



Evaluation of the Impact of ENTHUSE Partnerships

Draft Interim Report for Myscience

January 2015

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EXECUTIVE SUMMARY

- The ENTHUSE Partnership programme provides groups of schools with funding for collaborative activities to improve teaching and learning in science. The 2014-16 programme will provide state funded primary schools with a maximum of £12,000 to work in partnership with at least three other schools to undertake Continuing Professional Development for teachers and science-based learning activities with pupils.
- The September 2014 cohort consists of six partnerships which together contain a total of 35 schools. The main reason why the partnerships became involved in ENTHUSE was to develop teaching approaches to raise pupils' attainment in science, although they vary in terms of the year groups and pupil sub-groups they are prioritising. All of the partnerships also intend to improve teachers' confidence and knowledge in teaching science subjects, to develop better links with business and to improve secondary school transition.
- It has taken longer than expected for the partnerships to develop their plans for the programme. This is down to a combination of the partnerships seemingly underestimating the work involved, Ofsted inspections and staff sickness. The partnerships have felt well supported by the Myscience team during the planning stage and cited the induction day as being particularly beneficial.
- As a result of the aforementioned delays, delivery through the programme was slightly behind schedule at the end of 2014. While all of the partnerships had delivered some CPD related activities, these tended to be early stage. Nonetheless, the general feeling across the partnerships was that the lost ground would be made up during the remainder of the programme.
- A small number of issues have arisen on the programme, although none is yet seen to be especially serious. They include: i) teachers finding the time to participate; ii) some concern that the monitoring and evaluation requirements are more substantial than originally expected; and iii) difficulties in obtaining data from some schools.
- In the vast majority of cases, the impacts of the ENTHUSE Partnership programme are (understandably) still to emerge. This is due to the initial delays and the fact that impacts will naturally run behind the delivery of CPD. As at the end of 2014, one partnership had reported an impact on pupils (improvements in attainment) and one said that teachers' confidence had improved. Importantly, however, all of the partnership leads remain confident that the impacts they predicted at the outset of the programme will still be achieved.
- The programme appears to have a high level of additionality, i.e. it seems very unlikely that the CPD would have taken place on the same scale or generated the same (predicted) impacts without the funding.

Learning Points

- **Pupils and Schools:** it is too early in the programme to identify any meaningful pupil or school-level learning points. These will be explored in the forthcoming stages of the evaluation.
- **Teachers/Partnership Leads:** it is important that teachers are aware of the programme's monitoring and evaluation requirements at the outset. Alongside this, linking payments to the satisfactory completion of monitoring returns and participation in the external evaluation could also be considered.
- **Teachers/Partnership Leads:** teachers would appreciate an executive summary or overview being added to the programme guidance document.
- **Teachers/Partnership Leads:** Myscience may wish to consider streamlining the planning process by ensuring that the partnership plans are completed at the induction day.
- **Teachers/Partnership Leads:** securing and maintaining teachers' engagement in partnership activities will be fundamental to the success of the programme. Early evidence gathered through the evaluation suggests that this can be helped by:
 - Being flexible with meeting locations and timings.
 - Proactive project management from partnership leads (e.g. regular communication, reminders for information etc.).
 - Communicating successes across the partnership.
 - Gaining buy-in from senior figures at partnership schools to encourage them to release staff.

Future outlook

- The outlook for the programme appears positive. For example:
 - There is clear enthusiasm for the partnership CPD model and for the activities that the partnerships are planning to deliver.
 - The participants see ENTHUSE as one of the few initiatives which recognises the importance of science teaching and learning and supports this aspect of teacher CPD.
 - Partnership leads are confident that the time lost due to the delays in the planning phase can be recouped later in the year.
 - The partnerships remain confident that the impacts they have predicted in their plans will be achieved.
- It is likely that Myscience will need to regularly remind partnerships of the need to comply with monitoring and evaluation requirements. Linking this compliance with the release of funds may also be necessary.
- Strong links with local businesses will be important for some of the partnerships to meet their objectives. Others will need to develop better links with local schools to ensure that can obtain pupil impact data. Myscience may therefore wish to look for ways to support partnerships to engage these organisations, e.g. by providing letters of endorsement for partnership leads to use.
- With this cohort running over a two year period, a mid-point programme progress update and celebration event could be considered to maintain engagement and enthusiasm.

1 INTRODUCTION

The ENTHUSE Partnership programme

- The ENTHUSE Partnership programme provides groups of schools with funding for collaborative activities to improve teaching and learning in science. In doing so, it enables schools to work together to close attainment gaps between groups of pupils, supports school-to-school Continuing Professional Development (CPD) and promotes engagement with local Science Learning Partnerships (SLPs).
- The 2014-16 programme will support state funded primary schools who wish to work in a partnership with at least three other schools. Partnerships are funded for two years, to a maximum of £12,000, to undertake CPD and science-based learning activities with pupils.
- The September 2014 cohort – upon which this report is based – consists of six partnerships. Collectively these partnerships contain 35 schools.

This report

- This is the first report from the external evaluation of the ENTHUSE Partnership programme. The evaluation began in September 2014 and will conclude in September 2015.
- The report provides an overview of the ENTHUSE partnerships (Chapter 2), discusses the progress they have made to date (Chapter 3), identifies the impacts that have arisen thus far and those expected in the future (Chapter 4) and summarises key learning points (Chapter 5).

2 THE ENTHUSE PARTNERSHIPS

Overview of the partnerships

- The ENTHUSE partnerships range in size from four to eight schools. Two partnerships are located in London, two are in Yorkshire and the Humber, one is in the East Midlands and one is in the South West.
- Four of the six partnerships are comprised entirely of primary schools. The other two partnerships also include one secondary school.
- The main reason why the partnerships became involved in ENTHUSE was to develop teaching approaches to raise pupils' attainment in science. Partnership leads (of which there is one per partnership) have identified a lack of school-level focus on science, partly at least because it is no longer included in Key Stage 2 tests, and feel that this is contributing to falling levels of attainment.
- In the 2014/15 academic year, the number of CPD units¹ delivered through the programme will range from between 75 and 244 per partnership. It is estimated that between 7 and 18 teachers will take part in each of the CPD sessions supported by the programme (it is less straightforward from the information currently available to identify the total number of teachers that will be involved, although subsequent evaluation updates will aim to include this).

Year groups and priority focus

- As shown in the table below, the age range covered by the partnerships is broad – from Year 1 to Year 6 – although Year 6 is covered by three of the partnerships. Each partnership has identified a priority cohort of pupils (also shown below).

Partnerships: Region, year group focus and pupil group focus			
Partnership	Region	Year group focus	Priority focus
Wyndham Primary	East Midlands	Y1 and Y5	High ability pupils
Esk Valley	Yorkshire & Humber	Y2 and Y6	Low ability pupils
Lapage	Yorkshire & Humber	Y6	Pakistani girls
Gifford	London	Y6	Pupil premium pupils
Preston	London	Y4 and Y5	Under achieving pupils
Mary Elton	South West	Y2	Girls

Objectives and targets

- **Pupils:** Each partnership aims to raise the attainment of its target pupils. Where further detail has been provided in the partnership plans, it includes meeting or exceeding the national average in science attainment, increasing the number of pupils achieving Level 6 in science and closing the attainment gap between the lowest and highest ability pupils.
- **Teachers:** All of the partnerships intend to improve teachers' confidence and knowledge in teaching science subjects. Specific areas to which this applies include delivering the new curriculum, investigative teaching, the use of technical language and the development of assessment tools. Other teacher related

¹ One CPD unit is equivalent to five hours of CDP for one person.

objectives include improving the quality of teaching in science, establishing teacher progression routes and the better sharing of good practice.

- **Schools:** School related objectives commonly include developing better links with business and improving secondary school transition. Others, cited less often, include establishing Specialist Leaders of Education in science, progressing schools to the point where they are ready to apply for the Primary Science Quality Mark (PSQM) and furthering the lead school's progress toward becoming a teaching school.

A summary of the activities being planned by partnerships

- The activities being planned by the partnerships fall into three main categories:
 - **CPD:** as expected, all of the partnerships are planning to deliver CPD and all but one intends to source this from their local SLP (the other intends to use the National Science Learning Centre). Two partnerships also intend to source CPD from other providers and, in another, the secondary school will deliver it. Examples of the topics that will be covered by CPD include leadership in science teaching, science assessment, implications of the new curriculum and teaching through scientific enquiry and investigation. The next evaluation report will explore the rationale for partnerships' choice of CPD provider.
 - **Other teacher facing activities:** this includes peer mentoring to help set up activities and meetings to share effective practice in investigative and motivational approaches to teaching science. It also includes co-produced lesson plans and lesson monitoring.
 - **Activities with pupils:** these will be linked to the CPD and will include project based activities and visits to local businesses and secondary schools. One partnership plans to use links with a local engineering company to teach pupils about product design and manufacturing, while two other partnerships are planning to hold 'ask a scientist' sessions.

3 PROGRESS TO DATE

Planning

- Across the programme, it has taken longer than expected to reach a point where the partnerships' plans are sufficiently clear and detailed. It appears that for some partnership leads, the requirements of the programme in this regard are greater than what they are used to when planning in school (despite them all citing prior experience of action planning). Ofsted inspections and staff sickness have also contributed to the plans taking longer to develop, although looking ahead, the opportunity exists to streamline the process, e.g. by finalising the plans at the induction day rather than allowing partnerships to take their plans away to finish.
- In the main, the partnerships have felt well supported by the Myscience team during the planning stage. In particular, the induction day was well received and allowed the partnership leads to deepen their knowledge of the programme, better understand the administrative requirements and share ideas with counterparts from other partnerships. The ad hoc telephone support offered by the Myscience team has also been appreciated.

“The induction day was excellent, it really helped to go through the nitty gritty of what we needed to do. I came away with a clear idea about what the programme was and how to develop the plan. It focused our thinking much more sharply and we could be much more precise and specific about what we were looking to achieve.”
Partnership lead

“I couldn't have asked for more from the NSLC team. They have been nothing but helpful.” Partnership lead

- Partnership leads have found the guidance document helpful but commented that it was lengthy and that the addition of an executive summary or overview would be useful. This would also help partnership leads in their communications with other schools during the early stages of the programme.

Planning: a summary of facilitators and barriers

Partnership Planning	
Facilitators	<ul style="list-style-type: none"> • Experience in action planning. • Understanding the requirements at the outset. • Support from the Myscience team. • An induction day.
Barriers	<ul style="list-style-type: none"> • Delays caused by factors outside of partnerships' control (e.g. Ofsted inspections and staff sickness). • Length of the guidance document.

Activity undertaken to date

- As a result of the aforementioned delays in planning, delivery of CPD through the ENTHUSE Partnerships programme was slightly behind schedule at the end of 2014. However, the general feeling across the partnership leads was that the lost ground could be made up during the remainder of the programme. It also seems that there are no specific types of outcomes which, at this stage, are more prone to delays than others (see Table 2 in Appendix A).

"After the delays, we have made progress catching up and expect the rest of the partnership activity to go as planned." Partnership lead

- By the end of 2014, all of the partnerships had delivered CPD related activities through the programme, although in most cases these were early stage. They include network meetings, audits of CPD needs, facilitated CPD development and face-to-face CPD with other schools in the partnership. The CPD sessions have covered approaches to teaching STEM and working scientifically, lesson planning, organising a science week and pupil book scrutiny.
- The extent of the activity undertaken to date varies considerably by partnership, from two instances of CPD in one partnership to eleven in another. This is also reflected in the number of CPD units recorded, which ranges from 6.9 to 61.3, and in the number of participants, which ranges from 19 to 77 (this may include some double counting where teachers have participated in more than one session).
- Early indications suggest that the CPD has been well received and teachers have found it very useful.

"The training was superb. It was really engaging and we came away with a huge list of things we could change and new ideas we could try." Partnership lead and teacher

Challenges experienced

- Planning delays aside, there do not appear to have been any significant challenges in the delivery of the programme to date. However, a small number of issues have arisen:
 - **Securing teachers' time to participate:** this was mentioned by three of the partnership leads, although it is seen to be a reflection of teachers' workloads and schools' ability to release staff, rather than a criticism of the programme. Mitigating actions have included holding meetings out of school hours.
 - **Monitoring and evaluation:** three of the partnership leads expressed the view that the monitoring and evaluation requirements on the programme are burdensome. One, in particular, said that if they had better appreciated the administrative workload, they would have ensured they had access to additional capacity.
 - **Data collection:** a teacher at the secondary school which, in practice, is leading one the partnerships, said it had been challenging to obtain pupil data from the primary schools, although through regular reminders and clear explanations of why the information is required, they were hopeful that the issues could be overcome.
- It remains to be seen whether the administrative demands of the programme (which from an external evaluation perspective appear robust but not unduly onerous) lead to delays in the partnerships returning data to the Myscience team in the future. Certainly, it is important that all participants fully understand the mandatory requirements at the outset and recognise the value of good quality data to the ongoing success of the programme. The same is also true of the external evaluation and Myscience may therefore wish to link the release of funds not only to compliance with monitoring returns, but also to participation in the ekosgen evaluation.

Partnership working

- The benefits of working in partnership on CPD are widely recognised across the programme and include being able to test new ideas, understand what works and the opportunity to deliver activities on a larger scale than is possible using a single school model.
- Partnership working is reported to be progressing well and reflects the cross-school relationships that existed before ENTHUSE. The only exception is the partnership which, in practice, is being led by a secondary school. In this partnership, joint working across the primary schools appears less well advanced than in the others (as an example, only one of the eleven instances of CPD reported in the December 2014 monitoring return had involved more than one primary school). It is also of note that this is the only partnership that had not undertaken collaborative activity with all schools to decide on the partnership's objectives prior to starting the project.
- Across the programme, the partnerships' wider links with secondary schools, local SLPs and businesses are still to be developed. At the end of 2014, partnerships were either still to identify the organisations they would like to work with, or, where they knew who those organisations were, had not jointly planned or delivered any activities. That is not to suggest that there are problems in this regard, but is more a reflection of the programme still being at an early stage.

Delivery: a summary of facilitators and barriers

Delivering Partnership Activity and Partnership Working	
Facilitators	<ul style="list-style-type: none"> • Securing teachers' time to participate by: <ul style="list-style-type: none"> - Ensuring buy-in from senior leaders at participating schools to encourage willingness to release staff. - Taking a flexible approach to choosing meeting locations and timings. • Maintaining progress through proactive project management from the partnership leads. • Understanding the requirement for monitoring and evaluation at the outset. • Maintaining engagement by: <ul style="list-style-type: none"> - Ensuring that CPD is of high quality. - Communicating success. • Developing wider partnership linkages early on in the programme.
Barriers	<ul style="list-style-type: none"> • Pressures on teachers' time and schools' ability to release staff. • Schools in the partnership have not previously undertaken partnership work together.

4 OUTCOMES AND IMPACTS

Pupils

- Given the lead-in times required on programmes of this kind, coupled with the slight delays that have occurred thus far, most of the partnerships do not yet claim to have observed impacts at pupil level. Clearly the impact in the classroom is going to run slightly behind the implementation of the CPD, which at the time of completing the December 2014 monitoring returns was very much at an early stage.
- Only one partnership has recorded pupil related impacts thus far, citing encouraging improvement in lower ability attainment despite the project being in its early stages. Subsequent stages of the evaluation will seek to explore in more depth the extent to which participants attribute this change to ENTHUSE activities.
- Importantly, however, all of the partnerships remain confident that the anticipated impacts for pupils (as defined in their plans) will be achieved. For example, one said that despite the late start, their first project (involving female science visitors to the schools) was already exceeding their expectations, whilst another said they were very happy with the practical boxes that had been developed and were looking forward to using these in the classroom.

Teachers

- The message on teacher impact is similar to that for pupils, i.e. confidence remains high that the programme will deliver to expectation, but it will be some time before tangible change is evident. As shown in the quotation below, one of the partnerships is observing positive results already, but more commonly the feedback centred on the need to continue the activity undertaken to date and to better embed this in the work that takes place with pupils.

“Already the staff directly involved with the partnership are developing confidence and feeding back into their schools.” Partnership lead

- The evaluation case studies in February 2015 will look into teacher impacts (and indeed impacts for all those concerned) in more detail.

Schools

- Impacts arising from ENTHUSE at a school level will take the longest to achieve and, as such, there is little to report at this stage. Whilst it seems that co-ordinators have (in most cases) been proactive in seeking assistance and accessing the resources available, examples were also cited of where schools need to establish links with local businesses and/or make plans to ensure that whole year groups can benefit from the CPD.
- It would be expected that the next evaluation report, which will be due in September 2015, will have considerably more to report on school level impacts.

Additionality

- Additionality in this context refers to the extent to which activities and impacts from the ENTHUSE Partnership programme would occur anyway in its absence. In terms of the effective use of public funds,

it is generally considered bad news if the recipients report that they would have done the same thing, and achieved the same impacts, even without the funding.

- Encouragingly for Myscience and its partners, the ENTHUSE Partnership programme appears, at this stage, to have high levels of additionality, i.e. the partnerships have all said that they would not be able to deliver as large a programme, or commit as much time to it, in the absence of the financial support. Consequently, they also report that the impacts that they expect to observe in the future would not be possible without the programme.

5 LEARNING POINTS AND FUTURE OUTLOOK

Learning points

- **Pupils:** due to the fact that, at the time of writing, the CPD being delivered through the programme is still at an early stage, it is not yet possible to report upon learning points that relate to pupils. These are likely to emerge through the later stages of the evaluation.
- **Teachers/Partnership Leads:** it is important that teachers are aware of the programme's monitoring and evaluation requirements at the outset. Alongside this, linking payments to the satisfactory completion of monitoring returns and participation in the external evaluation could also be considered.
- **Teachers/Partnership Leads:** teachers would appreciate an executive summary or overview being added to the programme guidance document.
- **Teachers/Partnership Leads:** Myscience may wish to consider streamlining the planning process by ensuring that the partnership plans are completed at the induction day.
- **Teachers/Partnership Leads:** securing and maintaining teachers' engagement in partnership activities will be fundamental to the success of the programme. Early evidence gathered through the evaluation suggests that this can be helped by:
 - Being flexible with meeting locations and timings.
 - Proactive project management from partnership leads (e.g. regular communication, reminders for information etc.).
 - Communicating successes across the partnership.
 - Gaining buy-in from senior figures at partnership schools to encourage them to release staff.
- **Schools:** it is too early in the programme and the evaluation to identify school-level learning points. These will be explored through the later stages of the evaluation.

Future outlook

- Based on the evaluation work undertaken to date, the outlook for the programme would appear to be positive. For example:
 - There is clear enthusiasm for the partnership CPD model and for the activities that the partnerships are planning to deliver.
 - The participants see ENTHUSE as one of the few initiatives which recognises the importance of science teaching and learning and supports this aspect of teacher CPD.
 - Partnership leads are confident that the time lost due to the delays in the planning phase can be recouped later in the year.
 - The partnerships remain confident that the impacts they have predicted in their plans will be achieved.

- It is likely that Myscience will need to regularly remind partnerships of the need to comply with monitoring and evaluation requirements. Linking this compliance with the release of funds may also be necessary.
- Strong links with local businesses will be important for some of the partnerships to meet their objectives. Others will need to develop better links with local schools to ensure that can obtain pupil impact data. Myscience may therefore wish to look for ways to support partnerships to engage these organisations, e.g. by providing letters of endorsement for partnership leads to use.
- With this cohort running over a two year period, a mid–point programme progress update and celebration event could be considered to maintain engagement and enthusiasm.

APPENDIX A

Table 1: ENTHUSE Partnerships Overview

Partnership	No. of Schools in the Partnership	Primary/Secondary/Both	Geography
Wyndham Primary	7	Both	East Midlands
Lapage	4	Primary	Yorkshire & Humber
Esk Valley	8	Primary	Yorkshire & Humber
Mary Elton	5	Primary	South West
Gifford	5	Primary	London
Preston	6	Primary	London

Table 2: Summary of Partnership Progress by Objective Type, no. of partnerships

	Above target	On target	Below target
Pupils cohort	0	2	2
Pupils group	0	1	3
Teachers	0	1	3
School	0	1	3
CPD delivery	1	1	2