory of collective efficacy clearly influenced the thinking and approach of other participating school leaders from our study, as highlighted here:

You feel like, you come here, you can be yourself, if you make a mistake, 'we' make a mistake, we all support each other and it's like a family (Rowan, classroom teacher).

The theory of collective efficacy reflects the involvement of school leaders in PD and their responsibility for involving others in PD (for example, through building a shared ethos and vision). This shares features with ideas around trusting leadership and engaged leadership, themes that emerged from the systematic evidence review undertaken in Strand 1 of our study. So, the school culture, including promotion of PD, is affected by school leaders, and is experienced by teachers, and consequently influences pupil outcomes.

One headteacher explained his role as facilitating teachers within an environment of trust and responsibility which includes pupils:

My job is to allow the people out there to do their jobs. It's not to tell them how to do their jobs or harass them. Their job is more important than my job and my job is to make sure that they've got what they need to do their job ... don't get me wrong, people come through that door every day saying I think you're getting this wrong, but that's trust actually. I'm not saying it's a yes culture ... it's a bit like the kids, the vast majority of the kids know how to behave, so if somebody stands up in class and starts being an idiot everyone just looks at them and goes 'What are you doing?' then they sharp stop (Cedar, headteacher).

The school leaders in our study understood leadership as a function of group or team. This can only occur when two or more people interact, so these school leaders actively sought to 'influence' the behaviour of their teaching staff rather than to 'command' it. Their leadership was intensely interpersonal and involved working with individuals, department teams and school leadership colleagues to positively impact teaching and learning (evidenced across all case studies).

For example, one headteacher described how he believes in the ability of his staff group and 'trusts' them as being 'part of the same team', with a strong personal steer and support from him as to what their professional targets were within the school (Cedar High School). This notion of collective efficacy, through trust and support, was representative of all the headteachers we spoke with, and demonstrated through a non-judgemental culture where risk-taking during practice was promoted and learning from mistakes valued.

Establishing a sense of 'togetherness', as a contributing factor to collective efficacy, is a theme that emerged consistently throughout our interview and survey data. PD leads and headteachers highlighted a belief that building this culture which improves teaching improves outcomes for pupils, as indicated below by a PD lead and headteacher from different schools:

I wouldn't ask anybody to do anything I wouldn't do myself, and that includes cleaning toilets. I think that is really important to develop that culture of being part of a team, that we are not in this as individuals and that really the most important people here are the kids, so I think that is probably it (Spruce, PD lead).

Our entire strategic approach is built around improving quality for teaching, so if we improve the quality of teaching, we improve the outcomes for all students (Blackthorn, headteacher).

Our data suggest that headteachers can be particularly influential when they attribute school outcomes to teachers and the actions they undertake. Feedback and recognition lead to the improvement of teachers' self-efficacy and their commitment to the school. The school leaders from our study rewarded success, significant achievements, and important contributions to the school. This contributed to a sense of collective efficacy, which in turn can maximise the sharing of knowledge and expertise.

The participating schools emphasised that to achieve the best outcomes for pupils relies on teaching, and this requires teachers to engage in PD, as stated by one of the headteachers:

Students' needs are the priority. But also recognising that to get the best for students, teachers need to have good quality professional development as well (Willow, headteacher).

Engaging in professional development is not simply a matter of attending events or programmes. Importantly, engagement requires buy-in from teachers. Therefore, establishing and maintaining a positive culture of PD (for example, belief in, and valuing of, PD) is a central component of the participating schools' collective efficacy. A key to establishing this is school leaders modelling the behaviours required to stimulate engagement. In promoting the value of PD, school leaders from our study model the values and behaviours they expect from their staff. For example, during focus groups classroom teachers revealed how some headteachers and PD leads engage with current literature and research evidence to inform their thinking which is shared through department and whole school meetings (e.g. Hawthorn School and Blackthorn School). Other teachers mentioned how senior leaders participate in classroom walk throughs and reflective observations.

During a focus group with teachers, one of the group described how her headteacher demonstrated this:

I think when you look at various heads in various schools, there are some headteachers who are just managers and just manage people and our head, she does that but she is also an academic and has a complete desire to learn and progress all the time and that is contagious. And so yes, obviously she manages us but she also drives us to learn and continually learn and never rest on our laurels and I think that that keeps the staff quite fresh. We don't get stale in our own ideas or complacent as well (Hawthorn, classroom teacher).

A teacher in the same school suggested that senior leaders instil a sense of respect for teaching and learning through encouraging curiosity about practice:

There is an ingrained culture here around improvement, around professional curiosity, and I think that there is real respect for teaching as a craft (Hawthorn, classroom teacher).

A PD lead from another school endorsed this view of continual improvement, and drive to be better, showing how it extended to leadership colleagues who, as previously mentioned, modelled their enthusiasm for professional development:

We have that drive to be better leaders and to make ourselves better and again that comes back to the CPD that we've had collectively as a trust, collectively as a school, but then individually as specific people as well (Spruce, PD lead).

Essentially, school leaders are not isolated from the professional development that takes place in their school but ensure they are embedded in the team. This is borne out of a drive to establish a culture of collective efficacy which supports professional development. The headteacher mentioned in the above quote engaged in professional development together with other members of the SLT and wider school colleagues, thus modelling the school's vision and exhibiting a commitment to PD which is at the heart of that vision. This headteacher explained that modelling the school's vision and therefore a commitment to PD helped staff to grow their own commitment to PD activity:

If you're coming here, you're buying in to a culture where teaching and learning and our professional learning is a huge part of your commitment and if that is not for you then get your stuff, because that is absolutely who we are, everyone is very committed. I think that you should try and make professional learning for teachers irresistible (Hawthorn, headteacher).

Enabling collaboration in and through professional development

School leaders develop a collaborative sense of teacher professional learning with features including togetherness which can instil collegial learning, risk taking and curiosity.

The key themes which underpin collaboration are:

- Supportive environment and praise
- Team cohesion
- Sharing knowledge and expertise

Collaboration in relation to professional development can take many forms. For example, a more collaborative culture of professional development can be built through a non-judgemental and supportive environment. This includes developing attitudes towards PD, as described by one of the headteachers we spoke with when discussing the school development plan:

Our school development plan has in it, on the first page, five things we believe in. They're nothing to do with exam results or anything like that, they are to do with our belief that if you come and work here you should be learning as well, and we are willing to support you in learning as well (Cedar, headteacher).

Similarly, classroom teachers, from the same school, revealed the importance of developing a supportive school environment to eliminate any potential sense of blame and provide them with the confidence to express their voice and discuss emerging issues around PD activity through a supportive environment. As one teacher explained:

So, it is very much part of the culture here that I've never felt there is any sense of blame here that you can say 'Oh, okay, that just went horribly wrong', what do I do now, and it has always been, I think, a really supportive environment to be able to say and do stuff (Cedar, classroom teacher).

Offering praise to staff appeared to be strongly related to the provision of a safe and supportive environment. Most participating school leaders referred to praise as an important feature of leadership that not only provided motivation for engaging in PD but stimulated staff to become better practitioners and try new things, particularly those learned through PD:

We try where possible, we give our staff praise where possible, so if we see an example of some really good practice then we make sure and we email them and we give them a postcard and say well done, really good practice (Yew, PD lead).

I think just going back slightly, the school leadership and the whole staff in the school are very quick to tell people when they've done something good as well. It's like praise isn't held back. They want you to know when something has worked or that you've done something well. I think that kind of positive environment makes people more willing to take risks in the classroom and with their professional development (Hawthorn, classroom teacher).

A notion of team cohesion was evident in numerous descriptions of collaborative professional development structures from headteachers and PD leads. The participating school leaders actively built structures, including the appointment of PD leads, that allowed staff to reflect together on learning and practice through departments, whole school groups and collaborations such as non-judgemental observation cycles, benchmarking cycles, and classroom walk-throughs.

A belief that 'we're all in this together' was captured by one headteacher who described their school ethos:

It's very, very, very flat and it's not hierarchical. Everybody sees themselves as being part of the same team, everybody understands very well what the mission is. And we have to find our way through the difficulties of the current political and educational system together as a team (Cedar, headteacher).

This headteacher described some of the characteristics of a good team that he recognised within his staff:

Communication, sense of humour, understanding, and determination. And they are just off the top of my head. I could think of lots more I'm sure...again it's that team, isn't it. Looking at it from a collective point of view (Cedar, headteacher).

These school leaders actively encouraged a team ethic in their schools which involved sharing knowledge and expertise, via professional development. Our case studies identified several instances of staff sharing and supporting the development of colleagues (e.g. Yew Academy and Sixth Form and Sycamore Grammar School). One PD lead described an approach embedded in their school:

It's built in to our staff meetings every week that we have a 'bring and brag' time ... teachers come and say I've seen this, I've tried it and it's worked really, really well. And then we will just spend five or ten minutes talking about it and then that teacher might say I will come to your classroom tomorrow and we will set it up and you can have a go and we roll things out like that quite often as well, because that is a really nice way to get the staff working as a team as well (Spruce, PD lead).

This sharing of knowledge and expertise, a type of informal PD, promotes a team as a supportive community that is collaborative and non-judgemental. This, in turn, encourages peer-to-peer professional learning:

So, if we're having a maths book look, or a literacy book look then it's right, sit down with somebody else and show your books off and it's developmental and not judgemental. We have those conversations around the fact that I've not seen that before, that's amazing, will you come and show me how to do that in my classroom?... that climate is all about a collaborative approach. You're stood shoulder to shoulder

with your peers or the senior leadership team and they come and they will walk side by side with you and support you in that process (Spruce, classroom teacher).

School leaders established this professional learning climate through a team notion and non-judgemental approach, providing a safe space for learning and taking risks within an overall collegial learning culture. The value of practising within a safe, supportive environment was expressed by many participants and highlighted by a PD lead and a classroom teacher:

You need a culture that is open to taking risks, because it's all well and good delivering a PD where you want people to try out new things, but they are not going to try out new things unless they feel safe doing that in their classroom. That their colleagues are going to support them and that the leadership is going to support them (Spruce, PD lead).

Yes, there is no judgement...whether you're teaching five years or fifteen plus. I did it a while ago, sent out an email to all the teachers and particularly the Y7 group who were teachers in that group, and I didn't feel any discomfort or losing face sending that out to say there is four kids in there that I'm getting a bit of bother with, who else has experienced that, and you get loads back then. There is no judgement. There's no 'Oh you can't control your class.' (Cedar, classroom teacher).

All the school leaders we spoke to held high expectations of their staff and pupils. In the context of professional development, this was apparent through a belief that encouraging a curiosity about professional learning leads to engagement in activity and improved teaching quality, which in turn, leads to improved pupil outcomes and experiences. These school leaders also enabled teachers to input into decision-making about professional development which demonstrated the value placed on teachers' contributions.

Many participating schools developed and deployed their own PD programmes for various reasons, including scepticism about quality and fit of externally sourced programmes with school priorities and context, a sense that often they have in-house expertise and, frequently, cost implications. As described in the case studies, professional development activities were frequently low-cost approaches embedded in schools' practices, including classroom walk-throughs where colleagues can drop into classes and observe practice, share ideas and reflections, dissemination events delivered by staff focused on specific strategies and approaches, as well as ongoing statutory professional development such as safeguarding training.

Existing literature emphasises the impact of leadership on the effectiveness of schools. Much suggests that school leaders can create learning environments for teachers and pupils, with the aim of increasing pupil learning outcomes through their influence on teachers, and organisational policy. It is their actions, behaviours and value that enable the creation of these learning environments (Hallinger & Heck, 1998; Hitt & Tucker, 2016). Leadership is sensitive to the context in which it is deployed, so it matters that school leaders understand the dynamic and multifaceted social space in which their schools operate (Bagley & Hillyard, 2019). The school leaders in our study articulated their understanding of their school environment through the values they promoted and the behaviours they displayed, and practiced a style of leadership which has, at its core, a deliberate eclecticism.

Recommendations

In the previous section, we described three mechanisms which support effective professional development in the current English schools' contexts which were consistent across variations in school contexts and school leaders' approaches. These mechanisms underpin school leaders' approaches to prioritising professional development, supporting teachers' readiness for change, embedding professional development in teachers' careers and thereby establishing sustained cultures of professional development in schools.

From these findings, we have identified a series of recommendations. Firstly, we present some recommendations for further research, and then we move to recommend some actions which could be taken by school leaders to improve the implementation of professional development in their contexts.

Recommendations for further research

In-school professional development leaders were a particular focus of this strand of our study, and we have gained insight into this under-researched role: its challenges, approaches and processes. However, as we have said, our sample size was limited. Therefore, further research with a larger sample size, and perhaps a comparison group of schools who have chosen not to invest in a dedicated PD lead, could offer further insights into the complexities, value and impacts of the role of PD lead in schools.

A significant finding from our current study is the relationship of 'collective efficacy' to professional development, and the role of school leaders in building this culture. Further research into the interactions between these organisational features, structures and styles of leadership, in the context of professional development, can add to our developing understanding of PD within the school environment.

Our findings indicate that embedding professional development in teachers' careers can be supported by collaboration, including teachers having input into professional development planning. By viewing teachers as professional learners as well as practitioners, the implication is that teachers are aware of their professional learning needs, within their particular contexts (for example, their school, career stage, subject specialism, role), and that this awareness guides their professional development choices. While there is already a significant body of evidence about teacher professional development, further research is needed to understand how teachers' learning needs interact with their contexts, how these in turn are influenced by national and school-level policies and practices and how individual learning needs can be balanced against organisational and contextual priorities. Through this, we may be able to identify further ways of supporting school leaders and teachers themselves to determine professional development priorities.

Recommendations for school policy and practice

While the limitations of this study prevent us from generalising our findings to the wider school community in England and beyond, we hope that school leaders will find its outcomes relatable to their own contexts. With that in mind, we present here some recommendations for the consideration of school leaders, with the intention that these support the implementation of professional development and embed professional learning in teachers' careers and in school cultures.

Instilling collegial learning through collaboration

In England, the Standard for Teachers' Professional Development (Department for Education, 2016) recommends that PD should be collaborative. Our findings support this: collegial learning can be built through a culture of collaboration. School leaders can take simple actions to develop a supportive and collaborative school environment through PD activities where teachers work together to share and develop their practice. This provides teachers with the confidence to trial learning from PD, make mistakes, and express their voice around PD issues, without any potential sense of blame.

Ensuring a shared vision

School leaders influence the school environment, including the promotion of professional development. This environment is experienced by teachers, influences pupils' behaviour, and is based on collective perceptions. Therefore, school leaders can establish a shared vision of 'togetherness' underpinning their school's approaches to professional development through actions such as enabling teachers to input into professional development planning and decision-making.

Promoting values and modelling behaviours

School leaders also promote engagement in professional development by showing how they themselves value and benefit from it. They can model the values and behaviours of engaging in PD activity alongside their teaching colleagues, discussing their learning and again taking risks in changing their practice, thereby demonstrating their investment in their own professional learning.

Investing in professional development

Investment in professional development is essential. Financial investment is important, although large amounts of funding are not necessarily needed if school leaders are able to commit funding to in-school expertise including professional development leads. Further, time is important: teachers naturally need time to engage with PD, and so deciding what to prioritise, when and how, needs to be carefully considered. This time can be scheduled at regular intervals throughout the school year and protected from other priorities. In turn, this investment supports teachers' 'buy-in' to professional development. Therefore, school leaders can use time and funding to embed PD within their school's culture, ensuring its central role in teachers' professional lives.

Concluding remarks

In this strand of the study, we set out to identify change mechanisms which facilitate the implementation of effective teacher professional development, focussing on the situation in English schools. We used primary data collection methods of a survey and case studies, to identify approaches taken by school leaders to embed a culture and commitment to PD in their schools. Our study was framed by these research questions:

In professional development interventions implemented effectively in English schools, what change mechanisms:

- underpin school leader activity to prioritise professional development?
- establish effective professional learning cultures in schools?
- support change-readiness in the school environment?
- underpin system leaders and policy makers' support for all schools to create the conditions for professional learning?
- embed professional development in teachers' careers?

From the data gathered, to answer these questions, three key mechanisms were identified which support the effective implementation of professional development in schools:

- Investing in professional development through time, money and leadership
- Building collective efficacy for and through professional development
- Enabling collaboration in and through professional development

Our findings exemplify the importance of these mechanisms in the leadership of schools' professional development, in a variety of school contexts.

Consistently the school leaders in our study demonstrated their crucial roles in leading professional development, including building a vision for professional learning, setting its direction, and promoting and maintaining professional development within the school culture. We found school leaders establishing positive, collaborative collective mindsets, through purposeful investment in professional development, shared decision-making and modelling of its importance. Against the many challenges faced by school leaders within the current system, the role of professional development in supporting excellent teaching was valued and maintained.

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Appendix 1. PD Leads Survey

The findings demonstrate the importance of school leaders, particularly those with a formalised PD leadership role, in planning, coordinating and delivering professional development in schools, and in building policies and practices within schools which support teachers' engagement in professional development activities. They suggest that, even when schools have varying contexts and staff professional development needs, it is possible to build cultures of professional development through actions which support staff participation and changing practice. Numbers of participants were small and so, while we do not suggest that these findings are representative of the PD system in English schools, they provide valuable insights into the leadership of professional development in the current system.

The survey was designed to be completed by staff in schools in England who hold a professional development leadership role. Our intention was to learn more about the structures and processes within the school environment which support professional development. The first part of the survey focused on PD leads' roles, PD policies and strategies in their schools and Multi-Academy Trusts and the PD leads' perceptions of the culture of PD in their schools. In the second part of the survey, PD leads were asked to identify an example of effective PD in their contexts. They provided some details of the PD activity and then responded to a series of prompts relating to the ways in which the PD activity was supported and resourced in their schools.

A small group of professional development leads known to the project team through professional connections piloted the survey in summer 2022. Following revisions, the final survey was open for completion online from September to December 2022. It was promoted through professional networks by email and social media.

We are grateful to the PD leads who responded to this survey for the time they took to participate.

An even split between secondary and primary

Forty-six PD leads completed or partially completed the survey.

Twenty-seven PD leads provided information about their schools, with roughly similar numbers working in primary and secondary schools.

Similar numbers of maintained schools and academies

Eleven PD leads stated that their school is an academy. However, later in the survey, sixteen responded that their schools are in a Multi-Academy Trust (MAT) (3.3.1). One respondent works in a University Technical College, also part of a Multi-Academy Trust, and one respondent works at Multi-Academy Trust level. One PD lead was from a professional development provider, external to any school; their data is not included in this section.

School phase	Responses
Secondary	14
Primary	11
Other	2
Total	27

Other responses given:

Multi-Academy Trust, offshore establishment

School type	Responses
Maintained school ⁵	13
Academy	11
Independent	1
Other (see 3.1.1)	2
Total	27

⁵ Maintained schools include voluntary-aided schools, University Technical Colleges, foundation schools and community schools.

Most respondents from Yorkshire and the Humber

Most respondents' schools are in regions close to Sheffield Hallam University: Yorkshire and the Humber and the East Midlands, with a few in other areas.

School location	Responses
Yorkshire and the Humber	10
East Midlands	7
West Midlands	3
South West	2
Other English region	4
Other (see 3.1.1)	2
Total	27

PD leadership roles, reporting and resources

PD leads typically hold other leadership responsibilities

Most of the PD leads identify their role in relation to PD as ‘CPD lead’ or ‘Head of CPD’. Whether as a standalone role, or in combination with others, the PD leads normally hold other leadership responsibilities, most commonly assistant principal or deputy headteacher. Several other combinations of roles were reported.

What is your role as it relates to CPD?	Responses
CPD lead/Head of CPD	21
Part of wider leadership role	13
Other	8
Total responses	34

Other responses included:
Professional Development Accredited Lead for Maths Hub, Leading Curriculum Development Whole School change and training, provide CPD to whole school staff on CPD, I line manage the CPD lead

What is your role? (choose all that apply)	Responses
Executive Head, Headteacher, Principal or Head of School	9
Deputy Headteacher, Assistant Principal or other senior leader	15
Head of department, subject, phase or Key Stage lead, or other responsibility	9
Teacher	7
Other	7
Total responses chosen	47
Number of participants responding	41

Other responses included: Curriculum Development lead, SENCO, executive director/leader across a MAT, School improvement advisor

PD leads have multiple reporting routes

PD leads report to a range of senior leaders including other senior colleagues, governors, and, most frequently, the headteacher, school principal or executive headteacher. Interestingly, given the lack of oversight from governors reported later, around a third of PD leads have a line of reporting to governors. Some PD leads also report to Multi-Academy Trust leads, directors and trustees.

Who do you report to regarding CPD? (choose all that apply)	Responses
Headteacher, Principal, Exec. Head	20
Other Senior leader(s)	15
Governors	13
MAT Directors or Trustees	4
MAT CPD lead	0
Other	4
Total responses chosen	56
Number of participants responding	41

Other responses included:
Trust Committee, Trustees and CEO; Maths Hub Lead; MAT CEO;
Director of School Improvement

Most PD leads receive no time or additional payments specifically for the role

Perhaps as a result of the combining of roles, the time allocated to the role of PD lead usually forms part of an allocation to their wider leadership roles.

Around a third of PD leads report receiving an additional payment for their PD lead role, although a majority say they receive no additional payment.

Are you allocated time to carry out your CPD leadership role?	Responses
I have time specifically allocated for my CPD leadership role	5
I have time allocated to my role which includes CPD leadership	16
No	8
Not sure	3
Total responses	32

Additional responses included:

This is my only role; it is part of my role; I have additional non-contacts

Do you receive a payment to carry out your CPD leadership role?	Responses
I receive a payment specifically for my CPD leadership role	4
I receive a payment for my role which includes CPD leadership	12
No	17
Total responses	33

School and Multi-Academy Trust PD policies

Multi-Academy Trusts have at least some collaboration in PD approaches

For those schools which are part of a Multi-Academy Trust (MAT)⁶, most PD leads stated that there is at least partial collaboration in schools' approaches to PD.

Governor or director oversight of PD is more likely at Multi-Academy Trust level than school level

Around half the Multi-Academy Trusts (MAT) have a director or trustee with responsibility for PD. However, the same number of MATs do not have someone with this role. Meanwhile most schools do not have a governor with responsibility for PD, whether part of a MAT or not.

	Yes, fully	%	Yes, partially	%	No	%
Does your MAT have a shared or collaborative approach to CPD?	1	9%	7	64%	3	27%

	Schools in Multi-Academy Trusts (MATs)					
	Yes	%	No	%	Not sure	%
Is there a school governor with responsibility for CPD as part of their role?	2	18%	7	64%	2	18%
Is there a MAT director/trustee with responsibility for CPD as part of their role?	5	45%	5	45%	1	9%

	Standalone schools and academies					
	Yes	%	No	%	Not sure	%
Is there a school governor with responsibility for CPD as part of their role?	3	16%	9	47%	7	37%

⁶⁶ Sixteen respondents to this set of questions said that their school is in a Multi-Academy Trust; twenty-two said their school is not.

PD policies and plans appear to be more common at school level than Multi-Academy Trust level

Most schools, whether in Multi-Academy Trusts (MATs) or not, have a PD policy and annual PD plan. For schools in MATs, MAT-level PD policies and plans appeared to be less likely, although some school PD leads were uncertain about whether or not they existed.

	Schools in Multi-Academy Trusts (MATs)						Standalone schools and academies					
	Yes	%	No	%	Not sure	%	Yes	%	No	%	Not sure	%
Does your school have a CPD policy or strategy?	6	55%	2	18%	3	27%	12	63%	3	16%	4	21%
Does your MAT have a CPD policy or strategy?	4	36%	3	27%	4	36%						
Does your school have an annual CPD plan?	8	73%	1	9%	2	18%	11	61%	4	22%	3	17%
Does your MAT have an annual CPD plan?	4	36%	0	0%	7	64%						

At school level, responsibilities for PD strategies and plans are similar for schools whether in Multi-Academy Trusts or outside them

At school level, a mixture of senior leaders, including the PD lead, headteacher and other senior leaders, are responsible for PD policies and plans. At Multi-Academy Trust level, directors, trustees and MAT PD leads take responsibility for these.

Few PD leads report that they have responsibilities at MAT level. Other teachers appear to have little responsibility for PD policies and plans at school or MAT level.

In your school/Multi-Academy Trust, who is responsible for writing and monitoring each of these (choose as many as you wish)?	Schools in Multi-Academy Trusts (MATs)								Standalone schools and academies			
	MAT CPD policy/strategy		MAT annual CPD plan		School CPD policy/strategy		School annual CPD plan		School CPD policy/strategy		School annual CPD plan	
		%		%		%		%		%		%
Multi-Academy Trust Director or Trustee	3	27%	2	25%	0	0%	0	0%	0	0%	0	0%
Multi-Academy Trust CPD lead	4	36%	3	38%	2	14%	2	14%	0	0%	0	0%
Governor	0	0%	0	0%	0	0%	0	0%	2	10%	1	4%
Headteacher/Principal/Executive Head	1	9%	1	13%	4	29%	2	14%	2	10%	6	24%
Other senior leader(s)	0	0%	0	0%	2	14%	3	21%	7	33%	7	28%
Me (CPD lead)	1	9%	0	0%	5	36%	5	36%	7	33%	6	24%
Teacher(s)	0	0%	0	0%	1	7%	1	7%	0	0%	0	0%
Other	0	0%	0	0%	0	0%	0	0%	0	0%	1	4%
Not sure	2	18%	2	25%	0	0%	1	7%	3	14%	4	16%
Total	11		8		14		14		21		25	

School PD culture

Time and funding for PD are mostly prioritised

Most PD leads report that funding and time for PD are prioritised, with time appearing to be more consistently prioritised than funding. In almost all schools staff are, at least sometimes, given access to resources to support engagement in PD.

In just over half of schools, PD continues even when other priorities emerge.

Around two-thirds of schools always keep a record of staff PD, and only one school never keeps a record. By contrast only around a third of schools always evaluate the impact of PD, but all schools apart from one evaluate it at least sometimes.

Thinking about CPD in your school, to what extent do these statements apply?	Always		Almost always		Often		Sometimes		Never		Not sure	
		%		%		%		%		%		%
Time for CPD is prioritised	14	54%	7	27%	4	15%	1	4%	0	0%	0	0%
Funding for CPD is prioritised	8	30%	10	37%	3	11%	4	15%	1	4%	1	4%
CPD continues even when other priorities (e.g. external pressures) are taking up time	7	26%	10	37%	3	11%	6	22%	0	0%	1	4%
Staff have access to technology/resources/materials to enable access to CPD	9	33%	11	41%	4	15%	2	7%	0	0%	1	4%
We keep a record of CPD for all staff	18	67%	1	4%	3	11%	3	11%	1	4%	1	4%
We evaluate the impact of CPD	9	33%	4	15%	8	30%	5	19%	0	0%	1	4%

Staff attitudes towards PD are positive

PD leads report that staff in their schools are positive about professional development, at least sometimes. In almost all schools, staff are reported to be aware of their professional development needs.

In all schools staff have at least some autonomy over their choices of PD, and are given opportunities to share knowledge, expertise and practice.

Thinking about CPD in your school, to what extent do these statements apply?	Always		Almost always		Often		Sometimes		Never		Not sure	
		%		%		%		%		%		%
Staff are generally positive about CPD	8	31%	9	35%	5	19%	3	12%	0	0%	1	4%
Staff share knowledge, expertise and practice	8	30%	10	37%	7	26%	2	7%	0	0%	0	0%
Staff are aware of their professional development needs	2	8%	11	42%	12	46%	1	4%	0	0%	0	0%
Staff are able to choose their own their professional development	2	8%	8	31%	10	38%	6	23%	0	0%	0	0%

Delivering effective PD

In this section of the survey, PD leads were asked to identify a PD activity/programme that was been implemented in their school, in the last five years, which they felt was effective.

We provided a definition of PD (see box), but left the definition of ‘effective’ open to interpretation by PD leads.

The PD activity/programme chosen could be a single event, or a series of activities or a longer PD programme. It could be for one staff member or many; any PD which the PD leads felt was effective in achieving its intended outcomes.

For the purposes of this survey, we are defining CPD (continuing professional development) as: intentional processes and activities which aim to enhance the professional knowledge, skills and attitudes of teachers in order to improve student outcomes. This includes activities and programmes delivered by and/or organised by teachers, colleagues, schools, another school or an external providers. It can include (but is not limited to) a training course; conferences; online seminars; accredited programmes (e.g. MA, PhD or EdD courses) and leadership programmes; mentoring and coaching; a secondment; collaboration with colleagues; observation and feedback; reading and study groups; reflecting on educational research to inform practice; preparation ahead of a course, and time taken to make changes following CPD.

For the purposes of this survey, our definition of CPD does not include statutory training that teachers have to undertake as part of working in a school to comply with the law (for example, health and safety, safeguarding, fire safety, first aid training). We recognise that some schools and organisations use different terms for CPD, such as professional learning, CPDL and INSET; our definition of CPD encompasses the activities which fall into these definitions.

A broad range of activities were given as examples of effective PD

Twenty-two PD leads gave an example of effective PD.⁷ These covered a broad range of activities including in-school and external professional development, activities targeted at particular teachers or groups of teachers and models of coaching and mentoring.

The largest groupings focused around literacy and phonics and around activities taking place in school and/or for the whole schools. Responses have been edited to remove details of programmes, schemes and funders.

Further details of the PD content, timing, participants and delivery, are provided in following questions.

Literacy, phonics and related content	A programme of training for all staff to deliver a new scheme of phonics Coaching, support and monitoring of phonics teaching across school A programme of coaching and practice sessions for all teachers and teaching assistants who deliver [published scheme] phonics Supporting new, or inexperienced teachers with high impact teaching in reading and writing The introduction of a bespoke vocabulary teaching programme Workshops sharing good practice regarding literacy across the curriculum
Professional development for new or Early Career Teachers	The Early Career Framework for our ECTs [Early Career Teachers] Feedback, 2 years New staff are trained in the practice of Philosophy For Children
Coaching or mentoring	[External programme of] mentoring and coaching Teachers in 'coaching groups', supported by a teaching coach to carry out a disciplined inquiry project in their classroom, based upon research evidence

Continues on next page

⁷ Question: Describe the CPD activity or programme in one or two sentences, e.g. a programme of coaching for new subject leaders; an external programme about embedding

literacy across the curriculum. We will ask you for details such as its duration and mode of delivery in the following questions.

Whole-school and in-school activities	<p>A CPD programme that seeks to embed consistent T&L [teaching and learning] priorities through the use of [walk throughs] across the whole school</p> <p>A series of developed processes and resources, developed in conjunction with expert practitioners within school, then whole school training on an ongoing basis, that resulted in improved practitioner skills and knowledge and hence improved pupil outcomes</p> <p>A programme for two different groups of staff around Impact and Innovation. Impact - reviewing current methods/strategies and the impact they are having. Innovation - focusing on new ideas based on research</p> <p>Whole school instructional coaching</p> <p>Teaching and learning groups where staff across the school collaborate on developing effective teaching strategies to support students. This centres on one theme each half term e.g. feedback</p> <p>Effective use of questioning following [published scheme] methods</p>
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External and/or blended provision	<p>External programme to support behaviour development, understanding and principles</p> <p>2 year [externally-provided] STEM CPD programme. Effective as occurs over suitable length of time, training is out of school and online, dedicated project work, in-school support, 2 teachers attending so have opportunity for professional discussions between them, learning regularly brought back to whole staff team and, crucially, programme is funded</p> <p>Our school CPD is done with [Local Authority School Improvement Service], in school staff meetings, INSET days and coaching sessions</p> <p>Online CPD free delivered by combined unfunded art teacher network groups</p>
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Most examples of effective PD included a focus on content, pedagogy or assessment and were intended for teachers or all staff

Over half the examples of effective PD included a focus on content, pedagogy/instruction or assessment, whether subject specific, whole school or non-subject specific. Around a tenth included a focus on either specialist PD to support pupil learning (e.g. numeracy or phonics) or on pupil behaviour. A smaller number of the chosen examples focused on leadership and pupil wellbeing or mental health.

Most of the PD identified was intended for teachers or all school staff, with a minority for middle or senior leaders and teaching assistants, technicians or support staff.

Who were the intended participants in the CPD? (choose all that apply)	Responses
All staff	13
Teachers	12
Middle leaders	4
Senior leaders	2
Teaching assistants, technicians, support staff	3
Other	3
Total responses chosen	37
Number of participants responding	25

Other responses given: Science/maths, new staff, ECTs
[Early Career Teachers]

What was the focus of the CPD? (choose all that apply)	Responses
Content, pedagogy/instruction or assessment (subject specific)	21
Content, pedagogy/instruction or assessment (whole school or non-subject specific)	12
Specialist CPD to support pupil learning (e.g. oracy, numeracy, phonics, EAL)	7
Pupil behaviour/classroom management	6
Pupil wellbeing/mental health	4
Leadership (subject specific)	3
Leadership (whole school, cross-curricular or non-subject specific)	2
Other	2
Total responses chosen	57
Number of participants responding	25
Other responses given: Mentoring skills, creative recovery curriculum	

Most examples took place over at least two terms

Over half the PD chosen took place over two-three terms or longer. The rest varied from a few hours to a few weeks or a month. Four respondents said their example of effective PD lasted a few hours.

Most of the PD chosen took place in the previous year or two before the survey and therefore either just before or during the COVID-19 pandemic. We did not ask whether COVID-19 had affected the delivery, intentions or impact of the PD, but it may be worth setting these examples in this context.

Approximately, did the CPD activity or programme take place over: (choose all that apply)	Responses
A few hours	4
A day	1
A few days	3
A few weeks/a month	1
A term	0
Two-three terms	6
Longer	8
Other	2
Number of participants responding	25
Other responses given: Two years	

In which school year(s) did the CPD take place? (choose all that apply)	Responses
2017-2018	3
2018-2019	7
2019-2020	10
2020-2021	15
2021-2022	22
Total responses chosen	57
Number of participants responding	25

Most examples of effective PD were programmes of linked events

Most of the examples of effective PD were described as a linked programme of events and activities. Only a few were a standalone activity.

All PD leads said their example of effective PD took place either during the teaching day or in twilights/evening sessions. None chose a combination of these, nor weekends/holidays.

Was the CPD activity or programme:	Responses
A linked programme of events/activities, eg a training activity, followed by implementation, reflection, feedback	14
A series of events/activities	9
A single event/activity	4
Other	0
Total responses chosen	27
Number of participants responding	25

Did the CPD activity or programme take place during:	Responses
The teaching day	12
Twilights/evenings	11
Weekends/holidays	0
A mixture of these	0
Other	0
Number of participants responding	23

Most of the PD was delivered in school, by staff members and in person

Over two-thirds of the PD took place in school. Over half was delivered, at least in part, by senior leaders or other staff members from the school or the Multi-Academy Trust. Less than half involved external consultants. One PD activity was delivered by ‘people from across many schools’.

Most PD took place in person, although around a third blended in-person with online delivery.

Did the CPD activity or programme take place:	Responses
In school	18
At an external venue	3
A mix of in school and at an external venue	2
Other	2
Number of participants responding	25
Other responses given: virtual, online	

Did the CPD activity or programme take place:	Responses
In person	11
Online	5
A mix of online and in person	9
Other	0
Number of participants responding	25

Who delivered the CPD? (choose all that apply)	Responses
Senior leaders from the school/MAT	8
Other staff members from the school/MAT	7
External consultants/an external organisation	7
A mix of staff members and external consultants	3
Other	3
Total responses chosen	28
Number of participants responding	26
Other responses given: [Named university] and associates. people from across many schools, English specialists in my organisation	

PD needs are identified from multiple sources

The need for the PD was generally identified through multiple sources. The most common routes to identification of PD needs were school leaders and evidence gathered in school, such as pupil data and teacher observations. For around three-quarters of PD leads, the PD was identified in response to individual teachers' development plans, and, for slightly fewer, the PD was identified in response to school or Multi-Academy Trust improvement plans.

In common with responses to other survey questions, governors and trustees/directors of Multi-Academy Trusts appeared to play only a minor role in the identification of PD needs.

Thinking about this CPD activity or programme, to what extent do you agree or disagree with the following statements?	Sum of strongly agree and agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not sure/not relevant	Total
School leaders identified a need for this CPD	91%	15 68%	5 23%	1 5%	1 5%	0 0%	0 0%	22
We identified a need for this CPD from in-school evidence, e.g. pupil data, teacher observations	87%	14 61%	6 26%	1 4%	1 4%	1 4%	0 0%	23
We identified this CPD as a response to priorities on individual teachers'/staff members' development plans	74%	6 26%	11 48%	0 0%	3 13%	0 0%	3 13%	23
We identified this CPD as a response to priorities on the school or MAT improvement plan	70%	9 39%	7 30%	2 9%	3 13%	1 4%	1 4%	23
We identified a need for this CPD from external evidence, e.g. DfE, Ofsted, EEF	61%	6 26%	8 35%	3 13%	2 9%	3 13%	1 4%	23
Multiple staff members identified a need for this CPD	57%	4 17%	9 39%	6 26%	3 13%	0 0%	1 4%	23
Teachers identified a need for this CPD	57%	4 17%	9 39%	6 26%	4 17%	0 0%	0 0%	23
Governors or MAT trustees/directors identified a need for this CPD	4%	1 4%	0 0%	4 17%	10 43%	6 26%	2 9%	23

Most examples of effective PD built on and/or complemented other activity

There was strong agreement from PD leads that their example of effective PD built on and complemented previous professional development and school improvement activities.

Thinking about this CPD activity or programme, to what extent do you agree or disagree with the following statements?	Sum of strongly agree and agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not sure/not relevant	Total
The CPD complemented other development and improvement activities	86%	5 23%	14 64%	1 5%	2 9%	0 0%	0 0%	22
The CPD built on previous development activities	82%	8 36%	10 45%	2 9%	2 9%	0 0%	0 0%	22

Senior leaders play important roles in PD leadership

Most PD leads agreed that senior leaders had roles in the oversight, coordination and planning of the PD activity. Over three-quarters said that those responsible for its coordination and/or oversight were supported in their roles. All PD leads said that the need for the PD was communicated to the staff who participated in it.

Thinking about this CPD activity or programme, to what extent do you agree or disagree with the following statements?	Sum of strongly agree and agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not sure/not relevant	Total
The need for the CPD was communicated to participating staff	100%	18 78%	5 22%	0 0%	0 0%	0 0%	0 0%	23
A named senior leader/colleague had strategic oversight of the CPD	96%	21 91%	1 4%	0 0%	0 0%	0 0%	1 4%	23
A named senior leader/staff member coordinated the delivery of the CPD	87%	19 83%	1 4%	0 0%	1 4%	0 0%	2 9%	23
Senior leaders/staff members were involved in planning the CPD	83%	13 57%	6 26%	1 4%	0 0%	0 0%	3 13%	23
Those responsible for coordinating and/or overseeing the CPD were supported in their role, eg through training or time	77%	8 36%	9 41%	2 9%	1 5%	0 0%	2 9%	22

Effective PD is often adapted to context

Most PD leads reported that their examples of effective PD were tailored to school contexts (91%) and/or to the contexts and needs of the participating staff (82%). A similarly high proportion agreed or strongly agreed that approaches to the PD were adapted when challenges were experienced.

Thinking about this CPD activity or programme, to what extent do you agree or disagree with the following statements?	Sum of strongly agree and agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not sure/not relevant	Total
We tailored the CPD content to our school's context	91%	13 59%	7 32%	1 5%	0 0%	0 0%	1 5%	22
We adapted our approach to the CPD when we experienced challenges	82%	7 32%	11 50%	1 5%	1 5%	0 0%	2 9%	22
We tailored the CPD content to participating staff contexts and needs	81%	10 45%	8 36%	2 9%	1 5%	0 0%	1 5%	22

Schools support participation in PD with time, resources and, less frequently, funding

Almost all the PD leads said that their schools had given their staff dedicated time to participate in PD. However, only half said that staff were given time off timetable, or an equivalent, to participate, suggesting, perhaps, that the time staff used for participation derived from existing professional development scheduling.

A large proportion (82%) of PD leads said that staff were supported in their participation with resources, materials or technology, although fewer reported funding new resources, materials or technology to support the PD. Around two-thirds (62%) agreed or strongly agreed that their schools prioritised funding for the PD. Nearly 40% said that the PD was free, although a third disagreed with this, suggesting that their PD incurred a cost.

Thinking about this CPD activity or programme, to what extent do you agree or disagree with the following statements?	Sum of strongly agree and agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not sure/not relevant	Total
Staff were given dedicated time to participate in the CPD	95%	16 76%	4 19%	1 5%	0 0%	0 0%	1 5%	22
Staff were given access to technology/resources/materials to participate in the CPD	82%	10 45%	8 36%	3 14%	0 0%	0 0%	0 0%	21
We prioritised funding to deliver this CPD	62%	9 43%	4 19%	2 10%	2 10%	0 0%	4 19%	21
Staff were given time off timetable, time off in lieu, or equivalent, in order to participate in the CPD	50%	8 40%	2 10%	2 10%	4 20%	0 0%	4 20%	20
We paid for new technology/resources/materials to support the CPD	46%	5 23%	5 23%	2 9%	4 18%	2 9%	4 18%	22
The CPD was free	38%	7 33%	1 5%	4 19%	7 33%	0 0%	2 10%	21

Schools limit staff choice in relation to PD participation and delivery

Staff from most schools appear to have had limited autonomy in relation to the PD, with only 30% being able to choose whether they participated. Only a quarter (26%) of the PD leads said that staff were able to choose when to participate and fewer than a third (30%) reported that the way the PD was delivered was agreed with staff.

However, all the PD leads said that staff were able to collaborate during the PD and a large number (83%) agreed that participating staff remained engaged throughout.

Thinking about this CPD activity or programme, to what extent do you agree or disagree with the following statements?	Sum of strongly agree and agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not sure/not relevant	Total
Participating staff were able to collaborate during the CPD	100%	14 67%	7 33%	0 0%	0 0%	0 0%	0 0%	21
Participating staff remained engaged throughout the CPD	82%	9 41%	9 41%	1 5%	2 9%	0 0%	1 5%	22
The way the CPD was delivered (e.g. online, twilights etc) was agreed with participating staff	45%	4 18%	6 27%	5 23%	6 27%	0 0%	1 5%	21
Staff chose whether or not to participate in the CPD	30%	3 13%	4 17%	1 4%	4 17%	10 43%	1 4%	23
Staff chose when to participate in the CPD	26%	2 9%	4 17%	1 4%	12 52%	2 9%	2 9%	23

Schools support change in practice following PD

Over 80% of the PD leads agreed or strongly agreed with all the statements in this section of the survey, indicating that staff were supported to implement change following the PD. The ways in which change was supported included: a named member of staff to lead, support to monitor change following the PD, strategies to

mitigate barriers to change, and allocations of time to implement change. In contrast to the previous section, many (86%) PD leads reported in this section that staff were given choice over whether and how to change their practice following the PD, and the lowest agreement in this section, but still over 80%, was that staff did make changes to their practice following the PD.

Thinking about this CPD activity or programme, to what extent do you agree or disagree with the following statements?	Sum of strongly agree and agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not sure/not relevant	Total
A named senior leader/staff member was responsible for leading/supporting/monitoring changes to practice following the CPD	87%	14 64%	5 23%	1 5%	1 5%	0 0%	1 5%	22
A reasonable timeframe was established for implementing changes resulting from the CPD	87%	7 32%	12 55%	2 9%	1 5%	0 0%	0 0%	22
Strategies were adopted to mitigate potential barriers to implementing changes following the CPD	87%	7 32%	12 55%	3 14%	0 0%	0 0%	0 0%	22
Participating staff were given time to implement changes to their practice resulting from the CPD	87%	7 30%	13 57%	1 4%	1 4%	0 0%	1 4%	23
As a result of the CPD, participating staff were free to identify whether and how they could change their practice as a result of the CPD	86%	10 45%	9 41%	1 5%	1 5%	0 0%	1 5%	22
Following the CPD, participating staff made changes to their practice	83%	7 29%	13 54%	1 4%	3 13%	0 0%	0 0%	24

Anything else about PD

To end the survey, we asked PD leads whether there was anything else they would like to say about PD in general, whether in their schools or in the education system more broadly.

There were only a few responses to this final question, which we provide here as quotes, edited to remove details of programmes, schemes and funders. Most focused on barriers to PD, such as the challenge of identifying what is likely to be effective, the need for funding and time, and the importance of subject specificity and relevance to classroom practice.

Sometimes, CPD is hard to source. It's either over-priced or difficult to find/authenticate. It would be great to have a central resource for pre-approved training that has been evaluated

Our school has always valued the importance of CPD which is one of the reasons we wanted to be part of [CPD programme]

More time, funding and ability to identify personal CPD required

It should be mandatory and subject specific most of the time

CPD needs to be directly relevant to everyday classroom practice for it to fully motivate staff

The Maths Hub [Teacher Research Group] approach to improving teaching and learning has transformed CPD in this country. I witnessed firsthand the impact of collaborative CPD on the England-Shanghai teacher exchange in 2018 and believe we have learnt from the best. We have embedded the same culture and approach to PD at my school and we get whole school buy in and change has impact. It has been nice to see the maths model replicated in other subjects.

Appendix 2. Strand 3 Embedding Change: Interview and Focus Group Schedules

School/MAT leader interview

1. How do you define successful CPD for schools and teachers?
2. What do you consider the most important outcomes are of the school's/MAT CPD strategy?
3. Can you give me an example of a successful outcome from a recent CPD activity or programme the school/MAT has been involved in?
4. What was the activity or programme?
5. Who decided it was needed and who identified which staff should participate?
6. We are interested in what supports CPD programmes to achieve their outcomes. From your example, what kinds of things do you think caused, or helped to cause, that programme to achieve the outcomes you've mentioned? For example, did you give teachers time off time-table to participate, did you provide funding or other resources, were staff supported to share their learning?

If 'implementation' elements are not referred to above ask:

7. What was it about the way the programme was implemented that made it work?
8. Do you think that approach would work in all schools or for all teachers? *If yes, why? If no, why not?*

PD Lead interview

1. How do you define successful CPD for schools and teachers?
2. What does your role consist of as CPD Lead?
3. What support or training have you undertaken in this role?
4. What do you consider the most important outcomes are of the school's/MAT CPD strategy?
5. Can you give me an example of a successful outcome from a recent CPD activity or programme the school/MAT has been involved in?
6. What was the activity or programme?
7. Who decided it was needed and who identified which staff should participate?
8. We are interested in what supports CPD programmes to achieve their outcomes. From your example, what kinds of things do you think caused, or helped to cause, that programme to achieve the outcomes you've mentioned? For example, did you give teachers time off time-table to participate, did you provide funding or other resources, were staff supported to share their learning?

If 'implementation' elements are not referred to above ask:
9. What was it about the way the programme was implemented that made it work?
10. Do you think that approach would work in all schools or for all teachers? *If yes, why? If no, why not?*

Teacher focus group

1. How many CPD activities do you normally engage in, in one year?
2. What motivations do you have to engage in CPD activity?
3. Please describe your view of a successful CPD outcome.
4. What context is your preference for a CPD programme? *Subject knowledge; PCK; pedagogy; policy; curriculum; other*
5. Please describe a successful CPD programme that you have engaged in and tell us about the key aspects that make/made it successful. Leads to group discussion and shared agreement of the important aspects.
6. Do you think that the outcomes were the same for all participants? *How may they be different?*
7. Do you think that approach would work in all schools or for all teachers? *If yes, why? If no, why not?*

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Embedding change: leadership of professional development in schools

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