London Schools Excellence Fund

Ascend

Final report

Contact Details
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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: English for Integration - 9 June 2015 / Round 1 and Round 2 - 30 September 2015 *(delete as appropriate)*
Report Submission: Final Report to the GLA / Rocket Science *(delete as appropriate)*

Project Name: Ascend
Lead Delivery Organisation: EYELA Early Years Excellence Learning Alliance
London Schools Excellence Fund Reference: 1044
Author of the Self-Evaluation: Leonie Osborne Pickhurst Infant Academy and David Godfrey IOE
Total LSEF grant funding for project: £393,700.00
Total Lifetime cost of the project (inc. match funding): £448,119.99
Actual Project Start Date: November 2013
Actual Project End Date: December 2015

1. Executive Summary

This report sets out the professional learning gained by teachers engaged in 2-research-lesson cycles of Lesson Study (LS) and the subsequent benefits passed on to sub-sets of their students. Teachers focused on disadvantages pupils in areas of either numeracy or literacy and these were at secondary and primary schools. The report shows impact at each of five (Guskey) levels: participants' reactions to lesson study; the quality of their learning; organisational structures and processes that support lesson study; the development of pedagogical skills and the impact on pupils as a result. A wide range of evaluation tools at different stages of the project, were used to confirm this.

In year one: participants' initial reactions to the use of lesson study as an effective vehicle for professional learning and development were generally very positive. Teachers enjoyed collaborating and supporting each other. Where time was set aside for planning and discussion, teachers reported the most satisfactory experience and greatest improvements in pedagogy. Nearly half of the target students achieved progress greater than would have been expected without intervention. In year two, the project was expanded to include an additional 18 schools. Refinements in year two to align the aims of the project, LS and evaluation tools lead to subsequent improvements in teachers understanding of the focus of the project and the LS cycles.

Overall, the evaluation of the project suggests that lesson study cycles were well received, provided high quality collaborative professional learning experiences to teachers and the process received strong support from senior leaders. Highly significant shifts were shown in teachers' pedagogical skills and confidence. Teachers' report enhanced understanding of their pupils' learning and this had a significant impact on the progress of target pupils. Target pupils made significant gains in their learning as measured quantitatively by their progress in their subject and in qualitative evidence of changes to their understanding, use of subject skills and wider learning behaviours.

Most of the participant schools will be continuing LS beyond the life of the project and some of these are looking at ways of enhancing and expanding LS cycles within and beyond their schools.

(maximum 500 words)

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?*

Ascend set out to address the tail of underachievement and to close the gap between vulnerable groups especially pupil premium and non-pupil premium pupils. In order to do this, Ascend focussed on improving the quality of teachers' subject knowledge and pedagogy in teaching disadvantaged groups of pupils through Lesson Study, a specified and tested form of classroom action research focused on the development of teacher practice knowledge.

Ascend was focused on improvement to teacher subject knowledge and subject specific pedagogy so that pupil attainment in the key subjects of Maths and English was raised. Ascend Conference and Network Meetings provided training for teachers, facilitators and leaders on the Best Practice Model of Lesson Study and Impact Evaluation with learning facilitated through face to face and online sharing of best practice, resources and online learning communities.

The project was delivered across three London Boroughs, Bromley, Croydon and Lewisham, to include cross phase EYFS, KS1, 2 & 3 Primary and Secondary schools in a range of contexts.

The pupil focus was those who are Pupil Premium ever 6 and other underachieving pupils.

The project was delivered by Leonie Osborne, Headteacher at Pickhurst Infant Academy and Director of EYELA Teaching School Alliance in partnership with Paul Foster, Deputy Head at Hayes School and Director of Impact Teaching School Alliance.

2.1 Does your project support transition to the new national curriculum? Yes/No

If **Yes**, what does it address?

The project is focussed on Maths and English from EYFS to KS1, 2 and 3. The new National Curriculum was introduced in the second year of the project 2014-15 to year 1 and therefore teachers of Y1 pupils benefitted from outcomes of lesson study research lessons that supported teaching of changes to the National Curriculum.

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.

Project Resources can be found on www.ascendlearning.org.uk and are being uploaded to LondonEd website.

3. Theory of Change and Evaluation Methodology

Please attach a copy of your validated Theory of Change and Evaluation Framework.

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 subject specific teaching methods. Subject focus Maths or English lesson study improving teaching subject knowledge to meet demands of new National Curriculum lesson study focused on teaching strategies that enable PP children to make accelerated progress.	No change	
Teacher Outcome 2	Increased teacher confidence.	No change	
Teacher Outcome 3	Delivery of higher quality teaching including subject-focused and teaching methods. Use of better subject-specific resources.	No change	
Pupil outcome 1	Increased educational attainment and progress. Reading, Writing & Maths at end of academic year includes EYFS, KS1, KS2 and KS3.	No change	
Pupil outcome 2	Increased take up of specific subjects.	Not included	The duration of the project was too short to be able to measure this.
Pupil outcome 3	Improved transition between primary and secondary. Accelerated reading age	Not included	This outcome had too many variables to be able to measure

	scores. Heightened long term ambition.		effectively. Not included.
Wider system outcome 1	Teachers/schools involved in intervention making greater use of networks, other schools and colleagues to improve subject knowledge and teaching practice.	This target was revised to '<u>making greater use of the Ascend Learning Network</u>' rather than networks in general.	The impact of the use of networks in general is too broad to measure.
Wider system outcome 2	Programme activities/model is embedded in department/schools/ council planning beyond the intervention group.	This target does not include council planning.	Not able to measure this.
Wider system outcome 3	Use of better resources by teachers/schools outside the intervention group. Teacher/schools outside the intervention group have the opportunity to increase their subject knowledge through the programme.	No change.	
Enter additional Outcome Name add extra lines as necessary			

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

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

- Teacher subject knowledge evaluation is now incorporated into the Ascend teacher self-evaluation and Lesson Study Research lessons and not through subject audits that did not provide reliable data and were not available for all subjects.
- Measures of progress of identified groups had been refined to account for national changes in assessment.
- Heightened long term ambition can't be measured within the lifetime of the Project.

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?

The use of possible control groups were considered, such as matching students on variables from equivalent groups, however the potential for cross-transfer of learning within the school and the difficulty of controlling for teacher factors would have made these unreliable.

Teachers were selected by senior leaders to take part in LS cycles. Assigning schools to control conditions was not viable for this project. It was felt that a more realistic indicator from a relatively small (albeit locally important) sample of pupils would be a measure of whether the impact on their progress had exceeded an estimate of achievement without intervention.

In year two an aspirational target for each focus student was set from early in the project to enable a relative measure of the degree of impact. This gave a measure of whether the progress of these pupils (who were generally selected as underachieving/FSM pupils) was accelerated, rather than just being brought up to the average. The gathering of additional qualitative evidence of the impact of particular approaches on target students from focus teacher surveys also increased the validity of data for year two and the level of analysis of impact statements set by each teacher for their focus students.

Other evaluation tools were developed and improved over the first year, including a focus teacher lesson study survey (micro impact), professional learning survey (macro impact) and a benchmark and final self-evaluation of teacher pedagogical confidence on nine evidence-based items[1]. In year one this was piloted, however, teachers were only able to assess their 'distance travelled' on nine evidence based aspects of pedagogy, i.e. they were tested at the end, and asked to select two areas they felt they had improved most upon. Participants also set detailed behavioural learning objectives for their focus pupils at the beginning of the year. At the end of the year they were able to assess the extent to which these aims had been met.

4. Evaluation Methodological Limitations

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

The refinement of evaluation tools used in the first year helped to mitigate a number of methodological limitations. Independent assessments of subject content knowledge were considered in year one, but were either impractical due to time limitations or lacking in validity. For example, having an independent observation of teacher's use of subject knowledge in lessons observed or using National Centre for Excellence in Teaching of Mathematics (NCETM) subject content assessments. The latter were trialled in year one but these were not useful as a baseline as they covered too broad a scope of mathematics content knowledge to show up differences and the scale was insufficiently calibrated to allow differentiation. Teacher self-evaluations were therefore developed that covered teacher confidence, pedagogical content knowledge and an audit of teacher development needs. These were completed at the end of the cycle and teachers identified two areas that they felt they had made the most progress in. For year two, baseline and final measures of teacher confidence and pedagogical content knowledge were taken, so these are more reliable measures of changes over time.

Lesson study (LS) evaluations were completed by a small sample of teachers who were the focus of the LS cycle each time in order to capture 'micro-impact' (i.e. Impact observed through the LS study cycle). These were able to capture teacher

[1] Based on Husbands, C and Pearce, J (2012) "*What makes effective pedagogy? Nine claims from research"*. National College for Teaching and School Leadership

and pupil learning, aided by detailed qualitative feedback gathered from post LS discussion sessions. These were refined to capture quantitative levels of impact of interventions during the LS cycle (of two lessons) for the focus pupils as well as qualitative data.

The quality of post-LS discussion and teacher learning was assessed in two quality reviews undertaken by independent IOE assessors, in the second year. These were developed in the first year of a parallel LSEF project and helped provide a baseline of a quality LS process that was facilitated by an external expert. The reviews helped to provide information about the quality level of facilitation and learning from the LS cycles; especially important when these took place internally to the school, in a number of different settings (both primary and secondary).

In order to maximise qualitative depth alongside quantitative measures of pupil impact, the progress of a small focus group (3-6) students were measured in each teacher's class. In this context, a plausible control group could not be identified. However, an assessment of final impact attainment compared to predicted attainment 'without intervention' level was recorded by each teacher. This pupil data capture was further refined for year two of the project to take into account a new cohort of students and the abandonment of national curriculum levels. This enabled each teacher to use their own measurement scale, which was standardised for comparison, to whether the impact was greater than a projected estimate of achievement without intervention and, in addition for year 2, whether it was at or above an aspirational target figure. This allowed for better understanding of the level of quantitative impact of the LS intervention on target pupils.

Given this highly targeted approach to impact assessment, no assessment has been made of impact on the overall groups of pupils taught by these teachers. This was partly due to the limitations of assessing qualitative impact on such a large group of pupils and partly due to the control group limitations, already mentioned.

One consideration for the future would be to use a control group to compare changes to pedagogical content on the pre and post teacher self-evaluation survey. However, to supply a reliable comparison, this would need to be carefully matched to a number of teacher and school variables and standardised in its administration.

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

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

Going forward schools engaged in the Ascend Project will complete and submit Evaluations of Impact annually. This process will be embedded in the new Ascend Sustainability Model and will enable the Ascend School and Project Leads to demonstrate measurable impact within their school and project accountability framework.

5. Project Costs and Funding

5.1 Please fill in Table 2 and Table 3 below:

Table 2 - Project Income

	Original[2] Budget	Additional Funding	Revised Budget [Original + any Additional Funding]	Actual Spend	Variance [Revised budget – Actual]
Total LSEF Funding	393700.00	0	393700.00	393700.00	0
Other Public Funding	0	0	0	0	0
Other Private Funding	0	0	0	0	0
In-kind support (e.g. by schools)	54150.00	0	54150.00	54150.00	0
Total Project Funding	447850.00	0	447850.00	447850.00	0

List details in-kind support below and estimate value.

Table 3 - Project Expenditure

	Original Budget	Additional Funding	Revised Budget [Original + any Additional Funding]	Actual Spend	Variance Revised budget – Actual]
1. Direct Staff Costs (salaries/on costs)	3000.00	0	3000.00	5000.00	+2000.00
2. Direct delivery costs e.g. consultants/HE (specify)	7000.00	0	7000.00	17000.00	+ 10000.00
3. Management and Administration Costs	7320.00	0	7320.00	0	- 7320.00
4. Training Costs	0	0	0	10000	+10000.00
5. Participant Costs (e.g. Expenses for travelling to venues, etc.)	0	0	0	0	0
6. Publicity and Marketing Costs	800.00	0	800.00	6950	+6150.00
7. Teacher Supply / Cover Costs	48975.00	0	48975.00	21000.00	-27975.00
8. Other Participant Costs	8905.00	0	8905.00	8750.00	-155.00
9. Evaluation Costs	45000.00	0	45000.00	45000.00	0
10. Others as Required – Please detail in full IRIS Live View & 3 Year Site Licence	272700.00	0	272700.00	280000.00	+ 7300.00
Total Costs	393700.00	0	393700.00	393700.00	0

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

[2] Please refer to the budget in your grant agreement

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

(Maximum 300 words)

1. Includes the organisation and administration of events, the co-ordination and management of data, project data and production of course materials, and management and administration of project finances, planning and management.
2. Direct delivery costs include the planning, facilitation and delivery of training at the Ascend Conference and Learning Networks, design and development of evaluation systems, school systems for leaders to use to embed Lesson Study, maturity model the development of face to face and online training modules that support growth delivery and sustainability and headteacher briefings and the LSEF Lesson Study Conference.
3. Administration costs are included in the Direct delivery costs (line 2). Mobile whiteboards not purchased.
4. Training costs include training for future sustainability.
5. No charges were made to the project for expenses.
6. In order to build a website fit for purpose, we needed to employ a professional and this increased costs.
7. The cover costs for the project teachers cycle have been met in full rather than in part by the project schools. The Sustainability Plan involves training 10 and designating Lesson Study Specialist Leaders of Education and then engaging them in supporting project schools and new schools. We have allocated cover costs to these Project Schools that will enable them to release teachers to train as SLEs and develop training modules.
8. Includes delegate conference fees and other meeting fees and refreshments.
9. The IOE has completed the project evaluation within the budget. This includes training and development.
10. We changed the provider of video from Iris to Star Lesson because Star Lesson provided better value for money and long term sustainability for Project schools. The Iris licence limited the number of teachers who could use the video portals whereas Star Lesson included unlimited users per school.

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	44	28	28	-16
No. of teachers	54	84	84	+30
No. of pupils	2880	236	236	-2644
Enter additional output name *add extra lines as necessary*				

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)

Year two teacher data:

Table 5 – Teachers benefitting from the programme

	No. teachers	**% NQTs** ***(in their 1st year of teaching when they became involved)***	**% Teaching 3+ yrs** ***(in their 2nd and 3rd years of teaching when they became involved)***	**% Primary (KS1 & 2)**	**% Secondary (KS3 - 5)**
Project Total	*99 total, (which excludes head, lead teachers or withdrawn)*	5	33	22	20
Percentage	*100% (Data for 43 collected)*	12%	77%	51%	47%
Alexandra Infant School	3				
Archbishop Lanfranc Academy	5				
Athelney Primary School	3				
Bonus Pastor Catholic College	5				
Bullers Wood School	3				
Clare House Primary	4				
Chislehurst School for Girls	4				
Elfrida Primary School	3				
Farnborough Primary	4				

Fairlawn Primary	4				
Forestdale Primary School	3				
Green Street Green Primary	3				
Glebe School	5				
Gilbert Scott Primary School	3				
Haseltine Primary	4				
Highfield Infant School	3				
Highfield Junior School	4				
Hayes Primary School	3				
Hayes School	3				
Park Hill Infants School	4				
Pickhurst Infant Academy	3				
Parish C of E Primary	4				
The Quest Academy	3				
St George's Bickley	3				
Sydenham School	3				
The Priory School	3				
Valley Primary School	5				
Wolsey Infant & Nursery School	2				

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)*

Information not available.

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

Pupils were small sub sets (usually 3-6 per class) identified for particular focus during the first year. These were also the focus of intensive observation during the LS cycles

Year one pupil data:

Data below refers to results collected from 15 teachers at 7 schools and 56 pupils (secondary and primary phases).

Table 1: Year groups of students in data collected

Year Group	Valid Percentages
1	8%
2	33%
3	19%
4	6%
5	0%
6	0%
7	0%
8	8%
9	13%
10	13%
Total=	100%

Table 2: Ethnicity of students in data collected

Ethnicity	Valid Percentage
White British	70%
White Other	7%
Mixed White/Asian	0%
Bangladeshi	0%
Indian	0%
Asian Other	0%
Mixed Other	5%
Black Caribbean	2%
Mixed White/Black Caribbean	0%
Caribbean	0%
Black African	7%
Black Other	9%
Any Other Group	0%
Total =	100%

Table 3: Other data about students:

Category	Valid Percentage
LAC	25%
FSM	65%
FSM last six yrs	50%
EAL	33%
%Male	69%
SEN Statement or School Action Plus	27%

Table 4: Starting points of students:

Level pupils started current Key Stage	Valid Percentage
Lower	46%
Middle	50%
Higher	4%

Year two pupil data:

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

	No. pupils	% LAC	% FSM	% FSM last 6 yrs	% EAL	% SEN
Project Total	*236*	*8*	*124*	*109*	*32*	*88*
Percentage	***100%***	***3%***	***53%***	***46%***	***14%***	***37%***

	No. Male pupils	No. Female pupils	% Lower attaining	% Middle attaining	% Higher attaining
Project Total	*90*	*143*	*142*	*30*	*15*
Percentage	***39%***	***61%***	***76%***	***16.%***	***8.%***

	% 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
Project Total	*1*	*1*	*0*	*2*	*13*	*8*	*6*	*1*	*3*	*0*	*10*	*0*	*9*
Percentage	***1%***	***1%***	***0%***	***1%***	***7%***	***4%***	***3%***	***1%***	***2%***	***0%***	***5%***	***0%***	***5%***

	% White British	% White Irish	% White Traveller of Irish heritage	% White Gypsy/Roma	% White Any Other Background	refused	Total
Project Total	*118*	*0*	*0*	*0*	*14*	*2*	*188*
Percentage	***63%***	***0%***	***0%***	***0%***	***7%***	***1%***	***100%***

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)

Data needed to make these comparisons is not currently available or in a form that can be used to make comparisons requested.

Useful links: London Data Store, DfE Schools Performance, DfE statistical releases

8. Project Impact

8.1 Teacher Outcomes

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
Impact on practice as measured in impact frames	*Written analysis and self-evaluation using 'impact frame' tool*	30 impact frames were sampled to assess impact in year two. All participants used impact frames for own purposes in both years too.	*Teachers record baseline and impact descriptions of teaching practice*	*Sept 2013/14*	*June 2014/15*
Increase in teacher pedagogical self-efficacy	*Teacher self-evaluation surveys*	*49 teachers completed both benchmark and final test evaluations*	*Nine areas of pedagogy, 1-7 for each area (1-lowest- highest)*	*Sept 2014 NB piloted In June 2014*	*June 2015*
Positive reactions to lesson study process and high quality professional learning experiences	*Overall lesson study survey*	*11 teachers in year one and 55 in year two*	*3 open ended questions on teacher learning and 8 Likert Scale responses (4 point scale Strongly Agree-Strongly Disagree) on reactions to LS process*		*June 2013/14*
Discussion of teacher learning from LS	*Mixed school group discussions on learning from LS*	*8 Tables of approximately 6 teachers*	*Structured presentations with examples and discussions on what had been impact of LS*		*June 2014*
Continuation of LS at school beyond the project period	*End of year discussions on the way forward*	*Returns from 16 schools attending conference*	*Teachers in their own school groups discussed how they anticipated LS continuing in their schools*		*June 2014*

8.2 Pupil Outcomes

Date pupil intervention started: Sept 2013 and Sept 2014 (years one and two)

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
Positive impact on pupil learning behaviours	*Impact framework*	*30 impact frames were sampled to assess impact in year two. All participants used impact frames for own purposes in both years too.*	*Teachers record baseline and impact descriptions of pupil learning behaviours*	*Sept 2013/14*	*June 2014/15*
Evidence of specific improvements to pupil learning due to LS intervention	*Focus teacher survey*	*26 completed focus teacher surveys.*	*Teachers record changes to pupil learning throughout the LS cycle. Qualitative and quantitative four point scale*	*Sept 2013/14*	*June 2014/15*
Focus pupils achieve accelerated learning	*Pupil data*	Data from 53 pupils in year one and 98 pupils in year two	*Aspirational target set for their 3-6 focus pupils, above the estimate of achievement without intervention.*	*Sept 2013/14*	*June 2014/15*

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)

The use of possible control groups were considered, such as matching students on variables from equivalent groups, however the potential for cross-transfer of learning within the school and the difficulty of controlling for teacher factors would have made these unreliable.

Teachers were selected by senior leaders to take part in LS cycles. Assigning schools to control conditions was not viable for this project. It was felt that a more realistic indicator from a relatively small (albeit locally important) sample of pupils

would be a measure of whether the impact on their progress had exceeded an estimate of achievement without intervention.

In year two an aspirational target for each focus student was set from early in the project to enable a relative measure of the degree of impact. This gave a measure of whether the progress of these pupils (who were generally selected as underachieving/FSM pupils) was accelerated, rather than just being brought up to the average. The gathering of additional qualitative evidence of the impact of particular approaches on target students from focus teacher surveys also increased the validity of data for year two and the level of analysis of impact statements set by each teacher for their focus students.

Other evaluation tools were developed and improved over the first year, including a focus teacher lesson study survey (micro impact), professional learning survey (macro impact) and a benchmark and final self-evaluation of teacher pedagogical confidence on nine evidence-based items[3]. In year one this was piloted, however, teachers were only able to assess their 'distance travelled' on nine evidence based aspects of pedagogy, i.e. they were tested at the end, and asked to select two areas they felt they had improved most upon. Participants also set detailed behavioural learning objectives for their focus pupils at the beginning of the year. At the end of the year they were able to assess the extent to which these aims had been met.

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The quality of post-LS discussion and teacher learning was assessed in two quality reviews undertaken by independent IOE assessors, in the second year. These were developed in the first year of a parallel LSEF project and helped provide a baseline of a quality LS process that was facilitated by an external expert. The reviewshelped to

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provide information about the quality level of facilitation and learning from the LS cycles; especially important when these took place internally to the school, in a number of different settings (both primary and secondary).

In order to maximise qualitative depth alongside quantitative measures of pupil impact, the progress of a small focus group (3-6) students were measured in each teacher's class. In this context, a plausible control group could not be identified. However, an assessment of final impact attainment compared to predicted attainment 'without intervention' level was recorded by each teacher. This pupil data capture was further refined for year two of the project to take into account a new cohort of students and the abandonment of national curriculum levels. This enabled each teacher to use their own measurement scale, which was standardised for comparison, to whether the impact was greater than a projected estimate of achievement without intervention and, in addition for year 2, whether it was at or above an aspirational target figure. This allowed for better understanding of the level of quantitative impact of the LS intervention on target pupils.

Given this highly targeted approach to impact assessment, no assessment has been made of impact on the overall groups of pupils taught by these teachers. This was partly due to the limitations of assessing qualitative impact on such a large group of pupils and partly due to the control group limitations, already mentioned.

One consideration for the future would be to use a control group to compare changes to pedagogical content on the pre and post teacher self-evaluation survey. However, to supply a reliable comparison, this would need to be carefully matched to a number of teacher and school variables and standardised in its administration.

8.3 Wider System Outcomes

Table 13 – Wider System Outcomes

Target Outcome	Research method/ data collection	Sample characteristics	*Metric*	1st Return and date of collection	2nd Return and date of collection	3rd Return and date of collection
1. Teachers making greater use of Ascend Learning Networks	Paper & electronic survey	All participating teachers & leaders	Average events attended by each teacher & leader per year before the project – 0 Over the course of the project - 9	July 2013. Average number of events attended in academic year 2012-13 – 0 (no events scheduled)	Average number of events attended in the academic year 2013-2014: 3	Average number of events attended in the academic year 2014-2015: 6
2. Programme activities/model is embedded in departments/ schools	As above	All participating schools	Data returns completed	0	Model embedded in 10 schools	Model embedded in 26 schools
3. Use of better resources by teachers	Use of Lesson Gems	All participation schools. Participation in ALNs	Lesson gems uploaded. Attendance at ALNs.	0	Better resources used in 10 schools	Better resources used in 26 schools

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.

The sample characteristics for attendance at Ascend Conference and Ascend Learning Networks includes the total of eligible participants. The sample size of events includes all events organised by the Ascend Project – Ascend Conference and Ascend Learning Network meetings. The samples therefore are fully representative.

Qualitative data is taken from the Wider System Impact of Ascend from the IOE evaluations.

The Ascend project has provided compelling evidence of positive impact on pupils' attainment in numeracy and literacy. All teachers responded very well to the lesson study process. Teachers enjoyed the collaborative aspects of lesson study and the support and challenge they received from colleagues. Lesson study sessions led to insightful observations of pupils' learning that sometimes challenged teachers' own pre-conceptions about particular pupils they taught. Teachers found the collaborative learning to be highly beneficial to their confidence and the development of their pedagogical skills. The importance of developing literacy skills across all aspects of the curriculum and including in mathematics classes was observed by many teachers, so impacting on the wider school and beyond.

Senior leaders showed widespread commitment to continue with the use of LS so building in sustainability. Highly significant shifts were shown in teachers' pedagogical skills. Teacher self-evaluations on nine aspects of pedagogy showed significant shifts in all of them; all showing large effect sizes. In relation to their target pupils, teachers reported a range of improvements, in particular how to embed assessment for learning, scaffold tasks more effectively and to include these pupils more frequently in the learning goals of each lesson. Assessments of pupil learning during LS cycles were compelling; 92% percent of observations about focus pupils showed improvements in their learning in lessons. This learning is being shared across and between schools through Networks and the online community.

Video lessons as part of the Lesson Study cycle in order to facilitate further analysis. Teachers videoed own practice in order to evaluate their progress and self improve as well as sharing with others. Line Managers and others to observe teachers and learners remotely, live time or post lesson in order to support teacher's improvement increasing the reach of the Project. In ear coaching during lessons enables further teacher training.

Video clips were generally useful as a way of sharing clips of specific lessons A number of video clips were uploaded onto Lesson Gems to be shared by teachers across the schools, during and beyond the project duration. Overall, the clips were found to be very useful for sharing of practice and many of these had been tagged around themes of interest across the schools, e.g. for examples of 'resilience' by pupils and how to encourage this. There was a very good introduction to Lesson Study clip for participants to access.

Comments from teachers in Ascend Learning Networks that reflect Wider Impact include:

- Lesson study has grown into the culture of the school
- It has been useful to share strategies across departments and to take ideas on board
- I really enjoy working with other people to develop maths resources
- It has been really enjoyable and beneficial to work with teachers across year groups. A great opportunity to work with teachers that I would not normally spend time with.
- Teachers commented that by focusing on three pupils it benefitted all pupils' as they were able to use the strategies to support all pupils.
- The majority of teachers were keen for the project to continue beyond 2015.
- As the lead school we have taken lesson study a stage further this year. We have rolled this out across the school.
- We have used the camera beyond the project to raise the quality of teaching
- Staff are very keen to share learning and good practice with colleagues

8.4 Impact Timelines

Please provide information on impact timelines:

1. At what point during/after teacher CPD activity did you expect to see impact on teachers? Did this happen as expected?
   We expected to see impact on teachers directly after the lesson study research lesson cycle. It was as expected and reflected in the IOE Impact Framework Evaluation.
2. At what point during/after teacher CPD activity did you expect to see impact on pupils? Did this happen as expected?
   We expected to see impact on focus pupils building up over the lifetime of the Project and beyond from the end of the lesson study research lesson to the end of year assessment. The Ascend Project has provided compelling evidence of positive impact on pupils' attainment in Literacy and Numeracy.
3. At what point did you expect to see wider school outcomes? Did this happen as expected?
   We expected to see the wider school outcomes over the lifetime of the Project and beyond as schools moved along a continuum from developing to networking model of lesson study. These outcomes will be more apparent as we move to sustainability over 2015-16.
4. Reflect on any continuing impact anticipated.
   We anticipate that there will be continuing impact as the use of Lesson Study research lessons extends and embeds within the project schools and spreads to other schools (as demand indicates). The 26 of 28 schools in the project are committed to continuing.

Additional commentary

8.4 The evaluation methodology used Guskey's five levels to assess the logical chain of impact on pupil outcomes:-
Level 1*participants' reactions*
Level 2participants' learning
Level 3organisational support and change
Level 4participants' use of new knowledge and skills

Level 5 pupil outcomes.

The following sections refer to the evidence collected in relation to each of these levels in turn.

Key terms:

Cohort 1 (C1): Teachers from schools that participated in year one of Ascend

Cohort 2 (C2): Teachers from schools that were new to the project in year two

Where the following results mention year one and year two, this refers to years one and two of the Ascend project. Where y1, y2, y3 etc. are referred to, this means the year group of the pupils.

Lesson study: This will be referred to as LS

Lesson study cycle: LS cycles in year one consisted of a planning meeting, lesson 1 and debriefing, followed by planning for lesson 2, the lesson and debriefing. There was usually a gap of several days between lesson 1 and 2.

N= refers to the number of teachers that responded, unless otherwise indicated.

8.4.1 Level 1: participants' reactions:

Surveys in year one and year two were completed by all participants in July at the end of the year conference. These were designed to gather the feelings and perceptions towards lesson study by the participating teachers, as well as overall learning from the process of LS (see 8.4.2 as well).

Year one:

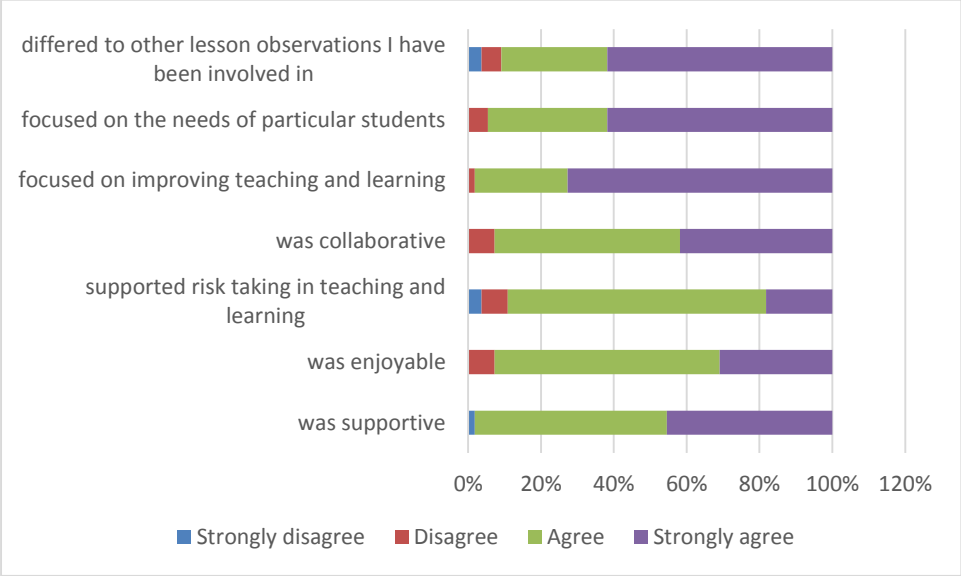
Samples sizes were smaller in year one for the professional learning survey. (11 for a focus teacher survey and 24 for a non-focus teacher survey). These are not included below in detail, as both surveys were changed to gather more targeted data in year 2. However, the key findings from year one were:

Strongest agreement for the way that lesson study enabled teachers to focus on the needs of particular students and the collaborative and supportive nature of the lesson study process. Weaker agreement that lesson study enabled more risks to be taken or to make the teacher more confident in their teaching.
Qualitative comments about the lesson study process suggested that in schools where sufficient time was made available to plan and discuss the research lessons, learning was more effective. It was also felt that more risks would be taken once trust had grown between trios in their LS cycles.

The vast majority of non-focus teachers 'strongly agreed' that the lesson study process was collaborative. Agreement was strong that LS helped to focus on the needs of particular students. Agreement was weakest to 'lesson study enabled me to take risks' this statement, equally, fewer strongly agreed that Lesson study was challenging or that it made them more confident in their teaching.

Year two:

"The Lesson Study process…." (n=55)



Year two survey showed strong agreement on all categories, with particularly high agreement about the focus on teaching and learning and the needs of focus pupils. Although there was strong agreement that LS groups were supportive and collaborative, once again the agreement was less strong in terms of risk taking. In a small minority, negative comments concerned the time consuming nature of LS, and in one case time constraints inhibited the lesson planning and made the lessons repetitive. In another case, discussion was too focused on 'performance' and not enough on 'progress'.

8.4.2 Level 2 - Participants' learning

Comments from the overall LS survey highlighted the aspects of teachers' learning experiences that they found particularly useful in their development over the year. In addition participants had table discussions and the feedback was recorded in relation to their learning experiences. These were gathered at July conferences at the end of each project year.

i) Overall LS survey results:

The main categories of responses and an example for each is given below. These are combined from both years of the project.

Professional learning was judged to be powerful due to:

Qualitative comments in year 2 included:

- it was refreshing to observe students
- having the extra observation from the camera helped
- the process helped teacher to be more confident about strategies

- small focus groups of students helped achieved focused support
- useful elements from the project can be applied to future teaching

Suggestions included:

- there could be more gaps between lessons for intervention to have bigger impact
- could have extra meetings (e.g. once every fortnight) to touch base on things and share resources, experience etc.
- a way to increase engagement of parents could help benefit the pupils even more

ii) Conference discussion groups

At the end of year conference, mixed school groups were invited to spend time sharing what they had learned from involvement in the project and one facilitator fed back main findings from each table. See appendix 3 for full details.

Overall, the most commented upon aspect of the LS process was the advantages gained through collaborative professional learning. This had a number of elements:

- it was supportive and non-judgemental
- it allowed for another viewpoint or 'critical friend'
- it allowed for sharing of resources and sharing knowledge about similar issues.

This collaboration was widely seen to build confidence among teachers. Many of the comments were about the sharing of knowledge and skills around aspects of 'basic' pedagogy, for example, use of seating plans, the importance of modelling, pre-teaching the basics and differentiation. More advanced skills were also felt to be developed, in particular, in relation to setting up effective pair and group work and developing independence and ownership among pupils of their own learning and assessment practices. The use of Teaching Assistants was discussed on two tables, in terms of how they might be effectively deployed in the light of concerns that pupils who are 'over-helped' by the TA were becoming too passive.

A number of useful insights about pupils emerged as a result of gaining 'additional eyes' for the lesson and additional viewpoints in the post lesson discussion. These included awareness of mis-conceptions about students who were 'dis-engaged' or 'lazy' and strategies for dealing with these. One group discussed the importance of literacy skills behind almost everything that the students learned and produced in lessons. Issues to do with the physical arrangements of the class, the time of the week and pupils' home life also came to be further appreciated.

There were some concerns about continuing LS or using the video equipment. These were based on concerns about missing lessons, how to organise time out and the quality of the video production being insufficient for the purposes of fine analysis of student interaction or work.

8.4.3 Level 3 - Organisational support and change

Data for this section consists of interviews held at schools in June of year one and year two. At the end of year conference, participants had table discussions on how they thought the lesson study would be taken forward and if not, why.

In year two, there were additional measures to ensure the quality of processes; these included two independent observations of LS cycles in two participating schools and an independent assessment of the quality of video clips produced during the programme. Finally, at the July 2015 conference, school groups summarised their proposal for continuing or not continuing with LS at their schools. These were transcribed and summarised below.

i) Interviews in participating schools in year one

Interviews of five senior leaders and six teachers were conducted by an independent IOE evaluator at four participating schools in June 2014. As a result of these, the following conclusions and recommendations emerged:

Both teachers and senior leaders agreed on:

- the value of Lesson Study for CPD for its: powerful professional learning, collaborative aspects and the focus on pupil outcomes
- the benefits of the IOE impact model to make discussions about pupil outcomes tangible
- potential beneficial uses of STAR technology (within and beyond Lesson Study cycles)

Both teachers and senior leaders:

- showed an incomplete or deficient understanding of the aims of the project and the intended target groups of students

There was a mismatch between teachers and senior leaders' responses in terms of:

- how well Lesson study fit into the working patterns of teachers - Headteachers felt this was fine but some teachers did not agree and felt it was undervalued or lacked coordination

Implications and recommendations:

- the aims of the project need to be very clear from the outset
- impact frameworks need to be properly introduced from the first conference with examples
- the role of STAR lesson in the Ascend project lacks clarity and needs to be properly explained, trialled and evaluated
- lesson Study worked best when it was effectively coordinated, including time being set aside for each stage of the process
- sharing knowledge of how to manage the logistics and costs of Lesson Study beyond the time-line of the Ascend project would be beneficial
- online resources can be better-utilised and developed e.g. videoed lessons, guides, links to evaluation documents, guides to best practice in Lesson Study and forums for discussion across schools.
- improved communication between project management and participating teachers to give a greater sense of belonging to the project and understanding of processes, such as evaluations

ii) Interviews in participating schools in year two

Interviews of four Headteachers, senior leaders and twelve teachers were conducted by an independent IOE evaluator at four participating schools (two secondary and two primary) in June 2015. As a result of these, the following conclusions and recommendations emerged:

Senior leaders at all four schools were keen to continue using lesson study and to continue collaborating with other schools, working across phases and boroughs. Some were keen to include more people in lesson study and liked the grouping of Trios. There was a commitment to providing sufficient time to ensure that it worked properly too. Networks and hub meetings were suggested as ideas for developing the project further. Many of the recommendations from the first year were also reinforced.

iii) Observations of LS process

Research staff from UCL Institute of Education observed the lesson and post-lesson discussion at two participating schools, along with supporting lesson plans and documentation. Assessments were made of the quality of the process on three criteria:

Criteria	School one	School two	Mean score (1-7) n=2
a) Overall quality of lesson	5	6	5.5
b) Fidelity to principles of lesson study	5	7	6
c) Focus on impact	4	5	4.5

Comments on quality of research lessons and post-lesson discussion:

In both lessons, the process was viewed by teachers as highly collaborative and non-judgemental. All teachers contributed well to the post-lesson discussion and there was a clear focus on pupil learning. In school two, the facilitator worked well to keep this focused and well structured. School two were also more effective in taking detailed notes of the pupil learning observed. These were descriptive rather than evaluative, according to the principles of lesson study. School two showed more evidence of detailed collaborative planning in the lead up to the lesson.
In school one the evidence gathered during the lesson was insufficiently detailed in its focus on the desired impact. In school two, the discussion on impact was hampered due to the fact that two of the three original pupils had now left the school. Although these were replaced by ‘similar’ profile students, clearly the learning about these pupils was not as closely related to the impact framework. In school one, it was felt that the participants could benefit by re-visiting the impact framework statements to re-focus on the desired outcomes for these pupils.

iv) Evaluation of video clips

A number of video clips were uploaded onto Lesson Gems to be shared by teachers across the schools, during and beyond the project duration. Sixty clips were independently checked and evaluated by a researcher at UCL Institute of Education.

Overall, the clips were found to be very useful for sharing of practice and many of these had been tagged around themes of interest across the schools, e.g. for examples of 'resilience' by pupils and how to encourage this. The best ones had good lighting and were tagged accurately, and in grouped themes. Poorer examples were inaccurately labelled, too long or hard to follow due to sound problems. There was scope for more video clips of the LS process itself too, although there was a very good introduction to Lesson Study clip for participants to access.

v) Conference discussions on the way forward for lesson study:

Sixteen schools supplied feedback on table discussions, mostly including senior leaders at these schools. See appendix 2 for full details

All but two schools said that they would continue with LS in some form. Of those that expressed doubt, one was due to the difficulty of meeting the staff time out of class and the other one due to a large turnover of staff. Of the other schools that wanted to continue, the extent to which they were implementing this varied: one school was going to repeat the LS cycle with the same teachers, one to expand to six teachers, another to use three LS experts to lead three more groups and another to expand to the whole school. One school was keen to collaborate with an experienced LS secondary school in our sample, while another expressed the value in using the LS participants as champions in their own school. Support from senior leaders was seen to be the key factor to ensure the programme would continue or expand.

8.4.4 Participant's use of new knowledge and skills

Changes to teacher use of knowledge and skills was determined through two sources i) teacher self-evaluations at the start and end of the year and ii) impact statements. The latter were written at the start of the year as targets and teachers colour coded these statements according to whether they were fully, partially or not achieved.

i) Teacher self-evaluations

All participating teachers completed a pre and post-programme self-assessment of their confidence in terms of nine evidence based areas of pedagogy. Year one data was taken but is likely to be misleading due to the way the survey was conducted, i.e. pre and post-test were taken at end of academic year, i.e. participants estimated distance travelled on each item. Therefore, this was treated as a pilot.
In year two, participants completed baseline in September 2014 and post-test was taken in mid-June 2015 which gives a more reliable measure. Below is a summary of the results.

Pedagogical area	Baseline Mean (1-7) June 2014	End Mean (1-7) Sept 2015	Paired t-test p values for baseline vs final confidence ratings (shaded values indicate significance, 2 tailed p<0.05)	Effect sizes (Cohen's D, large = >.8, Medium = >.5 Small = <.5)
1) Consideration to pupil voice.	3.47	5.39	P<0.0001	**Large**
2) Understanding of the pedagogical process	4.49	5.82	P<0.0001	**Large**
3) Clear thinking about longer term learning outcomes as well as short-term goals	4.69	5.78	P<0.0001	**Large**
4) Building on pupils' prior learning and experience	4.86	6.08	P<0.0001	**Large**
5) Scaffolding pupil learning	4.59	5.82	P<0.0001	**Large**
6) Using a range of techniques, including whole-class and structured group work, guided learning and individual activity	4.76	5.98	P<0.0001	**Large**
7) Developing higher order thinking and meta-cognition	4.47	5.69	P<0.0001	**Large**
8) Embedding assessment for learning	4.71	5.84	P<0.0001	**Large**
9) Inclusivity	5.12	5.94	P<0.0001	**Large**

All items showed large effect sizes for changes in aspects of pedagogy, the largest shift being in terms of consideration of pupil voice, and the smallest in 'inclusivity' which already had a relatively high starting point. Although there is no control group to compare this to, such changes appear to reflect large gains in confidence throughout the entire range of pedagogical skills*. See below for specific qualitative changes in pedagogy from lesson study cycles that were directed towards focus pupils.

*NB: The above table reflects changes to pedagogy that include the entire year of activity for each teacher, and also involvement in LS cycles as observer, facilitator and co-planner. The specific statements recorded below in section ii) are only those that teachers reflected as being changes to their practice, associated with the LS interventions on their focus pupils.

ii) Impact framework assessments of pedagogical Impact

At the start of each academic year, participants were asked to anticipate the impact of the lesson study project with the following prompts: *What will my current teaching practice be like? What will the pupils' classroom experience and learning be like?*

They were asked to describe actual changes in their practice and changes in pupils' experience and learning, using soft evidence data of what is seen, heard, felt, said, done etc., and to colour code their commentary: green for achieved, amber for partially achieved, or red for not achieved. Below are the outcomes that were coded achieved or partially achieved for the anticipated teaching impact statements. These were coded based on the same nine categories, used for the teacher self-evaluation,

above (based on Husbands and Pearce (2012)) plus one additional category, 'other teacher competences'. A quantitative summary of statements within each category is given below:

Area of Commentary from Impact Frameworks	Achieved or Partially Achieved	Percentage
Assessment for Learning	22	27%
Scaffolding	19	23%
Inclusivity	19	23%
Range of Techniques	7	8%
Higher Order Thinking	6	7%
Other Teacher Competences	5	6%
Prior Learning	3	4%
Pupil Voice	2	2%
Understanding Process	0	0%
Long Term Outcomes	0	0%
Total	83	100%

(N=30)

Most prevalent were statements regarding assessment for learning, scaffolding and inclusivity. A definition of each item and examples are given below (see appendix 5 for full breakdown).

Comparisons with the teacher self-evaluation surveys show that: using a range of techniques, higher order thinking, taking into account prior learning, considering pupil voice and understanding the pedagogical process or longer term outcomes were not strong features of specific interventions with focus pupils. This is despite the fact that teachers' own judgements of improvements on those areas were considered to be strong. This may reflect that way that LS enables wider aspects of subject pedagogy to develop beyond the narrower focus of the LS cycles.

Assessment for Learning

References were made to Assessment for Learning, in 16 of the 30 Impact Frameworks received. Teachers made reference to teacher assessment, self-assessment and peer assessment, exemplified by the following comments:

"All pupils then come to the carpet for a brief recap of a previous lessons topic or a mini-quiz on whiteboards which allows me to quickly assess what stage each child is at with their learning."
"Lower ability children will respond to marking, sometimes with support, effectively in order to consolidate their learning."

"When finishing a task, students are given more time for peer assessment before I display answers; they first compare their answers amongst themselves and are given an opportunity to explain their workings and how they got to the answer rather than only a few taking up this role."

Scaffolding

References were made to improvements in Scaffolding Pupil's Learning, in eleven of the thirty Impact Frameworks received, illustrating how teachers concentrated on

breaking down the leaning into manageable steps for pupils, or providing specific resources to support learning, exemplified by the following comments:

"*Evidence recorded within Lesson Study observation and through book scrutiny show that target pupils A and B are able to approach tasks confidently and independently using the scaffolding/ resources provided. They ask for help if they are not sure within the first 5 minutes of a lesson."*

Inclusivity

References were made to improvements in Inclusivity, in thirteen of the thirty Impact Frameworks received. Many of these comments indicated a teacher focus on a particular pupil or group of pupils, exemplified by the following comments:

"Observations will show that if target children are not participating fully they will be targeted by direct questioning."

"I can implement at least three new strategies to help pupil premium students exceed their potential."

"Work scrutinies show that I set extension focus questions for lower ability children when appropriate and not just higher."

8.4.5 Pupil Outcomes

Pupil outcomes were measured in the following ways:

i) Assessment of 'micro-impact' taken from focus teacher surveys where teachers commented on evidence of individual changes to learning during a LS cycle
ii) ii) Quantitatively (macro-impact) in terms of whether focus pupils met or exceeded a target set at the start of each academic year
iii) iii) Qualitatively (macro-impact) in terms of areas of impact on pupil learning over the year.

i) Micro-impact on pupils' learning during LS cycles:

This was an additional measurement taken in year two, recording of learning outcomes observed during a two lesson LS cycle. Focus teachers completed these surveys shortly after the final post-lesson discussion of the cycle, using their notes from the lesson and with reference to their impact statements set earlier in the year. Each teacher had to select between three and six target pupils for the year of the project. The LS cycle was planned with the overall targets in mind for these pupils and observers made recordings of evidence to back up their observations of changes to these pupils' learning during the two lessons.

The impact of the LS interventions for each target pupils' learning was assessed on a four point scale as follows:

Percentage at this level	Extent of change
8%	No change (or worse than expected)
44%	Improvement to a specific aspect of learning in this subject
43%	Improvement which should impact on students' achievement in this subject
5%	Profound transformation to this student's learning in this subject

The qualitative observations to explain the above changes in learning included:

Key themes in qualitative responses (n=199 comments)		
%	No. of responses	Themes
33%	65	Increase in engagement/participation
31%	61	Increase in understanding/usage of knowledge
30%	59	Positive impact on confidence
16%	31	Positive impact on concentration level
15%	30	Positive impact on independence of pupils
11%	21	Demonstrating evidence of good use of learning aids (manipulatives, iPads, etc)
11%	21	Demonstrating benefits from peer support
10%	19	Increase in communications (pupils vs pupils and pupils vs teachers)
10%	19	Improvement in quality/quantity of work completed
9%	18	Ability to answer questions
5%	9	Increase in resilience
4%	8	Change in seating location
3%	5	Improvement in body language
2%	4	Improvement in attendance
2%	3	Other
*There were some instances where the response and the comment did not align- e.g. Teacher's multiple choice response suggested there was no change but their comment suggested there was an improvement		
** Individual responses have been counted under multiple themes where relevant		

ii) Macro impact quantitative measures of progress over the year

Pupils were assessed as having achieved at a target level above that expected without intervention.
In year one, data was obtained for 53 pupils. Of these, only 7 achieved below a projected figure without intervention compared to 20 who achieved a target above this level. The rest achieved at the expected level. This is a statistically significant improvement above the expected level (n=27, x=7, p<0.02, Sign test) (see appendix 7).
In year two, data was obtained from 98 pupils, of these, only 6 achieved a level lower than expected, while 53 achieved the target level set for them. The rest achieved at an expected level. This was a highly statistically significant result (sign test, n=59, x=6, p-value = BINOMDIST (6, 59, .5, TRUE) = 8.769594E-11 p<0.05 (see appendix 6).

	Proportion achieving target	Proportion achieving as expected	Proportion achieving less than expected level
Year one	0.38	0.49	0.13
Year two	0.54 (95% confidence interval 0.48, 0.67)	0.40 (95% confidence interval 0.33, 0.47)	0.06 (95% confidence interval 0.013, 0.1)

In year two, even by comparison with those achieving as expected, there is no overlap at the 95% confidence level for those who achieved more than expected (i.e. they achieved the target level set).

Qualitative Pupil Outcomes:

At the start of each academic year, participants were asked to anticipate the impact of the lesson study project with the following prompts: *What will the pupils' classroom experience and learning be like?* At the end of the year, they were asked to describe changes in pupils' experience and learning, using soft evidence data of what is seen, heard, felt, said, done etc., and to colour code their commentary: green for achieved, amber for partially achieved, or red for not achieved. Percentages of statements achieved are shown in the table below:

Degree of success:	**Frequency**	**% of total statements**
Achieved	222	65%
Partially achieved	99	29%
Not achieved	19	6%
Total number of statements	340	100%

Overall, 94% of impact targets were said to be achieved or partially achieved.

Where teachers judged pupil outcomes to have been achieved or partially achieved, the numbers of references, within each finer area of analysis, made by participants in their commentary within the Impact Frameworks, are shown in the table below.

Area of Commentary from Impact Frameworks	Achieved or Partially Achieved	Percentage
Number	17	7%
Measurement	0	0%
Geometry	0	0%
Statistics	0	0%
Problem-Solving (in Maths)	6	3%
Spoken Language (in Maths)	19	8%
Reading	14	6%
Writing	53	22%
Spoken Language (English)	13	5%
Collaboration	15	6%
Confidence	20	8%
Engagement	67	28%
Perseverance	7	3%
Resilience	7	3%
Total	238	100%

(N=30)

The two most often mentioned areas of achievement are given below, with code definitions and examples:

Engagement

References were made to improvements in pupil engagement, in twenty four of the thirty Impact Frameworks received. Some of these comments indicated a teacher focus on a particular pupil or group of pupils, other made reference to all pupils, as exemplified by the following comments:

"Evidence recorded within Lesson Study observation and through class teacher questioning demonstrates that all pupils are engaged in partner discussion for at least 30 seconds and are able to provide feedback of their ideas."

"All children remain focused for the entire input (20 minutes). Child A writes with intrinsic engagement (not just to get the work done)"

"All three students are focused on the task in class and wanting to learn. SM in particular will not be easily distracted by objects on her desk. They are asking peers questions relevant to the work. Their books show evidence of note taking in class and a good amount of classwork."

"Pupils A, C and D have reduced the amount of time they spend 'off task' (drawing, staring out of the window, fiddling with equipment etc.) to 50% of the time."

Writing

References were made to improvements in pupils' writing, in fourteen of the thirty Impact Frameworks received. Many of these comments indicated a teacher focus on a particular pupil or group of pupils, exemplified by the following comments:

"Observations and guided group work have highlighted that the focus children now track back and re-read their sentences and notice missing words. Work is of a higher standard, including more ambitious vocabulary."

"Work scrutinies show that the target children's confidence has been built and this is shown by children 'having a go' and writing more independently. The target children are using their own ideas and are not as reliant on models within the classroom. All target children are using connectives to link ideas in their writing. Children's confidence has increased and they are now more proactive in their approach to their writing."

"Children are confidently using speech marks across a range of written pieces of work. Work scrutinies show that children are remembering to use specific aspects of grammar and apply it appropriately."

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

The Ascend project has provided compelling evidence of positive impact on pupils' attainment in numeracy and literacy. This was assessed using the evidence-based methodology for assessing professional development programmes, combining Guskey's levels of impact and UCL Institute of Education's impact framework design. The report shows impact at each of five (Guskey) levels: participants' reactions to lesson study; the quality of their learning; organisational structures and processes that support lesson study; the development of pedagogical skills and the impact on pupils as a result. A wide range of evaluation tools at different stages of the project, were used to confirm this.

All teachers responded very well to the lesson study process. Teachers enjoyed the collaborative aspects of lesson study and the support and challenge they received from colleagues. Importantly, lesson study was seen as quite different, and more powerful than many conventional professional development strategies, including other lesson observations. Specifically, the focus on improving teaching and learning and on the needs of particular pupils was a common feature of teachers' feedback.

Lesson study sessions led to insightful observations of pupils' learning that sometimes challenged teachers' own pre-conceptions about particular pupils they taught. The extra pair of eyes in the class helped achieve focused support for pupils and many aspects learned were felt to be highly transferable to other groups of pupils or situations. Teachers found the collaborative learning to be highly beneficial to their confidence and the development of their pedagogical skills. The importance of developing literacy skills across all aspects of the curriculum and including in mathematics classes was observed by many teachers.

Observations of lesson study in situ showed a good quality of engagement in the lesson study process and the importance of good facilitation and focus on the longer term impact targets. Video clips were generally useful as a way of sharing clips of specific lessons although further work should be done to develop these at a consistently high level. In future, sharing good practice in terms of integrating video technology with the LS process would be strongly advised to make best use of this equipment.

Interviews with senior leaders showed widespread commitment to continue with the use of LS. The need to effectively coordinate LS cycles, to protect teachers' time and to link LS with longer term areas of improvement shared between teachers, were all recommended. Discussions about the future of LS in the participating schools showed variation; the majority aiming to continue learning from LS although there were differing approaches to how to do this in the future. Further contact between schools would be interesting to examine the relevant merits of these proposed divergent approaches.

Highly significant shifts were shown in teachers' pedagogical skills. Teacher self-evaluations on nine aspects of pedagogy showed significant shifts in all of them; all showing large effect sizes. These results suggest that the Lesson Study process has helped teachers to reflect on a wide range of subject pedagogy that is likely to have benefitted students they teach outside of their focus pupils and also those they will teach in the future. In relation to their target pupils, teachers reported a range of improvements, in particular how to embed assessment for learning, scaffold tasks more effectively and to include these pupils more frequently in the learning goals of each lesson.

Assessments of pupil learning during LS cycles were compelling; 92% percent of observations about focus pupils showed improvements in their learning in lessons. 5% of comments described profound improvements to the learning of a student in the subject. Among the positive indicators of learning, increases in participation, independence, use of knowledge, concentration levels and confidence were all noted.

Focus pupils made significantly more progress than would be expected without intervention in both years of the project. Teacher assessments of achievement showed that these attainment targets were met in a large number of focus pupils and these reached very high levels of statistical significance. Numerous comments were made by teachers on specific evidence of pupil achievements in writing skills and improved ability to work on tasks for sustained periods of concentration.

Overall evaluation of the project suggests that lesson study cycles proved to be well received, provided high quality collaborative professional learning experiences to teachers and received strong support from senior leaders. Teachers' newly acquired pedagogical confidence and skills have helped improve their understanding of their pupils' learning and significantly increase their progress.

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.

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	10%	£39,397
Teacher CPD (face to face/online etc)	80%	£315,176
Events/Networks for Teachers	10%	£39,397
Teacher 1:1 support	0	0
Events/Networks for Pupils	0	0
Others as Required – Please detail in full	0	0
TOTAL	100%	£ 393,970

Please provide some commentary reflecting on the balance of activity and costs incurred: Would more or less of some aspects have been better?

The majority of the funding has been spent on teacher CPD and this has had a demonstrable impact on the quality of their teaching and the achievement of their pupils. It has also impacted more widely through the sharing of knowledge both face to face and online.

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.

Overall the Ascend Project's aims and objectives have been met and it represents excellent value for money.

Lesson Study supports rigorous and fine-tuned analysis of pupil and teacher needs that are met through high quality CPD targeted to meet the needs of the teacher and the pupil and delivered at the point of impact on the individual learner. Impact of externally provided CPD is difficult to measure

Impact is measurable immediate and sustained.
Schools use their most valuable assets, their teachers, as resources for learning. Where Lesson study is planned effectively the cost per teacher is lower than CPD accessed externally. E.g. 1 days training per teacher through an external provider is on average £200 (and would not include time needed to identify needs and plan to implement what is learned) The cost of 3 lesson study cycles per teacher where cover supervision, directed and commuted time is used is approximately half this cost.

Unit cost of lesson study is half cost of externally provided CPD
Learning from Lesson Study Research Lessons impacts more widely as knowledge is shared across the school and networks. This is facilitated through the ascend Learning networks , it has revolutionised cross phase learning between primary and secondary phases that have largely worked in silos apart from yr 6-7 transition.

Shared experience and culture shifts to embedding collaborative learning in schools means that knowledge sharing is growing both within and between schools. This is not facilitated through external CPD providers.

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

In order to demonstrate the cost effectiveness of the project we would like those projects who had control or comparison groups to provide some value for money calculations. Further guidance will be issued to support projects with this.

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

- *Were there internal and/or external factors which appear to have had an effect on project success, and how were these responded to (if applicable)?*
  The key enablers to the success of the project were:
    - The sound business plan and infrastructure of key personnel that supported the delivery of the project.
    - The dedicated time and skills and experience of the project directors organisers facilitators
    - The expertise of the IOE in working with us to develop research methodology that worked in the school context, and measuring the impact of the project.
- *What factors need to be in place in order to improve teacher subject knowledge?*
    - Utilising the Lesson Study research model teachers planned a lesson together sharing subject knowledge and learning from one another, before and after the point of delivery. The in depth collaborative evaluation of impact on underachieving disadvantaged pupils then highlighted further areas for development including subject knowledge addressed in plans for revised lesson.
    - Teacher feedback highlighted the strength of Lesson Study as a high quality professional learning experience.
    - The use of Star Lesson to share knowledge and resources with and between Ascend School also contributed to the improvements in teacher subject knowledge.

11.2 Management and Delivery Processes

- *How effective were the management and delivery processes used?*
  The management and delivery processes were effective because we acted on robust evaluations as reflected in the changes made to the Theory of Change model.
- *Were there any innovative delivery mechanisms and what was the effect of those?*
    - The management and delivery changes during the lifetime of the Project are detailed in the updated Theory of Change 11.09.14.

1) Ascend Learning Networks (ALNs)

   In year 1 of the project, the compression of the timeline would not allow for the ALNs to operate effectively.
   In year 1 of the project, the collaborative learning networks were set up at the final conference 16.07.14 with the 10 Cohort 1 schools.
   In year 2 of the project, Cohort 2 schools were linked into the ALNs for Cohort 1.

   The core purpose of ALNs was to share best practice and knowledge using in school and interschool networks and starlesson lesson gem site and identify training needs. Terms of reference were drawn up at Conference 3 for ALNs

and meeting dates for 2014-15 were set well in advance to maximise attendance.

2) We resolved the issue of the control group. This enabled us to compare data on pupil progress and attainment before and after Lesson Study.
   a) The data on attainment and progress of the focus pupil group for each Lesson Study trio is captured for:
   the end of Autumn term – control data when no Lesson Study is taking place the end of Summer term – after 3 Lesson Study cycles.
   b) Improvements to teacher subject knowledge were measured from a baseline and end of year subject knowledge survey. This was not effective so were incorporated into the Ascend teacher self -evaluation and used to identify training needs.
   c) We also resolved the issue of changes to assessment nationally by developing a generic method of measuring degrees of progress in pupils learning. This enabled us to measure impact.

11.3 Future Sustainability and Forward Planning

Do you have any plans for the future sustainability of your projects?

- We plan to take the Ascend Project forwards because there is a commitment from 26 of the 28 schools involved. There is also pan London interest in developing Lesson Study Research lessons as a means of improving the quality of teaching, learning and assessment as evidenced by the 350 delegates attending the LSEF Lesson Study conference on 2nd October 2015 at which we were major contributors.

In planning for the future sustainability of the project we have taken into account the feedback in the evaluation report.

- Building on what we have learnt throughout the Project, the development of detailed briefing sessions for schools interested in developing Lesson Study that includes a maturity model to show progression in embedding Lesson Study, and how to embed within the schools' context, operational advice on how to manage, organise and deliver the process, within schools' budgets, time constraints and pressures on teacher workload.
- Development of face to face and online modules that support school leaders in the leadership of Lesson Study within their schools.
- Developing a team of Specialist Leaders of Education in Lesson Study who can provide leadership of Ascend Learning Hubs, training, school to school support, knowledge sharing and research.
- Further development of online video and web based training and knowledge sharing opportunities as well as face to face e.g. Market Place and Teach Meets.
- Local Ascend Learning Network hubs that provide a focus for school leaders to share best practice and support one another on the maturity model journey.
- Using London Ed as a means of sharing Lesson Study best practice pan London and linking with other LSEF Lesson Study Projects.

What factors or elements are essential for the sustainability of your project?
How have you/will you share your project knowledge and resources?

- Ascend Project knowledge and resources are shared on the Ascend website and the sustainability model will be shared through London Ed and Lesson Study UK.

12. Final Report Conclusion – dg - ***these need to address the outcomes as specified on your agreed evaluation outputs with LSEF. These will need to be addressed above too – see my conclusions in section 9 above, too.***

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?*
- *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?*
- **Teacher outcome 1**
  The evaluation suggests that there were hugely significant shifts in teachers' pedagogical skills, i.e. subject specific teaching methods, evidenced in evaluations on the nine aspects of pedagogy, which is likely to impact on pupils outside of the focus group and those that they will teach in the future. There is also evidence in the evaluation to suggest that the focus in Lesson Study research lessons on Pupil Premium pupils enabled teachers to develop subject specific pedagogy tailored to address their barriers to learning. The greatest changes in practice centred on assessment for learning, scaffolding and inclusivity and providing specific subject resources to support learning.
- **Teacher outcome 2**
  The collaborative and non-judgemental and challenging nature of Lesson Study research lessons were widely seen to build confidence amongst teachers particularly in development and how using subject specific pedagogical strategies to address barriers to learning in underachieving pupils. The evaluation suggested that this increased confidence was then embedded and applied to future teaching.
- **Teacher outcome 3**
  The evaluation shows that changes in teacher practice includes use of better subject specific resources, especially in scaffolding pupils learning. Cross phase knowledge sharing in the Ascend Learning Network meetings supported this development, e.g. in secondary Maths teachers introducing manipulatives in their teaching.
- **Pupil Outcome 1**
  Increased educational attainment and progress. The Ascend Project provided compelling evidence of a positive impact on pupils' attainment in numeracy and literacy. Focus pupils made significantly more progress than would be expected without intervention in both years of the project. These reached very high levels of statistical significance.
- **Wider System 1**
  Evidence from attendance and participation in conference, Ascend Learning Network meetings and the contribution to the Ascend Star Lesson Gems show that teachers in Project schools were using face to face and active networks to improve subject knowledge and teaching practice. Teachers clearly valued the collaboration of the networks and suggested as a way forward for Lesson Study hubs.

- **Wider System 2**
  Evidence suggests that in all but 2 schools Ascend is embedding in all schools as they have made a commitment to continue into Year 3 of the Project.
- **Wider System 3**
  The evaluation suggests that through the use of video clips and the Lesson Gem site, teachers are able to share knowledge and the quality of teaching, learning and assessment beyond their intervention group and class, in school and cross school. The use of face to face Ascend Learning Network meetings facilitated wider impact across phase and cross borough as Project teachers shared best practice.

- ***Key lessons learnt for assessment of project delivery***
- *What activities/approaches worked well?*
- *What activities/approaches worked less well?*
- *What difficulties were encountered in delivery and how could they be mitigated in the future?*
- *Were there any additional or unintended benefits (e.g. increases in student attendance as a result of an intervention aimed at teachers)?*

What worked well:

- Getting commitment of school leaders prior to start of project and developing 'Memorandum of Understanding of Ascend" in Yr2 of Project.
- The partnership with the IOE that enabled us to work together to develop effective, manageable tools and strategies to evidence the impact of Ascend.
- Conferences and Ascend Learning Network meetings to train teachers and leaders and share knowledge
- Through evaluation of Yr1 of Project in order to plan effectively in Yr 2 and working with the same team.
- Use of Star lesson to facilitate the observations in Lesson Study Research Lessons, to share knowledge online between and within schools, eg. Schools used LS videos for whole staff training sessions, to record Ascend Network meetings and Conferences so access to learning on Project delivered even if teacher/leader was absent.
- Experience of senior school leaders in delivering the Project.

Difficulties in Delivery

- The time initially allocated for project delivery was underestimated. With hindsight, we could make a more accurate estimate but needed the experience in order to do this. The changes to the National Curriculum and assessment without levels created difficulties but these were addressed by refining measures of pupil progress and incorporating into the delivery model.
- At the point of bidding, the National Curriculum levels were still in place and had rigorous and universally understood frameworks for assessing pupil attainment across phases. The disbanding of levels created a massive workload for the 2 Project leads in finding ways to measure pupil progress when no new measures were in place nationally.
- The timing of the allocation of funding delayed the start of the Project in Year 1 and cut short the lead in time needed to train leaders and teachers prior to the Lesson Study Research Lesson cycles beginning.

Informing future delivery

- *What should the project have done more of?*
- *What should the project have done less of?*
- A Memorandum of Understanding would have been invaluable in Yr 1 of the Project and would have lessened any misconceptions or misunderstandings.
- The Ascend Project needs to be embedded in the School Improvement Planning cycle and not a bolt on.
- Planning all meetings ahead of time is essential.
- Greater time spent on briefing and training school leaders and supporting them in delivering the project in school.

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

- The project needed to spend more time on preparing and engaging school leadership and supporting them in organising management and delivery of the project locally. The project also needed to spend more time training teachers and leaders in how to use the technology effectively to support learning in and between schools.
- Linking schools and project leads between the face to face meeting to give greater sense of belonging and to improve communication.
- Supporting schools in utilising online resources.

Appendix 1: Interviews with teachers and senior leaders at Ascend participating schools, year 2

1 Teacher interviews; Professional Learning and Pupil Outcomes

Schools: Haseltine Primary, Lanfranc Academy, Hayes Primary and Hayes Secondary

A summary of responses is given under each question heading:

1. What do you know about the Ascend project and its aims?

Teachers had a good understanding of the Ascend project and its aims.
Responses from teachers included the following comments:-

- Its about subject knowledge and pedagogy
- To improve subject knowledge and teacher practice to close the gap between Pupil premium pupils, Free School Meal pupils, pupils with English as an additional language and other pupils
- Its about professional development for staff to improve their practice and to support the learning of vulnerable groups mainly pupils in receipt of Pupil Premium
- Action research to improve teachers' subject knowledge
- Research led
- Improving teachers subject knowledge, lesson planning and evaluation
- Focus on Pupil Premium Group
- Focus on targeted pupils
- Closing the gap in terms of lower attaining pupils and highlighting focused provision for them to help close the gap
- Using data and planning to focus on individual pupils
- Bridging the gap and breaking barriers
- Learning from focus on target pupils to impact the learning of all pupils
- Developing teacher practice to improve outcomes for all pupils
- Funded by LSEF

1.1 What was your overall experience of lesson study this year in terms of the impact it had on:

a) Quality of teaching

Teachers were able to articulate the ways in which the lesson study experience had an impact of their teaching, however some teachers were keen to state that they had already done something similar and / or were already reflective teachers who were used to thinking about their practice. Others commented that the impact had been in terms of working with less experienced teachers.
Responses from teachers included the following comments:

- It has encouraged me to plan in a more personalised way….I have got better at differentiating at the lower levels to allow for more independent learning
- It has been very helpful…challenging my teaching
- A focus on the invisible pupils has helped me to think about their needs when planning my lesson
- Planning individual lessons with other teachers, bouncing ideas off each other and thinking about strategies for the focus pupils has been really helpful
- Lesson study has grown into the culture of the school. Having someone else in to observe and collaboratively plan the lesson is great in terms of sharing ideas… This year we have been very pupil focused
- It has been useful to share strategies across departments and to take ideas on board
- The main impact has been working with less experienced teachers ….making sure that communication is key .. clear dialogue in terms of what it would actually look like in the classroom
- I have never observed someone before…it has made me more confident to observe other people
- The process drew my attention to what is preventing a pupil from learning
- It has improved the way I think about my teaching

1.2 b) Your motivation

Teachers all found the lesson study experience motivating, particularly the joint planning, the professional dialogue, the focus on specific pupils and the opportunity to observe each other in a non-threatening manner. Teachers also commented on the importance of the trios and the need for trust.
Responses from teachers included the following comments:

- It is very motivating to be part of the lesson study cycle … the reflective nature of it and to implement the ideas
- I have been motivated by the joint planning and the professional, pupil focused conversations that this has prompted
- I have genuinely enjoyed having the observations and the planning meetings …any conversations teacher can have about learning is important that it is non judgemental .. teachers more willing to take risks
- I really enjoy working with other people to develop maths resources and think about 'Are we teaching these pupils correctly?' ... Good to feel that if it all goes wrong it not the end of the world
- It has been a really good experience to collaboratively plan, observe and give feedback
- It has been really enjoyable and beneficial to work with teachers across year groups. A great opportunity to work with teachers that I would not normally spend time with
- I really enjoyed it. I was working with two colleagues that I really get along with. For all of the three cycles I could tell that we were all putting our all into it

1.3 c) Your attitudes towards professional development

Teachers were able to talk about the benefits of lesson study as a professional learning experience and were keen to have more opportunities to be engaged in lesson study. Some teachers commented that engaging in action research and/or working in trios was already an established way of working within their school. Involvement in the lesson study process had little impact on some of these teachers' attitudes to professional development as they already saw the value of 'collaborative' learning.

Responses from teachers included the following comments:

- The collaborative planning with very experienced teachers was good …it is good that we still have things to learn from each other and to share
- It has been really useful in helping me to pin point specific things to work on that I would not necessarily look for … It has been good to develop my own skills as a teacher
- The dialogue it promotes is probably one of the best ways you can learn…it is relevant to the context of your schools and has been a really supportive process
- Lesson study can highlight areas for improvement in your own teaching
- It has really supported me in the transition from middle leader to senior leader
- I really liked this. I would like more lesson for me as a focus teacher … watching others teachers has also been useful, picking up strategies from other teachers e.g. lowering your voice
- It allows us to take risks in our classrooms, respects us as teachers and recognises that we have the skills within ourselves
- Lots of other professional learning, workshops feel very unrelated to your subject and your teaching in the classroom. I think it is the best professional development I have done
- There has been little impact on my attitude towards professional development as I already viewed action research and the lesson study model as being highly effective in improving practice and this was the focus of my MA

1.4 d) Pupil outcomes

Teachers generally stated that it would be difficult to attribute any gains in pupil outcomes solely to their engagement in the Ascend project. For example in one school they had increased the curriculum time for maths from 2.5 hours to 4.2 hours, which was having a positive impact on pupil outcomes. At the time of conducting these teacher interviews most schools were still completing their end of year assessments and therefore few teachers were able to provide hard evidence of pupil outcomes, although they were able to talk about changes in pupil confidence, motivation and engagement in lessons.

Responses from teachers included the following comments:

- In the short term qualitative gains have been more apparent than quantitative; pupils are more motivated and engaged in their learning

- It is hard to quantify that because we did 'this' pupils have made progress.
- It has not made a huge difference to the targeted pupils, the pupils selected had specific issues and problems in terms of barriers to learning …it has had a positive impact but it is hard to quantify
- The pupils have enjoyed having the teachers in the class…3 out of 4 pupils have met their targets or better
- The targeted pupils are more self driven and are now in a much better position to prepare for secondary school…more resilient and wanting to produce the best piece of writing they could, All 3 pupils have met their target
- One of the pupils is now focusing a lot better, engaged and wanting to share ideas. Another pupil who would not stick to the task is now doing exactly what I asked for; today his writing is perfect
- One pupil has made no progress, another has grown in confidence and the third pupil is now asking lots more questions in class
- Two of the pupils who did not seem to care are now more focused on the lesson and what is happening. They are now more involved in every lesson – putting up hands and answering questions.
- The targeted pupils have made good progress… they have not made accelerated progress

1.5 How would you judge the quality of the lesson study learning experience?

Teachers were very positive about the lesson study learning experience. They enjoyed the joint planning, observation and feedback sessions. The structure provided support for teachers to focus on specific pupils. A number of teachers commented on the fact that by focusing on three children it actually benefited all pupils in the class. Several teachers talked about wanting to do more rounds although recognising that cover would be an issue.

Responses from teachers included the following comments:

- Lesson study provides high quality learning experiences for the staff involved. The 3 meetings in each cycle facilitate high quality pupil centred conversations. I have benefitted greatly from the coaching advice and observations of colleagues
- The planning, observing and reflecting makes it a quality learning experience.. a lot of talking about the pupils
- The quality of the lesson study experience has got better as we have got more familiar with the structure…coaching now rather than mentoring
- The structure was useful as a reference point for the first time we did this
- The experience encourages you to take risks in a non judgemental situation…it has changed the way I work with student teachers
- I really enjoyed the experience .. the meetings and lesson planning were really helpful …a brilliant way of getting to know the pupils

- The planning sessions were amazing with varying levels of expertise and strengths..really focused on one child and the strategies to make things better. The whole thing has been non threatening / non judgemental ..all about how we can make things better for those pupils
- It has really helped to focus on individual pupils and has helped other pupils as I can see similarities
- I think it was really good. It made me think about my own class when observing other colleagues. How do I deal with x pupils … It makes you realise that if you focus on the three pupils it will improve the outcomes for all pupils in the class.
- I found it useful. It would have been useful if we did it more often. I was the second teacher and wanted to get on with it quicker
- It gave me the chance to reflect on what other teachers are doing and to see other pupils in action and make the links with my own pupils.
- I think it has been excellent..the best form of observations.
- It is really good. I really want to continue with it. It is fantastic ..encourages you to take risks ..inspires me to do something different…joint responsibility.

1.6 Has lesson study fitted in well to the teaching workload?

Responses to this question varied according to the amount of cover time teachers were given for the pre lesson planning session, the observation the post lesson study discussion and preparation for Ascend conferences. Teachers also commented on the timing of the cycles and missing lessons with their own class.

Responses from teachers included the following comments:

- We are really lucky that we have a good cover situation in place so we can release three teachers. The only problem is that I miss lessons with my own class. The timing of the cycles is crucial
- No, we have been strict about the time to plan, meet and observe
- We have the support in school and are used to doing it. It has not been a huge impact. All lesson observation cycles were in the spring term.
- It is intense, but the school has done its best to help
- Time is made available. It adds to workload writing cover for the lessons you miss… willing to put in the time if you think it is positive and worth it. It has not been unmanageable
- It has added to workload, not in the schools things …e.g. preparing for the conference paper work …presentation for the conference in terms of what we have achieved
- We had time in school for planning but not post lesson study discussion
- It has helped that the Assistant head has responsibility for cover and she is involved in the project
- I found it really hard as I work 4 days a week and could never attend the Ascend meetings
- As a school we struggle in terms of having cover teachers readily available

Responses to this question were generally more negative than positive. Some teachers could see the potential in using the technology, however the majority of teachers did not feel it added anything to the project. Most teachers talked about difficulties with the technology not being reliable, the frustrations experienced in trying to use the camera and the time need to watch the videos.
Responses from teachers included the following comments:

Positive comment

- I found it easy to set up. I trailed it out before the start of the lesson study cycle
- It has been useful, but we are still getting to grips with the technology and there have been a few problems with the hardware
- I think it is good to help teachers reflect on your own teaching .. things that you would not normally notice e.g. how often you ask questions to certain pupils, how you stand
- If the technology was easy and something came up in the lesson study then it would be useful.
- Using the videos supports the post lesson feedback
- It was nice to see the videos from other schools at the conference
- The camera hooks the schools into the project
- Camera technology was helpful
- I know why the camera would contribute to the success of the project if the surrounding factors were in place
- Nice that you can position the camera, easier than IRIS

Negative comments

- There were various issues with the technology… it arrived late and did not work the first time
- I want to use it but it is always off line. Not reliable…quite frustrating
- The technology is the barrier. Various issues – some down to old IT systems at school. .. Aiming at one person in the classroom and one person remote viewing. Only worked once. Trying to watch the clip while talking about the lesson also proved to be a problem. Created a negative feeling about doing Star lesson again. Seems like an add on to what we are doing.
- The quality of the video is not good
- Sound quite fuzzy
- It is not as simple as you think
- I have not played enough with it to know the technology well. It was a bit of a hindrance
- Hamish has always been so helpful but it is nor reliable
- Can't really see the lesson gems as the camera was not in the right place
- This has been the least successful part of the project..it is not as simple as portrayed
- You would need to allocate time to look at the videos in your own time
- If lesson on lesson gems were tagged properly I would use it

- I don't think I would look at other peoples videos on the website
- Playback needs sorting out
- The camera is secondary to the success of the project
- Not sure what the camera adds to the value of the project
- Having a static camera has not given us what we want
- A teacher observing in the classroom is more useful as they hear what the pupils are saying and look at their work

1.7 How engaged has your Headteacher/ SLT been with the process? How do you know?

The majority of teachers commented that their Headteacher was very engaged in the process. In some schools a member of the SLT was involved in the project as part of the trios. Where the member of staff also had responsibility for cover this was seen as very supportive. Teachers generally appreciated the cover that had been provided. One teacher commented on issues that had arising when the person with responsibility for the project left the school mid year.

Responses from teachers included the following comments:

- The principle is fully committed to the project and has helped to facilitate, particularly in ensuring that IT support is available when needed
- A member of the SLT is doing the project. She is a real motivator in terms of helping to resolve any problems
- The Head and SLT are very engaged… the whole school is involved
- They are really engaged. The Assistant Head has been very involved and supportive. He often asks if everyone is ok
- The Head has allowed us all to have cover
- The Head comes to the conferences and gives us time out
- The deputy is in my three and is aware of what is involved
- They are really engaged. We have the model throughout our staff. Everyone gets released. We are encouraged to use the camera. It will form part of our learning over time – links to Performance Management
- The person who was heading up the project left and had not put plans in place for the third cycle .. other priorities have come in. We struggle to make sure everyone is out at the same time

1.8 How closely has the lesson study process aligned with the impact framework?

Teachers found the impact framework supportive of the lesson study process by helping them to focus on specific pupils. Some teachers commented that by focusing on three pupils it benefitted all pupils' as they were able to use the strategies to support all pupils. One teacher commented that the focus was too narrow and they would have like to look at other things. Another commented that the focus pupils chosen at the start of the project may not be the pupils you want to focus on if you are third in the lesson study cycle.

Responses from teachers included the following comments:

- The impact framework was useful at the start of the process to think about the pupils to choose and why
- It works well. I would rather focus on three children rather than the teacher when it would feel like an observation. It was useful to focus on their particular needs
- I think it is good because it gave you a good structure to have throughout the process and to remind myself about where I want the pupils to be
- It has helped to focus on the needs of the three pupils (all boys) and then to use the strategies with all the other boys. A couple of the girls however have not achieved as much in their writing
- It was fine to focus on three pupils but it benefitted all pupils
- I don't think two lesson study cycles is enough to show progress
- It helped us to focus on pupils and talk about what was happening in the classroom
- It was definitely important to have a focus on the pupils. However if you are the third teacher in the cycle you might not still want to focus on these pupils.
- I can see the benefit of focusing on pupils …not sure if it should be just the three children
- The impact framework were very focused .. however there are other thing that you might want to notice and develop

2 Teacher interviews; Looking Ahead

2.1 Are you keen for the project to continue beyond July2015? Why (not)?

The majority of teachers were keen for the project to continue beyond 2015, however a few commented on the extra workload and the need for flexibility in the structure. One teacher commented that they would like to continue with the project, but would not use the technology.

Responses from teachers included the following comments:

Yes, because:

- You work with teachers you would not normally work with
- The focus on pupils is really useful … I find formal observations scary
- I really do think it is the way forward when it comes to observation and teachers supporting each other
- I think the idea of lesson study is fantastic. Would be good to have some time in the meetings to do the things we need to do… dedicated time to do the Ascend specific work
- Planning lessons with other input is really useful …it is nice to have the support
- We would love to continue the project. Would need to have a member of SLT involved or be given the autonomy to organise cover
- Will definitely take on board the lesson study cycle and partnering up with teachers … definitely see the benefits of it
- I think it has a lot of potential and a lot of staff would like to be able to focus on specific pupils … It gets you to think about these pupils and change your teaching to help them

No, because:

- The extra workload is a disadvantage if you are not given time for planning and post lesson discussion
- Not sure.. need for flexibility within the structure …don't have a huge resource in terms of cover
- Would not continue to use STAR lesson

2.2 What tools/practices of the project will you continue to use? How will you use it?

Teacher stated a range of ideas and practices that they would like to continue.

- Providing a platform in which teachers can take a risk to try something different
- Non judgemental
- Collaborative learning threes
- Definitely want to continue with the lesson study collaboration

- Focus techniques
- Impact framework .. I would like to have one of those for all classes and pick one or two pupils to have an impact framework on for a term. These are the pupils that can fly under the radar.
- focused questioning on the child …giving children time to think about a question before coming to them
- Remembering to praise pupils has really benefitted them
- Definitely would like to embed the use of the camera if it works
- Would like to continue to use the camera .. helps you to catch things
- Having people observing pupils and giving feedback on them was really useful
- Joint planning
- Observations
- Time to give it the respect it deserves

2.3 What will be needed to enable the project to continue beyond the end of the funded period?

Between schools and project management:

- To provide clear information to Heads of additional school joining the project about the workload ... they need to be aware of the time resource
- To ensure that conference time is well spent .. everytime you go to a meeting you need to feel that you got something from it e.g.. doing a mock lesson study
- Vary the days of the week for meetings .. all meetings were on a Thursday
- Nice for the less experienced teachers to have input from guest speakers e.g. supporting PPG, behaviour, what Outstanding teaching looks like
- Would like to go into different schools/ classroom and use their ideas
- It would be nice if there were hubs
- Pilot teachers to become champions and support new teachers
- Giving teachers the chance to impact policy…teachers have got to be leading the research to inform government

3 Senior Leader Interviews; evaluation of this year:

Schools: Haseltine Primary, Lanfranc Academy, Hayes Primary and Hayes Secondary

A summary of responses is given under each question heading:

3.1 How much do you know about the lesson study process/aims of the Ascend project?

All Headteachers had a good understanding of the Ascend project and its aims.
Responses included the following comments:-

- To work collaboratively across all phases of schools within the borough and other boroughs to use lesson study to raise the achievement of disadvantaged pupils in English and maths.
- Closing the gap with Pupil Premium pupil's
- Focusing on vulnerable groups of Pupil Premium pupils …improving teacher subject knowledge

3.2 How has the lesson study project fitted into practice in the school? Have additional accommodations been made?

Most Senior Leaders felt their school already had structures and professional learning cultures that supported Lesson Study and Triad learning.
Responses included the following comments:

- Lesson study has dovetailed into the school approach
- As the lead school we have taken lesson study a stage further this year .. We have rolled this out across the school
- It has fitted into the school development plan and CPD

3.3 How has the camera technology been used and were there any barriers to it working effectively

Responses from school leaders varied in relation to how useful and effective the camera technology has been in supporting the overall aims of the project. In some cases although the schools experienced difficulties with the technology this year, the Head teachers could see its potential.
Responses included the following comments:

- The technology is easier to use than IRIS technology
- Teachers genuinely feel it has benefitted them and their pupils to reflect on what is going on in the classroom
- It has been really useful .. we have used the camera beyond the project to raise the quality of teaching
- We had initial difficulties with the technology .. issues with the technology arriving late
- It has taken time to take off

- The STAR lesson has not been so good or robust
- The technology was not as effective as we would have liked
- The camera has been unreliable
- If the camera was working we could have built up a library of effective techniques… I would like to persevere with this next year

3.4 Overall, how successful has the project been?

All senior leaders commented on the success of the project this year.

- It has been really successful in so far as we have made the initial steps to be more reflective in our practice
- It has been really successful …supporting teachers to work collaboratively to improve subject specific pedagogy
- This year the project has been much more successful. The information we have received from Ascend has all helped this year.
- The teachers have all got a lot from the project … mainly through the joint planning, discussion and feedback
- A middle manager has really benefited from working with the senior leaders and feeding back

3.5 Are you aware of any impact on:

a) The quality of teaching

- In terms of the group it has had an impact on everyone's practice, however some more than others
- It has helped staff to be reflective in their practice and to improve
- Yes definitely.. it has encouraged teachers to take risks, develop good practice as they have all tackled areas for development in their teaching
- All teachers have developed in different ways

b) The motivation of teachers

- Staff were motivated because time was given to their professional learning
- The teachers are very motivated anyway.. they enjoyed participating in the project
- I think teachers are motivated because it is non-threatening feedback.. people respond to this is a positive way
- It has a massive impact on teachers motivation. I have not met anyone who has not wanted the experience to work alongside others to improve their practice.

c) Attitudes towards professional development

- Staff are very keen to share learning and good practice with colleagues
- It is a really good approach to professional development.. working collaboratively, low stakes, enables people to try out ideas and change their practice.

- It is non- threatening and inclusive .. no hierarchy .. all active participants
- The learning is implicit rather than explicit … the learning that comes out of it is incidental rather than planned .. learning as learners as well as learning about teaching

3.6 Pupil outcomes

- The data would suggest that pupils are making progress
- Feedback from students is that the learning is more demanding of them… they feel that there is greater focus on their learning
- Not sure yet .. not aware of the pupils that the teachers have been focusing on
- Will need to look at the end of year data to see what difference it has made
- Would need to check .. anecdotally I would say that there has been an impact in terms of the day to day diet of students …difficult to say if this change has been the result lesson study

3.7 Where there any barriers to the project working effectively?

- This year 'No'. The organisation and communication has improved this year
- The only barrier has been around cover.. school direct students helped with cover issues
- Only really the technology
- Time and workload can be barriers however the team have overcome these

4 Senior Leader Interviews; Looking Ahead

4.1 Are you keen for the project to continue beyond July2015? Why (not)?

Yes, because:

- The opportunity to work with and share /learn from other who are engaged in lesson study
- It helps to develop our thinking about how we are using lesson study
- The cross phase/ cross borough working is an exciting reason to be involved in the project
- Definitely.. I think it is something that can be rolled out to more staff
- Yes, it has clearly has had an impact.. I would recommend it to other schools
- I would be happy for it to continue next year as it dovetails with what we are doing

4.2 What tools/practices of the project will the school continue to use? How will they use it?

Use of STAR:

Videoing lessons is a good way to get staff to reflect on their strengths and areas for development

Lesson Study:

Would keep all the keep elements.. peer activity , non threatening, encouraging staff to work together, sharing good practice, collaborative planning
Continue with the trios
Increase the number of trios working next year

Others:

Want to position JPD so that it is central to our approach
Investing time to make sure teachers have the time to make it work properly

4.3 What will be needed to enable the project to continue beyond year end?

Ideas for improvement
The training courses need to be beneficial
Taught sessions need to be well organised .. sat for long time listening

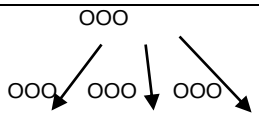
Ideas for developing the project
Develop hub meetings
Develop networks between schools
Online - good to share practice
Options:- continue as it has and bring in new schools
continue as a means to embed and develop existing schools

expansion within own schools

5 Implications and recommendations:

- The aims of the project need to be very clear from the outset
- Impact frameworks need to be properly introduced from the first conference with examples
- The role of STAR lesson in the Ascend project lacks clarity and needs to be properly explained, trialled and evaluated
- Lesson Study worked best when it was effectively coordinated, including time being set aside for each stage of the process
- Sharing knowledge of how to manage the logistics and costs of Lesson Study beyond the time-line of the Ascend project would be beneficial
- Online resources can be better-utilised and developed e.g. videoed lessons, guides, links to evaluation documents, guides to best practice in Lesson Study and forums for discussion across schools.
- Improved communication between project management and participating teachers to give a greater sense of belonging to the project and understanding of processes, such as evaluations

Appendix 2: How each school plans to take lesson study forward

School Name:	What is likely to happen with lesson study in our schools?	What is likely to happen with lesson Study?	Why will this happen?	**Why?**
Park Hill Infant School	We are in the middle of a handover, we would like to continue at the moment, but will know more in September 2015 as new leaders need to be appointed	It is likely that triads will continue, but not for focus children. Lesson *(ABS)* will happen within triad, but not planning together.		Release time across three classes for three times has been an issue (3 hours release plus 2 hours personal directed time) for each cycle. Therefore release for lesson observation (I hour only) feedback within directed meeting time is more variable.
Alexandra Infant School	SLT Would like to continue but due to staffing may not happen		Due to large turnover of staff.	
Farnborough Primary School	Two of the trio are doing another cycle with a new teacher		To eventually help create our own school model	
Haseltine Primary School	We are going to develop into a whole school model using the approach recommended by Paul	We want other teachers to benefit from the P D we have had this year		
Highfield Infants School/ Highfield Junior School	- Continue lesson triads throughout our school but observing children rather than teachers. - Use lesson gems equipment to observe staff and children			1. Another pair of eyes 2. Sharing skills 3. Sharing experiences 4. Sharing resources
The Archbishop Lanfranc Academy	Two groups of lesson study (ie expand to six teachers) by ester - expansion summer 2016 to 6x3 = 18			ANT leaving (*2 other teachers left*) - will need to train up new AHT to run projects quickly in September and use two remaining teachers to coordinate two trios.
Green Street Green Primary School	- Lesson Study will continue - Timetable to have deadlines but flexible within the form. - Three lesson study experts to lead three new groups across the school - Focus on Pupil programme (Boys) but led by individual teachers.			- A clear effective process to know your class - Valuable focussed CPD - Three great ambassadors for the project - Firm support for Senior Leaders
Glebe School		- We will be continuing with lesson Study using 2/3 original members plus a newly qualified teacher. - This will help embed the system and support the new staff.		
Forestdale Primary School	We have agreed as SLT to roll lesson study but across the school (in the way the Hayes have)	Part of our SDP is to share outstanding practice across the school and due to the success of Ascend,		

		lesson study is the best way to do this. We also believe that teachers should be deeply involved in their own PD and this allows them to do exactly that.		
Valley Primary	▪ It's part of Assistant HT job description ▪ Focused roll out pupils and subjects identified through pupils' progress managements			▪ Priority from SLT ▪ Plan Autumn - Start January 2016 go across two academic years
Sydenham School	We are in our second year currently of Lesson Study for all teaching staff. Year 1 use based ……on 'teaching' how to do a lesson study. Year 2 was based on how we can use move external research to inform our lesson study enquiry. Next year we wish to move lesson study move firmly into subject areas, deepening the level of research and being led by more subject leaders. Key is the focus on subject pedagogy and enquiry questions created through detailed diagnosis.	Findings:- We'd really like to do a collaborative enquiry/approach with Paul Foster at Hayes with lesson Study because we're at similar, but very different points and think we could really learn from each other.		
JTD Hayes Primary School	Next Year: ▪ Five groups of three teachers working together ▪ Provide planning release between the two research lessons			We have planned for specific weeks to have release included we have timetabled for groups to undertake the cycles we have a lead JPD practitioner
The Prior School	We have a Learning …. Three each week of the academic year planned	▪ Whole school initiative	Yes	
Chislemount School		Next stage. Plan for 3 facilitator the lead 2 staff from up to 3 facilitators…spread across wider consideration than		Client group agreed that the concept of joint planning plus evaluation was excellent CPD plus all would be happy to "see" the positive aspects of the project to staff
Parish CI Primary School	Use the model of lesson study to replace formal observations to provide a supportive, non-judgemental platform to improve teaching and learning - focus will be on outcome of PPG Children/or vulnerable groups.			▪ Two of our trio will move into SLT which puts us in good positon to lead it. ▪ Because we found it very beneficial as a non-judgemental framework across the phases and used it for music CPD this term. ▪ We intend to link with Valley to provide a

				network in the process and offer staff training at start of the year to all staff on working in trios. ▪ We will ensure STAR Lesson training and hardware are properly implemented in autumn term.

Appendix 3: Table discussions from end of year conference

Ascend notes 9th July 2015

Table 1:

- Levels of confidence engendered by lesson study co-planning and feedback, also seen in students, sometimes this was very difficult to measure and gains may be seen next year.
- Learned to be careful not to have pre-conceptions about pupils in the planning. Teachers have mis-read students' motivations and work ethic. When they are closely observed, other things have been identified.

Table 2:

- Mostly primary schools
- Observations process, planning and videoing was crucial in setting the ground.
- Insightful observations about individual students, e.g. one student was drawn to another, wherever they sat
- Visual or kinaesthetic learning solutions often emerged
- Literacy thread often was behind learning issues
- Being away from class was sometimes disruptive
- Going into a trio beyond own year group. Initially sceptical but found this to be very useful learning experience

Table 3:

- Resilience of learners became apparent
- Challenging assumptions of learners
- Active learning, practical situations – seen as really valuable
- Children taking responsibility for their learning

Table 4:

- Similar to above themes – agreement
- Impact has been the ability to stop, watch and think about individual pupils, especially little things that may seem insignificant
- Sharing similar issues, challenges and insights
- Ability to collaborate with colleagues, so valuable
- Share concerns about missing lessons
- Challenging 'lazy' and 'disengaged' students, much more insight and strategies about what to do
- Active learning and pupil leadership encouraged
- Ownership of learning and self assessment
- Choice of resources
- How to re-deploy TAs
- How to change seating plans

Table 5:

- Mis conceptions
- Lack of engagement – also some appeared to be engaged in learning but used avoidance behaviours

- Transition from yr1 and changes in curriculum and yr6 and 7
- How to improve 'learning behaviours'
- Lots of focus on modelling what pupils should do
- Focus on pupil independence
- Video was really helpful although sound quality sometimes an issue
- Everyone wanted to continue lesson study
- Useful to engage in cross-phase learning

Table 6:

- Similar issues to others
- Lack of engagement, distraction
- Lack of confidence
- Access to resources
- Access to colleagues as a critical friend
- Use of TAs was discussed and the danger of pupils becoming too passive
- Absenteeism and home life issues emerged in discussions
- Mixing ability groups sometimes dominated by better learner whereas similar ability groups supported each other more
- Making sure the basics are pre-taught is sometimes important (e.g. in reception knowing how to write a capital T)
- Learning from each other and use of resources
- Taking into account when children are tired, e.g. on Monday, after the weekend

Table 7:

- Similar to other groups
- Value of collaborative learning, non-judgemental
- The additional pair of eyes was so useful
- The value of children working collaboratively was shown too and understanding how to make this work
- Successes: use of skilful pair work to communicate, engage in learning, set their own questions
- Resources: Kagan structures and children using a coaching approach and mastery learning to enable children to develop confidence

Table 8:

- Teachers felt supported in teams
- Useful to have another pair of eyes
- Refining of skills, especially in now to develop independent learning
- Helping students to develop their memory, especially in mathematics
- Differentiation systems, e.g. spicy hot mild and encouraging more able students to go for the spicy task
- Need to continue, concerns about school timetable

Appendix 4: Summary of Ascend evaluation tools and processes

Tool or process	Description	Focus
UCL Instutute of Education Impact Framework	Teachers describe baseline practice and baseline for target pupils in qualitative terms. Corresponding desired impact statements written at start of year. These are then colour coded at end to see which are not achieved, partially achieved and which fully achieved.	Qualitative and quantitative measures of impact on practice and target pupils. Impact framework also provided targets for year and focus for each LS cycle.
Teacher self-evaluation surveys	Pre and post interventions measures on nine evidence-based claims for great pedagogy	Changes to teacher skills and knowledge (subject pedagogy)
Focus teacher survey	Teachers record changes to pupil learning throughout the LS cycle. Completed once by focus teacher after second post lesson discussion in cycle.	Micro-impact of LS cycle on pupils' learning and achievement.
Overall lesson study survey	All teachers complete at end of the year to record their professional learning and which aspects made the biggest changes to practice.	Macro-impact of LS throughout the year, including when teachers were involved in planning and observing others, as well as being the teacher.
Headteacher and teacher interviews	IOE evaluator interviewed Headteacher and three teachers at each of four schools (2 primary, 2 secondary)	The implementation of LS at the school, senior leader support for LS and use of video technology.
Pupil data	Each teacher set an aspirational target for their 3-6 focus pupils, above the estimate of achievement without intervention.	Quantitative pupil achievement
Analysis of video clips	IOE evaluation of 60 video clips	Quality assessment of video clips
Lesson Study Observations	2 lessons observed by IOE evaluator. Judged according to 3 quality criteria	Quality assessment of LS process in schools
End of year discussions on learning	Mixed-school table discussions and sharing of case studies from LS at end of year conference	Professional learning
End of year discussions on the way forward	Within-school table discussions about the likely way forward for LS at each school	Future implementation of LS. Sustainability, embedding and extending

Appendix 5: Analysis of Impact Frameworks

In September 2014, participants were asked to anticipate the impact of the lesson study project, with the following prompts: *What will my current teaching practice be like? What will the pupils' classroom experience and learning be like?*

In June 2015 participants were asked to evaluate the impact of the lesson study project, both on their teaching practice and on pupils' classroom experience and learning. They were asked to describe changes in their practice and changes in pupils' experience and learning, using soft evidence data of what is seen, heard, felt, said, done etc., and to colour code their commentary: green for achieved, amber for partially achieved, or red for not achieved.

Qualitative analysis of Impact Frameworks was carried out using NVivo (N = 30).

Pedagogy

Changes in practice described by participants were analysed using nine categories, based on Husbands and Pearce (2012), together with an additional category for teacher competences identified which did not easily fall into any of the nine categories.

- Building on Pupils' Prior Learning
- Clear Thinking about Longer Term Outcomes
- Consideration of Pupil Voice
- Developing Higher Order Thinking
- Embedding Assessment for Learning
- Inclusivity
- Scaffolding Pupil Learning
- Understanding the Pedagogical Process
- Using a Range of Techniques
- Other Teaching Competences

Pupil Outcomes

Changes in pupils' experience and learning were analysed using categories drawn from the National Curriculum (including two mathematics outcomes not detailed within the programme of study referred to here as the 'hidden curriculum') together with more general learning behaviours.

Mathematics Curriculum

- Geometry (from Programme of Study)
- Measurement (from Programme of Study)
- Number (from Programme of Study)
- Statistics (from Programme of Study)
- Problem-solving in mathematics ('hidden curriculum')
- Use of spoken language in mathematics ('hidden curriculum')

English Curriculum

- Reading (from Programme of Study)
- Spoken Language (from Programme of Study)
- Writing (from Programme of Study)

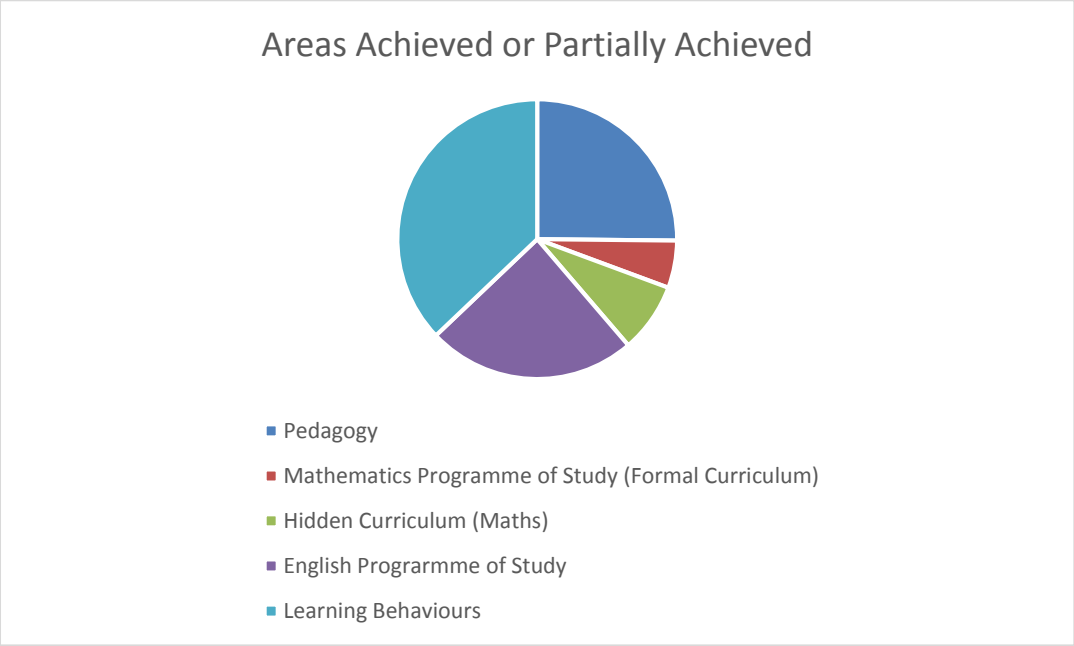
Learning Behaviours

- Collaboration
- Confidence
- Engagement
- Perseverance
- Resilience

Where teachers judged outcomes to have been achieved or partially achieved, the numbers of references, within each broader area of analysis, made by participants in their commentary within the Impact Frameworks, are shown in the table and figure below.

Area of Commentary from Impact Frameworks	Achieved or Partially Achieved	Percentage
Pedagogy	78	25
Mathematics Programme of Study (Formal Curriculum)	17	5
Hidden Curriculum (Maths)	25	8
English Programme of Study	75	24
Learning Behaviours	115	37
Total	310	100

(N=30)



Pedagogy

Where teachers judged pedagogical outcomes to have been achieved or partially achieved, the numbers of references, within each finer area of analysis, made by participants in their commentary within the Impact Frameworks, are shown in the table below.

Area of Commentary from Impact Frameworks	Achieved or Partially Achieved	Percentage

Assessment for Learning	22	27%
Scaffolding	19	23%
Inclusivity	19	23%
Range of Techniques	7	8%
Higher Order Thinking	6	7%
Other Teacher Competences	5	6%
Prior Learning	3	4%
Pupil Voice	2	2%
Understanding Process	0	0%
Long Term Outcomes	0	0%
Total	83	100%

(N=30)

Assessment for Learning

References were made to Assessment for Learning, in 16 of the 30 Impact Frameworks received. Teachers made reference to teacher assessment, self-assessment and peer assessment, exemplified by the following comments:

"All pupils then come to the carpet for a brief recap of a previous lessons topic or a mini-quiz on whiteboards which allows me to quickly assess what stage each child is at with their learning."

"My feedback in the lesson will be appropriate, concise and will give the children an immediate way to improve the quality of their writing."

"Lower ability children will respond to marking, sometimes with support, effectively in order to consolidate their learning."

"Lesson observations will show children using and understanding the AFL given through the success criteria and verbal AFL from the teacher."

"Ensure there is a plenary where children have the opportunity to review their learning, self-assess, and explain what they have leant."

"Children can recognise what to improve in their work by looking at the success criteria given and looking at the challenges set."

"When finishing a task, students are given more time for peer assessment before I display answers; they first compare their answers amongst themselves and are given an opportunity to explain their workings and how they got to the answer rather than only a few taking up this role."

Scaffolding

References were made to improvements in Scaffolding Pupil's Learning, in 11 of the 30 Impact Frameworks received, illustrating how teachers concentrated on breaking down the leaning into manageable steps for pupils, or providing specific resources to support learning, exemplified by the following comments:

"Lesson observations show that lower ability children do not just wait for adult support but are confident to use the scaffolding and modeling to help them with their work independently."

"Evidence recorded within Lesson Study observation and through book scrutiny show that target pupils A and B are able to approach tasks confidently and independently using the scaffolding/ resources provided. They ask for help if they are not sure within the first 5 minutes of a lesson."

"Any chn who have not understood remain on the carpet to practise and work through a range of examples. Some chn may end up staying longer than others but it is a completely flexible process based on continual assessment of the chn's learning and understanding."

"Lesson observations show that lower ability children are confident to attempt work independently (with the use of a scaffolding tool if necessary) without adult support."

Inclusivity

References were made to improvements in Inclusivity, in 13 of the 30 Impact Frameworks received. Many of these comments indicated a teacher focus on a particular pupil or group of pupils, exemplified by the following comments:

"Child A will have be able to leave his independent work station and rejoin his table for maths and English tasks."

"Observations will show that if target children are not participating fully they will be targeted by direct questioning."

"I can implement at least three new strategies to help pupil premium students exceed their potential."

"I have adapted my lesson and teaching strategies to enable all children's needs to be met effectively. I have observed and tested various strategies and will know effective ones to use for my target children and class."

"Work scrutinies show that I set extension focus questions for lower ability children when appropriate and not just higher."

"Planning will show specific adaptation for the individual needs of this group of children which will support their learning more effectively."

Pupil Outcomes

Where teachers judged pupil outcomes to have been achieved or partially achieved, the numbers of references, within each finer area of analysis, made by participants in their commentary within the Impact Frameworks, are shown in the table below.

Area of Commentary from Impact Frameworks	Achieved or Partially Achieved	Percentage

Number	17	7%
Measurement	0	0%
Geometry	0	0%
Statistics	0	0%
Problem-Solving (in Maths)	6	3%
Spoken Language (in Maths)	19	8%
Reading	14	6%
Writing	53	22%
Spoken Language (English)	13	5%
Collaboration	15	6%
Confidence	20	8%
Engagement	67	28%
Perseverance	7	3%
Resilience	7	3%
Total	238	100%

(N=30)

Engagement

References were made to improvements in pupil engagement, in 24 of the 30 Impact Frameworks received. Some of these comments indicated a teacher focus on a particular pupil or group of pupils, other made reference to all children, as exemplified by the following comments:

"Children were more engaged and proactive during lessons as observed by support staff."

"All abilities will engage in their learning and complete tasks within the lesson."

"All children will listen and focus during carpet learning and will put up hands to answer questions."

"Evidence recorded within Lesson Study observation and through class teacher questioning demonstrates that all pupils are engaged in partner discussion for at least 30 seconds and are able to provide feedback of their ideas."

"All children remain focused for the entire input (20 minutes). Child A writes with intrinsic engagement (not just to get the work done)"

"Target children A and B will be engaged in their learning and will be able to attempt learning tasks when working collaboratively or independently, by making connections in their learning."

"All three students are focused on the task in class and wanting to learn. SM in particular will not be easily distracted by objects on her desk. They are asking peers questions relevant to the work. Their books show evidence of note taking in class and a good amount of classwork."

"Pupils A, C and D have reduced the amount of time they spend 'off task' (drawing, staring out of the window, fiddling with equipment etc.) to 50% of the time."

"Child A – now engaging more regularly in literacy lessons and participating more on the carpet, putting his hand up to answer questions."

Writing

References were made to improvements in pupils' writing, in 14 of the 30 Impact Frameworks received. Many of these comments indicated a teacher focus on a particular pupil or group of pupils, exemplified by the following comments:

"Observations and guided group work have highlighted that the focus children now track back and re-read their sentences and notice missing words. Work is of a higher standard, including more ambitious vocabulary."

"Work scrutinies show that the target children's confidence has been built and this is shown by children 'having a go' and writing more independently. The target children are using their own ideas and are not as reliant on models within the classroom. All target children are using connectives to link ideas in their writing. Children's confidence has increased and they are now more proactive in their approach to their writing."

"Children are confidently using speech marks across a range of written pieces of work. Work scrutinies show that children are remembering to use specific aspects of grammar and apply it appropriately."

"Pupil A and Pupil C are both now much more engaged and excited about writing. They have improved their phonic knowledge which has made it easier for them to sound through words."

"Pupil B has made good progress in her writing and is able to write simple sentences, using sounds that match her spoken words."

"Pupil B can select sounds independently to build simple words. He is able to verbalize a simple sentence with support and can write this with finger spaces. Pupil B can now write letters on the line and control the size of upper and lower case."

"After completing a piece of writing, Pupil A will be enthusiastic to improve their learning and is able to spend time to 'polish' their writing. They can use a check list to ensure all elements of a super sentence has been used."

Appendix 6: Calculations for sign test year two data:

Expected data		Impact data					
Without intervention (projection)	Target from impact framework	Actual data July 2015	At or above Estimate ?	At or above Target?	Plus	Minus	Zero
4b	4a	4a	At	Y	Y		
5c	5c	5c	At	Y	Y		
5c	5c	5b	Above	Y	Y		
4b	4a	5c	Above	Y	Y		
4a	5c	5c	Above	Y	Y		
4a	4a	5c	Above	Y	Y		
3sec	3a	4beg	Above	Y	Y		
3dev	3b	3dev	At	N			Y
3dev	3b	3dev	Above	Y			Y
4beg	4c	4beg	At	Y			Y
3sec	3b	3beg	Below	Y		Y	
4beg	3a	3beg +	Below	N		Y	
4b	5c	4	At	N			Y
4b	5c	4	At	N			Y
4b	5c	4	At	N			Y
4b	5c	4	At	N			Y
2c	2b/a	2b	Y	Y	Y		
2c	2b/a	2a	Y	Y	Y		
2c	2b/a	2a	Y	Y	Y		
2c	2b/a	2b	Y	Y	Y		
2c	2b/a	2a	Y	Y	Y		
3b	3a	3a	Above	Y	Y		
3c	3b	3c	At	N			Y
3b	3a	3b	At	N			Y
3c	3b	3c	At	N			Y
3c	3b	3c	at	N			Y
2c	2b	2b	Above	Y	Y		
2c	2b	2c	At	N			Y
1a	2c	2c	Above	Y	Y		
1a	2c	2b	Above	Y	Y		
4s+	4s+	5b	Above	Y	Y		

4s	4s+	4s+	Above	Y	Y			
4s+	5b	5b+	Above	Y				
4s	4s	4s	At	Y		Y		
3w	3w+	3w+	Above	Y	Y			
3w	3w+	3w+	Above	Y	Y			
3w	3w+	3w+	Above	Y	Y			
3c	3b	3b	At	Y			Y	
3c	3b	3b	At	Y			Y	
3c	3b	3b	At	Y			Y	
2b	2a	2a	Above	Y	Y			
2b	2a	2b	At	N			Y	
2b	2a	2a	Above	Y	Y			
2a	2a	3beg	Above	Y	Y			
3c	2a	3beg +	Above	Y	Y			
3c	2a	3beg +	Above	Y	Y			
2a	2a	3beg +	Above	Y	Y			
3c	2a	3dev	Above	Y	Y			
2a	3beg	3beg	Above	Y	Y			
2b	2exc	2exc	At	Y			Y	
2b	2exc	2exc	At	Y			Y	
2b	2exc	2exc	At	Y			Y	
2b	2exc	3beg	Above	Y	Y			
2sec	2exc	3beg	Above	Y	Y			
2sec	2exc	2exc	Above	Y	Y			
2sec	2exc	3beg	Above	Y	Y			
2b	2a	2a	At	Y			Y	
2a	3c	3c	At	Y			Y	
2b	2a	2a	At	Y			Y	
3a	3a	3a	At	Y			Y	
3c	3b	3b	Above	Y	Y			
3b	3b	3b	At	Y			Y	
3c	3b	3a	Above	Y	Y			
3c	3b	3b	At	Y			Y	
3c	3b	3a	Above	Y	Y			
2b	2a	2b	Y	N			Y	
2a	3c	2a	Y	N			Y	
2b	2a	2b	Y	N			Y	

2a	3c	2c	N	N		Y	
2b	2a	2b	Y	N			Y
2b	2a	2b	Y	N			Y
2b	2a	2b	Y	N			Y
2b	2a	2a	Above	Y	Y		
Emerging	Emerging	Expected	N	N		Y	
Emerging	Emerging	Emerging	N	N		Y	
Emerging	Expected	Emerging	Y	N			Y
Emerging	Expected	Expected	Y	Y	Y		
Emerging	Expected	Expected	Y	Y	Y		
Emerging	Expected	Expected	Y	Y	Y		
ELG emerging	ELG secure	ELG secure	Y	Y	Y		
ELG emerging	ELG secure	ELG secure	Y	Y	Y		
ELG emerging	ELG secure	ELG secure	Y	Y	Y		
40-60 lower	40-60 secure	40 - 60 lower	Y	N			Y
ELG emerging	ELG secure	ELG emerging	Y	N			Y
ELG emerging	ELG emerging	ELG emerging	At	N			Y
EIG emerging	ELG emerging	ELG emerging	At	N			Y
ELG emerging	ELG expected	ELG expected	Above	Y	Y		
ELG emerging	ELG emerging	ELG emerging	At	N			Y
ELG emerging	ELG expected	ELG expected	Above	Y	Y		
5w+	5s	5s	Above Estimate	Y	Y		
5w+	5s	5s	Above Estimate	Y	Y		
5w+	5s	5s	Above Estimate	Y	Y		
5w+	5s	5s	Above Estimate	Y	Y		
5w+	5s	5s	Above Estimate	Y	Y		
5w+	5s	5s+	Above Estimate	Y	Y		
4c	4c	4c	At	N			Y
3a	4c	4c	Above	Y	Y		
3a	4c	4c	Above	Y	Y		
4c	4b	4c	At	N			Y

				total	53	6	39
				Proportion	0.54	0.06	0.40
				x=6			
				N=59	3.640055		
		BINOMDIST					

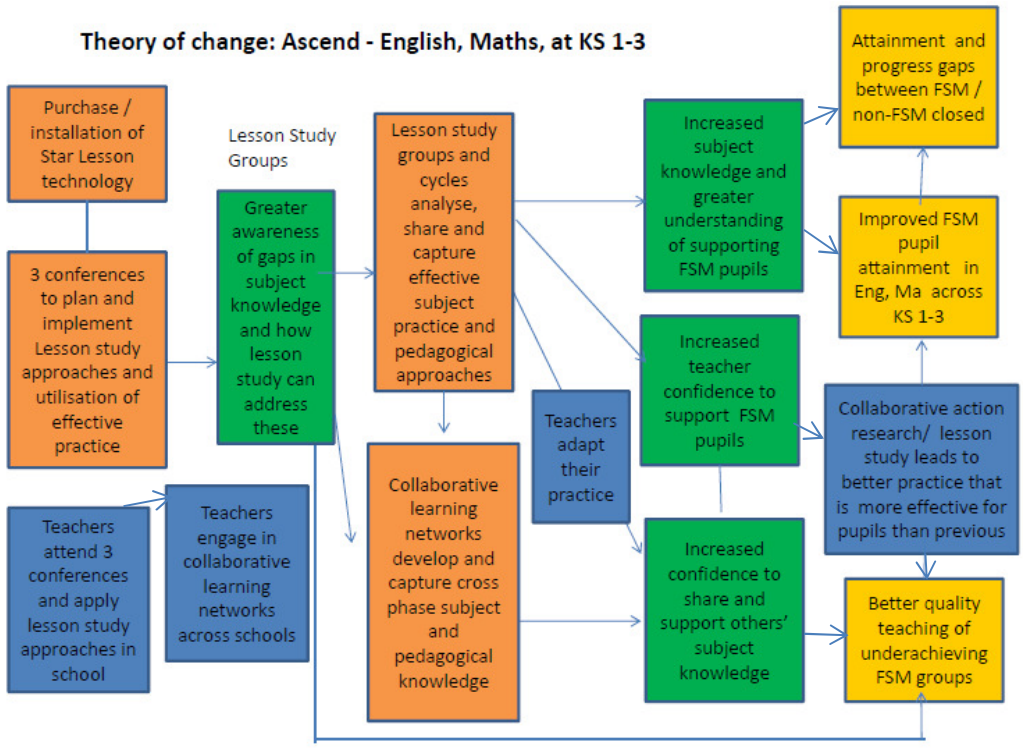
Appendix 7: Pupil impact data and calculations of significance

Pupil initials	Expected data		Impact data			
	Without intervention (estimate)	Target from impact framework	Actual data July 2014	At or Above Estimate?	Above Target?	Sign
MM	1b	1a	2c	Yes	Yes	+
TK	1b	1a	1b	Yes	No	0
TB	1c	1c	p8	**below**	No	-
JT	1b	1a	1b	Yes	No	0
NM	1a	2c	1a	Yes	No	0
HFS	1a	2c	2c	Yes	Yes	+
ZS	1c	1b	1b	Yes	Yes	+
RD	30-50 SECURE	40-60 BEGINNING	40-60 MONTHS BEGINNING	Yes	No	0
MB	40-60 MONTHS WORKING WITHIN	EXPECTED (2)	EXPECTED (2)	Yes	No	0
FW	40-60 MONTHS SECURE	EXPECTED (2)	EXPECTED (2)	Yes	Yes	+
PA	EXPECTED (2)	EXCEEDING (1B)	EXCEEDING(1B)	Yes	Yes	+
CH	1a	2c	1a	Yes	No	0
OM	2c	2b	2C	Yes	No	0
BB	2b	2a	2B	Yes	No	0
ZB	4a	Ec	Fc	Below	No	0
CC	5c	Eb	Ec	Yes	No	0
CD	4a	Ec	Fc	**Below**	No	-
HE	5c	Ev	Fa	**Below**	No	-
BK	5c	Eb	Ea	Yes	Yes	+
ML	4b	Fa	Gb	**Below**	No	-
SS	5b	Ea	Fa	**Below**	No	-
JW	1C	1B	1B	Yes	Yes	+
EE	2C	1A	1A	Yes	Yes	+
ZFG	1A	2C	1A	Yes	No	0
LC	3B	3A	3B	Yes	No	0
EB	3B	3A	3B	Yes	No	0
MS	3C	3B	3B	Yes	Yes	+
CN	3B	3A	3B	Yes	No	0
HS	3B	3A	3A	Yes	Yes	+
RR	3B	3A	3B	Yes	No	0
AB	3C	3A	3B	Yes	No	0
FM	3C	3A	3B	Yes	No	0
TD-J	3C	3A	3B	Yes	No	0

MA	1a	2b	2b	Yes	Yes	+
IH	1b	2c	2c	Yes	Yes	+
SI	2c	2c	2c	Yes	Yes	+
SL	2c	2a	2b	**Below**	No	-
JT	2a	3a	3b	Yes	No	0
LO	2c	2b	2b	Yes	Yes	+
TA	2b	2a	3c	Yes	Yes	+
JZ	2b	2a	2a	Yes	Yes	+
LB	2C	2B	2B	Yes	Yes	+
MC	2B	2A	2B	No	No	0
AK	2C	2B	2B	Yes	Yes	+
JDS	Fc	Fa	Fb	Yes	No	0
HW	Fb	Fa	Fb	No	No	0
LA	Db	Da	Dc	**Below**	No	-
EDR	Db	Da	Db	**no**	No	0
JH	Eb	Ea	Eb	**No**	No	0
CMK	Db	Da	Db	No	No	0
Jc	L4a	L4a	L5c	Yes	Yes	+
Of	L5b	L5a	L5b	No	No	0
Mb	L4c	L4b	L4b	Yes	Yes	+

Appendix 8 : Theory of change

Updated 11.9.14



Collaborative Learning Networks:

It is difficult to capture the complexity of this project with the Theory of Change model. I have therefore added the following notes that will I hope answer the questions you have raised.

1) Ascend Learning Networks
   In year 1 of the project, the compression of the timeline would not allow for the ALNs to operate effectively.
   In year 1 of the project, the collaborative learning networks are being set up at the final conference 16.07.14 with the 11 Cohort 1 schools.
   In year 2 of the project, Cohort 2 schools will be linked into the ALNs for Cohort 1 – see Appendix 1.

   The timeline for ALNs will be as follows:
   Cohort 1 Conference 3 – 16.07.14 – ALNs set up with a Cohort 1 school. ALNs have capacity to include Cohort 2 schools at their first conference 25.09.14. The core purpose of ALNs is to share best practice and knowledge using in school and interschool networks and starlesson lesson gem site, identify training needs. Terms of reference are drawn up at Conference 3 for ALNs and meeting dates for 2014-15 are set.

2) The activities of the conferences, together with the Lesson Study cycle activities contribute to outcomes that are captured in the project evaluation:
   a) The data on attainment and progress of the focus pupil group for each Lesson Study trio is captured for:
      the end of Autumn term – control data when no Lesson Study is taking place
      the end of Summer term – after 3 Lesson Study cycles
   b) Improvements to teacher subject knowledge are measured from a baseline and end of year subject knowledge survey. Update-this is now incorporated into the Ascend teacher self -evaluation used to identify training needs

3) Improvements to quality of teaching
   Activities include:
   - Lesson Study research lesson, peer learning
   - Sharing good practice through conferences, ALNs, Teach meets Lesson Gem site where teachers upload videos of good practice to share.
   - Use of website, twitters and blogging to share good practice
   - Training in Conferences on using Lesson Study to improve quality of teaching and learning including using star lesson videos.

   Outcomes to improvements to quality of teaching are measured through;
   - IOE analyses sample interviews with Lesson Study teachers and Headteachers
   - Impact evaluation frameworks that are completed as part of the Lesson Study process.
   - Headteacher evaluations of the Quality of Teaching.
   - Pupil/student attainment and progress.

4) Knowledge mobilisation occurs through

Online	**Face to Face**
Lesson Gem site	Conferences
NCETM	Ascend Learning Networks
Ascend website	LSEF Lesson Study Group
London Ed	Project Group meetings
Lesson Study UK	Singapore schools Study Tour
Twitter	Teach meets
Blogs	

5) Star Lesson technology enables teachers to
   - Capture best practice to share on a password protected Lesson Gem site
   - Video lessons as part of the Lesson Study cycle in order to facilitate further analysis
   - Video own practice in order to evaluate their progress and self improve.
   - Line Managers and others to observe teachers and learners remotely, live time or post lesson in order to support teacher's improvement.

- In ear coaching during lessons.

Sustainability of Ascend.
This is being built in through supporting Ascend schools to roll out the Project across their schools. All Cohort 1 Heads are keen to do this. Continuing to support ALNs and identified training needs.

Building Best Practice model of ways to do this shared on Ascend website.

Continuity to develop capacity in website and Lesson Gem site to share good practice. Linking Ascend to:

- Challenge the Gap Early Years 2014-15 - Challenge Partners building lesson study into this best practice model.
- Research Projects
- Other LSEF Lesson Study projects eg Mathematics Mastery in order to further increase subject knowledge.

Increasing scope of project in 2014-15 with additional schools. Teaching schools Impact and EYELA developing bespoke training programmes to support the Ascend Project eg. Leadership, Coaching, Learning strategies.

Pickhurst Evaluation Framework

Updated July 2014

Please contact susan.hellman@ioe.ac.uk for any further information on the English subject audits or interviews with Ascend school staff.

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**

☐ Outcome, indicator of data collection method **not required**

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.

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 **Sub Groups** As part of establishing the baseline, the characteristics of the eligible cohort should be analysed across the following sub groups: ☑ NQTs ☑ 3 years + ☑ Primary/ secondary ☑ Other (project specific) These should be expressed as a % of the whole group. **Churn** 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: ☑ Unique teacher identifier ☑ Engagement date ☑ Disengagement date and reason	☑ Increased subject knowledge and greater awareness of subject specific teaching methods ☑ Subject focus Maths or English lesson study improving teaching subject knowledge to meet demands of new National Curriculum lesson study focused on teaching strategies that enable PP children to make accelerated progress.	☑ Increased teacher scores in subject knowledge audits Audits to be taken by all teachers involved in the intervention ☑ NCETM subject knowledge audit. Grammar and Phonics audit designed by L Osborne for 2013-14 Cohort 1. New English subject knowledge audit designed by IOE for 2015-15 Cohort 2.	☑ Scores collected for individual teachers from pre intervention subject knowledge audits ☑ Subject Audit data collection 4.4.14. Autumn Term 2013 progress and attainment data for each Lesson Study teachers focus group captured for control group data.	☑ Scores collected for individual teachers from subject knowledge audits after Yr1 and Yr2 of intervention ☑ 18.7.14 for Maths and English
	☑ Increased teacher confidence	☑ Increased teacher scores in confidence surveys ☑ Survey to be completed by all teachers involved in the intervention. IOE to conduct interviews with 12 teachers and a sample of Headteachers to cover English and Maths foci and primary and secondary schools. Survey designed by IOE and reviewed by IOE David Godfrey.	☑ 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 ☑ The English and Maths audits provide evidence on changes in teacher confidence in relation to subject knowledge. ☑ Interviews/ focus group of sample of survey respondents to moderate survey findings – 36%
	☑ Delivery of higher quality teaching including subject-focused and teaching methods	☑ Improved teaching performance in observed lessons[iii] ☑ IOE teacher quality evaluation is based on Chris Husbands article, 9 claims about great pedagogy.	☑ Standards collected for individual teachers from Headteacher/teacher evaluations of Quality of Teaching of Lesson Study trio at start of project.	☑ Headteacher/teacher evaluations of Quality of Teaching beginning of end of project.

	Outcomes	Indicators	Baseline data collection[i]	Impact data collection[ii]
		☐	☐ Target standards collected for individual teachers from pre intervention observations (i.e. percentages of teachers at each level). The emphasis of this will be for percentage conversion to good/outstanding but all levels should be monitored	
	☐ Use of better subject-specific resources	☐ Development of improved subject specific resources ☐ Uptake of new resources	☑ Existing subject specific resources are identified on Impact Evaluation frameworks. ☐ Launch date of new resources	☐ Independent review of new subject specific resources and old audited resources[iv] ☐ Use of new subject specific resources in lessons (through lesson observations or work scrutiny). Usage analysed against performance in observed lessons.
				☑ New subject specific resources and their use are identified on the Impact Evaluation Framework and comments made on their impact. This 'data' is evidenced through sample interviews late June each year.

	Outcomes	Indicators	Baseline data collection[i]	Impact data collection[ii]
Pupil outcomes **Sub Groups** The characteristics of the eligible cohort should be analysed across the following sub groups: ☑ LAC continuously for 6 months+ ☑ FSM ☑ FSM at any time during last 6 years* ☑ Disadvantaged pupils ☑ EAL ☑ Gender ☑ Ethnicity ☑ Statement of SEN or supported at School Action Plus ☑ Started respective Key Stage below expected level, at expected level, above expected level 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. **Churn** 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: ☑ Unique pupil identifier ☑ Engagement date ☑ Disengagement date and reason	☑ Increased educational attainment and progress ☑ Reading, Writing or Maths at end of academic year includes EYFS KS1 KS2 KS3	☑ Increased attainment (levels and sub levels at KS1-3) compared against a comparison group[iv] ☑ Increased levels of progress (point scores and % achieving higher point scores than expected) compared against a comparison group[vi] ☑ 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] ☑ The comparison group is the group pupil/data Autumn term when Lesson Study is not in operation.	☑ Intervention group: assessed level on entry to the programme and for 1st term. ☑ Trend data we are showing projected expected progress against actual. ☑ Intervention group: in house % points gaps between relative attainment of sub groups pre intervention ☑ Comparison group: in house % points gaps between relative attainment of sub groups pre intervention ☑ Trend data: in house % points gaps between relative attainment of sub groups	☑ Intervention group: actual pupil progress and attainment levels after Y1 and Y2 of intervention ☑ Comparison group: actual pupil attainment levels after Y1 and Y2 of intervention 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] ☑ Intervention group: difference between actual attainment and expected attainment (without intervention) ☑ Comparison group: difference between actual attainment and expected attainment (without intervention) ☑ Intervention group: in house % points gaps between relative performance of sub groups after Year 1 and 2 of intervention ☑ Comparison 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]
	☐ Increased take up of specific subjects	☐ Increased numbers of pupils taking up specific subjects at GSCE, at A Level and at H/FE against a comparison group[vi]	☐ Trend data: numbers of pupils taking up relevant subjects at GSCEs, A Levels and at H/FE for 3 years prior to intervention (by subject incl. any info on pupils taking two languages) ☐ Intervention group: pre intervention survey of likely subject choices in relevant subjects at next stage ☐ Comparison group: pre intervention survey of likely subject choices in relevant subjects at next stage ☐ EBac measure in relation to KS4 for previous 3 years	☐ Intervention group: numbers of pupils taking relevant subjects GSCEs and A Levels after 12 and 24 months of intervention (analysed by subject & cohort profile) ☐ Comparison group: numbers of pupils taking relevant subjects GSCEs and A Levels after 12 and 24 months (analysed by subject & cohort profile) ☐ Intervention group: post intervention surveys (after Y1 & Y2) of likely subject choices in relevant subjects at next stage ☐ Comparison group: post intervention surveys (after Y1 & Y2) of likely subject choices in relevant subjects at next stage ☐ EBac measure in relation to KS4 after Yr1 and Yr2 of the intervention
	☐ Improved transition between primary and secondary	☐ Higher percentage of pupils outperforming expectations in Year 7 against a comparison group[vi]	☐ Intervention group: assessed levels of primary pupils pre intervention and for 3 years previous ☐ Comparison group: assessed levels of primary pupils pre intervention and for 3 years previous ☐ Intervention group: expected levels and point scores at end of Year 6 and 7 (without intervention) ☐ Comparison group: expected levels and point scores at end of Year 6 and 7 (as above) ☐ Trend data: assessed levels of pupils for the 3previous year groups	☐ Intervention group: assessed levels of pupils at end of Year 6 and end of Year 7[v] post Y1 and Y2 of intervention ☐ Comparison group: assessed levels of pupils at end of Year 6 and end of Year 7 post Y1 and Y2 of intervention A sample of Year 7 assessments should be independently moderated

	Outcomes	Indicators	Baseline data collection[i]	Impact data collection[ii]
	☐ Accelerated reading age scores	☐ Improved progress in reading age scores against a comparison group[v] including: ☐ Reduction in gap between low reading ages and chronological age against a comparison group[vi]	☐ Intervention group: reading age scores pre intervention[vi] in relation to chronological age and for 3 years previous ☐ Comparison group: reading age scores pre intervention[vii] in relation to chronological age and for 3 years previous ☐ Trend data: reading age scores at end of ages addressed by intervention for the 3previous year groups	☐ Intervention group: reading age scores after Yr1 and Yr2 of intervention in relation to chronological age ☐ Comparison group: reading age scores after Yr1 and Yr2 of intervention in relation to chronological age

	Outcomes	Indicators	Baseline data collection[i]	Impact data collection[ii]
	☐ Heightened long term ambition	☐ Increased number of pupils going into H/FE or higher level apprenticeships[vii] against a comparison group[vi]	☐ Intervention group: pre intervention survey of likely further education or next stage choices ☐ Comparison group: pre intervention survey of likely further education or work choices ☐ Trend data: numbers of pupils going into higher education and work (KS5/ degree level) for the 3previous year groups	☐ Intervention group: numbers of pupils going into H/FE or higher level apprenticeships. ☐ Comparison group: numbers of pupils going into H/FE or higher level apprenticeships.
		☐ Increased number of pupils going into Russell Group facilitating subjects[viii] (KS5 , H/FE)	☐ Intervention group: pre intervention survey of likely subject choices ☐ Comparison group: pre intervention survey of likely subject choices ☐ Trend data: numbers of pupils going into Russell Group subjects (KS5 and degree level) for the 3previous year groups	☐ Intervention group: numbers of pupils going into Russell Group subjects in further education (KS5 and degree level) after Y1 and Y2 of intervention ☐ Comparison group: numbers of pupils going into Russell Group subjects in further education (KS5 and degree level) after Y1 and Y2 of intervention
		☐ Increased numbers of pupils plan to go into H/FE or higher level apprenticeships ☐ Increased numbers of pupils plan to study Russell Group facilitating subjects[xi] (KS5, H/FE) ☐ Increased numbers of pupils report/ demonstrate higher levels of aspiration	☐ Intervention group: Pre-intervention survey of aspirations and plans regarding H/FE and subject choices ☐ Comparison group: Pre-intervention survey of aspirations and plans regarding H/FE and subject choices	☐ Intervention group: Survey of aspirations and plans regarding H/FE and subject choices after Y1 and Y2 of intervention ☐ Comparison group: Survey of aspirations and plans regarding H/FE and subject choices after Y1 and Y2 of intervention

	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. In Y1 and Y2 we are running 3 conferences. ☐ Increased number of teachers who are trained to act as Lead partners ☐ Increased number of teachers who are able to extend network i.e. through 'cascading' training/ support ☑ Increased participation in 'online' subject for a/practice networks ☐ Increased numbers of schools opting in to participate in networks i.e. attending regular meetings, sessions or events	☑ Numbers and profile of teachers attending numbers of network meetings, conferences, taking advanced courses etc. over 12 months previous to the intervention ☐ Number of trained Lead partners pre intervention ☐ Number of staff trained/ able to support & extend networks pre intervention ☑ Range and scope of online fora pre intervention ☐ Number of schools actively involved in working together pre intervention	☑ Numbers and profile of teachers attending numbers of network meetings, conferences etc. over Y1 and Y2 of the intervention ☐ Number of trained Lead partners after Y1 and Y2 of intervention ☐ Number of staff trained/ able to support & extend networks after Y1 and Y2 of intervention ☑ Level of support for online networks/hits etc. ☐ Number of schools actively involved in working together after Y1 and Y2 of intervention
	☐ Programme activities/ model is embedded in department/ schools/ council planning **beyond the intervention group**	☐ Inclusion of programme activities/ model in development plans	☐ Development plan pre roll-out of intervention ☐ Commitment/ sign up by school to specific criteria pre intervention	☐ Part of department/ school/ council development plan ☐ Number of teachers following development plan/ due to roll out changes ☐ Commitment/sign up by school to specific criteria as part of project e.g. release of staff for x days to work with other schools
	☐ Use of better resources by teachers/ schools **outside the intervention group**	☐ Uptake of new resources developed by LSEF programmes by non LSEF teachers/ schools	☐ Planned new resources to be developed by LSEF programmes ☐ Avenues of dissemination/ promotion ☐ Dissemination dates	☐ Number of resources downloaded from websites (by different schools)[ix] ☐ Number of resources taken from training sessions/ conferences (by different schools) ☐ User feedback on quality of resources through online survey

	Outcomes	Indicators	Baseline data collection[i]	Impact data collection[ii]
	☐ Teachers/ schools **outside the intervention group** have the opportunity to increase their subject knowledge through the programme	☐ Increased number of teachers outside of the intervention group schools improve their subject knowledge as a result of this programme	☐ Existing training courses/ sessions/ workshops offered to teachers outside of the intervention group ☐ Number of teachers outside of the intervention group attending existing training offered by your programme	☐ New training courses/ sessions/ workshops offered to teachers outside of the intervention group based on/ as part of your programme ☐ Number of teachers outside of the intervention group attending training offered by your programme

[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] **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.
[iv] **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.
[v] **Attrition** (of pupils) must be closely monitored for programmes addressing transition. If a transition programme monitors a cohort from beginning Y6 to end Y7 and some of the cohort leave the intervention group at end Y6 (due to secondary schools not being involved in the programme), these pupils cannot be replaced by new pupils joining Y7 from a primary school not involved in the intervention. Only pupils who have been engaged with the intervention throughout the programme should be analysed.
[vi] **Reading tests** must be nationally standardised.
[vii] **H/FE measures** include: further education college, other further education providers, apprenticeships, UK higher education institution and education combination in line with DfE Education Destination Measures http://www.education.gov.uk/schools/performance/
[viii] **Russell Group subjects** include: Mathematics and Further Maths , English, Physics, Biology, Chemistry, Geography, History and Languages (Classical and Modern)
[ix] **Resources:** It will need to be mandatory for schools/ teachers downloading or taking resources to provide some details before they do so. This will need to be built into any online download options and managed through any other dissemination avenues i.e. at conferences.