

Edited Summary:

Lessons from the international reviews into effective professional development

Developing Great Teaching, Teacher Development Trust 2015

The 2014 Department for Education consultation stated that “Feedback from the profession has consistently indicated that too many of the development opportunities on offer are of variable quality”. “Too often Continuing Professional Development and Learning (CPDL) is viewed narrowly as attending courses or listening to stale talks accompanied by endless slides... Teacher development is not always adequately focussed on the specific needs of pupils, nor is it always sustained and practice-based.” “There is currently too little robust evidence on the impact of different types of professional development for teachers.”

This paper draws on the emerging findings from the ongoing umbrella review of evidence on effective professional development for teachers to indicate implications for future policy around teacher professional development and learning.

METHODOLOGY

Our approach was to carry out an “Umbrella” review, i.e. a review of reviews of the evidence about effective CPDL in order to inform current, high profile policy reviews taking place in England; in particular we sought to link previous reviews to new standards for the rigour of evidence (such as the What Works Clearinghouse).

The review began with a high-level search for reviews. The process by which this was conducted can be thought of as one of “connoisseurial accumulation”, augmented by a broader search of the literature. By “connoisseurial accumulation”, we mean using experts in the field to highlight known and relevant and valuable reviews.

A total of 947 “hits” were identified based on our criteria. Of these, 115 were identified for screening, and 46 went through the screening process. The documents in the final selection were classified at four different levels of strength/validity. One review was consistently strong in multiple areas, with research designs which were appropriate for causal inference across studies (Timperley et al (2007).

A further three were found which were robust, but more specifically focused. Another four were less robust in terms of supporting evidence (showing only correlational and not causal connections), but were tightly focussed on our questions, explored pre and post test data systematically and so were still considered persuasive. Finally, one further review was included which was sufficiently plausible to be included due to consistency with the available evidence, but which did not directly support its claims with high quality data.

The reviews were then analysed separately. Their claims were broken down and compared and contrasted with each other, weighting them according to the strength/consistency of their evidence base and agreement with other relevant review evidence. The claims were grouped thematically for different categories, which will be explored subsequently in this report.

The strongest review, Timperley et al. (2007), was the only fully consistent and rigorous review, and this was used as a cornerstone for the umbrella review. Its claims were analysed both by theme and by subject then tested against other robust and persuasive claims to identify the overall weight of evidence for a claim to illustrate it, and to identify any gaps which other reviews might illuminate. The effect of this process is that the most rigorous claims featured in this umbrella review are equivalent in strength to medium to large for positive effects in the standards used by What Works Clearinghouse.

HEADLINE FINDING

THE FIRST HEADLINE FINDING WAS THAT CAREFULLY DESIGNED/ALIGNED TEACHER CPDL WITH A STRONG FOCUS ON PUPIL OUTCOMES HAS A SIGNIFICANT IMPACT ON STUDENT ACHIEVEMENT.

Other related findings about the design features and contexts which need to be incorporated into CPDL for it to be successful are described below.

HOW LONG SHOULD THE PROGRAMME LAST?

Overall, the clear indication is that to be most effective CPDL programmes which aim to bring about significant organisational and cultural change need to last at least 2 terms. Sustaining CPDL over a period of time and ensuring that it features multiple, iterative activities following the initial input, were identified as extremely important across all reviews. According to the best review, small amounts of repetition were only sufficient to change practice positively in very specific and narrowly-defined practices, while one-off events did not had a positive impact.

Nonetheless, Timperley's analysis, the most rigorous, also revealed that studies with poorer outcomes also featured extended time and frequent contact. The crucial factor differentiating more from less successful programmes is what the time was used for.

HOW MUCH FOLLOW-UP AND CONSOLIDATION IS NEEDED TO BRING ABOUT POSITIVE CHANGE?

The nature of follow-up, consolidation and support activities means that there can be no "one size fits all" answer to this question. What was clear was that all studies showed it was important that CPDL programme design creates a "rhythm" to activities, through multiple instances of ongoing support/follow-up activities. The specific frequency of activities/support required for successful outcomes varied, particularly with regard to the nature and extent of expected change in practice/beliefs.

Where the aim was to trigger substantive changes in teachers' understanding of approaches and/or their subject and how it is taught – for example, in relation to reading or writing – the highest-impact review reported a fortnightly to monthly rhythm of CPDL sessions/ support.

In addition, teachers must develop a grasp of the rationale underpinning a strategy that is being explored through CPDL, and use that understanding to refine practices and support implementation; thus creating a practical theory for the teaching and learning activities involved.

DESIGNING FOR PARTICIPANTS' NEEDS: WHAT DOES AND DOESN'T MATTER?

While individual participants will have specific needs which raise challenges for trainers, there are more general principles surrounding their needs which affect how successful CPDL content should be designed.

All the reviews found that an essential element of successful CPDL is overt relevance of content to its participants and their day-to-day experiences and aspirations for pupils. This was highlighted by the strongest review to be particularly important for secondary, cross-curricular CPDL.

All the reviews noted that recognition of differences between individual teachers and their starting points, providing opportunities for them to surface their beliefs, and providing opportunities for them to engage in peer learning and support, were all also crucial to bringing about improved outcomes.

VOLUNTEERS OR CONSCRIPTS?

The strongest review found that achieving a shared sense of purpose during CPDL is an important factor for success. What is interesting to observe is that, according to all the reviews that were part of this umbrella review, whether teachers were obliged to participate or volunteered to be involved mattered less than a number of other factors:

- A positive professional learning environment,
- the provision of sufficient time, and
- consistency between the professional learning experience and the wider social and educational context

were all more significant than whether or not teachers volunteered to participate.

Combined with the point above that a shared sense of purpose is important, this suggests that CPDL providers should be focusing on how best to ensure that course content can build a sense of purpose, rather than presuming that it will already be there. Many reviews highlight several ways of building this shared sense of purpose, including:

- building in peer support,
- using evidence from experimenting with new approaches about how pupils are responding, and
- working on why things work as well as what does and does not work in different contexts.

WHAT WERE PARTICIPANTS IN SUCCESSFUL PROFESSIONAL DEVELOPMENT LEARNING? PEDAGOGY OR CURRICULUM

The question of whether subject knowledge or general pedagogic knowledge is more important to the teaching profession is one that has been occupying educators and CPD experts for some time. The findings of this umbrella review have thrown some light on the problem.

ALL THE REVIEWS FOUND THAT PEDAGOGY AND SUBJECT KNOWLEDGE WERE EQUALLY IMPORTANT; the strongest review went further to state that CPDL focussed on generic pedagogic strategies is insufficient, particularly in maths, and that it is important to consider several alternative pedagogies for specific pupils too.

Therefore, programmes focussed on just questioning skills or assessment for learning that are not also rooted in developing content knowledge to underpin such strategies and exploring how they work for different groups of pupils are not likely to achieve their potential.

There are a number of key “building blocks” which underpin effective CPDL according to the reviews.

1. subject knowledge
2. pedagogic knowledge
3. the importance of clarity around learner progression, starting points and next steps.
4. CPDL should include a focus on formative assessment so that teachers can see the impact of their learning and work on their pupils.
5. the importance of CPDL content and activities dedicated to helping teachers understand how pupils learn in general as well as in terms of specific subject areas and to grasp the relationships between all these building blocks.

In short the review highlights the contribution of formative assessment, learning processes and outcomes for teachers within effective CPDL programmes.

The reviews collectively made a number of other points regarding content of effective CPDL. They identified as important consideration of the participants’ existing theories, beliefs and practice, an understanding of the rationale underpinning the practices being advocated, and content which can challenge existing theories in a non-threatening way.

Many reviews stressed the importance of explicit work on applying the new practices being promoted to different contexts. The strongest review noted two other elements in addition to these. The first is the importance of critical engagement from teachers with content.

The second is the importance of CPDL providers creating room for professional discretion and repeated opportunities to encounter, understand, respond to and reflect on new approaches and related practices.

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The question of whether subject knowledge or general pedagogic knowledge is more important to the teaching profession is one that has been occupying educators and CPD experts for some time. The findings of this umbrella review have thrown some light on the problem.

All the reviews found that pedagogy and subject knowledge were equally important; the strongest single review went further to state that CPDL focussed on generic pedagogic strategies is insufficient, particularly in maths, and that it is important to consider several alternative pedagogies for specific pupils too. Therefore, programmes focussed on just questioning skills or assessment for learning that are not also rooted in developing content knowledge to underpin such strategies and exploring how they work for different groups of pupils are not likely to achieve their potential.

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1. Firstly subject and pedagogic knowledge, the reviews emphasise the importance of clarity around learner progression, starting points and next steps.
2. CPDL content should include a focus on formative assessment so that teachers can see the impact of their learning and work on their pupils.
3. The strongest review also highlighted the importance of CPDL content and activities dedicated to helping teachers understand how pupils learn in general as well as in terms of specific subject areas
4. Finally teachers need to grasp the relationships between all these building blocks.

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HOW CAN SPECIALISTS EFFECTIVELY SUPPORT PROFESSIONAL DEVELOPMENT?

A consistent message across all the reviews was that outside expertise was crucial in bringing about substantial improvements to pupil outcomes. Looking through the reviews, a consistent pattern in the contribution of external contributions emerges that encompasses:

- Making the public knowledge base, theory and evidence on pedagogy, subject knowledge, and strategies accessible to participants.
- Introducing new knowledge and skills to participants.
- Helping teachers (particularly those from schools where achievement is depressed over time) believe better outcomes are possible (according to the strongest study).
- Making links between professional learning and pupil learning explicit through discussion of pupil progression and analysis of assessment data.

- Taking account of different teachers' starting points and (from the strongest review) the emotional content of the learning.

A consistent message across all the reviews was that in the most effective CPDL, specialists supported teachers by modelling, providing observation and feedback, and coaching.

Another finding consistent across multiple studies was that facilitators and specialists had to balance support and challenge while building relationships with participants. Finally, some reviews found that effective specialists mobilised, encouraged and guided teacher peer support, and also offered remote support in a variety of forums such as e-networking and provision of instructional and other materials.

WHAT ACTIVITIES DID PARTICIPANTS ENGAGE IN?

All reviews noted certain activities, or types of activities, which featured in successful CPDL strategies. All the studies noted that explicit discussions about how to translate CPD content to the classroom took place following initial input. The reviews were also all consistent in noting that teachers in the successful courses implemented what they had learned by experimenting in the classroom. *In all the reviews, teachers in successful CPDL engaged in analysis of and reflection on underpinning rationale, evidence and assessment data, and this reflection and analysis was important for bringing about and embedding change in practice.* This was done in a variety of ways, such as through discussion and combining multiple approaches. Fostering a meta-cognitive approach among teachers was also consistently recognised as valuable for both bringing about change and sustaining learning. Less-strong studies also noted the use of journals and fostering meta-cognitive awareness as contributing to these processes.

The strongest review made a number of observations regarding activities involved in successful CPDL. According to this review the design of successful professional development programmes is aligned with the pedagogic processes being promoted and the ways in which the professional learning is structured. Such programmes also included mechanisms during activities out of schools that helped teachers translate the new practice into their own classroom contexts.

THE IMPORTANCE OF ALIGNMENT IN CPDL ACTIVITIES & PROCESSES

The strongest review made an observation which made some powerful suggestions about how CPDL providers should conceptualise their course content. The review noted that, while it is necessary to have a variety of activities to reinforce messages and test things through different lenses, no single particular form of activity was shown to be universally effective. What mattered was a combination of a logical thread between the various components of CPDL, and the provision of opportunities for teacher learning which are consistent with the principles of student learning being promoted.

No particular configurations were crucial to success, but aligning goals, activities, experiments in classrooms, engagement with evidence and underpinning rationale does matter alongside multiple perspectives and angles.

WHAT DOESN'T WORK?

All the reviews involved in this meta-analysis offered a number of clear statements about forms of CPDL that do NOT lead to positive outcomes for participants or students.

1. A didactic model in which facilitators simply tell teachers what to do, or give them materials without giving them opportunities to develop skills and inquire into their impact on pupil learning is not effective.
2. Professional development which does not have a strong focus on aspirations for students and assessing the impact of changed teacher practices on pupil learning is not effective.
3. Where professional learners are not given structured, frequent opportunities to engage with, understand and reflect on the implications of new approaches and practices, neither time nor greater frequency of contact were sufficient to make substantial changes to teacher practice.

HOW DO SCHOOL LEADERS EFFECTIVELY SUPPORT PROFESSIONAL DEVELOPMENT?

Several reviews did include some evidence about leadership and this was true of the strongest review. We have therefore provided a summary of the evidence about leadership of CPDL that we surfaced to contextualise other findings.

The strongest study in the umbrella review explored an array of roles and functions that school leaders perform in effective CPDL, particularly in those instances when learning and its impact is sustained over time. The review concludes that '*effective leaders did not leave the learning to their teachers—they became involved themselves*'. The degree of leaders' personal involvement in CPDL differed but was present in some form in most programmes associated with teachers' making substantial changes to their practice. It ranged from understanding the precise nature of expected changes to practice and creating organisational conditions for these to happen through to hands-on personal involvement in CPD opportunities delivered by e.g. external specialists.

From the analysis of the studies with substantive and sustained positive outcomes for pupils as well as teachers, the strongest study in the umbrella review identified four core roles for school leaders, which were adapted according to the school context and the nature of changes being implemented.

1. **DEVELOPING VISION** involved a number of aspects, including: developing an 'alternative reality' for student outcomes (ie helping teachers believe that alternative outcomes were possible, particularly in schools with a history of low levels of pupil attainment and progress), an alternative vision of ways to think about curriculum content and how to teach it (particularly in maths and science), and creating coherence so that teachers understood the relevance of their CPD to wider priorities.
2. **A MANAGING AND ORGANISING ROLE** included establishing priorities, resolving competing demands, sourcing appropriate expertise and ensuring appropriate opportunities to learn (including funding and time) are in place. Another aspect of this role was to do with engaging of teachers reluctant to take part or sceptical about the selected approach. Whilst little direct evidence was available about how best to engage such teachers, possibilities highlighted in the studies included ensuring clarity of purpose behind the initiative, choice of appropriate and effective forms of and content for professional development, and viewing teachers' theories as worthy of debate and testing in terms of outcomes for different students and their groups.
3. **THE LEADING PROFESSIONAL LEARNING ROLE** comprised promoting a challenging learning culture, including through personal involvement in CPDL, knowing what content and learning activities were likely to be of benefit and promoting 'evidence-informed, self-regulated learning'. Key to ensuring sustained impact from CPDL over time leaders promote such activities as core business, so that teachers continuously monitor the impact of their work on student outcomes and examine the implications of such monitoring for their future teaching.
4. **DEVELOPING THE LEADERSHIP OF OTHERS ROLE** involved encouraging teachers to lead a particular aspect of pedagogy or of the curriculum in particular. This was present in several successful interventions. But it is also important to note that when a cascade model was used to achieve sustainability (i.e. when teacher leaders were trained by experts and then asked to train others) there was little evidence of this being effective. For example, some teachers felt uncomfortable about taking on the role of 'expert', challenging others and giving feedback. In other studies, teacher leaders who volunteered lacked relevant expertise.

IMPLICATIONS OF THE EVIDENCE FOR CONTINUING PROFESSIONAL DEVELOPMENT AND LEARNING FOR PRACTITIONERS

In summary, the evidence also points to steps schools and teachers can take to ensure that, given the inevitable logistical constraints, there are structured arrangement in school to follow up learning from CPD programmes through sustained and iterative experimenting with and refining new approaches in the light of learning with and through pupils' responses. In effect this evidence highlights the importance of school leaders planning, developing and monitoring the effectiveness of the school as a professional learning environment through, for example, ensuring that:

- a) Collaboration in support of professional learning is not only encouraged but also structured and disciplined through engaging with evidence from both pupils' responses to changes in practices and from research.
- b) Performance review discussions are rooted in qualitative as well as quantitative evidence about how teacher learning and pupil learning are interacting and focus as much on why learning is progressing and or encountering obstacles as what is happening.
- c) In addition to developing creative ways of disaggregating discretionary days to create a rhythm for CPDL, regular school meeting times such as departmental and phase meetings are used as opportunities for following up and tracking learning from CPD sessions.
- d) Teachers have access to tools for collecting and analysing qualitative evidence about how changes are working on the ground alongside outcomes data through, for example, structured peer observation, use of video, collaborative action research, collaborative work scrutinies and/or structured research lesson study, so that formative evaluation of whether CPD and CPDL are working can be evidence informed.
- e) CPD sessions in school model explicitly the quality and depth of planning for schemes of work that leaders are expecting teachers to create for their pupils and make these connections explicit.
- f) CPD opportunities related to pedagogy is accompanied by time for teachers to contextualise this for specific subjects and groups of pupils.
- g) Concerns about giving time for CPDL are addressed by wrapping structured and explicit professional learning protocols and activities around work to meet other priorities and also used to build CPD capacity.
- h) The school and teachers seek out challenge in relation to CPD through either:
 - Externally enabled professional learning experiences where the status quo can be accurately and safely calibrated against models of excellence elsewhere; or
 - Establishing systems within the school that collect objective evidence about the status quo in ways that help colleagues can challenge it freely and on an informed basis in the context of evidenced best practice in other settings.