# London Schools Excellence Fund

## Self-Evaluation Toolkit

## Primary Maths Skills Project
## London West Alliance
## Final report

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# Evaluation Final Report Template

## Introduction

The London Schools Excellence Fund (LSEF) is based on the hypothesis that investing in teaching, subject knowledge and subject-specific teaching methods and pedagogy will lead to improved outcomes for pupils in terms of attainment, subject participation and aspiration. The GLA is supporting London schools to continue to be the best in the country, with the best teachers and securing the best results for young Londoners. The evaluation will gather information on the impact of the Fund on teachers, students and the wider system.

This report is designed for you to demonstrate the impact of your project on teachers, pupils and the wider school system and reflect on lessons learnt. It allows you to highlight the strengths and weaknesses of your project methodology and could be used to secure future funding to sustain the project from other sources. All final reports will feed into the programme wide meta-evaluation of the LSEF being undertaken by SQW. Please read in conjunction with Project Oracle's **'Guidance to completing the Evaluation Final Report'**.

**Project Oracle: Level 2**
**Report Submission Deadline:** 30 September 2015
**Report Submission:** Final Report to the GLA

**Project Name:** **Primary Maths Skills Programme**
**Lead Delivery Organisation:** **Lampton School**
**London Schools Excellence Fund Reference:** **LSEFR1081**
**Author of the Self-Evaluation:** **Ruth Williams and Stefani Shedden**
**Total LSEF grant funding for project:** **£130,964**
**Total Lifetime cost of the project (inc. match funding):** **estimate £309,928**
**Actual Project Start Date:** **November 2013**
**Actual Project End Date:** **March 2016**

## 1. Executive Summary

*This should be a brief summary of what information is included in the report, the evaluation methods and analysis used and a summary of the key findings from your project evaluation. (maximum 500 words)*

This final report of the Primary Maths Skills Programme (PMSP) will:

- Summarise the development and evolution of two skills development programmes for primary teachers who may lack secure subject knowledge and confidence in Maths. The Development Programme was designed to support teachers who may have only achieved a very basic level of Maths education themselves. And a more advanced programme, known as the Enrichment Programme, was designed initially to further extend teachers' knowledge and skills and creative teaching strategies for those who lack the confidence to enrich and extend classroom maths for primary pupils.
- Review what we've learned from the delivery of PMSP in five centres around London with four different teams of Maths specialists.
- Review the changes that were made to the initial programmes designs as a result of our learning from delivering the programmes.
- Evaluate progress as well as challenges in evaluating the impact on teachers and pupils
- Finally we will explain our next steps in creating a sustainable and marketable Primary Maths Skills Programme that can continue to be offered by accredited delivery centres at an affordable price.

## 2. Project Description

*Much of the detail for this section can be drawn from your Stage 2 funding application. Please note that if you do copy this information from your original application, funding agreement, or interim report, be sure to update it as appropriate (e.g. including tense change).*

*Provide a full project description (approximately one side of A4), in particular:*

- *Why was the project set up? / What need was it seeking to address? (e.g. because teachers lacked confidence in their subject knowledge? Because pupil attainment was lower in this subject area in this borough/cluster/school/than in other boroughs/clusters/schools?).*
- *What were the circumstances into which it was introduced (e.g. existing networks of schools/ expert partner offering a new approach etc.)?*
- *What project activities have been put in place?*
- *Where has the project been delivered geographically?*
- *Who delivered the project?*
- *Who were the target beneficiary groups of the project and why?*

A large proportion of primary school teachers have only studied Maths to GCSE level and some of these will have passed at C grade, which means their own knowledge and understanding may be fragile. Lampton School have developed this new two level Primary Maths Skills Programme in partnership with four leading London Schools, to support KS2 teachers who want to develop their own maths knowledge and skills, so they can identify and tackle misconceptions in their pupils learning, and also stretch and challenge their pupils with confidence. Our CPD Programme outcomes will include:

- Increasing teacher confidence and expertise in Maths
- Teachers will use a wider range of strategies and tools for delivering Maths
- Teachers enabled to design creative Maths problem-solving tasks for pupils

- Leading to improved teaching in the classroom
- Raised teacher awareness of the range of resources and strategies available
- Improved pupil progress and attainment in Maths, especially at L5 & L6
- New local cross-phase maths networks at each delivery centre

**The training programmes**

Two separate CPD programmes have been developed:

> (1) Developing Maths (aimed at intermediate knowledge and skills). This programme aims to develop teachers' subject knowledge in the core primary maths topics. Teachers will collaborate with colleagues from other schools to explore their own mathematical understanding.
> (2) Enrichment Maths (more advanced knowledge and skills). This programme aims to enrich teachers mathematical competence. By exploring and discussing with colleagues, teachers will work together to develop innovative, transferrable approaches and resources that can be cascaded school wide.

Insecure teachers who may have only achieved GCSE at C grade are encouraged to complete the first programme. Confident teachers and maths coordinators who wish to further extend their maths skills will attend the second. Some teachers progress from the Developing to the Enrichment Course to further extend their maths teaching.

On both courses, inter-session classroom tasks are designed to enable teachers to apply their learning to their own setting and help them become more confident at designing creative and enriching maths tasks for their pupils. Cross-school collaboration is encouraged with delegates co-planning and sharing resources, and whenever possible, visiting each other's schools.

To embed improvements in the classroom all delegates are expected to:

- Complete a pre and post course maths test to diagnose their individual needs and also to measure progress.
- Work with an in-school line manager who can monitor and support the implementation of new maths learning in the classroom and observe classroom teaching.
- Work with at least one/two other delegates and visit at least one/two other classrooms as part of the inter-session tasks during the programme to evaluate the impact of the improved maths teaching on particular pupils.
- Reflect on progress in their own classroom.

After the grant-funding period, the programme will become self-financing offering local training at an affordable price. As four of the pilot schools leading the programme are Teaching Schools, they have a role in providing effective high quality affordable CPD to their Alliance members. This programme has demonstrated it will meet those needs.

**System leadership - cross phase maths networks**

- All four of our delivery centres are committed to incorporating the learning from this programme into their local CPD offer to schools in their networks, hubs and clusters.
- Local cross phase maths networks have spontaneously emerged that enable delegates to maintain contact after the training.
- The delivery team have become a highly motivated and skilled programme delivery team that will continue to collaborate on programme design to ensure the course remains relevant and reflects latest updates and changes to the maths curriculum.

**Collaboration in project delivery**
The project was based on a group of partner schools working together to take a pilot CPD programme already tested and delivered through one Teaching School and extend it to more Teaching Schools across London. Three key partners in this bid are rated by OFSTED as outstanding and a fourth is now rated as Good by OFSTED although remains a Teaching School. The fifth is a lead primary school member of London West Alliance, with an ex-Advanced Skills Teacher in Maths taking a lead role. They are all committed to system wide improvement. The programme has now been tested with the help of this pilot funding from the LSEF and we are confident that it will continue to be a high quality affordable CPD programme because:

- Central programme support for the delivery centres will continue to be provided by Lampton's Maths Specialist Leader of Education (Maths)
- Peer review where each delivery centre's Programme Lead will visit and support a workshop at another centre will enable learning to be shared and quality to be assured
- Regular meetings for all Programme Leads to come together and review progress and update practice and resources will ensure the content remains relevant and up to date.

**Expected outcomes - impact on pupils' attainment:**

- Pupils will achieve more highly in Maths - attainment and progress will improve at a faster rate in classes impacted on by the programmes
- This improvement will be cascaded within schools by the delegates on the programme, enabling more pupils to benefit from improved maths provision
- Motivation and engagement in Maths will be enhanced
- More pupils will achieve and exceed national expectations in Maths, increasing attainment at L5 & L6.
- So that pupils will be better prepared for transition to KS3

**2.1** Does your project support transition to the new national curriculum? **Yes**

The course materials are designed to support areas that require increased subject knowledge, such as algebra, ratio and proportion.

**2.2** Please list any materials produced and/or web links and state where the materials can be found. Projects should promote and share resources and include them on the LondonEd website.

There are course fliers on the Lampton Teaching School website http://www.lampton.org.uk/teaching-school/courses/. Programme materials are still being re-iterated and updated as we learn more about what works and as we reflect the changes in the national curriculum for Maths.

**3. Theory of Change and Evaluation Methodology**

Please attach a copy of your validated Theory of Change and Evaluation Framework (inserted at end of report as appendix 1].

*Throughout the report it would be useful if you make reference to these documents. Where appropriate we would also encourage you to include any assumptions you have made from previous research.*

**3.1** Please list **all** outcomes from your evaluation framework in Table 1. If you have made any changes to your intended outcomes after your Theory of Change was validated please include revised outcomes and the reason for change.

**Table 1- Outcomes**

| Description | Original Target Outcomes | Revised Target Outcomes | Reason for change |
|---|---|---|---|
| Teacher Outcome 1 | Increased subject knowledge and greater awareness of numeracy teaching methods | N/A | N/A |
| Teacher Outcome 2 | Increased teacher confidence | N/A | N/A |
| Teacher Outcome 3 | Improved lesson delivery | N/A | N/A |
| Pupil outcome 1 | Accelerated pupil progress and attainment in Maths at KS2 | N/A | N/A |
| Wider system outcome 1 | Better use of numeracy resources | N/A | N/A |
| Wider system outcome 2 | Better use of and more effective maths networks for primary teachers in intervention groups | N/A | N/A |

**3.2** Did you make any changes to your project's activities after your Theory of Change was validated?

**No.** The activities remained as planned, although there was a reduction in the number of delivery centres from 5 to 4 as one of our initial partner schools had to withdraw at the start of the programme.

If **Yes**, what were these changes (e.g. took on additional activities?)

**3.3** Did you change your curriculum subject/s focus or key stage? **No**

**3.4** Did you evaluate your project in the way you had originally planned to, as reflected in your validated evaluation plan? **Yes and no**.

The plan didn't change but there were significant gaps in the data collected across the different delivery centres, and we learned from this. As a result of learning on the Development Programme, the Enrichment Programme data collection is being managed quite differently. For example:

- On the first Development Programme, we aimed to collect teacher confidence data electronically from teachers prior to the workshops using an online survey tool. However this was not effective. As a result of large gaps in data, we changed to collecting data, on paper, in workshops and then collating it.
- In addition, pupil and teacher data was not consistently submitted from every centre, making collation and analysis challenging and incomplete highly frustrating and time consuming. A new data collection tool is being used more systematically for the Enrichment Programme.
- Pupil assessment methods have been changing nationally so there is no consistent, common measure across all schools with which to analyse the changes in pupil progress and attainment over the lifetime of a CPD programme.

Our evaluation of impact has therefore had to rely more than expected on qualitative feedback from teachers on their workshop evaluation sheets and from their line managers to assess the effectiveness of the programme design. An unplanned source of highly valuable impact data has been from the OFSTED reports on some of the participant schools that mention high quality Maths delivery. (Further details at Section 12 below – Final Report Conclusion).

*Consider changes to evaluation tools/methods, sample sizes, and anticipated outcomes. If applicable, please explain what changes you made and why, and provide some commentary on how they affected your evaluation.*

## 4. Evaluation Methodological Limitations

**4.1** What are the main methodological limitations, if any, of your evaluation?

*This can include data limitations or difficulty in identifying a comparison group. In order to get a realistic idea of the strength of your evaluation, and identify possible improvements, it is essential that you reflect on the strengths and weaknesses of your evaluation.*
***You should address limitations of the evaluation only, not the project itself -*** *Every evaluation has limitations, so please be honest. This could include limitations relating to:*

- *The kinds of data you could/ could not collect (and the response rate for surveys)*
- *The size of the sample/ group you are evaluating*
- *The extent to which you felt able to assess the impact of activity on beneficiaries (what changes in attitudes/behaviours/attainment were caused by the intervention and what has been caused by other factors)*
- *Also include mitigating actions for methodological limitations where possible – e.g. alternative approaches or solutions and also how these limitations will affect the evaluation of the project (particularly pupil and teachers outcomes).*

See above

**4.2** Are you planning to continue with the project, once this round of funding finishes?

**Yes** – the main purpose of piloting this programme with help from the London Mayor's Schools Excellence Fund was to develop and test two robust Maths CPD programme for primary teachers that can continue to be offered by Teaching Schools and other centres of excellence. The next phase of the programme, once external funding is exhausted, will be to offer the training at an affordable price through the current delivery centres so that schools can continue to benefit from the CPD. In the longer term we will seek funding to develop a Train the Trainer programme so as to build capacity for delivery at more centres.

If **yes**, will you (and how will you) evaluate impact going forward?

- We will continue to ask delegates to complete a pre and post course confidence survey.
- We will review workshop evaluations to test quality of delivery
- We will meet as a delivery team at least once per year to refresh and update materials.
- There will be an annual QA review of each delivery Centre one per year – these may be conducted as a peer review.
- Furthermore evaluation of impact will be supplemented by asking delegates' line managers or HTs to provide feedback on impact of the programme on classroom practice.

## 5. Project Costs and Funding

5.1 Please fill in Table 2 and Table 3 below:

**Table 2 - Project Income**

| | Original Budget | Additional Funding | Revised Budget | Actual Spend | Variance |
|---|---|---|---|---|---|
| Total LSEF Funding | 130,964 | | 130,964 | 132,324 | - 1,360 |
| Other Public Funding | | | - | | - |
| Other Private Funding | | | - | | - |
| In-kind support | | | - | | - |
| **Total Project Funding** | **130,964** | **-** | **130,964** | **132,324** | **- 1,360** |

List details in-kind support below and estimate value:
Delegates on the programme were provided with free training and resources however they were not allocated any expenses for travel or cover for teacher release. We estimated the value of this non-financial in-kind support from schools at a notional £309,928 based on maximum take-up of places.

**Table 3 - Project Expenditure**

| | | Original Budget | Additional Funding | Revised Budget | Actual Spend | Variance |
|---|---|---|---|---|---|---|
| DSC | Direct Staff Costs (Salaries/on costs) | 20,800 | | 20,800 | 30,430 | - 9,630 |
| | Direct delivery costs e.g. consultants/HE (specify) | - | | - | - | - |
| MAC | Management & Administration costs | 20,800 | | 20,800 | 32,000 | - 11,200 |
| TC | Training costs | 50,074 | | 50,074 | 59,002 | - 8,928 |
| | Participant costs (e.g. expenses for travelling to venues) | - | | - | - | - |
| PMC | Publicity & Marketing costs | - | | - | 2,100 | - 2,100 |
| | Other Participant Costs | - | | - | - | - |
| EC | Evaluation Costs | 12,690 | | 12,690 | 8,792 | 3,898 |
| QA | Other - Quality Assurance | 26,600 | | 26,600 | - | 26,600 |
| | Total Costs | **130,964** | **-** | **130,964** | **132,324** | **- 1,360** |

**5.2** Please provide a commentary on Project Expenditure
*This section should include:*

- *commentary on the spend profile*
- *budget changes that have occurred, including the rationale for any changes*

*(Maximum 300 words)*

The biggest proportion of the funding, and a significant area of overspend, was on Training costs. These were greater than anticipated as regular meetings were held between

Programme leads in order to co-develop the programmes and ensure consistency in delivery across the centres.

An overspend on direct (Lampton) staff costs was as a result of the lead SLE having to be closely involved in all aspects of the Programme design and delivery. The reporting requirements were also greater than originally anticipated and also drove up the costs as did unbudgeted GLA costs.

QA did not take place hence the significant saving but Peer review did.

## 6. Project Outputs

Please use the following table to report against agreed output indicators, these should be the same outputs that were agreed in schedule 3 of your Funding Agreement and those that were outlined in your evaluation framework.

**Table 4 – Outputs**

| Description | Original Target Outputs | Revised Target Outputs *[Original + any Additional Funding/GLA agreed reduction]* | Actual Outputs | Variance [Revised Target - Actual] |
|---|---|---|---|---|
| No. of schools | 100 | | 54 | -46 |
| No. of teachers | 150 | | 88 | -62 |
| No. of pupils | 1867 | | 1954 | 87 |

## 7. Key Beneficiary Data

Please use this section to provide a breakdown of teacher and pupil sub-groups involved in your project.

*Data must be provided at project level. However, if you wish to disaggregate data by school then please add additional rows to the tables below. Please also confirm at what point this data was collected.*

***Please add columns to the tables if necessary but do not remove any. N.B. If your project is benefitting additional groups of teachers e.g. teaching assistants please add relevant columns to reflect this.***

**7.1 Teacher Sub-Groups** (teachers directly benefitting counted once during the project)

Please provide your definition for number of benefitting teachers and when this was collected below *(maximum 100 words).*

Teacher beneficiaries below are only those who took part in the actual training programmes and exclude the lead teachers who collaborated and delivered the training. Over the life of the project, this amounted to an additional 7 teachers who are all subject specialists in Maths and includes the programme lead a Maths Specialist Leader of Education.

**Table 5 – Teachers benefitting from the programme**

**DEVELOPMENT PROGRAMME**
**Teacher Sub-Groups (Teachers directly benefitting counted once during the project)**

| Delivery Centre | No. teachers | % NQTs | % Teaching 3 yrs + | % Primary (KS1 & 2) | % Secondary (KS3 - 5) |
|---|---|---|---|---|---|
| **Project** | | | | | |
| Lampton | | | | | |
| Charville | 12 | 58 | 42 | 100 | 0 |
| Compton | 9 | 55 | 44 | 100 | 0 |
| Waldegrave | 8 | 0 | 100 | 100 | 0 |
| Southfield | 4 | | | 100 | |
| **Total** | **33** | | | | |

**ENRICHMENT PROGRAMME**
**Teacher Sub-Groups (Teachers directly benefitting counted once during the project)**

| Delivery Centre | No of teachers | % NQT | % 2nd / 3rd Year | % Teaching 3 yrs + | %Primary (KS1&2) |
|---|---|---|---|---|---|
| **Charville** | 10 | | 20 | 80 | 100 |
| **Waldegrave** | 10 | 10 | 20 | 30 | 100 |
| **Lampton** | 15 | 0 | 40 | 60 | 100 |
| **Compton** | 6 | 67 | 0 | 33 | 100 |
| **Total** | **41** | | | | |

In total there were therefore 74 teachers who benefitted from the training programmes (excluding any double counting for those who attended both courses and excluding the maths specialists who were the programme leads).

**7.1.2** Please provide written commentary on teacher sub-groups e.g. how this compares to the wider school context or benchmark *(maximum 250 words)*

The range of teachers simply reflects those whom schools wanted to send on the programme and who fitted the requirements of each programme. The Development programme targeted teachers with less secure mathematical knowledge and skills and they were more likely to be in the early years of their career. However the Enrichment programme targeted more proficient teachers with the potential to develop others and were more likely to have been teaching for longer. In some cases teachers progressed from the Development to the Enrichment Programme and those were discounted from the totals above to avoid double counting. Problems with marketing the programme in the Compton cluster resulted in small groups and in that case there was pressure to recruit which did lead to some (capable) NQTs in the Enrichment Programme.

**7.2 Pupil Sub-Groups** (these should be pupils who directly benefit from teachers trained)

Please provide your definition for number of benefitting pupils and when this data was collected below *(maximum 100 words)*

*Pupil beneficiaries are those pupils in the classes taught by the participants on the programme only.*

## Tables 6-8 – Pupil Sub-Groups benefitting from the programme

### Development Programme

| Delivery Centre | No. pupils | % LAC | % FSM | % FSM last 6 yrs | % EAL | % SEN |
|---|---|---|---|---|---|---|
| *Lampton* | | | | | | |
| *Charville* | 166 | 1 | 32 | 14 | 39 | 10 |
| *Compton* | 230 | 0 | 18 | 18 | 51 | 7 |
| *Waldegrave (est)* | 196 | 0 | 10 | 14 | 23 | 5 |
| *Southfield* | | | | | | |

| Delivery Centre | No. Male pupils | No. Female pupils | % Lower attaining | % Middle attaining | % Higher attaining |
|---|---|---|---|---|---|
| *Lampton* | | | | | |
| *Charville* | 80 | 86 | 3 | 53 | 16 |
| *Compton* | 130 | 100 | 28 | 40 | 32 |
| *Waldegrave* | | | | | |
| *Southfield* | | | | | |

| *Delivery Centre* | % Indian | % Paki-stani | % Bang-ladeshi | % Asian Other | % Caribb-ean | % African | % Black Other | % White & Black Caribbean |
|---|---|---|---|---|---|---|---|---|
| *Lampton* | | | | | | | | |
| *Charville* | 22 | 7 | 0 | 8 | 4 | 1 | 0.8 | 0 |
| *Compton* | 10 | 4 | 1 | 9 | 1 | 3 | 0 | 7 |
| *Waldegrave* | | | | | | | | |
| *Southfield* | | | | | | | | |

| Delivery Centre | % White & Black African | % White & Asian | % Mixed Other | % Chi-nese | % Other | % White British | % White Irish | % White Other |
|---|---|---|---|---|---|---|---|---|
| *Lampton* | | | | | | | | |
| *Charville* | 2 | 4 | 0 | 0 | 1 | 48 | 0 | 2 |
| *Compton* | 8 | 5 | 10 | 3 | 29 | 58 | 18 | 8 |
| *Waldegrave* | | | | | | | | |
| *Southfield* | | | | | | | | |

### Enrichment Programme

| Delivery Centre | No Pupils | % LAC | % FSM | %FSM last 6 years | % EAL | % SEN |
|---|---|---|---|---|---|---|
| **Charville** | 240 | 0 | 18 | 10 | 42 | 9 |
| **Waldegrave** | 266 | 0 | 8 | 5 | 21 | 12 |
| **Lampton** | 490 | 0 | 30 | 27 | 69 | 18 |
| **Compton** | 168 | 0 | 18 | 16 | 41 | 11 |
| **Project Total** | **1164** | **0** | **21** | **17** | **48** | **14** |

| Delivery Centre | Number of Male pupils | Number of Female pupils | % Lower attaining | % Middle attaining | % Higher attaining |
|---|---|---|---|---|---|
| **Charville** | 122 | 118 | 17 | 63 | 20 |
| **Waldegrave** | 132 | 134 | 21 | 36 | 43 |
| **Lampton** | 251 | 239 | 38 | 39 | 23 |
| **Compton** | 97 | 71 | 27 | 34 | 39 |
| **Project Total** | **602** | **562** | **28** | **43** | **29** |

| Delivery Centre | % Asian Indian | % Asian Pakistani | % Asian Bangladeshi | % Asian Any Other background | % Black Caribbean | % Black African | % Black Any Other Background | % Mixed White & Black Caribbean | % Mixed White & Black African | % Mixed White & Asian | % Mixed Any Other Background | % Chinese | % Any other ethnic group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Charville** | 19.9% | 11.9% | 0.8% | 3.9% | 3.9% | 2.1% | 0.8% | 4.3% | 1.7% | 2.9% | 1.8% | 1.3% | 4.1% |
| **Waldegrave** | 6.6% | 1.3% | 0.4% | 2.3% | 0.5% | 0.9% | 0.4% | 0.9% | 0.0% | 2.2% | 2.2% | 0.9% | 7.3% |
| **Lampton** | 24.7% | 12.1% | 1.5% | 7.7% | 1.5% | 16.7% | 6.1% | 1.9% | 0.0% | 1.5% | 2.9% | 0.5% | 4.8% |
| **Compton** | 1.9% | 0.0% | 0.0% | 2.5% | 1.2% | 9.3% | 1.9% | 1.2% | 1.2% | 2.5% | 4.3% | 1.2% | 1.2% |
| **Project total** | **11.1%** | **5.4%** | **0.6%** | **3.2%** | **1.3%** | **5.0%** | **1.7%** | **1.6%** | **0.5%** | **1.6%** | **1.9%** | **0.7%** | **3.7%** |

| | % White British | % White Irish | % White Any Other Background |
|---|---|---|---|
| **Charville** | 34.2% | 2.1% | 4.3% |
| **Waldegrave** | 67.9% | 1.3% | 4.9% |
| **Lampton** | 9.7% | 0.0% | 8.5% |
| **Compton** | 48.8% | 6.2% | 16.7% |
| **Project total** | **28.7%** | **1.2%** | **5.2%** |

**7.2.1** Please provide a written commentary on your pupil data e.g. a comparison between the targeted groups and school level data, borough average and London average *(maximum 500 words)*

The pupil groups whose teachers were trained, represent a cross-section of the primary school communities in the boroughs of Barnet, Hillingdon, Hounslow, Richmond and Wandsworth. Hounslow and Hillingdon have some of the highest levels of EAL children in London, and the levels of deprivation are significant. The inclusion of Richmond has slightly altered the overall makeup of the cohorts as it is a more affluent and white borough.
Useful links: London Data Store, DfE Schools Performance, DfE statistical releases

## 8. Project Impact

You should reflect on the project's performance and impact and use **qualitative and quantitative** data to illustrate this.

- Please complete the tables below before providing a narrative explanation of the impact of your project.
- Please state how you have measured your outcomes (e.g. surveys) and if you are using scales please include details.
- Please add graphical analysis (e.g. bar charts) to further demonstrate project impact on each teachers, pupils, wider system outcomes etc. If you use graphs, please ensure that all charts are explained and have clear labels for the axes (numeric data or percentages, for example) and legends for the data.

*Please add columns to the tables if necessary but do not remove any. N.B. If your project is collecting data at more than two points and may want to add additional data collection points.*

### 8.1 Teacher Outcomes

Date project started: November 2013 was the initial meeting for the delivery group who co-developed the programme.

**Table 9 – Teacher Outcomes: teachers benefitting from the project**

*The 1st Return will either be your baseline data collected before the start of your project, or may be historical trend data for the intervention group. Please specify what the data relates to.*

| Target Outcome | Research method/ data collection | Sample characteristics | Metric used | 1st Return and date of collection | 2nd Return and date of collection |
|---|---|---|---|---|---|
| Increased algebra subject knowledge | Multi-choice questionnaire at start and end of course | The whole population of enrichment course | Mean score – number of questions correct out of 10 | Mean score- 6.6 pre course | Mean score- 8.8, post course |
| Increased algebra subject confidence | Multi-choice questionnaire at start and end of course | The whole population of enrichment course | Mean score based on a 1-5 scale (1 – very confident, 2 – quite confident, 3 neither confident nor unconfident, 4 - quite unconfident, 5 – very unconfident) | Mean score- 2.2 pre course | Mean score- 3.5, post course |

| | | | | | |
|---|---|---|---|---|---|
| Self-Efficacy (development course) | On-line survey | The majority of the population of development course | Mean score over 16 questions based on a scale of 1-10 in increasing confidence | 6.6 (spring 2014) | 7.3 (summer 2014) |
| Self – Efficacy student engagement(enrichment course) | Survey at start and end of course | The whole population of enrichment course | Mean score over 8 questions based on a scale of 1-10 in increasing confidence | Mean score- 6.1 pre course | Mean score- 7.1 post course |
| Self – Efficacy instructional strategies (enrichment course) | Survey at start and end of course | The whole population of enrichment course | Mean score over 8 questions based on a scale of 1-10 in increasing confidence | Mean score- 6.5 pre course | Mean score- 7.3 post course |
| Teacher classroom performance | Line manager impact report | Sample of population of enrichment course | Line Managers Impact Report | | Reports post course- see collation of comments* |

**Table 10 – Comparison data outcomes for Teachers *[NA]***

### 8.2 Pupil Outcomes

Date pupil intervention started:

**Table 11 – Pupil Outcomes for pupils benefitting from the project**

*The 1st Return will either be your baseline data collected before the start of your project, or may be historical trend data for the intervention group. Please specify what the data relates to.*

| Target Outcome | Research method/ data collection | Sample characteristics | Metric used | 1st Return and date of collection | 2nd Return and date of collection |
|---|---|---|---|---|---|
| Increased educational attainment and progress in mathematics | Pupil assessment data | The whole population of enrichment course | Comparison to expected progress | Pre - course | Post - course |

Participants on the course confirmed that their pupils had made expected or above expected progress in maths, moving up at least one national curriculum sub-level or equivalent over the period of the course. The average progress across participants who measured progress using sub- levels was 1.2 sublevels.

**Table 12 - Pupil Outcomes for pupil comparison groups *[if available] N/A***

**8.2.1** Please provide information (for both the intervention group and comparison group where you have one) on:

- Sample size, sampling method, and whether the sample was representative or not Commentary on pupil impact (please also refer to table 6-8 re impact on different groups of pupils)
- Qualitative data to support quantitative evidence.
- Projects can also provide additional appendices where appropriate.

*(minimum 500 words)*

### 8.3 Wider System Outcomes

**Table 13 – Wider System Outcomes**

| Target Outcome | Research method/ data collection | Sample characteristics | Findings |
|---|---|---|---|
| Teachers/schools involved in intervention making greater use of networks, other schools and colleagues to improve subject knowledge and teaching practice | Delivery team reporting | Increased attendance at network meetings, conferences etc. | The issues of delivery team capacity explored elsewhere in this paper meant that the development of a Primary Maths network was not fully achieved.<br>Existing Maths networks were intended to be the vehicle for ongoing networking for the delegates on our programmes, however in many cases these are dominated by Secondary Maths issues (As per the London West Alliance Maths network). Primary Schools that choose to join them generally send a Head or Deputy Head teacher, not a classroom practitioner.<br>Delegates on our programmes did want to stay in touch with their peers after their training. At Lampton for example, an informal twilight session is offered to them to meet up and continue to share practice. This aspect needs to be further developed.<br><br>An unintended result of our programme however has meant we have created a new network of delivery centres, all specialist Maths leads and who are now engaged in collaborative CPD development and meet frequently. This has been a very positive mechanism for knowledge sharing and dissemination that will feed into the ongoing |

| | | | |
|---|---|---|---|
| | | | programme development so benefiting many more teachers. |

**8.3.1** Please provide information on *(minimum 500 words):*

- Sample size, sampling method, and whether the sample was representative or not
- Commentary on wider system impact qualitative data to support quantitative evidence.
- Projects can also provide additional appendices where appropriate.

**8.4 Impact Timelines**

Please provide information on impact timelines:

- At what point during/after teacher CPD activity did you expect to see impact on teachers? Did this happen as expected?
- At what point during/after teacher CPD activity did you expect to see impact on pupils? Did this happen as expected?
- At what point did you expect to see wider school outcomes? Did this happen as expected?
- Reflect on any continuing impact anticipated.

Impact was as expected with the outcomes improving as teachers progressed through the Programme. Facilitators saw and heard evidence of improved planning, teaching and positive impact on pupils. See report conclusion for the supporting qualitative data.

**9. Reflection on overall project impact** *(maximum 1,500 words)*

In this section we would like you to reflect on:

- The overall impact of your project
- The extent to which your theory of change proved accurate
- How your project has contributed to the overall aims of LSEF
- Whether your findings support the hypothesis of the LSEF
- What your findings say about the meta-evaluation theme (see additional guidance) that is most relevant to you

Please illustrate using the key points from the previous detailed analysis.

All the evidence should be brought together here (achievement of outputs and outcomes, and the assessment of project impact) to produce well informed findings, which can be used to inform policy development in a specific area as well as the meta-evaluation of the LSEF.

*The London Schools Excellence Fund (LSEF) is based on the hypothesis that investing in teaching, subject knowledge and subject-specific teaching methods and pedagogy will lead to improved outcomes for pupils in terms of attainment, subject participation and aspiration.*

*The aims of the Fund:*
*I. Cultivate teaching excellence through investment in teaching and teachers so that attention is re-focused on knowledge-led teaching and curriculum.*
*II. Support self-sustaining school-to-school and peer-led activity, plus the creation of new resources and support for teachers, to raise achievement in priority subjects in primary and secondary schools (English, mathematics, biology, chemistry, computer science, physics, history, geography, languages).*

*III. Support the development of activity which has already been tested and has some evaluation (either internal or external), where further support is needed to develop the activity, take it to scale and undertake additional evaluation.*
*IV. In the longer term, create cultural change and raise expectations in the London school system, so that London is acknowledged as a centre of teaching excellence and its state schools are among the best in the world.*

Our programme has delivered on the first three of the above aims:

1. Teaching Excellence - the focus of our Maths CPD programmes is to improve the efficacy of primary teachers in delivering Maths and improving outcomes for pupils. We do this in particular by targeting teachers who may not have a secure foundation of Mathematical knowledge themselves (in the Development Programme) by exposing any misconceptions or errors in their own subject knowledge (and their pupils) and building their confidence to develop creative and effective classroom strategies, tasks and resources for children. Our Enrichment Programme takes this further by further supporting teachers in extending and enriching the maths curriculum and skilling them up to support the development of their colleagues in school.
2. Supporting school to school and peer led activity – this happened at two levels:
    a. System leadership - the programme initially was conceived to share Lampton's maths programme with four other teaching school centres, but the high quality and commitment of all the delivery partners resulted in an even richer programme as everyone contributed to the materials and resources. This has resulted in a truly school led training programme based on outstanding practice in a range of schools.
    b. Peer to peer learning – as delegates were tasked with developing new teaching resources in pairs across different schools. This was further enhanced by peer visits to each other's schools so all delegates had a chance to see practice in another context.
3. This project took an early pilot maths improvement programme developed with help from the London Borough of Hounslow and enabled us to test it on a wider group of schools and teachers. The unintended consequence of working with other specialist Maths teachers in our partner schools is that the programme leads there have created a highly effective working group to refine and further improve the course materials, with the supportive leadership of the Lampton Maths Lead.
4. Our ambition is that our programme continues to evolve and reflect the ongoing changes to the Maths curriculum, and in future can become available through more teaching schools and alliances where there are Maths leads who wish to train on how to deliver the programme. We have created a business model to protect the content and methodology, and future partners will be able to purchase a licence to deliver it. That Licence will enable some central funding to support ongoing QA, resources update, and networking.

## 10. *Value for Money*

*A value for money assessment considers whether the project has brought about benefits at a reasonable cost. Section 5 brings together the information on cost of delivery which will be used in this section.*

**10.1 Apportionment of the costs across the activity**
Please provide an estimate of the percentage of project activity and budget that was allocated to each of the broad activity areas below. Please include the time and costs associated with planning and evaluating those activity areas in your estimates.

| Broad type of activity | Estimated % project activity | £ Estimated cost, including in kind |
|---|---|---|
| Producing/Disseminating Materials/Resources | 30% | 34,684 |
| Teacher CPD (face to face/online etc) | 60% | 66,610 |
| Events/Networks for Teachers | | 400 |
| Teacher 1:1 support | | |
| Events/Networks for Pupils | | |
| Other – Programme Support (Legal/Finance) | 10% | 30,630 |
| TOTAL | 100% | 132,324 |

The legal and financial costs were disproportionate to the time spent.

**10.2 Commentary of value for money**
Please provide some commentary reflecting on the project's overall cost based on the extent to which aims/objectives and targets were met. If possible, draw on insight into similar programmes to comment on whether the programme delivers better or worse value for money than alternatives.

Our aim for this project was to create an affordable high quality training programme fit for the current context of school led training in an era of reduced budgets.
Our project was developed by a lead SLE with collaboration from senior Maths teachers at partner schools. As a result programme costs were kept to minimum. The largest percentage of expenditure was devoted to programme design and delivery and face to face training for teachers. However the programme evaluation suffered as a result. The high Programme support costs only became evident as the Programme progressed. Had we known this at the start of the bidding process, and with hindsight, we should have bid for more funding for this aspect. As a consequence, any future bids from this Alliance will include greater proportion of admin and management costs.

**10.3 Value for money calculations**
Note: This section is only required for projects with control or comparison groups - NA

**11. Reflection on project delivery**

*This section is designed to allow for a discussion of wider issues relating to the project. (maximum 1,500 words)*

Please include reflection on the following:

**11.1 Key Enablers and Barriers to Achievement**
Our programme had a clear vision and simple purpose, which was to scale up two Primary Maths Skills CPD programmes so they could be more widely offered in London. We had had the benefit of piloting a small scale version of it using LB Hounslow funding in the two years prior to LSEF support.

Success factors for us were the emergence of an outstanding Secondary Maths Specialist Leader who had the passion, determination and vision to want to develop more Primary Maths support. At the same time Lampton School was developing as a Teaching School Alliance and Challenge Partners hub with a growing membership (from 10 schools in 2011 to 37 in 2015). Our membership is approx. 50% primary. The evidence both from the SLE's work with primary schools and from our Primary HTs asking for maths support was that high quality affordable CPD was absolutely needed.

The main barrier and ongoing challenge in the school system remains the lack of capacity to reach more teachers, which is why we wanted to be able to offer the programme through more centres. And the ongoing challenge for us as a delivery team remains capacity. To run this programme successfully, with integrity and quality, requires maths specialists to deliver it who are also currently classroom practitioners. The current context in secondary schools is that there is a shortage of good maths teachers. The support and commitment of the delivery partners to release their Maths specialists to work on this programme has been crucial and much appreciated. However, we did lose one partner in the very first few months for that reason, because they could not commit to releasing their maths lead. This is an ongoing challenge. We believe that practitioner led training is what make our CPD so effective, but many potential lead schools will struggle to release an outstanding maths teacher to lead on the programme.

**11.2 Management and Delivery Processes**
The most effective aspect of managing and delivering the programme has been the maths programme leads themselves, all either maths Heads of Department, or second in charge in Maths, or in one case a Primary Advance Skills Teacher who is also a Deputy Head teacher. They have contributed wholeheartedly to the course content, with support from their schools, and have collaborated with passion on the delivery process to their separate delegates. As a result of their collaboration and reflection on the pilot, the course design has been adjusted to balance the need for a sustained training programme with high quality learning, and the constraints of releasing teachers from class. For example both programmes initially consisted of 9 half-day sessions, to cover a wide range of maths knowledge across number, shape, space, data etc. However this made it harder for primary schools to commit to the programme, so the time commitment has now reduced to three days (or six half days). Another key challenge was managing the business side of the programme, and ensuring effective marketing and recruitment to the pilot programmes. None of the lead schools have highly developed marketing processes and as busy teachers they were not themselves always able to recruit primary teachers effectively. We believe this is a function of a Teaching School that is rapidly developing but still immature. Recruitment in the Lampton Alliance has been more effective because the lead practitioner has a wider network outside her school, and, as a result of her outreach work, an excellent reputation. Although as the lead school, Lampton was able to support there were still issues of under-recruitment. Specifically in our partner school in Wandsworth (Southfields) there was also a large scale LSEF primary maths project run by Brunel University and Local Authority that engaged every school. With hindsight, we should probably not have tried to pilot in Wandsworth. However,

the commitment and passion of the maths lead there will mean that the programme can continue to be offered there in future.

On balance we feel confident there is a need for this type of maths training, but creating a demand for it will require further evaluation of marketing strategies, and programme design, including length of time out of school. As the positive feedback from Heads grows, we will have plenty of material to demonstrate the value of the programme to schools that have already benefitted. The current lead group have committed to continue working together to learn more about how to ensure success in managing the programmes as well as assuring the content.

The data management has been challenging, and with the benefit of experience we can see the reasons for this. All the programme leads are busy senior or middle leaders who also teach Maths, so their capacity to collect, collate and generally manage data was limited. Their primary focus was to ensure high quality training and support to delegates, and design the best possible maths resources. The project lead at Lampton invested time in exploring a range of data collection options and ultimately developing simpler data collection tools. With hindsight, the programme leads would have benefited from skilled admin support to manage the data collection effectively, but that level of skill and capacity is not common in schools.

### 11.3 Future Sustainability and Forward Planning

Throughout this report it has been made clear the LSEF bid provided a springboard for developing a two level Primary Maths Skills Programme that can be offered at an affordable price by Teaching Schools or other centres of excellent practice. The business model has been developed, and a licence created, so that if new centres wish to be trained to deliver the programme they can 'buy' the materials and receive full support and QA back up. We are not quite there yet. Four factors will influence the next steps:

- Course content: the delivery leads are still collaborating and refining the content for the Enrichment Programme, and until that has run again throughout the Autumn and Spring Terms 2015/16 the final programme is not quite complete. However plans are in place to run the Development Programme at a market price in the Spring/Summer of 2016.
- 'Branding': this has been established and the programmes can be developed as a 'product' with a distinct identity.
- Marketing – admin systems for contacting the right schools and Heads are developing at Lampton and the other Teaching Schools in order to reduce demands on the maths delivery team themselves. And the word of mouth effect is helping as participants on the programme spread the word. In fact many of them continue to meet as an informal self-supporting maths network.
- Enhanced role of the Specialist Lead for Maths – as the programme gains a reputation, we are finding more and more primary schools requesting additional bespoke maths support which is helping to uncover the needs of teachers and so help build an even stronger core course. This iterative process will keep the programme fresh, relevant and up to date, at the same time as building the skills of the delivery leads.

## 12. Final Report Conclusion

Please provide key conclusions regarding your findings and any lessons learnt *(maximum 1,500 words)*.

Alongside overarching key conclusions, headings for this section should include:

### *Key findings for assessment of project impact*

- *What outcomes does the evaluation suggest were achieved?*

International educational research shows that pupils learn most with the best teachers who help them progress and where teachers have good subject knowledge, which is what our programme aimed to achieve. This is neatly summed up by the Sutton Trust, 'The research evidence shows that improving the effectiveness of teachers would have a major impact on the performance of the country's schools', The same report states in relation to Maths, "The difference between a very effective teacher and a poorly performing teacher is large. For example during one year with a very effective maths teacher, pupils gain 40% more in their learning than they would with a poorly performing maths teacher." [1]

The training we provide needs to help teachers achieve that standard, and there is growing evidence that we have helped teachers to achieve this. Several schools who were early adopters of the training have had OFSTED inspections and report significant improvements in quality of Maths.

1. Edward Pauling Primary School was judged Outstanding after decades stuck in 'Require Improvement'. Their Dec 2014 OFSTED report cites *"In mathematics, pupils are routinely asked to apply their skills to problem solving and in other areas of the curriculum. This helps them to realise that mathematics is a tool they will need outside school. Pupils are able to identify the areas where they might need to calculate quickly and accurately. Examples they suggested included: if you needed to check your change' and 'to understand timetables'. This ability to recognise why they are learning mathematical skills means that pupils are more engaged."*
2. Another school that made good use of the programmes, Springwell Junior School, improved from Satisfactory to an Ofsted Good in July 2015. Inspectors noted that *"Pupils achieve well and make good progress. By the time pupils leave Year 6, their standards are above average. Pupils' highest achievement is in reading and mathematics. The proportion of pupils reaching higher levels in English and mathematics have increased."*
3. Beavers Primary School was an early partner to benefit from the pilot training and in October 2014 had an OFSTED inspection, which, like Edward Pauling took it directly from 'Requires Improvement' to Outstanding. This report commended the teaching and learning of Maths, "*More-able pupils are taught exceptionally well in English and mathematics. Work is carefully prepared to provide appropriate challenge and results in outstanding achievement." "The very strong teaching of mathematics has resulted in outstanding achievement. Much support and training has been given to teachers and middle leaders to augment their skills. As with literacy, it is being developed across the curriculum. For example, in a Year 4 geography lesson on the Polar Regions, Venn diagrams and statistics were successfully used by pupils to illustrate the similarities and differences of the two regions."*

Teacher skills and confidence have been significantly impacted according to the workshop evaluations and the teacher confidence surveys. Comments below illustrate the impact behind the positive Development Programme evaluation scores:

- "increased confidence in teaching now'
- 'happier to try different approaches to teaching maths'

[1] Improving the impact of teachers on pupil achievement in the UK – interim findings Sutton Trust Sept 2011.

- 'increased use of practical methods – additional tools to bridge knowledge gaps with pupils'.
- 'bar modelling approach regularly used to support word problem solving'

The Enrichment Programme has both enhanced practice of participants and in some cases is leading to a wider school impact. For example the following comments illustrate:

- 'This programme has had a huge impact on my individual teaching as well as wider curriculum planning'.
- 'sharing ideas with other teachers'

The principles of challenge, problem solving and making concrete links between maths and 'the real world'. are embedded in both the Primary Maths Skills Development and Enrichment programmes. The three examples from Ofsted above are just three of the schools involved in the programme, but we are optimistic that our programmes are making a positive impact, and we feel confident of offering them more widely as a result, especially to schools that are facing serious concerns about the delivery of Maths.

- *What outcomes, if any, does the evaluation suggest were not achieved or partly achieved? What outcomes, if any, is there too little evidence to state whether they were achieved or not?*

Pupil outcomes were not effectively measured due to a data design and collection issues. We had intended to track progress of a class of pupils and monitor uplift in Maths progress and attainment. There is too little statistical evidence to be able to demonstrate the impact, although we know anecdotally from head teachers that teachers' lessons have been judged as improving or better as a result of this training and the schools are appearing to improve (see above sample OFSTED reports). However teachers did provide qualitative evidence of impact on children in their feedback:

- "Children have a very positive attitude towards the use of algebra'
- "Greater emphasis now on helping children's overall understanding of mathematical operations – not just HOW to do something, but WHY"

### *Key lessons learnt for assessment of project delivery*

**Capacity** - the development of these pilot maths programmes to scale across four delivery centres was a key achievement although it appears on our Theory of Change as an activity rather than an outcome. We have built capacity to deliver high quality practitioner led training for the benefit of primary teachers and their pupils in five London Boroughs (Barnet, Hillingdon, Hounslow, Richmond and Wandsworth).

**Credibility and expertise** - the collaboration and the building of knowledge and expertise within the delivery team surpassed expectations and were an unforeseen outcome of this project. The key characteristics of the delivery team were their expertise and credibility in Maths as practitioners and middle leaders in their subject. They were not skilled as trainers. Yet the feedback from delegates and the peer support has shown they were able to build that expertise in adult learning by focussing on the needs of the teachers and building a sound approach to mathematics so that primary children would benefit.

- ***What activities/approaches worked well?***

One school talking the lead and responsibility for driving the programme ensured there was consistency and that the vision and integrity of the programmes was retained whilst including new and innovative content from the delivery team. Building a team approach across our delivery centres was highly successful. This was achieved through regular meetings and updates and strong support from the Maths Specialist Leader who ran the project at Lampton.

- ***What activities/approaches worked less well?***

Marketing the programme - each delivery centre was responsible for marketing and administration of their own programmes and the take-up of places was inconsistent, leading to some small pilot groups and the programme reaching fewer teachers than planned. However, as has been noted already one delivery centre (Wandsworth) was competing with the Brunel primary maths project funded by LSEF across the same borough, which meant that schools were already committed. Another problem was that primary schools had to introduce a new curriculum and assessment system at precisely the time this programme went live, which meant many were just too stretched to take advantage of the pilot, and release teachers for training.

- ***What difficulties were encountered in delivery and how could they be mitigated in the future?***

The recruitment of participants could have been easier and more fruitful in all centres with more sensitive attention to timing and scheduling of courses and the lead time allowed for recruitment. However as has been noted above, sometimes things just happen in the educational landscape that 'get in the way'.

***Informing future delivery***

- ***What should the project have done more of?***

Data collection, collation and project admin. We had to make difficult decisions about how to use the scarce resource of time and expertise. The largest proportion of time needed to be utilised on programme design and that meant there was less capacity for data collection. With hindsight more resource could have been used on project support to manage the processing of project administration and this would have taken pressure of our Maths Specialist Lead.

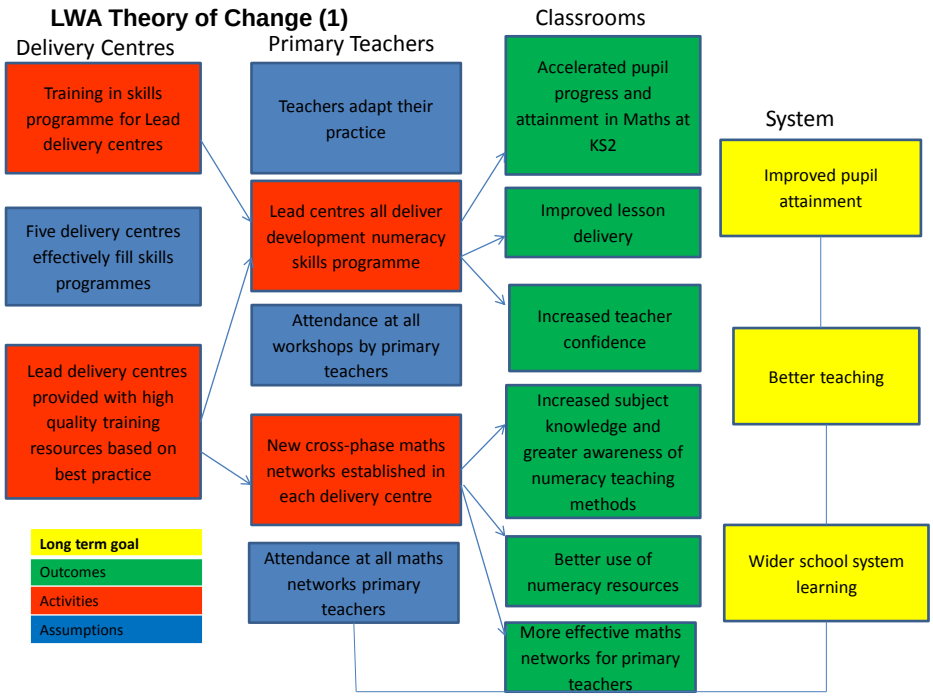
- ***What should the project have done less of?***

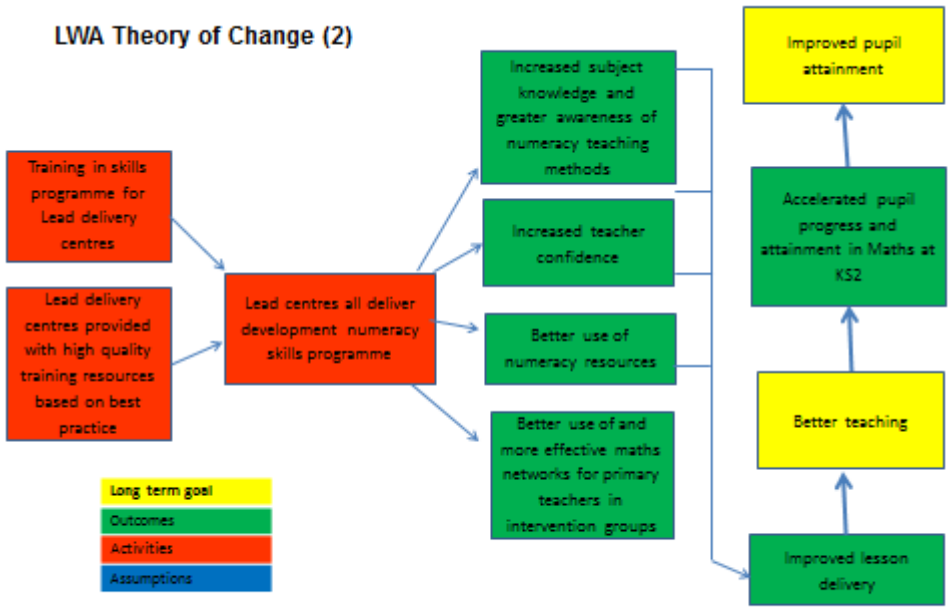
Linked to the above, the Maths Programme Lead did come under significant pressure to deal with date, project admin, reporting and budget.

- ***What recommendations would you have for other projects regarding scaling up and/ or replicating your project?***

School led, school based practitioner training is a vital way to move knowledge round the system and embed high quality practice across networks of schools. Teaching Schools and other centres of excellence should be encouraged and supported to develop courses around their areas of expertise. They should prioritise building and sharing knowledge capital. But don't under-estimate the amount of back office skill, expertise and support needed for skilled and effective admin, data collection, budget management and reporting.

**APPENDIX 1 THEORY OF CHANGE**


LWA Theory of Change (1)
Delivery Centres
Primary Teachers
Classrooms
System
Training in skills programme for Lead delivery centres
Five delivery centres effectively fill skills programmes
Lead delivery centres provided with high quality training resources based on best practice
Teachers adapt their practice
Lead centres all deliver development numeracy skills programme
Attendance at all workshops by primary teachers
New cross-phase maths networks established in each delivery centre
Attendance at all maths networks primary teachers
Accelerated pupil progress and attainment in Maths at KS2
Improved lesson delivery
Increased teacher confidence
Increased subject knowledge and greater awareness of numeracy teaching methods
Better use of numeracy resources
More effective maths networks for primary teachers
Improved pupil attainment
Better teaching
Wider school system learning
Long term goal
Outcomes
Activities
Assumptions


LWA Theory of Change (2)
Training in skills programme for Lead delivery centres
Lead delivery centres provided with high quality training resources based on best practice
Lead centres all deliver development numeracy skills programme
Increased subject knowledge and greater awareness of numeracy teaching methods
Increased teacher confidence
Better use of numeracy resources
Better use of and more effective maths networks for primary teachers in intervention groups
Improved pupil attainment
Accelerated pupil progress and attainment in Maths at KS2
Better teaching
Improved lesson delivery
Long term goal
Outcomes
Activities
Assumptions

# Updated Lampton Evaluation Framework

This document is your tailored Evaluation Framework.

It uses the same template Framework that can be found in Appendix 2 of the LSEF Evaluation Toolkit. However, this Framework contains tailored recommendations regarding which outcomes and indicators your programme should evaluate. Outcomes and indicators marked with a tick are recommended for your programme:

☑ Outcome, indicator or data collection method **recommended – a few items not relevant have been deleted**

☐ Outcome, indicator of data collection method **not required – deleted by Lampton**

Recommendations have been made in light of your programme aims and methodology in order to ensure that programmes are able to confidently demonstrate the extent of their impact.

**Updated 25_11_13**

For more information, or if you have any questions regarding your Evaluation Framework please contact: educationprogramme@london.gov.uk

| | Outcomes | Indicators | Baseline data collection[i] | Impact data collection[ii] |
|---|---|---|---|---|
| **Teacher outcomes**<br><br>**Sub Groups**<br>As part of establishing the baseline, the characteristics of the eligible cohort should be analysed across the following sub groups:<br>☑ NQTs<br>☑ 3 years +<br>☑ Primary/ secondary<br>☑ Other (project specific)<br><br>These should be expressed as a % of the whole group.<br><br>**Churn**<br>Throughout the programme thorough records of any "churn" of teachers leaving or joining the intervention group must be kept. In order to do this records must be kept of:<br>☑ Unique teacher identifier<br>☑ Engagement date<br>☑ Disengagement date and reason | ☑ Increased subject knowledge and greater awareness of subject specific teaching methods in Mathematics | ☑ Increased teacher scores in subject knowledge/ teaching method tests[iii]<br>Tests to be taken by all teachers involved in the intervention<br><br>We are developing a subject knowledge test which will be taken online. Content will be based on national GCSE tests and agreed by leads from our partner schools (all maths specialists) | ☑ Scores collected for individual teachers from pre intervention subject knowledge/ teaching method tests<br><br>Tests will be completed and scores collated prior to the first workshops in each centre – expected to be after Feb half-term 2014. | ☑ Scores collected for individual teachers from subject knowledge/ teaching method tests after Yr1 and Yr2 of intervention<br>The first cohort will re-sit a post course test with similar content to the pre-course test after their last workshop – late in the summer term. Results will be available by end of July or early Sept. The advanced programme will follow a similar process in spring and summer 2015. |
| | ☑ Increased teacher confidence | ☑ Increased teacher scores in confidence surveys<br><br>We have created a survey based on similar work already started in Barnet. But we will use it in tandem with the teacher sense of self efficacy survey in the first pilot to test which works best.<br><br>Survey to be completed by all teachers involved in the intervention. | ☑ Scores collected for individual teachers from pre intervention confidence surveys | ☑ Scores collected for individual teachers from post intervention confidence surveys after Yr1 and Yr2 of intervention<br><br>☑ Interviews/ focus group of sample of survey respondents to moderate survey findings<br><br>The Maths programme lead will identify a small sample group that took part in all five centres. As she won't have delivered any of the programmes there will be greater impartiality. |

| | Outcomes | Indicators | Baseline data collection[i] | Impact data collection[ii] |
|---|---|---|---|---|
| | ☑ Delivery of higher quality teaching including subject-focused and teaching methods | ☑ Improved teaching performance in observed lessons[iv] Observations to be conducted for all teachers. With a small sample of those to be independently moderated[iv]<br><br>Each teacher will have an allocated in-school mentor who will already have observed them (likely to be the same person who leads on PM) and they will agree a Maths focus within the OFSTED criteria. The Programme lead will co-observe a small sample of teachers to moderate. | ☑ Standards collected for individual teachers from pre intervention observations (i.e. percentages of teachers at each level) in Mathematics | ☑ Standards collected for individual teachers from observations after Yr1 and Yr2 of intervention |
| | ☑ Use of better subject-specific resources | ☑ Development of better subject specific resources | ☑ Audit/sample scrutiny of existing subject specific resources being used | ☑ Independent review of new subject specific resources and old audited resources[iv] by Maths Working Groups in each centre, which include senior leads who will review/critique the resources. |

| | Outcomes | Indicators | Baseline data collection[i] | Impact data collection[ii] |
|---|---|---|---|---|
| **Pupil outcomes**<br><br>**Sub Groups**<br>The characteristics of the eligible cohort should be analysed across the following sub groups:<br>☑ LAC continuously for 6 months+<br>☑ FSM<br>☑ FSM at any time during last 6 years*<br>☑ EAL<br>☑ Gender<br>☑ Ethnicity<br>☑ Statement of SEN or supported at School Action Plus<br>☑ Started respective Key Stage below expected level, at expected level, above expected level<br><br>All characteristics should be captured as part of establishing the baseline and data should be collected to enable all outcomes to be analysed across these sub groups.<br><br>**Churn**<br>Throughout the programme thorough records of any "churn" of pupils leaving or joining the intervention group must be kept. In order to do this records must be kept of:<br>☑ Unique pupil identifier<br>☑ Engagement date<br>☑ Disengagement date and reason<br><br>**Pupil outcomes continued…** | ☑ Increased educational attainment and progress in Maths at KS2 | ☑ Increased attainment (levels and sub levels at KS1-3 and grades at KS4-5). compared against a comparison group[v]<br><br>☑ Increased levels of progress (point scores and % achieving higher point scores than expected) compared against a comparison group[vi]<br><br>☑ Reduced gap between attainment of different sub-groups/disadvantaged groups of pupils (e.g. FSM, LAC, by gender etc.) compared against a comparison group[vi] | ☑ Intervention group: assessed level on entry to the programme and for 3 years previous<br>☑ Trend data[vi]: Actual attainment (levels/grades) for the 3previous year groups<br><br>☑ Intervention group: estimated point score without intervention (for Y1 and Y2 of programme)<br><br>☑ Intervention group: in house % points gaps between relative attainment of sub groups pre intervention and for 3 years previous<br><br>☑ Trend data: in house % points gaps between relative attainment of sub groups for the 3previous year groups | ☑ Intervention group: actual pupil attainment levels after Y1 and Y2 of intervention<br><br>Where attainment is based on teacher assessments (i.e. not at the end of a KS) a sample of pupil assessments should be independently moderated[iv]<br><br>☑ Intervention group: difference between actual attainment and expected attainment (without intervention)<br><br>☑ Intervention group: in house % points gaps between relative performance of sub groups after Year 1 and 2 of intervention |

| | Outcomes | Indicators | Baseline data collection[i] | Impact data collection[ii] |
|---|---|---|---|---|
| | | Our teachers will be monitoring progress and attainment of all the pupils in their classes as well as working in depth with a small target group, so we will see trends emerge in each school. However they will want to focus in on different sub-groups (eg able boys, under-achieving girls etc) so it would be difficult to predict trends across the whole programme. | | |

| | Outcomes | Indicators | Baseline data collection[i] | Impact data collection[ii] |
|---|---|---|---|---|
| **School system outcomes** | ☑ Teachers/ schools **involved in intervention** making greater use of networks, other schools and colleagues to improve subject knowledge and teaching practice | ☑ Increased attendance at network meetings, conferences etc. | ☑ Numbers and profile of teachers attending numbers of network meetings, conferences, taking advanced courses etc. over 12 months previous to the intervention | ☑ Numbers and profile of teachers attending numbers of network meetings, conferences etc. over Y1 and Y2 of the intervention |

[i] **Baseline data** should be captured just before engagement with the programme intervention. Programmes may therefore simply require one round of baseline data collection at the beginning of the programme. However, where the programme implements a staggered engagement of groups, a baseline will need to be conducted for each group just before they engage with the intervention.
[ii] **Impact data** should be analysed after Y1 and Y2 of the intervention as a minimum.
[iii] **Independent reviewers/ moderators** of resources, teacher tests and observations and pupil attainment should be agreed with the GLA.
[iv] **Observations** could be conducted using a peer-to-peer approach or by external evaluators (may be 'subject leads'). If a peer-to-peer approach was taken it would be preferred if an external evaluator moderated a sample and that peer observations were conducted between different schools (i.e. teachers from one school observe a different school) rather than by colleagues from the same school.
[v] **Comparison groups** could be a randomised control group (preferred if possible), such as a cluster randomisation, or a matched comparison group. It should be the same size as the intervention group and should measure all outcomes in the same way. Please see the Glossary for additional explanation of comparison groups.

[vi] **Trend data** is designed to show results of the intervention groups in the context of year on year fluctuation in attainment of different year groups. Trend data should be collected for the 3 previous year groups for the 3 years previous to the age of the intervention group as well as the 2 years when the cohort was the same age as the intervention group. I.e. of the programme is looking at year 6 and 7 starting with year 6s in year 1 then trend data should be collected for the current year 7, 8 and 9 for the years when they were in year 3, 4, 5, 6 and 7. This can then be compared to intervention and comparison group data which will also be collected for 3 years previous to the intervention (years 3-5) as well as the intervention (years 6-7).