

# Learning from the London Schools' Excellence Fund

Thematic Report

July 2016

**SQW**



# 1. Introduction

## Purpose of the report

1. SQW was commissioned by the Greater London Authority (GLA) to undertake a meta-evaluation of the London Schools' Excellence Fund (LSEF).<sup>1</sup> The meta-evaluation was supported by a series of **thematic studies**, which focused on exploratory discussions with a range of project staff and beneficiaries, primarily teachers.
2. Five thematic case studies were undertaken to explore different aspects of the mode of operation, strategies and approaches adopted by projects to support delivery. These involved visits to 15 projects and 31 schools, incorporating interviews with 36 project staff, interviews with 121 practitioners and discussion groups with a total of 50 pupils.
3. This report provides a synthesis of this thematic work, focussing specifically on the learning that has occurred as a result of the programme and the implications of this for practitioners looking to develop and deliver their own continuing professional development activities.

## The London Schools' Excellence Fund

4. The London Schools Excellence Fund (LSEF) is a major element of the Mayor's Education Programme. Established following the Mayor's Education Inquiry in 2011-12,<sup>2</sup> the fund has sought to improve subject-specific knowledge amongst teachers in the capital and provide mechanisms by which the dissemination of subject knowledge and expert pedagogy can be shared. It is hoped that such activities will support an improvement in the educational attainment of children and young people across the city.

## Approach to the study

5. In order to learn from the range of projects commissioned under the LSEF, SQW undertook a meta-evaluation,<sup>3</sup> drawing on the documentary evidence produced by funded projects, and in particular, their self-evaluation reports. A total of 110 projects were successful in attracting investment from the LSEF and 78 of these were considered during the meta-evaluation.<sup>4</sup> Of the 78, 29 projects were assessed as having produced good quality self-evaluations against which to assess their performance. SQW focussed primarily on these 29 in the main report.

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<sup>1</sup> The findings from the meta-evaluation of the London Schools Excellence Fund were summarised in a separate report [www.london.gov.uk/lsef](http://www.london.gov.uk/lsef)

<sup>2</sup> Greater London Authority (2012) The Mayor's Education Inquiry Final Report: Findings and Recommendations [Online] Available:

<http://www.london.gov.uk/sites/default/files/The%20Mayor's%20Education%20Inquiry%20Final%20Report.pdf>

<sup>3</sup> Meta-evaluations are used, variously, to interrogate the methodological integrity, process and reliability of evaluations, to bring together a body of evidence to explore and test the implications for policy and practice and to ensure the quality of programme-related evaluation studies.

<sup>4</sup> A total of 95 projects were in scope for review under the meta-evaluation, though 17 (for various reasons, including later starts) were not able to supply sufficient documentation in time for inclusion in the meta-evaluation.

6. Some of the key learning points from the meta evaluation include:
  - More effective project planning, delivery and evaluation for a project is supported when an appropriate theoretical basis has been established.
  - Investing in scoping activities (including audits or needs assessments) should be encouraged to establish whether a proposal meets a recognised need.
  - Peer-to-peer networking can be more effective when it is embedded within all facets of project delivery.
  - Training and support activities can be most effective where they are tailored to meet the needs of individual teachers and support staff, (although, we recognise that this is not always feasible).
  - It is important to acknowledge that different types of expertise may be required to support an all-round improvement in teacher performance in delivering teacher CPD.
  - Success in projects was more often reported where training in specific subject-knowledge content was combined with general and subject specific pedagogical theory and practical skills.
7. Further information on the approach adopted by the research team can be found in the supporting Technical Annex, which can be accessed via the GLA website.<sup>5</sup>

## Structure of the report

8. The remainder of the report is structured as follows:
  - **Section 2: Using Hubs to support teacher collaboration:** In this section we consider what can be learnt from the LSEF projects about how teachers work together and what steps can be taken to support collaborative activity.
  - **Section 3: Making the best use of subject expertise:** By reflecting on the different approaches used by LSEF projects to support the continuing professional development of teachers, we consider what lessons can be learnt in ensuring that the best use is made of subject experts.
  - **Section 4: Effective working across phases:** A number of LSEF projects set out to work across different phases. In this section we reflect on the experiences of these projects and consider what can be learnt about the approaches that appear to be most effective in promoting teachers' subject knowledge and confidence.
  - **Section 5: Effective strategies for differentiating by ability:** In this section we consider what can be learnt from LSEF projects about the strategies that work best in differentiating by pupil ability in the classroom.

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<sup>5</sup> For a more detailed summary of the approach used to undertake the meta-evaluation please see the meta evaluation final report and the supporting Technical Annex. This can be found at: [https://www.london.gov.uk/sites/default/files/lsef\\_evaluation\\_report\\_final\\_1.pdf](https://www.london.gov.uk/sites/default/files/lsef_evaluation_report_final_1.pdf); Contact [educationprogramme@london.gov.uk](mailto:educationprogramme@london.gov.uk) to request a copy of the Technical Annex.

## 2. Using Hubs to support teacher collaboration

1. A key objective of many of the projects that received funding through the LSEF was to help teachers to identify opportunities to work together and to sustain these collaborative arrangements over the medium to long term. Many adopted a 'Hub' approach. For the purposes of this report we use the GLA definition of a 'Hub' as a network of schools working together for a common purpose. Our evaluation of the different approaches adopted by projects to promote collaboration identified a number of factors that supported this type of activity. The critical factors are set out below:

- Teachers develop stronger relationships when the **purpose** of any collaborative activity is **clearly defined** at the outset and is aligned with their own personal training needs.
- Practitioners are more likely to collaborate where they have an **established (trusting) relationship** with each other. This can only be achieved over time and requires an initial investment of time and resources by the project lead.
- Relationships between teachers are more likely to be developed when the lead organisation sets aside sufficient resources at the outset to **reduce the barriers to participation** by, for instance, pro-actively arranging meetings and following up on all agreed actions.
- If a number of partners are involved in the delivery of support, it is important that they **all take responsibility for** promoting collaborative opportunities, even where they are not directly accountable for delivering them.
- Where a number of different stakeholders are involved in the delivery of support, it is important that **appropriate quality assurance systems** are put in place. These need to be developed in ways that provide **meaningful opportunities for teachers to direct their own learning**.

2. Based on our thematic research, two examples of projects using the Hub approach are particularly instructive; these are discussed below.

### Case Study: Improving teachers' understanding of phonological skills and how they link to success in literacy

Led by Broadford Primary School in the London Borough of Havering, the project '**To improve teachers' understanding of phonological skills and how they link to success in literacy**' provides a good example of how, depending on the way that a project is designed, a range of approaches can be used to encourage teachers to work together. Key strengths were found to include an emphasis on ensuring that relationships were developed around a **clearly defined common purpose**, with explicit steps to ensure that teachers were given time to establish **trusting relationships** and develop mutual respect. It was also notable that the approach they selected sought to **reduce the barriers to participation** on practitioners such as the challenge of securing cover to attend meetings during the school day.

The project was established with the aim of improving the literacy of pupils in Reception class or Key Stage 1 by improving the phonological awareness of the early years' practitioners working in the school. Support was provided to a total of 26 practitioners in two schools (Hilldene and Broadford). Teachers accessed a tailored training course delivered by a lead practitioner from Broadford School. This was followed by a programme of lesson observations. Lessons were recorded using IRIS Connect technology, with content shared with other practitioners over the web in order to stimulate discussion.

By the end of the project it was noted that an increasing number of staff from the two schools were voluntarily uploading content to the online portal and inviting other practitioners to provide feedback on their lessons. A number of factors were felt to have contributed to this outcome, principally:

- The strength of the **pre-existing relationships** between both schools' senior leadership teams. In the report produced by the project, it was noted that if such **trusting relationships** had not existed between senior leaders prior to the start of the project it would have taken much longer for a **culture of openness** to have developed amongst individual teachers. Without this culture of openness, it was felt that staff would have been more reluctant to challenge each other following a lesson observation.
- That the project had had a **clearly defined purpose**. It was felt that some of the main reasons that the project had been as successful as it had been, were that a) time had been spent by senior leaders, at the outset, to agree what a successful outcome would be, and b) that senior leaders made sure that achieving this outcome was a shared priority. Such strong messaging was felt to have played an important role in ensuring that teachers were comfortable in setting time aside to engage in project-related activities.

*"Without the senior staff having a shared moral purpose and commitment to the project it would not be possible to have the impact that was seen across the two settings"*

Project self-evaluation report

*"The reason that I felt this project with Hilldene and our school (Broadford) was effective was because the JPD (Joint Professional Development) undertaken had a clear sense of purpose, which we mutually agreed upon. By sharing our schools' priorities for improvement we were able to have very honest conversations about how to improve teaching of early literacy skills"*

Classroom teacher, Broadford School

- Steps had been taken to **reduce potential barriers to participation, including logistic challenges**. The project's self-evaluation report noted, for example, that, without access to video camera technology, it would not have been 'logistically possible' to provide support to that many practitioners (26) over the course of two academic years.

For the final evaluation report of the project please go to: <https://www.london.gov.uk/what-we-do/education-and-youth/education-and-youth-publications/lsef-teaching-resources/broadford>

## Case Study: Primary Maths Skills

The second project to highlight the value of collaboration through a Hub approach was led by Lampton Academy and delivered in partnership with the London West Teaching Schools' Alliance. The '**Primary Maths Skills**' project provides some strong insights into how projects that involve multiple delivery partners can strike a balance between **ensuring that support is delivered to a consistently high quality** whilst also ensuring it is **flexible enough to meet the needs of different cohorts** of teachers through the development of **appropriate quality assurance processes**.

Designed to improve the numeracy of pupils at Key Stage 1 and Key Stage 2, the project set out to achieve this by improving the subject knowledge and awareness of different pedagogical approaches available to primary school practitioners. Over the course of the project, support was accessed by just under 100 teachers from just over 50 schools.

Delivered by a total of four Hubs, the project supported the delivery of two different training courses. 'Developing Maths' was designed to improve the core subject knowledge/mathematical understanding of teachers. A separate course, 'Enriching Maths', was offered to support those teachers who might already have strong subject knowledge, but might wish to consider alternative pedagogical approaches.

Hub leads were selected on the basis of a strong track-record of delivering '*outstanding*' continuing professional development opportunities for teachers (all four were Teaching Schools). To ensure that the courses were delivered in a **similar manner** (and **to a similar quality** to that which had been seen to be effective through the initial pilot, each course lead was

*"Some people definitely needed more help than others, particularly in getting up to speed with the demands of the new curriculum. As a result [our trainer] had to vary the pace of different sessions"*

Classroom teacher

made responsible for observing the practice of one of their colleagues. Such **quality**

**assurance processes** were perceived to be a valuable opportunity to ensure that the quality of the programme was maintained, and was also subject to continual improvement.

*"The most effective aspect of managing and delivering the programme has been the maths programme leads themselves. As a result of their collaboration and reflection on the pilot, the course design was adjusted to balance the need for a sustained training programme with high quality learning, and the constraints of releasing teachers from class."*

Project self-evaluation report

A key finding of the pilot phase was the importance of providing course leads with the **flexibility to adapt to the needs of individual participants**. As such, it was noted that, even when using the same course materials, sessions were designed in order to provide sufficient flexibility for the course leads to vary the amount of time they spent on different elements.

For the final evaluation report of the project please go to: <https://www.london.gov.uk/what-we-do/education-and-youth/education-and-youth-publications/lsef-teaching-resources/primary>

### 3. Making the best use of subject expertise

1. To support improvements in the quality of teaching, many LSEF projects (57) adopted a variety of approaches aimed at making use of expertise available within the education system. Relevant expertise was found in a variety of different organisations (ranging from subject champions in schools to higher education institutions and learned societies such as the Royal Society of Chemistry) and was used for a number of different purposes. Based on the experiences of projects in seeking to mobilise these different forms of expertise a number of learning points were evident:

- The most effective projects often had processes in place to assess the capability of experts to mentor/coach other teachers and to **provide appropriate support/training where required**.
- The success of a project in encouraging changes in the behaviour/practices of teachers often appeared to be linked to the extent to which experts were willing to **demonstrate the effectiveness of their suggested approach through the co-delivery of lessons/activities**.
- The most successful projects were often perceived to be those in which the content of the **training and support provided by experts was consistent with the expectations set out in the National Curriculum**. Where the content of training and support was not perceived to be consistent with the schemes of work to which they were working, teachers often found it more difficult to use what they had learnt in practice.
- The most successful experts were often perceived to be those that **understood the language of education**. It is important, particularly where experts do not come from a teaching background, that they use a language with which teachers are familiar, otherwise they are likely to find the training inaccessible.

2. It was evident that LSEF projects adopted a range of different approaches to support the mobilisation of subject expertise in a variety of different contexts. We have identified two specific examples to help teachers understand what steps they can take when accessing subject expertise; one led by the Royal Society of Chemistry, the other by the Field Studies Council. These are presented below.

## Case Study: Inspiring Chemistry Teachers

Led by the Royal Society of Chemistry (RSC) in partnership with the Institute of Education, University College London, '**Inspiring Chemistry Teachers**' provides a good example of how to utilise the expertise of different partners to deliver training courses that are presented in a **format and language that is accessible to classroom teachers** and to develop **teaching materials that they can use to support the delivery of the National Curriculum**<sup>6</sup>.

Set up to raise the aspirations and attainment of pupils in Chemistry at Key Stages 3, 4 and 5, a key element of the project was a programme of face-to-face and online CPD courses designed to enhance the subject knowledge, skills and confidence of their teachers. In total, courses were accessed by around 375 teachers from around 175 London schools<sup>7</sup>.

Course materials were developed by subject experts at the Royal Society of Chemistry and delivered by practitioners at the STEM Education Centre at the Institute of Education. Trainers were all chemistry specialists with experience in the classroom, as well as being accredited in the delivery of continuing professional development courses for adults.

*"The majority of courses did have... significant positive impact on confidence, understanding teaching and subject knowledge/teaching methods"*

Project self-evaluation report

Analysis of data collected over the course of the project indicated that the majority of courses delivered at the STEM Education Centre appeared to have had a positive effect on the confidence of participants in teaching science, their awareness of different pedagogical approaches and their scientific knowledge. Interestingly, it was also reported that teachers appeared to benefit from access to the courses *regardless* of the number of years over which they had taught.

A number of factors appeared to have contributed to the success of the project:

*"Particularly for early career practitioners, it is important that CPD activities are practice-based and provide them ways in which they can incorporate what they have learnt as quickly as possible"*

Project manager

- Over the course of the project it was evident that a number of steps had been taken to harness the expertise of subject experts (many of them RSC members) to ensure that course materials took advantage of recent research within the field. In so doing, it was acknowledged that such **materials would only have the desired effect if clear links were provided to how the content could be used to support the progress of pupils against the expectations set out in the National Curriculum.**
- The decision by the Royal Society of Chemistry to partner with the STEM Education Centre at the Institute of Education, and so access the experience of trainers at the Centre, was seen to have been a key factor in ensuring that **practitioners were able to relate to the language/content of the training.** It also meant that it was presented in a way that teachers could readily incorporate into their practice.

For the final evaluation report of the project please go to: <https://www.london.gov.uk/what-we-do/education-and-youth/education-and-youth-publications/lsef-teaching-resources/royal-0>

<sup>6</sup> Please note that training materials/courses were not developed using funding from LSEF.

<sup>7</sup> The professional status of online users was not verified and as such a small number of users may not have been teachers. Information on the workplace of online users was not collected. As such the figures presented are likely to underestimate the total number of schools that the project worked with.

### Case Study: Inspiring learning through outdoor science and geography

Led by the Field Studies Council (FSC), '**Inspiring learning through outdoor science and geography**' provided some interesting learning on approaches that can be used by experts to encourage practitioners to alter their practice and trial new approaches. The project also highlights the importance of using a **shared language** in order to communicate the potential benefits of different approaches.

The project was designed to improve pupil engagement and attainment in Geography and the sciences by increasing their teachers' subject knowledge and confidence in delivering outdoor learning opportunities at Key Stage 3. In total, 75 teachers from 30 project schools (across the London boroughs of Greenwich, Lewisham, Hackney, Newham, Tower Hamlets and Waltham Forest) accessed the project. Using a phased approach, participants were invited to an initial programme of three training sessions, at which time they were then invited to deliver an outdoor learning experience in partnership with a trainer from the FSC.

An external evaluation of the project by the Institute of Education found that participating teachers left the programme with much greater confidence in delivering outdoor learning opportunities and a much better understanding of how such opportunities could be used to support the delivery of the National Curriculum.

A number of factors were felt to have contributed to these outcomes:

- Field trips delivered in partnership between participating teachers and trainers from the FSC provided practitioners with an immediate opportunity to put into practice what they had learnt in training sessions and observe the benefits of outdoor learning experiences in supporting pupil progress. Practitioners indicated that, following such a demonstration, it was hard to ignore the benefits of adapting their model of practice accordingly.
- It was felt that teachers benefitted when FSC trainers went out with them and their pupils, as the effective practice they modelled provided a valuable opportunity for teachers to learn. The expertise of trainers was considered to be vital to the success of the project and that FSC should continue to make the selection/development of trainers a key priority.

*"Teacher confidence in delivering out of classroom learning... improved... and [their] subject knowledge increased". Further to this 'participation in out of classroom sessions [was found to influence]... pupils in their choice of GCSE subjects"*

Project self-evaluation report

For the final evaluation report of the project please go to: <https://www.london.gov.uk/what-we-do/education-and-youth/education-and-youth-publications/lsef-teaching-resources/inspiring>

## 4. Effective working across phases

1. Twenty-two LSEF projects were set up to enable primary practitioners to gain access to subject-specific expertise from secondary practitioners and, in some cases, for practitioners in secondary schools to learn from the pedagogical expertise of their primary colleagues. Our evaluation of the cross-phase approaches that appeared to be most effective in promoting teachers' subject knowledge and confidence highlighted a number of key points relating to what worked well:

- **Adopting a continuous curriculum approach.** This included improving teachers' familiarity with the subject topics in the curriculum, the pedagogical approaches utilised and the expectations of pupils across each Key Stage. Having a better knowledge of the curriculum across the different phases improved teachers' ability to adapt their teaching in the classroom in order to foster a seamless transition between primary and secondary schools for pupils.
- **Forging links between primary and secondary teachers.** Teachers welcomed the opportunity to collaborate with other teachers from different schools. Pairing teachers from different settings appeared to be more effective than working in groups, mainly because of the logistical challenges around setting up meetings between a large group of teachers, where many were found to be working to different timetables.
- **Working within clusters.** Peer-to-peer work seemed to have been most effective when the links between participating *teachers'* schools were established and nurtured, through a range of school-to-school activities. In clusters, these activities developed naturally around transition days.
- **Encouraging teachers' visits to a different setting to their own** (i.e. primary teachers' visits to secondary schools and vice versa). Teachers' visits seemed to have been very effective in supporting curriculum continuity, because it provided an opportunity for teachers to experience, first-hand, the learning environment of their pupils and subsequently, to better adapt the content and their way of teaching to prepare pupils for transition.
- **Acknowledging that both settings can contribute to and gain from the process.** The primary schools initially appeared to look to the secondary schools to lead the initiative, but the evidence suggested that secondary schools also benefited from cross-phase working, in particular in relation to pedagogical skills.

2. During our evaluation, we identified two projects that provided examples of good practice in working across different phases. Each exemplar project was found to demonstrate a number of the characteristics highlighted above as supportive of good outcomes.

## Case Study: Accelerated Learning in English

The LSEF project, '**Accelerated Learning in English**', led by Gladesmore Community School, highlighted the value of **curriculum continuity**, **cluster working** and **cross-phase visits**. The main objective of the project was to raise attainment levels in English, focusing on a pupil population from highly deprived areas. It aimed to do this by providing a package of literacy training days and coaching sessions for teachers, focusing primarily on Key Stage 2 and Key Stage 3 teachers. Participating schools worked as part of one of two **clusters**, each of which comprised one secondary school and a number of primary schools. In total, two secondary schools and nine primary schools were involved in the project.

Initially, the intention was that the secondary school should take the lead and that primary teachers would benefit from learning from their peers in the other setting. Accordingly, as part of the programme, secondary teachers were asked to develop a series of sessions for the primary teachers in their cluster. The purpose of the sessions was to raise the skills of the primary teachers, focussing on their subject knowledge and content-specific pedagogy in literacy. The programme included an element of lesson observation and coaching for the primary school teachers, which was carried out by the secondary school teachers. As part of their programme, primary teachers also carried out visits to the secondary school to observe the teachers and experience, first-hand, the learning environment and learning experience of the pupils.

*"We [primary teachers] went over there [secondary school] last year and did observations... and they've been over to us as well to observe what teaching is like in primary school... so they can marry it up and support the transition"*

Head Teacher Project self-evaluation report

*"Collaboration between schools, [in my opinion] is the only concept that works"*

Head Teacher

Such sessions appeared to have been effective, with teachers in the primary schools commenting that they **benefited from the cross-phase visits** and that they had changed their practice in the classroom following their training. In particular, they felt that the lesson observations and the coaching sessions had contributed to developing their confidence in their practice and had improved their subject knowledge in literacy.

*"In terms of the skill sets of our teachers, there've been improvements there because they've been working more closely with secondary school teachers to understand how to unpick... this text... and they've really enjoyed it, so as professional development, it's been really fantastic"*

Primary Deputy Head Teacher

However, interviews with both primary and secondary participants revealed that the **benefits of cross-phase activity were not just confined to primary teachers, but were also reported by the secondary teachers that had taken part**. Both groups of teachers were found to have benefited from the opportunity to visit each other's

*"I have to say when the [secondary school] teachers came over here and were observing our teachers... they took away a lot from it as well"*

Primary Deputy Head Teacher

schools and conduct lesson observations. In particular, it was noted by both groups of teachers that they now had a clearer understanding of what was expected of Year 6 pupils compared to Year 7 pupils and how they, as teachers, could alter their practice to reduce the scale of the challenge faced by pupils as they moved from primary to secondary school.

Secondary school staff also commented that this joint learning about the curriculum in both primary and secondary settings contributed to the development of better transition plans for the primary pupils. Staff felt that the transition process was, therefore, more effective, as it drew on a knowledge and understanding of the curriculum in both settings, which enabled to provide **greater curriculum continuity for the pupils**. The feedback that the schools received from parents and pupils supported this.

For the final evaluation report of the project please go to: <https://www.london.gov.uk/what-we-do/education-and-youth/education-and-youth-publications/lsef-teaching-resources/accelerated>

## Case Study: High Challenge for High Achievement

The LSEF project, '**High Challenge for High Achievement**', provides a good example of the benefits of **forging links between teachers in different settings**. Led by the London Borough of Barking and Dagenham, this project sought to promote excellent teaching of maths in both primary and secondary schools, through a 'Research Lesson' (or lesson study) approach. More specifically, the aim of the project was to enhance practitioners' understanding of mathematical problem-solving across the transition between Key Stage 2 and Key Stage 3. In total, nine teachers from nine schools were involved in the project.

*"[Teachers have] greater appreciation of the importance of planning key questions and anticipating how students might respond to them... encouraged teachers to take a step back in lessons, allowing them to listen, observe and assess students more"*

*Head of mathematics department*

The teachers involved in the project invited local, regional, national and international education practitioners to observe a lesson and consider the progress made by learners in their classrooms. Each lesson was planned collaboratively by the nine teachers from both primary and secondary schools and drawing on what they (jointly) believed reflected best practice. Following the classroom observation, a feedback session took place, at which attendees reflected on the success of the planned lesson. In total, over 100 visits were made to observe lessons over the course of the project.

*"The [Lesson Study] approach works where teachers don't feel judged on the basis of their performance. A key part of the role of the [external] Chair [of review meetings] has been to ensure that the language of such meetings is supportive"*

Project Manager

The project team, the teachers and other practitioners who were involved in the project commented, in particular, on the benefits of the lesson planning model, which provided an opportunity for practitioners to analyse different teaching approaches collaboratively. Teachers said that this lesson-study approach helped ensure that peer observation was more helpful than a standard observation approach might have been and, importantly, encouraged a focus on the learning rather than on the individual teacher. They further noted that the approach had reinforced the power of **collaborative working across settings**, and had

encouraged greater risk taking and the adoption of new teaching styles.

Practitioners reported that the project had been **equally beneficial to both the primary and the secondary school teachers**. Primary teachers noted that they benefited, in particular, from having exposure to and engaging with mathematical content, which, typically, they would have had less access to in their own school settings. Secondary teachers benefited from being exposed to the curriculum in the primary schools and gaining a better understanding of it. They realised, for example, that some pupils in primary schools were already working with high level materials, including those that were used with Year 7 pupils in the secondary schools. They commented that this gave them greater confidence in planning future lessons that would be suitably challenging (in terms of content) for pupils.

*"This [the collaborative work between teachers] was a key enabler in building a community of practice, and helpfully disrupted potentially limiting assumptions that might exist in any one school"*

Project Manager

*"The project has been helpful in challenging the orthodox view that primary practitioners can learn from secondary [practitioners] and not the other way around"*

Project Manager

This project reinforces the **importance of curriculum continuity** and **collaboration between practitioners across the different settings** in improving the teaching and learning experience for learners.

For the final evaluation report of the project please go to: <https://www.london.gov.uk/what-we-do/education-and-youth/education-and-youth-publications/lsef-teaching-resources/high>

## 5. Effective strategies for differentiating by ability

1. The LSEF programme had been set up to improve the quality of teaching across all London Schools, through the implementation of various professional development initiatives and interventions amongst teachers. Interviews with the teachers highlighted that one of the key challenges they faced in the classroom was the need to cater for pupils of different abilities. The review of the projects' activities and the outcomes achieved under the LSEF identified a number of key learning points in relation to what appeared to work well and to be effective in improving the quality of teaching in the classroom:

- **Investing in scoping activities, including audits or needs assessments.** The more successful projects were those that had taken steps to assess the actual (not just the anticipated) needs of the target group. This meant that their project delivery model was more effectively tailored to the context in which it was delivered.
- Success in projects was more often reported where **training in specific subject-knowledge content was combined with general and subject specific pedagogical theory and practical skills.** Using **subject champions** in school and focusing on teacher collaboration are good examples of the effective approaches used.
- **Training and support activities tend to be most effective when they are tailored to meet the needs of individual beneficiaries.** A number of the more successful projects combined group training sessions with individual mentoring and coaching (whether by subject experts or by other staff in the school or from within the project cohort) to help beneficiaries apply their learning and review their performance in a dynamic way.
- **Putting appropriate quality assurance processes in place is important.** One of the challenges faced by projects was ensuring the fidelity and quality of training, particularly where cascade models were in operation, or where multiple stakeholders were involved in delivery.

2. The LSEF projects adopted different approaches to achieving their objectives. Our evaluation identified a number of projects that had a number of characteristics that demonstrated some of the learning points highlighted above. A summary of three of these projects is provided below.

## Case Study: Physics and Chemistry Foundations

Led by Canterbury Christ Church University, the '**Physics and Chemistry Foundations**' project highlighted the benefits of **combining subject knowledge materials with content-specific pedagogy**. The key objective of the project was to address the gap in subject knowledge amongst Key Stage 3 teachers. The aim was to change the way that physics and chemistry was being taught, thus making it more accessible for pupils of different abilities. A total of 11 secondary schools were involved in the project (5 focusing on physics and 6 on chemistry), benefitting around 40 teachers.

The project was based on research that suggested that many science teachers had misconceptions about particular topics in the physics curriculum, for example, light, matter and electricity. This, in turn, led to pupils facing difficulties in learning concepts in science. **The project aimed to train the teachers to challenge their previous understanding of key concepts in physics and chemistry and to consider different ways of communicating these to their pupils**, thus encouraging a more effective way of teaching.

The project consisted of two phases, the 'design' phase and the 'trial' phase. In the 'design' phase, teachers across eleven different schools were engaged in reading groups (12 such groups were established) in which they considered research evidence in relation to specific areas of the curriculum at Key Stage 3. The groups focused on materials discussing conceptual change research, looking at conceptual ideas in physics and chemistry and the application of different teaching strategies. Once they had completed the reading, teachers applied what they had read to the collaborative development of lesson plans, in order to embed research evidence in lessons.

*"...non-Physics teachers found it especially helpful on delivery of concepts, especially the background reading summaries [which help] anchor our own understanding more firmly prior to teaching"*

Physics teacher

**enhancing not just the subject knowledge of teachers** (through the exposure to new content and materials) **but also on improving content-specific pedagogies**, focused around the foundation of concepts (through embedding the 'Conceptual Change' approach in the design of the lesson plans).

In the 'trial' phase, teachers from participating schools used the lesson plans in the classroom with Key Stage 3 pupils. The level of engagement of pupils was measured (through a survey), as well as their progress (through pre- and post-knowledge tests), in order to assess the effectiveness of the lessons.

The design of the intervention was focused on

*"I found the opportunity to read and discuss educational literature with researchers and other teachers a very valuable approach to CPD. It greatly enhanced my pedagogical understanding of chemistry teaching and increased my depth of knowledge of misconceptions in chemistry. Since completing the project, our Science Department have been working hard to increase the emphasis on teaching the 'language of chemistry' and to integrate a variety of strategies to promote active learning in our schemes of work for the new programme of study"*

Chemistry teacher

*"[My school] does lots of CPD but it tends not to be subject specific, but subject knowledge is incredibly important and pedagogy is also important, I guess, so this project was good [because] the project addressed both angles"*

Deputy head teacher

Feedback from the teachers who were engaged with the project highlighted that teachers felt they benefited, in particular, from the fact that the **intervention provided content-specific pedagogical knowledge, as well as exposed them to new materials in the subject**. One commented that it was specifically the addition of the pedagogical content that had helped her embed physics concepts and increased her confidence in teaching topics in the classroom.

For the final evaluation report of the project please go to: <https://www.london.gov.uk/what-we-do/education-and-youth/education-and-youth-publications/lsef-teaching-resources/canterbury>

## Case Study: Extending More Able Mathematicians

The LSEF project '**Extending More Able Mathematicians**', led by Ridgeway Primary School in Croydon, provides an example of good practice highlighting the benefits of **tailored training and support** in increasing teachers confidence and their quality of teaching. The project sought to develop teachers' subject knowledge and understanding of the mathematics curriculum as well as their content-specific pedagogy. The key aim of the project was to strengthen pupils' understanding of mathematics and ensure a rapid and sustained progress towards high level attainment in Key Stage 2 and Key Stage 3. In total 24 teachers from 24 schools were involved in this project.

The rationale behind the project was that by raising expectations from all pupils in the same way that teachers tend to do with the most able, pupils can be motivated and driven to achieve better than their best. The project provided training for teachers to enable them to develop a tailored approach to teaching mathematics in the classroom (i.e. developing different modes of teaching for different ability groups around the same topic in mathematics). The training was provided through a series of CPD days (including one whole staff training day, a whole staff event with guest speakers, and five CPD sessions for a group of nominated teachers), individual support and coaching sessions for teachers, and workshops for parents and pupils. In addition, the project developed an online resource hub with quality assured materials that teachers could access and use in their lessons free of charge.

*"Need to make sure you give every child an opportunity to fulfil their ability. If you place a ceiling above their heads they will not reach their potential"*

Project lead

*"The fact that you're able to give one investigation to the whole class [which means that] the children don't feel that they're treated any differently"*

Teacher

Feedback from Head Teachers and teachers who were involved in the project suggested that they **benefited a great deal from the tailored approach that was adopted by the project**. The project lead adapted the support and coaching that he provided, depending on the needs of the teachers (through lesson modelling, observation and coaching and the provision of resources if and as required). They suggested that **this has helped increase teachers'**

**confidence** in addressing differentiation in ability in their classroom, as well as improved the quality of teachers in mathematics.

Furthermore, teachers fed back that the resources that were provided through the project were highly beneficial in helping them develop their lesson plans. They commented that the resources provided 'fresh' new ideas as well as materials that teachers used in the classroom, to create lessons that challenge and motivate their pupils.

*"At the beginning I saw it as just a way to improve the progress of the children but it's actually ended up targeting teachers as well as pupils, which has been really positive"*

Head Teacher

*"It is easy to stick with the old ways as a teacher, but it is important to put yourself out of your comfort zone"*

Teacher

For the final evaluation report of the project please go to: <https://www.london.gov.uk/WHAT-WE-DO/education-and-youth/education-and-youth-publications/lsef-teaching-resources/ridgeway>

## Case Study: Education Excellence in Harrow Schools

The LSEF project '**Education Excellence in Harrow Schools**', led by the Harrow School Improvement Partnership, is a good example of highlighting the benefits of **investing in scoping activities** and carrying out an **audit of teachers' knowledge and needs**. The project sought to develop a bespoke training programme to drive improvement in subject-specific teaching (English, mathematics and science). The focus was on pedagogical skills, to 'support the development of more confident and upskilled Key Stage 2 teachers'. The project operated in Harrow (18 schools), Wandsworth (11 schools) and Brent (20 schools).

The project consisted of two key elements. The first was the **development of subject needs self-assessment tools** for teachers. Three Subject Experts Groups (SEG) were established (in English, mathematics and science) involving subject experts and teachers of varying levels of experience and expertise. The SEGs met fortnightly and developed three subject knowledge self-assessment questionnaires (one in each of the three subjects). Teachers from participating schools were invited to complete the self-assessment questionnaire. The responses of the teachers to the questionnaire provided an indication of their subject and pedagogical knowledge, and highlighted their strengths and any gaps in their knowledge or skills that needed addressing. The research and outcomes from the initial self-assessment questionnaires, which were paper based, was then used to create a new online, interactive and bespoke self-assessment learning platform. The platform, which is being led and further developed by Brent School Partnership, provides an instant online tool that enables teachers and schools to directly access relevant quality assured resources and courses.

The second element of the project was the **development of a bespoke training programme**. The three SEGs developed training sessions that were targeted at addressing the gaps in knowledge and skills that were identified through the teachers' self-assessment tools.

Participants noted that **going through the self-assessment questionnaire was itself a highly beneficial experience**. Teachers commented that learning about both their strengths and their areas for development helped them grow professionally. Many felt able to ask to go on specific training sessions, which would address a specific gap and enable them to improve their practice in the classroom.

Head Teachers commented that having information on the skill gaps amongst their school staff, coupled with the development of a bespoke training programme, meant that they could select training courses that were targeted at addressing these gaps, thus working towards improving the quality of teaching across the school.

*"There is a premise in central government that if you have an academic qualification it automatically translates to a teaching ability... We have all sadly experienced teachers (at all stages of education from primary school to university) where they didn't have a clue how to teach. This project is about confidence and the professionalism of teaching. The pedagogy of teaching"*

Project lead team member

*"It's been very valuable as it's better to have a reason for doing something based on evidence rather than a hunch"*

Head Teacher

For the final evaluation report of the project please go to: <https://www.london.gov.uk/what-we-do/education-and-youth/education-and-youth-publications/lsef-teaching-resources/harrow>

## 6. Summary note

1. Many of the projects involved were clearly enthused by the opportunity to try out new approaches or expand on existing ones, to improve teachers' subject knowledge and content-specific pedagogy, as well as to increase teachers' confidence.
2. The evidence from case studies indicates that the main successes of the LSEF, to date, have been in improving teacher confidence and in improving subject knowledge and content-specific pedagogy. Not surprisingly, given the length of time over which projects had been operating, projects found it harder to identify (or attribute) improvements in pupil attainment or pupil engagement or aspirations as a result of the funding. Nonetheless, many were hopeful that such changes would arise in the future, in line with improvements in teachers' knowledge of their subject and content-based pedagogical knowledge and collaboration - each of which is known to be positively associated with pupil attainment.

SQW conducted a meta evaluation of the overall London Schools Excellence Fund programme, including in depth investigation and analysis of programme activities. Further insights into the programme outcomes are provided the meta-evaluation final report. You can read the full report and access projects self-evaluations at <https://www.london.gov.uk/lsef>