



Independent State School Partnerships (ISSP) – impact of and lessons learnt

Research report

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Executive Summary

In November 2014, the Department for Education (DfE) awarded £175,118 to 18 partnership projects between state primary schools and independent schools, focusing on the primary curriculum. They aimed to increase collaboration, share expertise and good practice, widen educational opportunities and raise standards in key subjects such as modern languages, science and maths. Funding for projects ranged from £1,000 to £32,500. They started at different times during 2015 and 2016 and ran for varied duration. For example, two projects were summer camps, whilst others ran over a series of terms reflecting the varied scope, size (number of schools involved) and objectives of each project.

A report driven by primarily qualitatively data from questions asked at project visits, responses to survey questions and self-evaluations, it serves three goals:

- 1. Highlighting the impact of the partnerships on the pupils and schools involved
- 2. Setting out lessons learnt of use for similar future partnership arrangements.
- 3. Providing general advice on planning an evaluation of partnership projects.

The eighteen projects involved over 230 staff from across 112 schools and approximately 4,220 pupils. During interviews, staff consistently commented on positive changes in achievement, attitude and confidence for the subjects pupils were learning. Their exposure to varied delivery mechanisms supported their development, encouraged social interactions and, for science partnerships in particular, an increased enthusiasm for science. Eighty-five percent (85%) of lead¹ schools are extremely or very confident the projects will improve attainment of pupils in all schools involved in the partnership (Section 4). Due to the predominantly qualitative data obtained, it is not possible to quantify how effective the partnerships are in contributing to the raising of standards, however, signs are encouraging. The partnerships were a cost-effective means of developing relationships between the two school sectors.

Partnerships that linked their projects to curriculum developments in computing and science at KS2 (see Section 3) were of particular value for teachers – this included both individual pupil sessions and continued professional development training for teachers. During interviews, teachers involved highlighted the value of the projects in keep abreast of changes and improving their teaching competency at the same time as allowing networking opportunities and sharing of good practice amongst groups or to other teachers at their respective schools. Seventy-five percent (75%) of lead schools are

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¹ One school received the funding (using as appropriate) and frequently, but not always, drove the administration of the respective project. For the purposes of this report the term 'lead' school is used to denote these.

extremely or very confident the projects will raise standards of teaching in all schools involved in partnership.

Funding allowed partnerships to plan and carry out a more substantial and beneficial programme of activities than would otherwise have been possible (without funding), with many schools seeing their profiles in the local community positively raised. They were a cost-effective means of developing relationships between the two school sectors as evidenced by 14 partnerships continuing in the same or new subject area, reflecting agreed local priorities or joint areas of interest where they can share expertise and experience. The strongest partnerships shared the same ethos of outreach work, not seeing the projects as a temporary venture. With relationships deepened, the likelihood of partnerships remaining sustainable also increased yet the driving force remains the attitude and values of staff running and organising the partnerships. Retaining these people, and retaining these outreach values, remains essential to successful partnership working between schools. The task for continuing partnerships will be to further embed it into school life.

The nature of discussions meant many lessons emerged (Section 5). The decision on which schools to collaborate with is critical. Schools should share the same values and enthusiasm for outreach work as without them, relationships become forced. The decision requires senior school management buy-in from all schools involved and, appropriately for such an emotive driver, enthusiasm for partnership work is "not something that can be wished into being" (Independent school).

Other issues to consider (lessons) included:

- Using existing networks and relationships to build a partnership rather than "cold calling".
- Being realistic with the proximity of schools to one another (in a partnership)
- Broaching a prospective partnership in the right way with a senior leadership team or governors. This included being clear on the proposed benefits of the work to the school and pupils, reciprocal benefits, and how it would fit with the school ethos.
- Establishing an open and trusting relationship between schools, the organisers at each, in particular vital for working through operational difficulties.
- Trying to embed partnership working at schools involved so that partnership/project work is seen as the norm, not as a short-term add on.
- Having regular, ongoing dialogue supplemented by a formal memorandum of understanding (MOU) setting out what both schools would achieve from the relationship and requirements to fulfil the needs and expectations of all. Where in place, these were seen as valuable in helping maintain headteacher and/or other senior leadership, including governor, buy-in.

- Having realistic but ambitious goals shaped by the MOU, accounting for sufficient staff time and resource.
- Engaging teachers from partner schools to ensure reciprocity and having clear teaching and learning outcomes linked to evaluative measures (see Section 6).
- Ensuring arrangements for use of school resources are reciprocal. Many ISSP partnerships noted this deepened and strengthened relationships. These make partnerships more sustainable and help ensure a sense of fairness and equity.
- Gaining commitment and fixing project session dates from any schools involved early so project lessons are not cancelled due to other school commitments such as exams, trips and normal curriculum activities. Prospective partnerships should also consider and be realistic on the time taken for administration and planning, breaking down each aspect of the project, and not underestimating requirements.
- It is for the above reason that having a clear driving force responsible for the dayto-day project activities to continue encouragement and give reminders of deadlines, actions or sessions would be of value.
- Considering how a partnership might cope with the loss of a key individual, or individuals, especially ones driving the work. If they moved on, would the partnership continue? Plan for that eventuality.
- Tying projects to known curriculum developments. For the science projects in this tranche, the fact that national curriculum changes were coming acted as a strong hook for engagement as clear benefits could be seen.

The report concludes with evaluation advice for new partnerships. It sets out some basic ideas and issues to consider when planning an evaluation. Referencing concepts and using language associated with ISSP work, it aims to support the busy teacher running a project alongside their normal duties in making the right evaluative decisions and ensuring what they try and capture is appropriate. It is not intended to be an exhaustive examination of evaluation approaches.

Section 1: Introduction

In 2014 the Independent State School Partnership Forum requested funding for a new round of Independent State School Partnerships (ISSPs) and that a website for ISSP be created, to highlight best practice in partnerships enabling replication of such collaborations in different geographical locations and to act as a means of registering interest in partnerships for both sectors.

Following applications, in November 2014, the Department for Education (DfE) awarded £175,118 to 18 partnership projects between state primary schools and independent schools, focusing on the primary curriculum. Each project had to be subject specific and include a minimum of one state primary school and one independent school. There was no upper limit to the number of schools involved in the project and schools were encouraged to extend their remit to secondary pupils and staff.

They aimed to increase collaboration, share expertise and good practice, widen educational opportunities and raise standards in key subjects such as modern languages, science and maths. All had a shared commitment to raise the standards of teaching and learning and have a positive impact on the education of the children in their schools.

In addition to the generic aims noted above, each partnership had its own unique aims around the following broad categories:

- Preparing pupils for new science curriculum
- Supporting pupils in learning a new language
- Improving engagement with maths
- Building coding skills
- Expanding existing partnership activities (where they existed)

Funding for projects ranged from £1,000 to £32,500. These started at different times during 2015 and 2016 and for varied duration. For example, two projects were summer camps, whilst others ran over a series of terms reflecting the varied scope, size (number of schools involved) and objectives of each project.

It was the intention of the ISSP Forum that such partnerships would become embedded into the fabric of school life, through the school's development plan and endorsement from senior leaders and Governors, thereby ensuring sustainable impact.

Funding for the ISSP website, "Schools Together" was also granted and the Independent Schools Council agreed to oversee the site. This website would capture the newly funded primary partnerships, as well as existing cross sector collaborations.

1.1 Partnerships

The eighteen partnerships are shown in table 1 below. Whilst the partnerships were very much joint ventures, one school received the funding (using as appropriate) and frequently, but not always, drove the administration of the respective project. For the purposes of this report the term 'lead' school is used to denote these.

Twelve partnerships were set up specifically because of the funding provided. For the other six, funding allowed continuation and/or expansion of existing arrangements.

Table 1 - Nature of partnerships

	Schools in partnership	Nature of project
1	Knavesmire Primary School; St Peter's School, Dringhouse Primary, Scarcroft Primary, St Paul's Primary, Archbishop of York's Junior, St Mary's Primary, St Olive's Prep School	Building maths (coding) skills
2	Shrewsbury School; Greenfields Primary; Much Wenlock Primary; Mereside Primary	Building coding skills
3	Truro School; Chacewater School; Bosvigo School; Threemilestone School; Blackwater Primary School; St. Agnes Primary School; Polwhele House; Truro High School.	Learning to code
4	Rutherford House School and Elmhurst Preparatory School	Develop computational thinking and mental maths skills
5	Bolton School; Rivington, Broadoak, Devonshire Road, Twiss Green, Ladybridge, and Walmersley Primary school; + over 20 others.	Building maths skills

² www.schoolstogether.org

	Schools in partnership	Nature of project
6	The Grammar School at Leeds; Allerton Primary School; Beeston Hill St Lukes; Brownhill Primary School; Carr Manor Primary School; Fountain Primary School; Gledhow Primary School; Harewood Primary School; Kerr Mackie Primary School; Pool Primary School; St Peter's CofE Primary School;	Maths summer camps
7	Merchant Taylors; Gilmour Junior School;	Maths sessions
8	Vinehall; Lamberhurst St Marys CofE Primary School; Catsfield Church of England Primary School; Sedlescombe CE Primary School; West St Leonards Primary School	Further progress established maths, sports and French challenge days.
9	Sibford School and Sibford Gower Endowed Primary School	Science workshops
10	Wimbledon High School; St Boniface RC Primary School	Engage pupils with science curriculum through storytelling and narrative ('science through storytelling')
11	Focus School – Hornby; St Margaret's C. of E. Primary School.	Science workshops
12	Eagle House School; Wellington Primary Academy	Science workshops / teacher CPD
13	The King's School, Canterbury; Bridge & Patrixbourne CEP; Wincheap Primary, Pilgrim's Way Primary, Parkside Primary, St. John's Primary, Petham Primary, Sturry Primary, Chartham Primary, Aylesham Primary, and Wickhambreaux Primary	Science workshops / teacher CPD
14	Hillcroft Primary School; The Hawthorns School;	Developing a conversation area

•	Schools in partnership	Nature of project
15	Langley Preparatory School at Taverham Hall; Harford Manor School.	Making educational toys for pupils with special educational needs
16	Merchant Taylors; Forefield infant school	Mandarin Chinese lessons to Year 1 and 2 pupils.
17	Thomas Kensington; Colville Primary School and St Mary's Roman Catholic School.	Learning Latin
18	Wakefield Girls High School; Queen Elizabeth Grammar School Junior School; St John's C of E Junior School; St Austin's School;	Motivate learning of French

1.2 Staff and pupils involved

Projects involved a range of school staff including teachers; teaching assistants; other support staff such as technicians or bursars / finance officers, and headteachers. Their roles varied, but included collaborative planning, supervising sessions, delivering sessions, and accompanying students.

The pupils, year 5 and 6, would visit independent schools (and vice versa) for project sessions. In some projects, pupils would mix with older year 9, 12 or 13 pupils from independent schools, with the latter facilitating and helping lead sessions.

1.3 Project visits

An ISSP forum member, the chair (Deborah Leek Bailey OBE), DfE researcher or other member of DfE staff (individually or in combination) visited the projects to see them in action, ensure that the projects were delivering what they set out to do, and capture intelligence on the project.

This involved semi-structured interviews (devised by DfE and the ISSP forum) with a range of staff and pupils. It was not possible to visit all projects, e.g. Truro's summer school, due to timing of projects sessions not coinciding with visitor availability. Those recording the evidence provided regular feedback to the ISSP chair and the Forum, overseen by Lord Nash.

Visits to participating schools were conducted by the following:

- Deborah leek Bailey OBE Chair of Independent State School Partnership Forum (ISSP)
- Christine Ryan Chief Inspector of Independent Schools (ISI)
- Helen Wood DfE Infrastructure and Funding Directorate Analysis
- Mike Bourne DfE Infrastructure and Funding Directorate Analysis
- Michael Jeans Association of Governing Bodies
- Mark Ronan Head of Pocklington School, Headmasters' and Headmistresses' Conference
- Jackie McHanwell DfE, Assistant Director, Independent Education & Boarding team
- Tracy Shield DfE, Independent Education & Boarding Team
- Stephen Smith Federation of Independent Day Schools

Section 2: Scope of the report

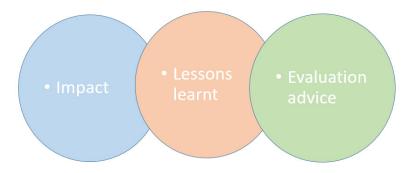
2.1 Scope

The report's scope includes both a summative impact evaluation of the partnerships' work and lessons learnt. It is not a full impact evaluation. The varying aims of different projects, different means of self-evaluation, and the absence of a counterfactual prevents this. The report concludes with specific advice for future partnerships to capture appropriate impact data.

Its focus is utility, specifically for those partnerships (a) already in place and (b) schools, both independent and state, considering engaging in partnership activity.

The analysis presented here is predominantly qualitative, of descriptive explanation rather than hard statistics associated with quantitative research. It aims to:

- Highlight the impact of the partnerships at different levels (the pupils and schools involved, and more widely). This includes four cases studies.
- Bring out lessons learnt of use for similar future partnership arrangements.
- Provide advice on planning an evaluation of partnership projects.



This report also includes four case studies to give a richer understanding of how each partnership worked and the effect on the schools involved.

- 1. Canterbury Primary Science Partnership (CPSP)
- 2. Lego Mindstorm Space Challenge
- 3. Designing for a need making educational toys for pupils with Special Educational Needs (SEN)
- 4. Raising standards of the most able through Latin

Section 3: Data sources and approach to analysis

3.1 Data sources

A variety of sources informed the analysis presented in subsequent sections and these are detailed below.

Table 2 - Source and coverage of available data

Source:	Coverage:
Initial online survey of partnerships	Schools involved, means of self- evaluation, thoughts on likely issues, benefits expected
2. 2015/16 online survey of partnerships	Project status updates, issues, challenges, funding questions.
Interviews with staff involved in project (at lead and partner schools), frequently including the headteacher	Project in action, issues, challenges, discussions with pupils.
4. Completed visit proformas	Reflections from visitors based on project in action and dialogue with pupils and staff involved
Researcher dialogue with partnerships outside of visits	Issues, challenges, use of funding.
6. Self-evaluations from partnerships	Their own evaluation. Level of detail and scope varied.
7. ISSP meetings (attended by invited funded partnerships)	Highlighting success and challenges.

3.2 Individual partnership aims and self-evaluations

As the aims of each partnership were different, the 'measures of success' and what was captured by way of self-evaluation varied between projects – see table 3 below. To illustrate, one partnership's goal was to simply increase familiarity with a foreign language, for another achieving a specific Latin qualification, for a third increased teacher confidence in teaching, and a fourth pupil enthusiasm for science.

Table 3 – Self-evaluation approaches

What sought to capture	How
Interest and engagement with subject	Short student feedback survey &/or
matter	teacher assessment
Changes in pupil confidence levels of	Short student feedback survey / teacher
applying learning	assessment
Changes in understanding and interest	Short student feedback survey / teacher
in the subject area	assessment
Improved understanding of language –	Teacher assessment of pupils progress
ability to say basic phrases	
Improved confidence in teaching sciences	Teacher self-assessment
Sciences	
Proportion achieving language	Level for certification reached
certificates	
Pupil attitudes toward the subject	Short student feedback survey &/or
	teacher assessment
Proficient use of particular tools	Teacher assessment of pupils
Improvement in KS2 results	Published statistics

Self-evaluations were of varying depth and usefulness reflecting the different level of resources available at each partnership. Some evaluations did not gauge the impact on pupils' performance, as it was not possible to disaggregate the specific effect of the project from other supportive activities. It means a like-for-like comparison between projects is neither possible nor appropriate. The descriptions of findings reflect this.

It is also important to consider that these partnerships are a small part of pupils' educational experiences at school, so with the lack of a counterfactual, considerable care needs to be taken in assuming causality – the 'claim to causality ' problem. That is claiming a direct relationship between two things, or in the context of the partnerships, that a particular activity is directly responsible for any changes in (subsequent) attainment.

3.3 Approach to analysis

The vast majority of intelligence captured from partnerships stemmed from responses to open questions. This provides a broad picture of views and experiences but does not

give an insight into detailed activities in every partnership (except for the case studies in Section 4). Such qualitative data has an emphasis on meaning, experiences, and views of participants to help understand the contexts and interactions rather than focused on reducing findings to numbers. As such, the focus of analysis in subsequent sections is on emergent themes around impact and lessons of good practice learnt. This reflects the broader utility-based theme of the report.

3.4 Qualitative analysis – Framework analysis

Framework analysis is a qualitative analysis technique that reduces data through summarisation and synthesis. Employed here, there were no predetermined response categories beyond those included in a semi-structured interview schedule used when visiting partnerships. The method was as follows:

- 1. Data from sources from table 2 were organised and read
- 2. A framework guided by the data and the semi-structured interview schedule was identified
- 3. High (macro) level coding was undertaken
- 4. Framework coding was modified, based on further examination of the data to reflect different levels of (a) abstraction (lower levels) (b) emergent themes of impact and advice
- 5. Recurrent themes and patterns were identified. Explanations were sought from additional re-reading of data.

Section 4: Impact of partnership work



As noted earlier, each project had its own aims and objectives and by association, it had its own measures of success. This section is first split into key quantitative and qualitative outcomes. The remainder of the section highlights some of the impact on pupils and schools involved.

Quotes in this section are anonymised.

4.1 Key quantitative findings

- Over 230 staff and approximately 4,220 pupils from across 112 schools were involved in the 18 partnerships
- 10 new partnerships were created because of this funding; for pre-existing partnerships funding enabled them to expand or improve the quality of their projects
- 14 of 18 partnerships will continue in some form (either in the same subject area or different reflecting local priorities)
- 75% of lead³ schools are extremely or very confident the projects will raise standards of teaching in all schools involved in partnership
- 85% of lead schools are extremely or very confident the projects will improve attainment of pupils in all schools involved in the partnership
- At least three partnerships had to limit the number of schools involved following an increase in demand to take part during the projects – Bolton, Shrewsbury and Thomas Kensington.
- At one maths partnership (Bolton), in the first year 52% of the participating children achieved level 6 at KS2 in maths; 60% in year 2

³ As noted above, one school in the partnership received the funding (using as appropriate) and frequently, but not always, drove the administration of the respective project. For the purposes of this report the term 'lead' school is used to denote these

- In another (Kings Canterbury), over 99% of pupils from eight primaries felt that their knowledge had improved in one or more of the eleven science workshops attended.
- All pupils attending Latin lessons at the Thomas Kensington partnership went on to pass their level 2 Latin certificates. All partner school pupils also went on to obtain level 6 in Maths and high level 5s in reading - better grades than predicted for them.

4.2 Key qualitative findings

Comments made reflect the analysis approach summarised in Section 3 above.

- Due to the predominantly qualitative data obtained, it is not possible to quantify how effective the partnerships are in contributing to the raising of standards.
 However, signs are encouraging.
 - "If we utilise this partnership properly then standards and attainment will rise through greater confidence in teaching and greater opportunities for the children" (Kings Canterbury partner school).
- Staff consistently commented on positive changes in achievement, attitude and confidence for the subjects pupils were learning.
- The majority of children completed their learning and wanted to do more, whether this was learning Mandarin or Latin, writing code to run robots, or learn more about science.
- Funding allowed partnerships to plan and carry out a more substantial and beneficial programme of activities than would otherwise have been possible without funding.
- The strongest partnerships shared the same ethos of outreach work, not seeing the projects as a temporary venture.
- Relationships were strengthened through project work. In particular, through reciprocal use of facilities or other resources increasing the likelihood of partnerships becoming self-sustaining.
- Schools saw their profiles in the local community positively raised.
- Where older children at independent schools were involved in delivery or facilitation, or direct support, partnerships reported improved leadership and employability skills.

4.3 Impacts on pupils

Most partnerships meant pupils had a learning opportunity they may not have had; opportunities often directly supportive of changes to primary science curriculum. Their exposure to varied delivery mechanisms, supported their development, encouraged social interactions and for science partnerships in particular, an increased enthusiasm for science. The following quote illustrates this:

"I feel strongly that collaborative projects on specific themes engage the interest of those involved in a way that encourages all to extend their thinking, share effective practice and benefit from engagement with the ideas and thinking of others. It is an essentially a creative process where the sum of everybody's experience and approach adds up to more than the separate parts. Feedback from teachers consistently indicates that the impact on their own teaching from both observing and working collaboratively with other teachers, is often greater than attending courses. The practical experience can often be more powerful than the theory in its impact. To be able to combine both theory and practice in collaborative learning projects is a powerful tool indeed" (Headteacher, independent school)

Projects enhanced the pupils' interest and investigative skills in science, along with brokering friendships between pupils and exposing them to alternative perspectives, experiences and aspirations.

Working together through the project has been a fabulous opportunity for the children to learn new skills in an exciting environment and to make new friends. We really hope this is the first step to more exciting partnership projects in the future" (Headteacher, independent school, science partnership)

"The atmosphere was fun, but there was also a clear sense of purpose and engagement with key scientific concepts" (Headteacher partner state school, science partnership)

4.4 Evidence from a selection of partnerships

Hillcroft (creation of a conservation area, 'Darwin Garden') - The project has transformed the grounds and provides an accessible resource for outdoor learning and scientific enquiry for all pupils every day. Hillcroft pupils were trained as special science technicians and will be passing on their expertise to younger pupils in their school. There is large potential for outdoor learning and practical science to develop further and be used by other year groups.

Sibford (Science workshops) – the project saw a 13 percentage point increase in proportions of pupils who would like a career involving science following the project, demonstrating an increase in engagement.

Rutherford House (developing computational thinking and mental maths skills) - Pupils from Year 6 at Elmhurst primary designed and created mental maths games using the free programming language, Scratch, to help children in Year 1 at Rutherford House School improve their recall of number facts.

Taverham Hall (Making educational toys for pupils with special educational needs) – the project saw improved confidence and self-esteem of the children with complex needs.

Merchant Taylors (Learning basic Mandarin) – the project saw pupils exhibiting a high level of enthusiasm and commitment using Mandarin outside of lessons and with Chinese visitors to the school in early July 2015.

Thomas's Kensington (learning Latin) – the project saw 100% of children achieved their Level 2 in the Cambridge Latin exams. The results give them the opportunity to sit for competitive independent school entry. A new cohort is on track to do as well as their predecessors.

Bolton – (Building maths skills) – the project saw over 60% of pupils attending maths sessions achieving level 6 maths at KS2. Due to increased demand, the partnership had to limit the number of children and schools involved.

Vinehall – (learning French and Spanish) – the project has empowered the pupils to use French and Spanish, developing their literacy in general and increasing their self-confidence at speaking another language

4.5 Impacts on school and community

The partnerships were a cost-effective means of developing relationships between the two school sectors as evidenced by partnerships continuing in the same or new subject area, reflecting agreed local priorities or joint areas of interest where they can share expertise and experience. For example, arranging joint school trips (Sibford School); quadblogging and collaborative email projects (Rutherford House); setting up similar gardens (Hillcroft); and running their project at other primaries in the Thomas group (Thomas Kensington).

With local relationships deepened, the likelihood of partnerships remaining sustainable also increases. The driving force remains the attitude and values of staff running and organising the partnerships. Retaining these people, and these values, remains essential.

One common theme that emerged from analysis was how schools' profiles and how they were seen improved by being associated with the partnership work. To illustrate, at Hilcroft's 'Darwin Garden' project, a local group for elderly and unemployed called "Men in Sheds" became involved making equipment and training children to use tools and specialist equipment – the school paid them for the things made. In addition, staff from a local garden centre become involved after fruit trees were ordered. Hillcroft now has a much higher profile in its local community.

"Friendships had been formed, skills developed and knowledge shared." (Headteacher at Hilcroft)

Interviews with some partnerships noted an increased awareness of their own pupils, especially where groups of children from state and independent schools mixed, thereby assisting teachers in raising levels of aspiration due to comparing expectations.

"Working side by side with colleagues from other schools has allowed us to compare our own pedagogical practice and improve as a consequence" (headteacher at partner state school)

Partnership work centering on computing and science were of particular value for teachers. New curriculum requirements in both meant many wanted to learn different means of delivery to help engage their pupils. These helped them keep abreast of developments, improve their teaching confidence, competency and range, afforded more networking opportunities, and allowed sharing of good practice amongst groups or to other teachers at their respective schools. For example, working together enabled computing leads in the Rutherford partnership to create a learning community where the teachers can share experiences, resources and support each other. That collaborative environment created by partnerships is best illustrated by the following:

"As someone new to the teaching profession, I cannot tell you how beneficial today has been. To have school colleagues nearby, who are prepared to help you learn more about the (language) subjects you teach and invite you to share in their INSETS is invaluable" (Year 6 NQT in partner school)

The task for continuing partnerships will be to ensure that the wider school community continues to understand the merit of the work, helping further embed it into school life.

4.5 Case Studies

A case study provides a detailed, in-depth examination of partnerships in action. The goal of these presented here is to set out example activities and highlight their impact and lessons learnt. They serve to supplement the evidence presented above.

4.5.1 Case Study No. 1 - Canterbury Primary Science Partnership (CPSP)

School involved – King's Canterbury, Bridge & Patrixbourne CEP, Wincheap, Pilgrim's Way, Parkside, St. John's, Petham, Sturry, Chartham, Aylesham, and Wickhambreaux.

No. pupils involved - 300 (in sessions), over 2000 affected due to teacher CPD

No. teachers involved – 21+ (on CPD), over 100 after feeding back training

Project ran - Sept 2014 to July 2016 (funding ended). Project continues in 2017

How do you capture a child's imagination? How do you help them see the wonder and possibility of something new that defies immediate explanation? The desire to work with others on these intangibles to capture a child's imagination was the emotive core of an extremely successful partnership at Kings Canterbury.

Through their 'Saturday Smarties' programme (science masterclasses) it became apparent to King's Canterbury that local science leads weren't networking as effectively as they could. Also aware of changes to the primary science curriculum, and led by Christina Astin (formerly head of science), they initiated the Canterbury Primary Science Partnership (CPSP). With ISSP funding it was an opportunity to improve teachers' subject knowledge, pedagogical repertoire and confidence in teaching science and, by association, spark pupils' imagination.

"The teachers, we met (at Saturday Smarties) were keen to get together to share their concerns and good ideas, and the idea of bringing them together in a partnership grew from there" (Christina Astin, Head of Partnerships at Kings Canterbury).

Twenty-six local primaries were invited to take part; ten took up the offer.

Split into four separate parts, it ran over eighteen months:

- Termly CPD workshops on topics in the curriculum identified by the primary teachers as new and/or difficult delivered by a range of experts and teachers at King's addressing new areas of the science curriculum such as Gears, Levers & Pulleys and Evolution & Inheritance. All teachers were invited – resources were shared. Hosted at Kings.
- 2. Half termly twilight networking events for partner primaries to discuss issues of concern and share good practice, often supported by an external expert, and twice based around an external visit to a venue for a potential school science trip.

- 3. A half-day planning session in each partner primary school between a King's teacher or Physics S3 (now Physics Partners) trainer and the primary science subject leader to conduct a needs analysis and draw up development plans
- 4. Workshops or shows for KS1 and KS2 pupils (e.g. Light Fantastic, The Air Show, Sweetshop Science, Planets & Gravity) and a big annual "extravaganza" event for all schools at Kings.

The reintroduction of science into SATS helped give staff a real focus and obvious hook into getting involved.



(Christina Astin running a CPD workshop for primary science leads)

Due to the number of schools and teachers involved, the project impact was dispersed at many levels. The following two quotes illustrate this in, firstly, purely CPD terms:

"I have felt more confident in aiding other members of staff and developed my own subject knowledge. This has enabled me to set higher expectations for the science lessons taught at Chartham and for the children's books....during our recent Ofsted inspection, the inspectors were very impressed with the partnership and keen to find out more. They were pleased with how we have begun to utilize the partnership to effectively develop the quality of teaching and learning". (Chartham Primary)

"Science is tricky; you need time, resources, equipment, things that are not always readily available in primary schools. However, being able to share ideas, resources, stories and ideas has been a fantastic boost in confidence in the fact that it can be done.... It has made me think broader in terms of what can be done" (Pilgrims' Way Primary School)

The project has seen:

• Improvement in teaching confidence to new KS2 curriculum requirements

- Enhanced teaching repertoire
- Increased teaching of science
- Reported more engagement with science from their pupils
- Increased pupil readiness for science at secondary school

At a practical level, it brought the opportunity to discuss aspects of the science curriculum; share good practice, resources and expertise, learning new ways to teach and present complex science ideas; and share learning with other teachers at their school.

The partnership developed a good, positive profile in the local community as word of mouth spread about the range of work and engaging sessions. This helped both to raise the social standing of all schools involved, and helped convince colleagues not involved (either not involved in science or not part of the partnership) of the value of partnership work when focused on shared goals.

The project also brought out a number of colleagues offering to run sessions or workshops (an unexpected professional development for them); Junior Kings School also offered their facilities. Boxes of equipment, bones and rocks were assembled and lent to partner schools. As numbers grew and more space was required, the head of science at Kings allowed partner schools to use their labs and help with hands on sessions. The additional functionality and resources in the labs helped to 'really engage the pupils'.

As noted earlier, the project was not limited to teacher CPD. Eleven workshops focussing on six different areas were run for groups of pupils from eight different primary schools. Staff at many primaries remarked about how, following events, pupils were highly engaged and buzzing. One pupil, a reluctant reader, has now developed an interest in forensic science. Interestingly, teachers at a number of schools noted how much the children remembered and spoke of the practical sessions – a good barometer of their emotional impact.

"I like it when we do drama to show things in Science – like we had to be a moon, sun and earth last year and show how they move around each other – it helped us to remember." (Parkside pupil)

"We tested some liquids to see how runny they are, that's called viscosity- we looked at honey, washing up liquid and maple syrup. (Aylesham pupil)

Pupils were asked to rate their knowledge before and after each workshop. Of the pupils responding, over 99% felt that their knowledge had improved in one or more of the areas covered. This effect was for all workshops and across all schools. Four to five different elements of each workshop were assessed and pupils felt their knowledge had improved in over 85% of the areas covered where they had headroom for improvement.

Their teachers echoed the numbers:

"The sessions have helped to ignite a passion and enthusiasm for science from our year 5 and 6 children. More and more children have commented that they wish to be invited! Those children that were invited to the latest sessions left with a real buzz and excitement for (forensic) science". (St John's)

"It has had a definite impact on the children in our year 5 and 6 classes and their enthusiasm is shared with the rest of the school". (Petham)

No project is without its challenges. Some schools were reluctant to be involved due to the time commitments, timetabling challenges and a city difficult to navigate around due to its road infrastructure (long travel time, bigger commitment to make). However, word of mouth spread encouraging involvement, Christina Astin meeting personally with schools to talk about the work, and with some funding allocated to an administrative role, it enabled focus on the project implementation. Where members of staff at partner schools changed Christina met with them to keep momentum and buy-in.

In a busy, small school, the partnership has also been extremely proactive. The leaders contact us frequently to ensure we are still aware of CPD sessions and meetings that really helps us to stay involved. (Petham)

One unexpected challenge was the lack of basic equipment in the partner primary schools. CPD sessions were delivered but there were issues putting the learning into practice without equipment. Following department approval, ISSP funds provided these.

Why was this large partnership arrangement successful?

Key components of the success of the project were:

- The central drive from King's
- A Memorandum of Understanding (MOU) in place between the schools to demonstrate commitment
- Buy-in from fully engaged all schools who saw clear and obvious benefits
- Being able to use funding flexibly
- Just being funded gave it a status others would recognise
- Involved local schools to try and keep transport issues to a minimum
- Ability to keep and maintain momentum from when the project started
- Used existing relationships to help build a sense of shared direction
- The group events allowed a free, safe environment in which to share ideas

- Free resources made available online
- The extent of organisation driven by strong administration and organisation and partnership-building skills of King' School (making it easier for the partner schools to know what was needed)
- Strong communications via email and, where appropriate, text message
- Regular meetings between heads to maintain momentum
- All science leads saw it as good use of their time, all had buy in from their headteacher allowing the time to attend sessions.

As well as working as one big partnership, other smaller level partnerships emerged. For example, some schools are using their labs for projects, others are involved in cross-moderation.

Despite the funding ending, the CPSP science leads still meet, with 8 other schools who have asked to be part of it, and together with another local collaboration. With the enthusiasm maintained, members remain keen to continue to work together most likely, via a co-operative where they all put in and have a bigger stake, more collective ownership. The drive remains the people and their willingness to collectively collaborative.

Other elements of legacy remain: some funds were used to help set up a woodland nature trail and learning resources at Junior Kings enabling pupils from across the partnership and the wider community access to different facilities not available at their own schools. The website where all the resources were shared between partner schools is to be opened to the public. The lending of lab space and equipment continues and Kings is looking at new sources of funding to support continued CPD for primary teachers in the difficult topics they requested help with.

4.5.2 Case Study No. 2 – Lego Mindstorm Space Challenge

Schools involved - Shrewsbury High School; Greenfields primary (40 yr 6 pupils); Much Wenlock Primary (25 yr 5 pupils); Mereside Primary (20, yr 6 pupils)

Subjects - ICT, science, programming, design and technology.

Goal - Help develop ICT, programming and leadership skills.

Project ran - Feb 2015 - no end date

Lego Mindstorm is not a simple child's toy. The name represents the hardware and software pupils use to create customized, programed robots that go on 'missions' once necessary code to make them move has been inputted. The programmers of those robots are, of course, children. The missions: to deal with the same problems scientists across the globe are currently grappling with planning missions to Mars.

The project was born in Shrewsbury High School's strategic outreach plan and a desire to support other local schools that fitted with the ideals and vision of its headmaster, Michael Getty. The school had briefly used a previous, more complicated version of Mindstorm and realised that newer, more accessible versions would be of value to learning the new computing and programming requirements at Key Stage 2. Offering local schools the chance to learn code through Lego Mindstorm EV3 felt a natural fit. Through existing personal relationships, Greenfields, Much Wenlock and Mereside primary schools signed up to a new partnership (they had never worked together before). The nature of the project gave the partner schools experiences beyond the scope of what their primary school could offer.

Over a six-week block, pupils from each school completed six missions of gradually increasing complexity. Initial sessions explored how the robots were put together, with subsequent sessions analysing how computer programming determined how the robots required for the missions moved (up, down, left, right, forward, and backwards) by learning to code a portable, computer linked 'brick' - the "heart of a robot".

Coding required strong logical reasoning skills, looking at parts in new and creative ways and applying that knowledge to move a robot in the right way to complete its mission. To illustrate, one mission involved picking up rock samples and moving them to a specific place, another the firing of a rocket.





The pupils would initially be unclear of what was needed but learnt by doing and building their 'bot' over the first few sessions. Any initial apprehension quickly dissipated once they learned some basic movements of the bot.

From visits it was clear the pupils interacted well, discussing what was needed, happily working through trial and error, making discoveries by mistakes, checking and rechecking code, watching online videos if they got stuck or helping each other out. The environment was one of communal support, supported by tutors and older (year 9, 12 and 13) pupils from Shrewsbury, an environment where it was safe to be creative and fail.

Successfully completing each mission meant earning a gold star on a badge. The final week / mission culminated in pupils showcasing their work to parents and governors and the Headteacher presenting the children with certificates.

The project length was purposefully set as 6 weeks as Michael Getty explains:

"You feel like you've got something proper out of it. To take on more schools would mean the timetable would be too rushed.....By the time they have finished they know where they are going, the parents know all about it and the school have helped build or keep those links (with partner schools)...we're proud of it" (Michael Getty, Headteacher at Shrewsbury)

The project has seen multiple benefits. For Shrewsbury, it has been meeting their targets set by the school development plan; enabling further collaboration with local primaries, and developing links with parents. Michael puts it more eloquently:

"You set off hoping you can do something good, but I don't think you really expected them (the schools) to be so appreciative of it...you don't know how it's going to go but there were so much expressions of warmth toward it and the best way to say that is that I didn't expect it" (Michael Getty, Headteacher at Shrewsbury)

The work has seen more pupils are willing to come and more schools wanting to become involved. Whilst the project normally targeted year 6 pupils, Shrewsbury has seen partner schools request they support their year 5 pupils as well due to the benefits they see.

For year 9, 12 and 13 pupils at Shrewsbury it was a chance to interact and lead the other children. It provided volunteering experience for the Duke of Edinburgh award and chance to see how they can be a positive role model for younger children.

"Some of the girls who help aren't very sporty; they wouldn't do the sports leadership partnership work (done at Shrewsbury) so this is a good chance for them to be a role in academic way is great" (Emily Brick, teacher and project lead at Shrewsbury)

Pupils were asked simple yet appropriate questions before and after the project to see if their confidence in coding increased as well as their understanding of angles, estimation and measurement. This complimented softer measures of Shrewsbury staff speaking with the partner schoolteachers and interacting with the pupils. By the end of the six weeks:

- All pupils would be confident in teaching other pupils who know nothing of programming how to do so
- Their self-declared level of proficiency (as assessed by confidence level) rose from 21% being confident at the start to 71% very confident at the end
- On a scale of 1-10, assessing confidence in angles, estimation and measurement there was a small (0.8) change in average score before and after
- One in five were not confident in the use of the robots / coding at all at the start of sessions. That value fell to zero at the end

Specifically from the pupils' perspectives:

"Building it was a nightmare at the start then I worked out what to do and I liked building it" (Mereside pupil)

"I liked seeing it move when it was programmed" (Mereside pupil)

"It is fun to work with a friend and sometimes it is a challenge, we then try to work out to do. Sometimes it is complicated but we try our best to figure it out. Sometimes I know the answer and my partner does not, sometimes he has the answer. When we do solve a problem, we feel very proud of ourselves" (Much Wenlock pupil)

"Mission six was one of the best ones we did because there was a massive hammer which smashed a button which launched a rocket. Mission three was tricky but it was fun. I liked mission 6 because you had to make the robot go forward then spin a helicopter spinning thing and that would launch the satellite" (Mereside pupil)

"We were very happy and proud to complete the first challenge and we know we are going to crack the second challenge" (year 5 Much Wenlock pupil with maths and literacy difficulties, with dyslexic tendencies).

For teachers from the primary schools involved, the project helped develop their skills in programming and thus their ability to support pupils. This was important in enabling them to support the sessions alongside Shrewsbury staff. Mrs I Jameson Year 5 teacher at Much Wenlock Primary School provides this testimonial:

"The project is offering the pupils a very real opportunity to develop their coding skills in a way which would prove very difficult in a primary school class room. The high quality resources and challenging activities are stimulating for all involved. It has been great to see team work of a higher level than previously demonstrated by this group of pupils. They have become much better at talking to a partner and finding ways to solve

problems together. Fine tuning the programmes to make improvements has been seen by all pupils. Pupils have been able to work at their own pace and I have seen huge motivation as a robot creeps a step closer to completing its mission. It has been a great leveller as unexpected children have proved to have greater success rates than those who usually storm ahead in tasks" (Mrs I Jameson Year 5 teacher at Much Wenlock Primary School)

The project having strong support from the senior leadership team and headmaster was vital to success, as were the existing relationships and the structured nature of the six week programme – the right balance of stretch for pupils and time commitment for the partner schools.

"It is perseverance really, being organised. Writing out early to schools, giving them a program of learning and saying do you want to be involved with what we are doing. If you can have the same tutors from the primaries come that helps as they know a bit more and can help out so a bit less pressure on myself, the technician and girls from Shrewsbury helping out" (Emily Brick, teacher and project lead at Shrewsbury)

When initially building the partnership there were difficulties. Other schools were "cold called" but without the existing personal relationship, this did not prove fruitful. As well as the usual timetabling issues, the amount of set up and preparation that went into every session was considerable. This was not expected and had been evident even when using the 'easier' version of Mindstorm. Now two years in, occasionally the "hearts of the robot" would go wrong due to use. In these situations tutors and support technicians improvised with pupils working in groups of four rather than two.

With the Lego Mindstorm materials in place the project will continue. Storage for the Lego sets is causing issues and updating the key teachers' skills on the programming takes time. However, these are not insurmountable problems. There remain extra financial costs to continue transporting the pupils to and from Shrewsbury and the occasional replacement "heart" worn out due to wear and tear, but Shrewsbury are content to fund these due to the positive relationships developed and the project still meeting the ideals of the school.

"I didn't expect the warmth between the schools, how much positivity there was between the schools. The schools are hugely invested in the scheme" (Michael Getty, Headteacher at Shrewsbury)

Shrewsbury would like to grow the work but are limited by space and timetabled time of the tutors. Interestingly, and from the point of view of demonstrating impact in the future, scope exists to use additional functionality of Mindstorm to further programming skills and also record via audio, video or written logs the journey of the learners - this would be an interesting means of showcasing their learner journey.

4.5.3 Case Study No. 3 - Designing for a need – making educational toys for pupils with Special Educational Needs (SEN)

Schools involved - Langley Preparatory School at Taverham Hall (independent) and Harford Manor School (maintained complex needs school).

Subject for partnership - Design & Technology

Number of pupils involved - 24 pupils from Year 8 at Taverham Hall

For the past few years Year 8 Langley Preparatory School at Taverham Hall (LPTH) pupils created products for complex needs pupils at Harford to support them in their day-to-day learning at school – but this particular project was different. ISSP funding bought a laser cutter capable of cutting and engraving materials to a quality finish that would be impossible to achieve by hand.

"By researching the needs of another person who has specific learning requirements, it forces the children at Langley Preparatory school at Taverham Hall to think creatively to come up with a toy or artefact that will provide the children at Harford Manor School an effective tool that is fun to use, but will help them to learn colours, number sequencing, shapes or simple hand-eye coordination exercises" (Andy Forsey, Head of Design and Technology at Taverham Hall)

Pupils worked in a 1:1 or 2:1 capacity with the Harford pupils to build an understanding of their needs. This time helped LPTH pupils to gain a deeper understanding of some of the barriers Harford pupils have to learning. The nature of the Harford pupils' needs means taking time to build this relationship is important as Kerry Locke, Head of Harford Manor explains:

It is extremely important for my pupils to have structured, supported and safe opportunities to form relationships, explore a new environment whilst accompanied by staff they trust (Kerry Locke, Head of Harford Manor)

Both sets of pupils worked together on paper before translating plans into a computer programme. Working from this co-designed template the laser produced such things as key rings, sensory toys and other bespoke items. The cutter also acted as a mechanism to help teach aspects of PSHE, Citizenship and English and Mathematics (when working on designs).

Kerry Locke, again:

"The Harford pupils expressed real enjoyment in working with the pupils from the other school and their sense of achievement, upon having produced a key ring, with their name and design on it, was palpable....it has allowed them to produce high quality items, with peer support, which are not dependent on their individual motor skills or additional needs".

The laser cutter meant items of better quality and more durability were made as the pupils became more adventurous in their design concepts and as their confidence and competency increased.

"We can try more adventurous ideas- so the machine makes us feel more confident and then you believe in your design." Year 8 pupil, Taverham Hall

"We are making a pin ball machine - it helps with concentration and timing, for both us and the other school and is also good fun!" Year 8 pupil, Taverham Hall

For the Harford pupils:

The number of projects produced each year (more than 10) and the way the Hartford Manor children play with the projects, will always be the best measure of success for this partnership/project. (Kerry Locke, Head of Harford Manor)

Reports from visits and teacher feedback also indicate that other measures of success appropriate to Harford pupils were prevalent: engagement throughout sessions; impeccable behaviour, and pride showed in final products.

For Taverham Hall pupils, it deepened their understanding of pupils with special needs and the barriers to learning they have, ensured designs were fit to individual need, and their direct 1:1 support to Harford pupils helped reinforce their own learning.

"It makes you feel so good to do something for someone else and it makes you feel that you have done something worthwhile and that it is appreciated. It has helped also with our own collaborative skills" Year 8 pupil, Taverham Hall

It is unlikely the project would have evolved with the sophistication that it has because of the required specialised equipment's prohibitive price.

Capturing quantitative impact was always going to be a particular challenge as there was no time to carry out a detailed assessment of the pieces once handed over to Harford pupils, and the direct impact on their learning was not picked up other than in softer form. However, there is some appetite for using B Squared - a standardised assessment package used at Harford Manor to help show small steps of progress – over the coming year and try to detail impact in a more quantified manner.

Their work is illustrative of how schools with pupils from different walks of life and experiences can work harmoniously. The project should continue due to the enthusiasm from pupils and a relationship now embedded into school life in both schools.

4.5.4 Case Study No. 4 - Raising standards of the most able through Latin

Schools involved - Thomas's Kensington (independent), Colville Primary School and St Mary's Roman Catholic School (state)

Subject for partnership - Latin.

Number of pupils involved across all schools - 14.

Most maintained school pupils in the Kensington area do not experience Latin in their early education. Jo Ebner, Head of Thomas's Kensington, wanted to address this need and following a successful pilot Latin Outreach programme partnered with two primaries (Colville and St Mary's) with whom she had an existing relationship – developed through the Thomas's Schools Foundation which supports reading and other community projects.

The goal was to develop all of the schools' most able pupils through teaching of Latin to graded Cambridge Certificate level 2 and, if they desired, to enhance these children's 11 plus applications for local independent schools where Latin is required. It would also help the maintained primaries with their own national curriculum through its links to English language.

"It (partnership work) is something I feel we should be doing as part of our wider ethos to support the local community. Our school rule "be kind" encourages outreach projects across all the Thomas's schools....I knew the people involved, it felt organic" (Jo Ebner, Head of Thomas's Kensington)

This case study is illustrative of the strong need for shared values and trust between senior staff driving such projects. In this case, fellow heads with a shared ethos of working together for the benefit of others and supporting their pupils' aspirations.

"Initially I thought Latin, is that a priority? Then realised that I was placing a glass ceiling for the children and asked Thomas's to tell me a bit more. I then suggested it to the children and they were really keen and told me why they wanted to do Latin, e.g. being a historian, and a doctor. Both got on the programme. Our pupils are quite aspirant, even though 76% of them receive the pupil premium....Not doing it wouldn't fit in with the values of the school and myself" (Jagdeep Birdi, Head of Colville Primary)

"Many of our children are wanting to go on to a broader set of schools, 11+, private, and we want our pupils to be aspirational" (Jagdeep Birdi, Head of Colville Primary)

Taster sessions identified potential pupils, with the funding affording Thomas Kensington more flexibility and a chance to broaden the aforementioned pilot outreach programme, fund the purchase of new textbooks, trips, exams and certificates and attend workshops from post-graduate students at the University of Oxford.

The identified More Able year 5 and 6 pupils came together at Colville for a weekly Latin lesson with Thomas Kensington's Head of Latin, Daisy Forsythe. The pupils at all schools saw being part of it as very prestigious.

"Since this started we have had children stow away who have broken into the group and pretended that they were part of the group because they wanted to do Latin!" (Jagdeep Birdi Head of Colville Primary)

Lessons focused on topics on the Romans and links to English language, translating sentences from Latin to English and English to Latin, making sentences and greetings.

"These pupils are able to look at a new language and today they translated a whole paragraph. They can recognise meaning in everyday words that are derived from Latin and I think that derivation is key to learning, so it will help them in other subjects too" (Daisy Forsythe, Head of Latin).

In the pupils', own words:

"First we thought it was really challenging but after we started translating we found it fun." (St Marys pupil).

"I can see that some of the words I use all the time come from Latin" (Colville pupil)

"Yes, definitely. I thought only really clever people did it, but now I know I can do hard things too!" (St Mary's pupil)

All pupils involved went on to pass their level 2 Latin certificates. All Colville pupils also went on to get level 6 in Maths and high level 5s in reading, grades not predicted for them.

"The children's commitment is a real indicator of impact and achievement, along with the pass rate." (Jagdeep Birdi, Head of Colville Primary)

It has seen pupil confidence grow and teacher aspirations for them raised.

"This has raised my aspiration level and made me realise that more can be achieved in any kind of circumstance by any kind of child. I have repositioned my mind about what can be achieved here" (Jagdeep Birdi, Head of Colville Primary)

"Our pupils get that there is real value in this engagement and, as a Head, it has extended my vision and expectations for what I want for my pupils and staff" (Jo Ebner, Head of Thomas's Kensington)

I feel it has been an innovative, exciting project and the pupils from both schools are really reaping the benefits, especially in aspiration" (Daisy Forsythe, Head of Latin)

The partnership helped re-position how Colville was seen locally.

"From a falling role we are now expanding. We were the last choice in the borough, not now. We have also gained reading volunteers, music volunteers (a parent helping with piano teaching) and full time volunteer in reception" (Jagdeep Birdi, Head of Colville Primary)

The project was not without its challenges with three different Latin tutors required due to natural staff turnover and maternity leave. Filling these with suitably skilled and experienced tutors was difficult but through contacts was achieved with no delays to planned sessions. The schools also quickly learnt the need to put everything in the calendar at the start of term to account for other events at schools.

"There are always practical implications with chosen year groups and you need to think those through." (Daisy Forsythe, Head of Latin)

Some pupils and their parents changed their mind about being involved after sessions started, and from this an idea, for future tranches, to run a taster day in each school with a larger selection group emerged. This might include obtaining a more formal commitment from the parents and the pupils, especially in light of the demand to be part of the project that came from Colville and St Marys' pupils.

Some lessons and good practice:

- The need for dynamic teaching from quality teachers.
- Having good collaborative relationships between heads, which are open
- Ensure it (any projects) stems from shared values
- The need to be organised: dates in calendar, equipment, rooms, people, space don't rush into things
- Communicate with parents; let them know about work being done
- The partnership should be mutually beneficial

With a joint choir and joint orchestra also, the Thomas Kensington partnership is firmly established and will continue without DfE funding. Staff at Thomas Fulham are now also undertaking a Latin project.

"The DfE funding validates what we are doing. It is helpful as we are seen as doing it professionally and getting recognition for a worthwhile project" (Jo Ebner, Head of Thomas's Kensington).

The amount of funding sourced from other avenues will shape how it continues and collaborative continued professional development is being considered. As Jo Ebner noted, "I would like to expand but can't outsource my Latin teacher to all schools in the borough!"

Section 5: Lessons learnt



This section forms the second large part of the report, focusing on bringing out lessons learnt by highlighting common successful practices as well as challenges. Applying lessons from all these projects will increase the likelihood of partnerships being successful.

It is split into two parts: initial partnership planning and implementation

5.1 Initial partnership planning

The decision on who to collaborate with is critical. **Schools should share the same values for outreach work**. These values stem from the vision and ethos of a school - either currently or what they aspire to be. They are the central tenet and underlying architecture of successful partnerships as without it, relationships become forced. Such a value driven message came through strongly in terms of the number of times schools noted it and the emotive inflection of language when talking about it.

"It stems from our values, so it is important to look at what all the schools engaged think is important" (headteacher)

Successful partnerships also need to share the same enthusiasm for partnership work as one another to drive it forward and continue when faced with challenges. This requires a mind-set that starts with senior school management buy-in from all schools involved and appropriately for such an emotive driver, enthusiasm is:

"Not something that can be wished into being" (Independent school)

To find appropriate partner schools, discussions with partnerships noted a preference to **use existing networks and relationships.** 'Forced' partnering was not a common practice due to concerns about the commitment of schools involved. "Cold calling" potential partners frequently did not work. The most natural and open partnerships occurred where there was an existing relationship, and as such, partnerships should consider exploring existing networks both formal and informal, e.g. local headteachers groups, and **be realistic with the proximity of schools to one another.** Proximity was a strong determinant of what was practical as aspiration and drive will only take a

partnership so far. Local clusters of schools in a partnership are the ideal form as sessions run at one school require time for travel, organisation pre-session, and return to home school afterward; all increasing the time commitment from a school's timetable.

The way in which the prospective partnership was broached with the head teacher (if a member of staff was proposing the partnership between schools) and the senior management team was also seen as very important. To help facilitate SMT buy-in, being able to say that the Department for Education was funding the partnership carried weight and helped validate proposed working, as the following quotes illustrate:

'People commit time if they think the Department (of Education) is on board'. (Headteacher at primary school)

'The funding provided further legitimacy when approaching schools; that the Department (of Education) was supportive of it'. (Headteacher at independent school)

Staff working on partnerships in their embryonic stages should recognise that senior leadership colleagues may see any work as a challenge when measured against staff costs. It is worth being clear in any 'sell' to them the benefits of the work, how it fits with school ethos; can be a leadership development opportunity for staff; will benefit the pupils; and likely be of reciprocal benefit, for example, sharing facilities one school does not have. A few partnerships noted that it would have been useful to have 'endorsement from ISSP forum or the DfE, in the form of a certificate (or logo)' to highlight to others, including Ofsted, that such collaborations between the sectors are formally recognised. Prospective or current partnerships should consider seeking some form of endorsement from their funder (if applicable).

Another pillar of strong partnerships was the need for an open and trusting relationship between schools, those leading the relationship at each, in particular. Building strong trusting relationships from scratch or developing existing relationships between independent and state-funded schools takes time but is fundamental to the success of any partnership. Good partnerships were built on such foundations and maintaining that goodwill appeared key to success. The following quotes illustrate this point:

"Having good collaborative relationships between heads, which is open and able to speak about the pitfalls...it (relationship with partner schools) goes beyond professional; it's going a bit further and being personal. Going an extra mile" (Headteacher at primary school)

"You need to frame it in a way so it doesn't appear like you are attempting to poach all their pupils which we aren't" (Headteacher at 'lead' school)

"You can't force relationships" (Headteacher at independent school)

Whilst a feature of successful partnerships was regular, ongoing dialogue, supplementing that, and providing a formalised arrangement, was a memorandum of understanding (MOU). An MOU was a key ingredient of successful partnerships, setting out what both schools would achieve from the relationship and what was required to fulfil the needs and expectations of all. Where in place, these were seen as valuable in helping maintain headteacher and/or other senior leadership, including governor, buy-in. They had additional value in helping prevent 'project creep' and providing clarity on what people have signed up for. MOUs also meant governors could hold heads and others involved in delivery to account for their involvement. This is valuable as initial enthusiasm did wane in a number of partnerships and maintaining momentum became a challenge. Including an MOU in a schools wider strategic development plan was felt by one partnership to be particularly valuable as it allowed them to think strategically about the future with clear perspectives on how activities will be sustained in the medium to longer term. Consider including this in the MOU.

5.2 Implementation

With the foundations of the previous section (5.1) in place, **having realistic but ambitious goals** shaped by the MOU, accounting for sufficient staff time and resource, will help facilitate good partnership working. Partnerships should consider involving and engaging teachers from partner schools and have clear teaching and learning outcomes linked to evaluative measures (see Section 6).

Any arrangements for use of school resources should also be reciprocal. Many ISSP partnerships noted this also allowed for further deepening and strengthening of relationships between the headteachers, which can feed down to the staff at the school. These make them more sustainable, help ensure an unspoken sense of fairness and equity, and increase the likelihood of others within school considering projects as they know it is a supported part of school life.

It is important to **gain commitment and fix project session dates from any schools** involved early so project lessons are not cancelled due to other school commitments such as exams, trips and normal curriculum activities. It proved challenging for some partnerships in this tranche to arrange sessions after such core activities were already set. Partnerships did not work as smoothly when sessions were arranged on an ad hoc basis.

"The trickiest thing is the timetable, so schools need to think forward and plan ahead. We missed an opportunity to share a residential trip on the same topics in the syllabus, simply because of a clash of dates but the pupils would really have benefitted if we could have pencilled it in the diary sooner" (Partner school)

Frequently in this tranche of ISSP projects, the individual nominally 'leading' the partnership (e.g setting up meetings and arranging teaching sessions for schools in the partnership) was working full-time as a teacher. Partnership work was in addition to, and done around, their normal duties. It was, however, a challenge to balance requirements of both roles. **Scheduling regular meetings**, face to face, by telephone or electronically between key individuals at schools in a partnership helped maintain momentum and so should be considered.

As such, prospective partnerships should also consider and **be realistic on the time taken for administration and planning**, breaking down each aspect of the project, not underestimating requirements.

"(You) need to be organised - that's equipment, rooms, people, space – don't rush into things" (Support member of staff at independent school)

It is for this reason have a clear driving force responsible for the day-to-day project activities to continue encouragement and give reminders of deadlines, actions or sessions is of value. This does not have to be the headteacher at a school involved in a partnership. Their buy-in, as well of that of all schools senior management team and governors, remains vital, but the project management and administration can successfully lie with a different member or members of staff across partnership schools. The larger a partnership, the greater the likely need for a co-ordinator of some form to complete the behind the scenes work. One particularly successful strategy at Kings Canterbury involved text message reminder to staff involved in partner schools rather than email. The ultimate goal for many partnerships in this tranche became creating and embedding partnership working so it was embedded as the norm, not as an add on:

"Partnership work becomes part of school life, not a project for 6 months or a year or two (Teacher at primary, organising partnership work at her school)

Related to this is the key area of **staff resource**. Staff move on or take parental leave, this is natural in any labour market. Where this occurred, for example at the Thomas Kensington project, it was a serious risk due to the subject's specialism (Latin). Fortunately, new tutors were quickly recruited from local contacts and the project suffered no loss of momentum. **How partnerships cope with the loss of a key individual, especially the one driving the work is important to consider**. To illustrate further, at one project (now successfully completed) a change of headteacher resulted in lost momentum with the new headteacher not initially signed up to continue the work. The incoming head was inexperienced in partnership work and hampered by a lack of handover notes. It required intervention from the chair of the Independent and State Schools Partnership forum to help reach consensus on the way forward. Prospective partnerships should consider if a key member of staff moved on, would the partnership continue?

On the issue of support from others, partnerships should **consider using an electronic forum** such as the ISC website where partnership co-ordinators, headteachers and other interested parties come together and share problems, solutions and ideas to common emergent issues, for example, adapting an existing MOU from someone else.

Obviously, at the heart of project work is the pupils. Many partnerships spoke of the benefits of mixing the pupils for their personal development and learning about the needs of others. As one partnership noted, this acted as a spur for them to improve the way in which they delivered science and allowed them to feed back to their own classes or assemblies on things learnt. Where possible, tying projects to known curriculum developments is useful. For the science projects in this tranche, the fact that national curriculum changes were coming acted as a strong hook for engagement as a clear benefit could be seen.

There is also the positive element of allowing children to **showcase what they have learned or the results of their endeavours through certification, showcase of projects and/or presentation** – a celebration for all involved. Partnerships should consider communicating with parents via newsletters and school websites; let them know about work being done as publicity can help engage them. Alternatively, use other teacher networks, and other online platforms to showcase the work being done, sessions in action, and outcomes.

Section 6: Planning an evaluation - advice for partnerships



This final section of the report sets out some basic principals of evaluation that can support staff responsible for collecting data on a project, and may be unsure how to begin. It is not intended to be an exhaustive examination⁴ of all aspects of evaluation but to provide a practical grounding with examples and language contextualised to independent and state school partnership work, and some simple stages to follow.

We start with the notion that one size of evaluation does not fit all circumstances – each partnership will be slightly different, each with its own desired measures of success. However, a common thought process to shape a good, appropriate evaluation does exist and for new or existing partnerships it is valuable to consider and work through this process so the right questions are asked at the start and throughout, increasing the likelihood of capturing appropriate data. If the data is appropriate, the more likely the chances of being able to capture intended and unintended consequences and demonstrate impact of the projects.

The remainder of this section sets out that thought process with examples and issues to consider directly related to partnership work. It is purposefully written in non-technical language with complex ideas truncated.

6.1 Planning the evaluation – fundamentals (1)

Where should partnerships start? With some big questions and, ideally, at the same time as the start of a partnership.

⁴ For comprehensive evaluation advice, partnerships should refer to The Magenta Book, HM Treasury's guidance on evaluation.



Every project will have intended outcomes – what it hopes the work will do. This is characterised by the term 'theory of change', or sometimes 'logic mapping'. In essence: you have a theory of how and why what activities making up a project might cause an effect (a change), and so use this to help you identify the data sources and evaluation questions you need.

To try to ascertain that difference (change), consider the high-level question: 'What do you want to find out?' The following are some suggestions:

Table 4 – Examples of broad evaluation questions

	Examples of broad evaluation questions to consider (or modify)
•	For whom and in what ways has a partnership been successful?
•	What was the impact of the partnership on the two or more schools involved?
•	How effective was the partnership in meetings its aims?
•	In the partnership, what worked well, what didn't?
•	What were the educational benefits of the project?
•	How has the project helped build working relationships between schools?

The wording of what the partnership is broadly trying to do, whilst it may seem initially innocuous, is vital in helping choose an evaluative path from the many available. It sets the tone, giving a clear sense of need and what measures of success are meaningful and appropriate.

For example:

- 1. A 'does' question, e.g. does X lead to Y, implies direct cause and effect
- 2. A 'what works' question, e.g. What worked in the partnership, implies a practical utility focus so lessons can be learnt and passed on.

3. A 'How' question e.g., implies a desire to understand processes that took place or particular methods employed.

As part of this initial evaluation planning process, consider questions of 'why?', 'who?' and 'when?' to ensure any evaluation is proportionate to need.

A partnership's 'why?' is its purpose, and remains the primary driver. Clarity on the evaluation's purpose sets the tone to what the main evaluation question needs to be. As the above example evaluative questions illustrate, is the 'why' to justify use of funds? To demonstrate to governing boards what happened? To ensure accountability? To share good practice? To replicate or scale up the project?

The 'who'? involves identifying who the evaluation is for? This could be a project funder, such as the DfE or the governing body of schools involved or someone else. The 'who' also means from which demographic groups the research requires evaluative data. This will likely include, but is not limited to: pupils affected by the project; teachers delivering project sessions, headteachers at schools involved in the partnership, governing body members and parents.

Considering 'when' will ensure data collection at the right points in the project (before, during and after), but also ensuring, if applicable, the results are available to inform key decision making points by others. For example, before key budget meetings, as part of pre-arranged reviews, or to bid for funds from other sources.

Considering all the above questions will begin to increase the specificity of the evaluation in a meaningful way to any partnership

6.2 Planning the evaluation – fundamentals (2)

Selecting a main evaluative question is a solid foundation, but partnerships should consider adding greater specificity at this next stage by asking (and seeking to adequately answer) a series of smaller, directly relevant questions. These 'contributory' questions support investigations into a particular aspect of the main question of interest. These can be questions used in research tools such as surveys or interviews.

Taken together they help ensure you are answering your main question in a robust way. The table below illustrates this. This questions listed are not an exhaustive list.

Table 5 – Breaking down your main question

Main evaluative Question	Example contributory questions of potential value		
	How many pupils and schools were involved?		
	What were the contributions of the different schools involved?		
	What were some successful outcome of the		
	programme? What underpinned that success (if applicable)?		
	Were school leaders involved throughout? Was buy in		
What was	for the work obtained?	Different data collection mechanisms will be appropriate for each	
the impact of the partnership	Is the partnership likely to be sustainable without funding?		
on the two or more schools involved?	How did pupils in all schools respond to the programme? What were the changes in pupil achievement / confidence / awareness / knowledge?	question	
iiivoiveu:	Would part (or all) of the programme be replicable for other schools? For other ages of pupils?		
	To what extent did the actual costs and benefits match		
	the actual outcome? / What was the eventual cost?		
	What lessons can be learnt for future partnership development?		
	What were the unintended consequences?		

Consider ensuring any evaluative questions capture not just what the results were, but also how good they were and how they were achieved. Also, consider experimenting with questions so that they make sense in relation to one another, and limiting the number of 'contributory' questions as these require answering and too many may be confusing. It is important to be honest and realistic in what can be answered based on time, budget and staff resources available as these variables strongly affect the scope of any evaluation.

6.3 Planning the evaluation – measures of success and impact

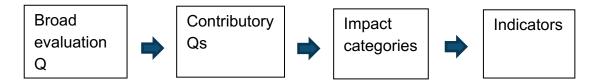
The 'impact' of partnership work is not a set list of outcomes applicable and agreed across all contexts. It is important to ensure data captured relates to the specific context of partnership work and key evaluative questions decided (see 6.1 and 6.2).

Partnerships should ask themselves the questions: 'What sort of impact data are we interested in.....what constitutes success?'

To facilitate an answer to these, consider creating clear, separate elements representing outcomes across a range of levels as the following six categories illustrate. In essence, they help organise the outcomes. They are not an exhaustive list of impact categories, but reflect the sort of broad areas partnerships funded in this tranche were interested in:

- 1. Changes in understanding / improved knowledge (pupil)
- 2. Changes in behaviour (pupil views)
- 3. Changes in behaviour (teacher views)
- 4. Changes in teacher skills
- 5. Socially the relationship between schools / building capacity
- 6. Economic

6.4 Planning the evaluation – creating appropriate indicators



Whilst the above six categories provide a framework of organising outcomes, the next stage becomes agreeing useful and relevant indicators (an indicator captures a specific measure of interest).

As a general principle, 'good' indicators, are easy to understand, realistic, appropriate to capture (against project and evaluative aims) and relatable to something measurable. They need to be as specific and appropriate as possible to need.

As part of this, it is important to ensure data on the concept of interest can be captured. To illustrate, part of an evaluation may wish to pick up changes in pupil confidence ('pupil confidence' would be the indicator) in pupils doing a particular task, something attainable through self-declared survey responses. On the other hand, capturing changes in 'social cohesion' or 'well-being' is fraught with methodological difficulties as these concepts are so broad.

To keep a logical "line of sight" between evaluative questions needing to be addressed and example impact categories noted above, the following could be considered.

1. Changes in understanding / improved knowledge*

Potential indicators could include:

- Changes in understanding or achievement, captured via tests. For example, the
 number and percentage of children who can do more⁵ at the end of a project
 compared to the start, their 'distance travelled'. This does not have to be a formal,
 national test. Partnerships should consider what changes in understanding nor
 does it have to be just one measure of achievement.
- Changes in 'attainment' can be difficult to isolate. For example, directly attributing
 a child's achievement of a particular level of qualification and x number of project
 sessions as there will be other factors involved. How much of a contributing factor
 is something to consider, asking the pupils or the teachers.

*Incorporating an experimental design for this is of particular value. Experimental designs remain the 'gold standard'. To illustrate, schools in a partnership could randomly divide pupils in scope into two groups - an experimental group and a control group - and take an appropriate initial measure (see section 6.4) and then introduce a change (the change would be the project activities) to the experimental group and not the control group. Once the project activities / intervention have run their course, take another final measure.

2. Changes in pupil behaviour (pupil views)

Potential indicators could include:

- Self-declared changes in confidence levels captured via scales on a survey
- Self-declared changes in self-esteem captured via self-esteem scales on a survey
- Self-declared changes in enthusiasm captured via scales on a survey and contextualised with quotes from tutors, e.g. percentage of pupils that are 'very satisfied or satisfied' with the learning outcomes. Percentage of parents that are 'very satisfied or satisfied' with learning outcomes.

3. Changes in pupil behaviour (teacher views)

Potential indicators could in	nclude:		
	•		

⁵ 'More' of what, would be determined by partnerships and what changes in behaviour / competence / ability etc. they are looking to capture.

- Descriptions of how children are observed to participate actively in the learning process⁶
- Children's level of confidence for speaking up and participating⁷ captured via survey
- Changes reported by teachers in pupils behaviour in project sessions and attending any sessions

4. Changes in teacher skills

Potential indicators could include:

- Level of interest in the subject captured via self declared survey
- Changes in competence in delivering subject material captured via self-declared survey or observation
- Changes in confidence in ability to teach a subject captured via self declared survey

5. Socially - the relationship between schools / building capacity

- Details on reciprocal benefits, e.g. nature of shared use of resources.
- Whether the partnership continuing
- Whether the partnership is continuing and growing (more schools)
- Whether the partnership is continuing but in a different subject area
- How likely the partner school would recommend to others they get involved captured via a likelihood scale.

6.4 Planning the evaluation – indicators and surveys

In the context of indicators, it is worth briefly considering surveys.

Surveys were a popular and practical means of capturing data by the 18 partnerships in this tranche. However, the scales used were not always appropriate, affecting the quality of the data obtained.

Examining fieldwork interview notes and self-evaluative materials from the 18 partnerships, some common concepts of interest that partnerships tried to capture by survey emerged. The table below shows these - of use to future partnerships when creating specific indicators of value to their projects. The list is not exhaustive. An appropriate scale for each is provided.

⁶ Bond impact builders - https://my.bond.org.uk/impact-builder accessed 27/02/2017

⁷ Bond impact builders - https://my.bond.org.uk/impact-builder accessed 27/02/2017

Table 6 – Concepts of interest and possible survey scales

Concept of interest to partnerships	Survey scale
<u>Utility</u> of session / project / etc	Very useful / somewhat useful / not very useful / not at all useful
Interest in session / project / subject / pupils learning more etc	Not at all interesting / slightly interesting / moderately interesting / very interesting / extremely interesting.
Satisfaction with relationship / nature of support etc	Very satisfied / satisfied / unsure / dissatisfied / very dissatisfied
Affect on X (e.g. behaviour, confidence)	No affect / minor affect / moderate affect / major affect
<u>Importance</u>	Not important / somewhat important / important / very important
Quality of session / project etc	Poor / fair / good / very good /excellent
<u>Likelihood</u> of project continuing / of more pupils becoming involved / of	Extremely unlikely / unlikely / neutral / Likely / extremely likely or definitely won't / probably won't / probably will / definitely will

To further support development of indicators, partnerships could consider the use question banks. These house rigorously tested questions on specific topics that are seen to adequately and appropriately capture what they intend to.

6.5 Planning the evaluation – collecting the data

Different data collection methods have different strengths. The below does not attempt to provide an exhaustive examination of each method as that is not appropriate here, but does highlight basic information on common approaches allowing partnerships to marry the appropriate approach to evaluative questions generated. Being aware of the relative merits of each of these is thus important to keep in mind as are the feasibility of the methods, resources and time frame.

Consider using small focus groups

Advantages – for when discussion of a few questions requiring different perspectives is required; providing rich data not always possible through surveys

Disadvantages – can be time consuming and difficult to get the right people in the same place at the right time. By definition, there is a small number of people meaning issues of how representative the findings are.

Consider using surveys

Advantages - simple, versatile, with scope to include a range of possible questions. Can be self-completed electronically using free online software, or using traditional pen and paper. They can capture attitudes, opinions, values, behaviour, or factual related information.

Disadvantages – there is always a risk respondents provide answers they think you want to hear or presents them in a favourable light. Any closed options questions (i.e. a certain number of possible responses) may not reflect the response the individual would like to give.

Consider using interviews

Advantage – when questions are not conducive to a survey, where a greater depth of response would add value. The interview can be controlled allowing the interviewer to go 'off script' and exploring additional detail where appropriate.

Disadvantages – time consuming, can be costly, time to complete, analyse and write up

Consider **other (non-traditional) data sources** such as photos, social media, and videos but be clear how these demonstrate impact.

As evaluative work will involve children, partnerships should ensure that any questions can be understood. Questions, and the number of response options, should be short (if using a survey)I - too many and the children may not be able to differentiate between the 'gaps' in the scale. For example, would they be able to differentiate between 'somewhat better' and 'much better'? In addition, depending on their age and ability with language, consider whether open questions requiring them to write something is appropriate. Always pilot the questions to ensure the children understand them.



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