The School Improvement Partnership Programme:

Sustaining collaboration and Enquiry to Tackle Educational Inequity

**Final Project Report to Education Scotland
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Disclaimer

Please note that the views contained in this report are those of the authors, and do not necessarily represent the views of Education Scotland.

Contents

Executive Summary

This report presents findings from the third and final year of the School Improvement Partnership Programme (SIPP) evaluation that focused on assessing continued impact and the extent to which the successful innovations and activity reported by the various projects were sustained and extended. This report, places these findings in the context of the conclusions from the previous years of the evaluation to provide a cumulative overview of the main findings. The previous reports and further details about the SIPP are available on-line from Education Scotland:

http://www.educationscotland.gov.uk/learningandteaching/partnerships/school improvementpartnershipprogramme/partnership.asp

Background

The SIPP places an emphasis on supporting innovation and promoting sustainable collaboration across classroom, school and local authority boundaries to tackle educational inequity and Scotland's attainment gap. It is an evidence-based approach to educational change, underpinned by disciplined collaborative enquiry. The Programme involves schools and local authorities working in partnership, drawing on a range of methods or 'tools', including lesson study, collaborative action research (CAR) and instructional rounds, to provide a set of processes that teachers and others can draw on to implement their change efforts.

In November 2013, Education Scotland commissioned the Robert Owen Centre for Educational Change (ROC) at the University of Glasgow to evaluate and support the SIPP. The overall objectives for the University team's work were to:

- Provide tailored support for the individual partnership projects which are part of the SIPP

- Assess how well the overall SIPP, and each individual partnership project within it, have been initiated

- Assess the extent to which the SIPP has contributed to its intended intermediate outcome

- Make recommendations for the future development and potential scale-up of the SIPP.

To address the evaluation objectives and questions set out previously in Section 1: Introduction, the evaluation adopted a three-strand approach.

Strand 1 addressed the first objective and involved the University team working with local authority colleagues in each partnership area, alongside a designated individual from Education Scotland, to support partnerships to develop and deploy their own enquiry approaches that would accurately assess the progress and impact of their activities.

Strand 2 entailed the University team conducting an external evaluation that assessed progress across all of the partnerships in order to understand the effectiveness of the overall Programme. Whereas Strand 1 involved directly working with the individual partnerships to support them in devising, refining

and conducting their own evaluations, Strand 2 of the evaluation involved the aggregation of the individual partnership evaluation findings along with our own primary data collection to provide a coherent overview of the SIPP impact.

Strand 3 entailed the University team continuing to provide support for partnerships' collaborative action research projects as well as gathering evidence of sustainability and extension of the SIPP developments. This report focuses on the findings of this Strand.

The collaborative improvement strategies that underpin the SIPP build on a body of international research that confirms the value of school-to-school networking and cross-authority partnership work as key levers of innovation and system improvement (e.g. Chapman and Hadfield, 2010; Fullan 2013). Such research demonstrates that the most effective school improvements are locally owned and led by teachers and school leaders working in partnership and collaboration with like-minded professionals.

The SIPP comprised eight partnership projects in different locations across Scotland with the first projects beginning in October 2013 and all being in place by March 2014. All partnerships had the common feature of tackling inequity but took this forward in different ways. Some involved partnerships within an authority while others involve schools from different authorities. Some are cross-sectoral whilst others involve different agencies.

Evaluation methodology

The evaluation adopted a number of interlinked quantitative and qualitative methods including:

- Four surveys of the key representatives from all SIPP partnerships conducted in the first two years. These allowed key professional stakeholders to report progress and highlight emerging issues

- Secondary analysis of partnerships' own data, materials and reports on progress and impact

- Individual interviews and focus group discussions across the partnerships conduced at regular intervals over the lifetime of the SIPP

- Researcher observation during support visits to schools and events

- Evaluation feedback from monthly drop-in events/surgeries hosted by the research team at the University of Glasgow

- Social Network Analysis (SNA) to map and illuminate the structure and nature of the SIPP networks. This complemented the insights provided by other evidence.

Findings

After three years of development and implementation, the evidence from the external evaluation and the partnerships' own evaluative findings strongly indicates that the SIPP has had an impact regarding its objectives including:

- Fostering collaborative working to tackle educational inequity

- Developing capacity at school and local authority level to effect positive change, including improving enhanced leadership opportunities at all levels

- Building teachers' knowledge, confidence and skills to challenge inequity

- Improving teachers' understanding of evaluation and practitioner enquiry

- Increasing learners' aspirations and achievement.

Further, in most of the partnerships, the lessons learned in tackling educational inequity have influenced learning and teaching and other measures across participating schools and have also been seen to extend to other schools in their local authorities. The strategies and approaches developed have also influenced the participating local authorities' thinking and policies. This has occurred at a time of reduced local authority funding and considerable flux and change of personnel.

Looking in more detail at the evaluation's main questions:

How well was each project and the overall programme initiated and implemented?

- After three years of the SIPP, teachers and other stakeholders in all but one of the partnerships reported that the Programme had been fully implemented with the development of projects that demonstrated an impact on learner outcomes.

- Most partnerships took time to develop and agree their proposals with Education Scotland. The setting up of partnerships was typified by professional dialogue and professional involvement. School staff and other partner professionals were substantially more likely than parents and pupils to have been engaged in tasks associated with the setting up of the SIPP. As the various partnership projects matured, partnership members found that organisational issues improved as roles and lines of communication became better established.

- SIPP partnerships had to address challenges of time constraints, teacher cover issues, personnel changes and resources during their project work. However, partnership teams, with the support of local authority and school managers, often developed creative ways to tackle challenges. These included: forward planning, sharing tasks across the team and, at least initially working outside normal hours.

- Teachers stressed the value of ensuring that the inception stage set aside time for team members and partners to meet. This helped facilitate professional dialogue and forged good working relationships.

- At the of the second year of SIPP, partnership representatives reported that their SIPP experience had underlined the need to engage more with pupils, parents and the community and that this was being reflected in their planning of new developments.

- Again at the of the second year of SIPP, the collaborative focus in three of the eight partnerships 'drifted' as local authority policy priorities changed and/or key personnel moved outwith the partnership or took up different posts. While the partnerships between some local authorities dissipated, the SIPP activity continued to varying degrees at local and school.

- It is noteworthy that, despite local authority funding cuts and personnel change in original SIPP teams, the evidence of SIPP impact gathered by local authorities meant that a motivation to adopt the SIPP approach and build on lessons learned existed in new and reconstituted educational teams.

Did teachers build effective working relationships and what factors supported or inhibited this?

- The SIPP initiative has facilitated greater professional dialogue, collegiality and networking across professionals involved in the partnerships. This has helped drive the work of the partnerships and led to sharing of ideas and practice relevant to the specific project aims as well as broader learning and teaching. Over 90% of survey respondents indicated that collaborative working across the partnership increased collegiality between colleagues and created more opportunities for teachers to share their ideas and plans with colleagues. Moreover, collaborative working across the partnership was reported to have increased from 64% in the first survey to 100% in the fourth. In the same period, partnership working with a focus on educational inequity rose from 70% to 88% across schools and local authorities. The involvement of 'an appropriate range of partner agencies' and services to support the partnership's activities rose from 51% to 80% between the first and fourth survey. Evidence indicates that colleagues from outwith the schools became increasingly important as the initiative developed.

- In one partnership, despite high levels of stakeholder commitment, the process of building effective and sustained working relationships was challenging and protracted. Insights from stakeholders and the research team suggest that the large number of schools involved and the geographical distance between partners required a particularly complex and responsive level of infrastructure and communication between strategic and local managers and personnel.

- SIPP stakeholders noted that the University team and Education Scotland were major sources of support in the development of their partnership.

What forms of collaboration were most and least effective in identifying a focus for partnership projects?

- More than 90% of survey respondents indicated that collaborative working across the partnership increased collegiality between colleagues and created more opportunities for teachers to share their

ideas and plans with colleagues. Collaborative working across the partnership was reported to have increased from 64% in the first survey to 100% in the fourth. Partnership working across schools and local authorities with a focus on exploring specific issues relating to educational inequity rose from 70% to 88% between the first and fourth survey. The involvement of an appropriate range of partners to support the partnership's activities rose from 51% to 80% between the same two surveys. Again evidence indicates that colleagues from outwith the schools became increasingly important as the initiative moved forward.

- Effective collaboration was most evident in teams constituted to develop and coordinate the various SIPP projects within each partnership. These teams promoted the sharing of ideas for learning and teaching and developing new skills. They also promoted the development of teacher enquiry and leadership opportunities. The most effective teams reflected the core principles underpinning the SIPP set out at the beginning of the initiative.

- Research support events facilitated by the local authorities, the University, and Education Scotland staff were seen as valuable support for partnerships developing their collaborative enquiry capacity. This was particularly so where such opportunities were frequent, took place at the outset of the collaboration, involved relevant staff, and allowed sufficient time for planning and discussion. The National SIPP events provided those involved in SIPP initiatives with opportunities for cross partnership sharing of ideas and demonstration of progress.

- Although, relatively rare, projects characterised by; poorly defined aims, a lack of teamworking or co-ordination and poor communication tended to make less progress. These factors were exacerbated where partnerships were ambitious in scale.

Did teachers have an increased understanding of evaluation and what factors supported or inhibited this?

- Overall, the SIPP has increased staff capacity to understand and implement collaborative action research approaches. All but one of the partnerships had been able to develop and sustain appropriate collaborative action research activities to assess the impact of their project.

- The research team observed a high level of teacher engagement with the collaborative enquiry process in operationalising their specific partnership plans. Despite varying levels of research expertise and experience, the surveys revealed an increase in teachers' understanding and use of research and enquiry in their practice, with over 90% stating that their evaluation skills had been enhanced. In addition, the production of practitioner enquiry reports was further evidence of increased capacity.

- In all but one of the partnerships, teachers and managers reported that their increased capacity regarding Collaborative Action Research

(CAR) was contributing to increased research capacity in schools in the authority outwith those involved in the core SIPP initiative.

- Teachers highlighted the positive role of the University team in helping to develop their collaborative enquiry skills. In addition, inputs from local authority personnel, particularly educational psychologists, were valued in supporting the research capacity of partnerships.

- Partnerships required specialist expertise to support the, often complex, analysis of their data to address their research questions.

Did teachers find out more about leadership development, opportunities to take on new roles and responsibilities, and effective learning and teaching approaches?

- One of the most notable impacts of the SIPP has been in supporting increased leadership development opportunities. Eighty eight percent of respondents in the final survey indicated that involvement with the SIPP had resulted in the creation of leadership opportunities and professional learning of staff at all levels. This finding was reinforced in the final SIPP reports from partnerships as well as in interviews and focus groups with teachers and managers.

- Partnerships reporting sustained SIPP activity also reported impact on teachers' leadership capacity, with middle leaders being given opportunities to work strategically across schools to support the sustaining and expansion of lessons learned from SIPP.

Do teachers have an increased understanding of disadvantage and its relationship with other factors such as health, wellbeing and student outcomes?

- The majority of teachers involved in the initiative reported an enhanced awareness and understanding of disadvantage and that this awareness increased as the Programme developed. For example, there was a clear indication from the four longitudinal surveys (surveys one and two in the first year, three and four in the second year) that the partnerships had had a positive impact on teachers' understanding of disadvantage and aspects of the inequity agenda. By the final survey 97% of respondents, compared to 55% of those in survey two, suggested that SIPP activity had sharpened their focus on closing the achievement gap.

- The practitioner enquiry process, working with external agencies, the national SIPP events and an increasing national prioritisation of educational inequity were cited as contributing to practitioners' understanding of disadvantage.

Are teachers using more effective learning and teaching approaches with learners from disadvantaged backgrounds?

- In the second year of the Programme there was a notable increase in the awareness of partnership members of appropriate methods for

tackling educational inequity and disadvantage. Eighty percent of survey four respondents compared to 54% of those in survey one agreed that SIPP developments had increased the capacity of teacher networks to address inequity in education.

- During the final phase of SIPP, evidence from partnerships' own reports, external research visits and focus groups indicated that the pace of implementing learning and teaching approaches designed to tackle disadvantage had been sustained or accelerated. In some local authorities, particularly West Dunbartonshire, East and Midlothian and East Renfrewshire the learning and teaching insights from SIPP was systematically informing practice and policy across the authorities.

Impact on learners

- As the SIPP developed, there was evidence from the staff surveys that the SIPP initiative had begun to impact on pupils. Just under a third of respondents (31%) to the initial survey indicated that SIPP involvement had had a positive impact on pupil aspirations. However, by the final survey this figure had risen to 94%. Similarly, while 34% of responses to the initial survey indicated that the initiative had increased pupil achievement, this figure had risen to 100% in the final survey. These findings were corroborated in many of the partnerships' own project reports. These reports also reported partnerships using a range of increasingly sophisticated practitioner enquiry approaches to assess and understand impact.

- All but one of the remaining partnerships have since indicated that their data and evidence has demonstrated that the SIPP has continued to contribute to an increase in the attainment and other outcomes for the target learner groups. It should be noted that, at the time of writing, most partnerships were still finalising their analysis for Year Three and precise figures regarding on-going progress was not available. In some cases, the target groups were modest in size but the various types of corroborating evidence collected by the partnerships enabled teachers to claim the SIPP innovations had made a positive impact.

Sustaining and extending the SIPP developments

- The SIPP encouraged partnerships to explore ways of implementing change to tackle educational inequity that were sustainable and did not rely on extra financial support. The evidence gathered during the final year of the external evaluation strongly indicates that local authorities are moving to adopt more widely the lessons learned from the SIPP. West Dunbartonshire, East Lothian and Midlothian and East Renfrewshire councils are particularly good examples of this. The Falkirk Council partnership is also a strong example of how education services and other partners, notably CLD, have recognised the value of approaches developed through their SIPP approach and deployed these more widely. This is all the more encouraging since restructuring in Falkirk council involved a complete reconfiguration of the original partnership leadership team.

- There is evidence that the Collaborative Action Research approach and use of wider research evidence has also become a sustained feature in most of the partnerships. There is also evidence of greater understanding and more sophisticated use of data in a number of partnerships. However, partnerships continue to express a need for further professional development in this area and for advanced statistical and analytical support as well as insights on 'what works' (and doesn't work) from the wider research literature.

Dealing with challenges to sustainability

- All partnerships reported that their SIPP activity had faced challenges during the Programme and that further challenges were anticipated in their plans for sustaining and expanding SIPP-related activity. The most common challenge was staffing, i.e. finding cover to release staff to attend meetings and CLPD. However, in response to the positive outcomes from the SIPP, managers and teachers had demonstrated creativity in securing time and had agreed that time should be built into collegiate planners to support developments.

- Changes in personnel, particularly at local authority level were a potential challenge to sustaining the SIPP developments. However, the value placed on the SIPP collaborative approach and the positive impact of the initiative on learning and teaching methods meant that teachers and managers were committed to forging new partnerships and relationships to sustain and spread the developments.

Implementing and sustaining the SIPP approach in challenging times

- In some authorities, the funding for the Attainment Challenge has helped to offset the impact of pressurised budgets and provided the opportunity for participating local authorities to build on SIPP, particularly in funding opportunities for teachers to attend planning and CLPD and also funding development staff to assist in moving innovations to scale.

- The ROC evaluation highlights the features of successful and sustained SIPP collaborative partnerships. These partnerships typically:
  - Provide structured opportunities for collaboration, including investing in time and space to build positive relationships

  - Quickly establish a group of committed practitioners, supported by school and local authority leaders, to drive the activity/ project

  - Are supported by key intermediaries, middle managers and/ or development staff. These staff provide early identification and mobilisation of individuals at different levels who are well placed to lead and manage change and improvement through partnerships/collaboration. They also facilitate and sanction practitioners' time and resources for use in collaborative enquiry and support communication and the brokering of knowledge exchange across partners within, between and beyond organisations

- Promote the meaningful use of data and evidence from numerous sources to inform practice and the use of data to understand impact. Demonstrate a commitment to Collaborative Action Research across partnerships
- Have a clear focus on literacy, numeracy and parental engagement.
- Embed the collaborative projects/ approaches in school and local planning
- Are locally owned and led and have a commitment to developing empowered leadership at all levels
- Draw on external expertise where necessary, including colleagues from universities and other partner services
- Use frameworks for change, not prescription, and allow high levels of autonomy
- Invest in professional dialogue and networks to build the 'infrastructure' needed for CAR and change.

- The positioning of key intermediaries in partnership networks, especially managers, can be seen as potentially vulnerable in times of economic uncertainty. This places an emphasis on greater levels of 'empowered leadership' at practitioner, school and third-sector partner organisation level.

Promoting sustainability of SIPP developments

The research literature offers insights on what works regarding sustaining effective educational collaborative partnerships and the SIPP external evaluation findings resonate with these. For example, Shediac-Rizkallah (1998) and Bossert (1990) identify key factors influencing sustainability that are:

- Factors in the broader environment
- Factors within the organisational setting
- Project design and implementation factors
- The economic and political variables surrounding the implementation
- The evaluation of the intervention
- The 'strength' of the institution implementing the intervention
- The full integration of activities into existing programmes/ services/ curriculum/ etc.
- Whether the programme includes a strong professional learning component (capacity building)
- Community involvement/ participation in the programme.

The majority of these factors and features are reflected in those SIPP partnerships that have gone on to be sustained and expanded within their original schools and beyond.

Commentary

Implications for SIPP from other research

- Looking at the SIPP findings in relation to other research (e.g. Mincu 2014), we can see that the principles and approaches adopted by SIPP feature in successful strategies to tackle the achievement gap and educational inequity.

- In particular, most of the SIPP projects focused on collaboratively developed and evaluated learning and teaching approaches. In addition, research-based and shared professional knowledge is a key component to ensuring both effective learning processes and whole school improvement.

- For school improvement to take place there needs to be a focus on the development of teachers' knowledge, skills and commitment and for the process to be inspired by distributed, instructional and inquiry-minded leadership (Mincu 2014).

- Recent research, including that of the Sutton Trust (Coe *et al* 2015), stresses the importance of the following in tackling the attainment gap:
    - High quality feedback to pupils.
    - Peer-to-peer learning (peer-tutoring).
    - Developing thinking skills (meta-cognition).
    - Early years interventions

- However, other relevant research (e.g. Egan, 2013; Carter-Wall and Whitfield, 2012; Chapman et al., 2011) has also shown that measures to tackle educational inequity and the attainment gap need to look beyond learning and teaching to address: pupil wellbeing, enrichment experiences, engaging parents and families in their children's learning and strengthening links with communities. Such research stresses that parental and family engagement is the most important factor, outside of schools, in influencing the achievement of children from disadvantaged backgrounds. Therefore, multi-agency working is key to partnership working to tackle educational inequity e.g. in supporting school-family links, out-of-hours learning and mentoring interventions.

On-going periodic support from research partners

- There is evidence that the Collaborative Action Research approach and use of wider research evidence has become a sustained feature of most SIPP partnerships' activity. However, the partnerships have expressed a need for more sophisticated statistical and analytical support as well as insights on 'what works' from the wider research literature and the conduct of major evaluations of local authority-wide projects and interventions. For this to be realised, partnerships will need access to on-going appropriate support from research partners. This may come in the form of university collaborations, from support by

research and analytical services within government, or through HM Inspectors of Education and local authorities, or a combination of the above. Our experience suggests that bringing a range of stakeholders together with access to different forms of knowledge and access to different data is likely to have the greatest impact.

- More sophisticated insights are needed throughout the system and this has been highlighted across the SIPP partnerships, with teachers in particular expressing a need for more guidance on 'cutting edge' research findings that can inform their teaching.

Moving forwards

- In addition to ensuring the best research evidence and expertise informs future development within the system, the OECD has recognised the need to build research capacity within the system (OECD 2015. p18). SIPP has been a mechanism for answering this requirement in a systematic and practical way, by connecting researchers with government agencies, local authorities and teachers and school leaders involved in the project to collect, analyse and make meaning with a range of data.

- The OECD also highlighted the need to rethink the 'middle tier' within Scotland. SIPP has been at the forefront of some of this work. Prior to the publication of the OECD report, SIPP called for the creation of a number of 'innovation hubs' where reservoirs of expertise in specific methods or specific content could be developed and then moved around the system (OECD 2015 p21). These ideas have also emerged from ADES' thinking regarding inter-authority working in Scotland.

- SIPP has built capacity by creating nodes of expertise within the teaching profession and local authorities across the system. There is an opportunity to capitalise on SIPP's capacity building efforts to create a new, agile middle tier with a cadre of differentiated expertise that can work across local authority boundaries. This regional resource could be located within inter-authority hubs and has the potential to offer a set of arrangements which, with national co-ordination from key stakeholders, could serve as a coherent professional learning/ capacity building resource for in-service professional learning to support the ultimate implementation of Teaching Scotland's Future.

- In addition to promoting effective learning and teaching within education services there is a need to promote broader partnerships, with, for example; Colleges, CLD, employability services, voluntary and community groups in order to tackle educational inequity across a wider front. Moving developments beyond schools will enable partnerships to increase their capacity and expertise to work with and empower families and communities. Such developments will enable partnerships to develop approaches better able to address a wider range of family and community needs and encourage greater involvement in measures to promote learning attainment and wider achievement.

1. Introduction

In March 2013 Scottish Government announced six key areas of focus designed to support the development of a more equitable Scottish education system. One of Education Scotland's responses to these announcements was to develop the School Improvement Partnership Programme (SIPP). In doing so, it commissioned the Robert Owen Centre for Educational Change in November 2013 to assist in the design and implementation of the Programme, to ensure that it was underpinned by the best available international research evidence.

This report presents findings from the third and final year of the SIPP evaluation that focused on assessing continued impact and, crucially, the extent to which the successful innovations and activity reported by the various projects were sustained and extended. The previous evaluation reports and further details about SIPP are available on-line from Education Scotland[1]

This report first summarises and updates the impact of SIPP, focusing on the external evaluation questions. These are:

- How well was each project initiated and could it have been improved?
- How well was the overall Programme implemented and could it have been improved?
- Did teachers build effective working relationships and what factors supported or inhibited this?
- What forms of collaboration were most and least effective in identifying a focus for partnership projects?
- Did teachers have an increased understanding of evaluation and what factors supported or inhibited this?
- Did teachers find out more about leadership development, opportunities to take on new roles and responsibilities, and effective learning and teaching approaches?
- Do teachers have an increased understanding of disadvantage and its relationship with other factors such as health, wellbeing and student outcomes?
- Are teachers using more effective learning and teaching approaches with learners from disadvantaged backgrounds?
- What has been the impact of SIPP activity on learners?

This is followed by the main part of the report revealing the extent to which SIPP project outcomes, developments and systems have been sustained and spread more widely. These findings are then used to consider how the SIPP model, that uses collaborative activity and enquiry to tackle educational

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[1]http://www.educationscotland.gov.uk/resources/s/sippfinalreport2015.asp?strReferringChannel=learningandteaching&strReferringPageID=tcm:4-826973-64&class=l3+d215667

inequity and address the attainment gap can be implemented and sustained in learning communities, recognising that there are limited resources available. Finally, the report draws on the insights gained from the three-year SIPP experience and relevant other research to provide a commentary that suggests how we can build on SIPP and move forward in the current context of the Attainment Challenge.

1.1 The School Improvement Partnership Programme: Principles and practice

The SIPP is a 'solution-focused approach'[2] to Scotland's attainment issues with an emphasis on supporting innovation and promoting sustainable collaboration across classroom, school and local authority boundaries to tackle educational inequity. It is an evidence-based approach to educational change, underpinned by disciplined collaborative enquiry. The Programme involves schools and local authorities working in partnership, drawing on a range of methods or 'tools', including lesson study, collaborative action research (CAR) and instructional rounds, to provide a set of processes that teachers and others can draw on to implement their change efforts.

The knowledge that underpins this approach has been generated over decades of evaluated development and research activity and is located in a diverse range of systems, including Hong Kong, Australia, the USA and Canada and, more recently, South America, Russia and parts of Asia. This body of international research confirms the value of school-to-school networking and cross-authority partnership work as key levers of innovation and system improvement (e.g. Chapman and Hadfield, 2010; Fullan 2013). Research has demonstrated that the most effective school improvements are also locally owned and led by teachers and school leaders, collecting and using data appropriately, conducting enquiry, and working in partnership and collaboration with like-minded professionals and stakeholders (Ainscow et al 2012; Chapman 2014, 2008; Chapman 2012; Cochran-Smith and Lytle 2009; Earl and Katz, 2006; Hadfield and Chapman 2009; Kerr et al 2003).

The SIPP approach is driven by collaborative enquiry and the approach combines school-to-school collaboration with locally initiated, bottom-up enquiry. This approach is similar to that used in other successful programmes such as *Improving Quality Education for All*, *Coalition of Research Schools*, *Schools of Ambition*, *The Networked Learning Communities Programme*, *The Best Practice Research Scholarship programme*, *The 20:20 Initiative*, *City Challenge* etc. For example, the findings from a three-year research project involving schools in England suggested that collaboration between schools is more effective than collaboration that is restricted to within a single school because '…deeply held beliefs within schools prevented the experimentation that is necessary' (Ainscow et al., 2012: 201).

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[2] The Solution-Focused model was originally developed in psychological therapy approaches but has since been applied more widely, including in organisational change. It is based on a collaborative, personalised, approach that focuses on positives rather than deficits. It is characterised by enquiry, building on strengths and on what is working well to develop feasible and effective action plans.

The features of this approach also align with the education system outcomes identified within Education Scotland's Corporate Plan 2013/16 – specifically, that educational outcomes for all learners must improve and inequity in educational outcomes needs to be eradicated. It also sits with Education Scotland's third strategic objective to build the capacity of education providers to continuously improve their performance, to move from self-evaluation to self-improvement, so changing the focus of organisational change. The SIPP is seen as a natural development of the implementation of the Scottish *Curriculum for Excellence*, with its emphasis on social inclusion and policies and approaches to career-long professional learning outlined in *Teaching Scotland's Future* (Donaldson 2010).

The SIPP aims to encourage staff to take leadership responsibility for embedding collaborative enquiry to learn from each other, experiment with their practice and monitor and evaluate change. The work of the SIPP partnerships also aims to promote broader leadership opportunities and professional learning at all levels. The Programme seeks to promote focused innovation by fostering a culture of mutual respect, 'co-production' and partnership, rather than replicating traditional hierarchies and ways of working. The benefits of such ways of working, including greater efficacy of teacher collaboration between partnered schools, has been highlighted by the National College for School Leadership (NCSL) *Networked Learning Communities* programme. Their findings suggested that colleagues, outwith their own school, might be more likely to take risks, willing to reveal their own weaknesses and gaps in their knowledge, than teachers collaborating within their own school (DfES 2005). The design of the SIPP also encouraged partnerships to explore ways of implementing change to tackle educational inequity that were sustainable and did not rely on extra financial support.

1.1.1 Principles of the SIPP approach

SIPP aligns with, and reinforces a number of key national policies, including *Curriculum for Excellence*, *Teaching Scotland's Future, the SCEL Fellowship Programme* and *Raising Attainment for All.* All of these are underpinned by the same key concepts of co-production, professional learning and enquiry as part of the broader Scottish Approach[3] to public service reform. Informed by the Scottish Approach and combined with the evidence and experience outlined above, SIPP is designed around seven core principles:

- **Partnership working** is promoted across schools and local authorities, with a focus on exploring specific issues relating to educational inequity.

- **Collaborative action research and evidence** are used to identify key challenges, experiment with innovative practices and monitor developments.

- **Leadership opportunities** are created, alongside the **professional learning** of staff at all levels.

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[3] http://www.coproductionscotland.org.uk/files/3814/2839/8213/3._Co-production_in_Scotland_-_a_policy_overview.pdf

- **Reciprocity and mutual benefit** to all involved underpin planning and implementation.

- **Planning for collaboration** encompasses the development of arrangements to support long-term collaboration and new approaches to capacity building.

- **Strategic improvement planning** in schools and local authorities is explicitly linked to SIPP activity.

- **Partners** are diverse and include schools, local authorities, Education Scotland and other agencies.

Since SIPP's inception in 2013, these key principles have provided an overarching framework that has ensured programme coherence from which systemic lessons can be learned, whilst retaining the flexibility necessary for the development of local, context-specific arrangements to tackle the attainment gap.

1.1.2 Practice: SIPP in action

SIPP employed a three-phase implementation strategy. The first phase focused on creating the conditions by building trust and relationships (Chapman *et al* 2014a).[4] The second phase worked to embed projects into their context and assess the impact and outcomes of these projects on tackling aspects of educational inequity (Chapman *et al* 2015).[5] The final phase of the Programme, reported here, focused on issues of sustainability, including strengthening and deepening connections within and between partnerships to create a SIPP network or 'network improvement community'.

During the period December 2013 to June 2016, SIPP comprised a total of eight discrete but interconnected partnership projects. Four of the projects involved work across two local authorities while another involved collaboration between schools in three authorities. The remaining three initiatives were located within individual authorities and involved schools and partner agencies collaborating. Table 1 summarises the eight projects; their aims, the partners involved and the main focus of their work. Appendix 1 provides further descriptions of each partnership.

The SIPP was conducted over a three-year period, the first two of which were funded. The level of funding was relatively limited and intended to provide a stimulus for innovative collaborative working and experimentation to develop approaches that were sustainable and did not rely on additional sources of funding.

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[4] SIPP: Final evaluation report November 2014.
http://www.educationscotland.gov.uk/Images/SIPPPhase1ReportJuly2016_tcm4-876695.pdf
[5] SIPP: Final evaluation report and summary August 2015.
http://www.educationscotland.gov.uk/Images/SIPPFinalReportAug15_tcm4-876694.pdf

Table 1 - The eight SIPP projects

Projects								
	A/SA/E	ER	G&F	I&AB	M&EL	SL	WD&R	F
Aim	To tackle educational inequity							
Approach	Using collaborative action research							
Local authorities	3	1	2	2	2	1	2	1
Schools	3	2	>30	2	12	1 pilot & 3 others	13	9
School phase	Secondary	Primary	Secondary Primary	Secondary	Secondary	Secondary	Primary	Secondary Primary
Main partners	Teachers and Headteachers							CLDW*, SfL, teachers
Area of focus	• Parental engagement • Pupil engagement • Monitoring progress	• Maths • CGI-informed numeracy approach • Lesson study	Local Improvement Group model for collaboration CLPD Developing LIGs	• Parental engagement • Maths	• CLPD • Hattie's Visual learning	• Pupil mental wellbeing •Attendance • Motivation	• Maths •Literacy	• Literacy

A/SA/E = Angus, South Ayrshire and Edinburgh Councils
ER = East Renfrewshire Council
G&F = Glasgow and Fife Councils
I&AB = Inverclyde and Argyll and Bute Councils
M&EL = Midlothian and East Lothian Councils
SL = South Lanarkshire Council
WD&R = West Dunbartonshire and Renfrewshire Councils
F = Falkirk Council

*Community Learning and Development Workers and Support for Learning Teachers

Each of the partnerships used the SIPP principles to design and develop its own programme of work. The partnerships were supported by a team of University of Glasgow researchers and local authority and Education Scotland (the Scottish education improvement agency) staff who worked as critical friends, providing challenge, support and guidance as appropriate. In addition to bespoke support for individual projects, the University research team facilitated regular 'clinics' for school and local authority staff to meet, either virtually or at the University. This provided a 'safe space' in which to problem-solve their concerns, challenges, and methodological issues and also to discuss their ideas for development. Individual partnership projects were also brought together at regular local and national events. These events provided a forum for sharing ideas and practice and generally making connections across partnerships. Appendix 1 provides a detailed summary of the SIPP partnerships, their focus and highlights of their progress since inception to June 2016.

1.2 Supporting the SIPP and assessing its impact

In November 2013 Education Scotland commissioned the Robert Owen Centre for Education Change at The University of Glasgow to evaluate impact and to provide research support for the School Improvement Partnership Programme (SIPP). The overall objectives for the evaluation support for the SIPP were as follows:

- To provide tailored support to up to 10 individual partnership projects which are part of the SIPP;

- To assess how well the overall SIPP, and each individual partnership project within it, had been initiated;

- To assess the extent to which the SIPP has contributed to its intended intermediate outcome;

- To make recommendations for the future development and potential scale-up of the SIPP.

To address the evaluation objectives and questions set out previously in Section 1: Introduction, the evaluation adopted a three-strand approach.

Strand 1 addressed the first objective and involved the University team working with local authority colleagues in each partnership area, alongside a designated individual from Education Scotland, to support partnerships to develop and deploy their own enquiry approaches that would accurately assess the progress and impact of their activities. These support teams were termed 'trios'. The SIPP trios' level and timing of support varied to reflect the requirements of each partnership. The purpose of this support was to provide critical friendship to advise on:

- Collaborative enquiry approaches

- Specific curricular and pedagogical knowledge relating to the particular activities

- Building internal capacity for educational improvement

- Developing sustainable ways of working beyond the duration of the Programme.

This support was primarily for practitioners and was most often requested when they were planning the integral evaluation as part of their partnership activities. The trios have provided support in the form of: input to cross-local authority full and half-day events for partnership teams; input during national feedback events and bespoke participative input in schools upon request. One particularly important source of support and cross-fertilisation of ideas and practice occurred during monthly 'drop-in' meetings, hosted at the University for partnership colleagues.

In addition, the trios have supported partnership teams during the national events held to share experience and progress during 2014-16. Here, practitioners and local authority personnel have also provided advice and support to colleagues within their own partnership and across the SIPP in general. These national events saw management and practitioner representatives from all partnerships meet with Education Scotland and the University team to share accounts of progress and discuss their work, which provided an important forum for Programme-wide learning and reflection.

In practice, it proved challenging to deploy all members of each trio at the same time in particular partnership meetings or events. Therefore, the individual members of the trios liaised with one another to ensure that the most appropriate person(s) was available. Given practitioners' needs and emphasis on building their research capacity, the University team prioritized

attending partnership's research planning sessions. These were more frequent in the first year of the Programme.

With each SIPP partnership having to deal with a specific context and needs, particular 'tools' in the form of various guidelines, research templates and exemplar case studies were developed to inform and promote collaborative enquiry and partnership working. This has been informed by the work of Hadfield and Chapman (2009) who provide a number of instruments, based on reflective questions for school staff, to help identify what types of networking and collaborative working best suit their school context and capacity (Hadfield and Chapman 2009: 40-44).

Strand 2 entailed the University team conducting an external evaluation that assessed progress across all of the partnerships in order to understand the effectiveness of the overall Programme. Whereas Strand 1 involved directly working with the individual partnerships to support them in devising, refining and conducting their own evaluations, Strand 2 of the evaluation involved the aggregation of the individual partnership evaluation findings along with our own primary data collection to provide a coherent overview of the SIPP impact.

Strand 3 entailed the University team continuing to provide support for partnerships' collaborative action research projects as well as gathering evidence of sustainability and extension of the SIPP developments. This report focuses on the findings of this Strand.

1.2.1 External evaluation methodology

Given the focus of the SIPP evaluation research questions, a mix of quantitative and qualitative research methods was deemed appropriate. In particular, it was necessary to gather data on key indicators across the partnerships using a series of surveys of key stakeholders throughout the main phases of the Programme (Phases 1-2) Each phase covered one year with Phase 1 comprising of inception and implementation, Phase 2 saw continued implementation and evaluation and Phase 3 focused on sustaining and extending SIPP developments with continued collaborative action research). The evidence of process and impact also drew on a range of qualitative information. This provided illustrations of impact and insights regarding the processes influencing progress, and assisted the interpretation of survey findings and themes emerging from teachers' own enquiry and accounts.

The research, therefore, adopted a number of interlinked but largely concurrent quantitative and qualitative research strands, including:

I. Four surveys of the key representatives from all SIPP partnerships. The first survey was administered near the start of the Programme in February 2014; the second was conducted when partnership representatives met again during a national SIPP event in June 2014; the third survey took place in November 2014 and the final survey was administered at the national event in June 2015. Details of the numbers and types of respondents are summarised below.

Table: 2 Participants by Local Authority for each of the 4 survey waves

Local Authority	Number and percentage of respondents			
	Wave 1 Feb 2014	Wave 2 June 2014	Wave 3 Nov 2014	Wave 4 June 2015
Angus	2 (4)	-	1 (2)	1 (3)
Argyll and Bute	1 (2)	2 (4)	-	1 (3)
East Lothian	-	7 (13)	8 (14)	1 (3)
East Renfrewshire	9 (20)	7 (13)	3 (4)	4 (11)
Edinburgh City	9 (20)	3 (6)	2 (3)	1 (3)
Falkirk	1 (2)	2 (4)	11 (19)	12 (33)
Fife	1 (2)	1 (2)	-	-
Glasgow City	3 (7)	4 (8)	2 (3)	-
Inverclyde	1 (2)	3 (6)	1 (2)	1 (3)
Midlothian	1 (2)	6 (11)	6 (10)	2 (6)
Renfrewshire	6 (13)	4 (8)	7 (12)	2 (6)
South Ayrshire	1 (2)	1 (2)	1 (2)	-
South Lanarkshire	1 (2)	3 (6)	5 (9)	5 14)
West Dunbartonshire	9 (20)	10 (19)	11 (19)	6 (17)
Total	45 (100)	53 (100)	58 (100)	36 (100)

The surveys reached key local authority personnel, school management personnel, teaching staff and, where applicable, partner agencies in each of the partnerships. These were the personnel best placed to comment on developments in their respective partnerships. The questionnaire included closed and open-ended questions to elicit information on progress to date in the respondent's SIPP project, impact and comments on any challenges that had emerged. Where possible, findings from the surveys have been compared to give an indication of distance travelled over the duration of the Programme.

II. Secondary analysis of partnerships' own data and materials on progress and impact, including summaries of their own evaluation and scoping analyses.

III. Information from interviews and focus groups across the partnerships:

Initial scoping interviews/paired interviews

- Eight paired interviews/ small group discussions with the partnership local authority representatives
- Eight focus groups and needs analysis discussions with Head Teachers and key partnership teachers

These were conducted as each partnership got underway with its planning and meetings (mainly from December 2013 - end of February 2014).

Follow up interviews and focus groups:

A series of follow up interviews and/ or focus groups was conducted with those instrumental to the development and operation of the partnerships with an emphasis on getting insights from teachers, Head Teachers and local authority contacts. This entailed:

- Eight paired interviews/ small group discussions with the partnership local authority representatives
- Eight focus groups with Head Teachers
- Eight focus groups with key partnership teachers involved in the design, delivery and evaluation of their project/interventions.

These interviews and focus groups were conducted in May/June 2014 and repeated in May/June 2015 to gather insights on developments, progress, challenges and further needs. The interviews and focus groups were usually conducted in partnership schools but occasionally telephone interviews were used to gather follow-up information when a key stakeholder could not attend the face-to-face meeting.

IV.   During the project, ongoing evaluation feedback was also obtained from participants during the monthly drop-in events/ surgeries hosted by the research team at the University of Glasgow.

V.   Insights on progress and issues gathered as part of the ongoing research support liaison process with the partnership projects.

VI.   Researcher observation during support visits to schools and events from December 2013 to July 2015.

For the third year of the evaluation, the ROC team ceased using the longitudinal questionnaire that had previously been administered at the national events because the participation level at Year Three events meant that a comparable survey was not feasible or meaningful. Moreover, in some partnerships the original teams reconfigured at the end of the Year 2 and/or lost staff due to reorganisation because of economic cutbacks. Therefore, it was decided with Education Scotland that the most meaningful approach to gather evidence on partnerships' progress and sustainability was to use a project self-report template that a representative of each partnership would collate and return. These, along with the external researcher visits that included interviews and focus groups with practitioners and managers provided evidence of any further impact and, crucially, sustainability and spread of innovation.

In the third year of the Programme, feedback reports were gathered from each project in Autumn 2015 and in Spring 2016. Also in Spring 2016, focus groups and interviews were conducted with key teachers and managers who were in a position to comment on the evaluation's research questions, particularly those regarding impact and sustainability of the SIPP developments. The focus groups and interviews entailed:

- Interviews with a local authority representative who was responsible for taking forward SIPP work (n=7)
- Interviews/ or focus groups with the Head Teachers in each partnership (n= 8)
- Focus groups with teachers who were still involved in taking the Programme forwards (n= 7).

In addition, the evaluation scrutinised available documents from the partnerships regarding SIPP development activity and plans.

Social Network Analysis (SNA)

The external research methods also included the use of Social Network Analysis to:

- Enhance the research team's understanding of how school partnerships were operating in different contexts
- Explore how different types of knowledge were shared between teachers and
- Identify what professional roles appeared to be key to this process.

Three partnerships were selected that represented different models of collaborative working in the SIPP (i.e. those covering wide geographical distances, cross-school partnerships across two local authorities and cross-school partnerships within a single local authority). In each of these partnerships all members involved in any SIPP activity were sent an additional SNA online questionnaire via email. The surveys gathered data on:

- Respondent's name and professional details
- Respondent's views on the nature of educational inequity in the school
- Respondent's contacts in their network across their partnership and the focus of their collaboration.

The SNA method requires a very high response rate to produce meaningful data. Across the three partnerships sufficient data was gathered (95% response rate) to allow analysis of one of the three partnerships' networking. The SNA network boundaries were determined by consulting teachers in the partnerships and asking them to provide any additional names of participants who had been active in the partnership. In the partnership included in this report this process generated an additional five named local authority staff. These were added to the staff lists of teachers from the two schools. The names of teachers no longer teaching at the schools due to sick leave or employment changes were removed. This applied to six of the teachers who had been previously included in staff lists. In total, the network boundary included 36 teachers and 5 local authority staff.

Before the SNA questionnaire was issued it was shared with a number of individuals who provided critical comments: a quality improvement officer (former primary school Head Teacher), secondary school Head Teacher, and others with experience of using SNA (from the University of Glasgow and Southampton University). Based on the advice provided by these critical friends the questionnaire was modified.

The questionnaire was distributed in May 2015 and all 36 teachers involved and 3 out of 5 local authority staff completed the questionnaire, providing a response rate of 95%.

This report provides a synthesis of the key findings arising from the external evaluation strands and the teacher-generated data that has been presented in feedback from the national events and their individual project reports to gain valuable insights on the development of the Programme, factors influencing progress and indications of impact against the stated aims of the Programme.

1.2.2 Approach to the analysis

The overall framework for the analysis was the research objectives and research questions set out in Section 1 of this report. Completed baseline and follow-up questionnaires were described and analysed using SPSS (Statistics Package for the Social Sciences). Frequencies, cross-tabulations, and relevant statistical tests were performed. The analysis also addressed, as far as was possible, the key factors which promote/hinder the impact of the SIPP approach and identified relevant associations between variables. The initial analysis was directed towards an exploration of the reported impact or otherwise of the projects, drawing on stakeholders' reported responses to their survey questions and any secondary data from the schools on meaningful outcome criteria.

Qualitative evidence gathered during the individual and group interviews was recorded in both note-form and by digital audio recording. A rigorous thematic analysis was conducted to illuminate participants' experiences of the initiative and detail their perceptions, aspirations and the shifts in these as the Programme developed. The analysis also highlighted those processes that have influenced the implementation and impact of the SIPP. This analysis drew on transcription accounts for clarification and illustration.

The responses to the SNA surveys were analysed using the social network analysis software package called UCINET (University of California Irvine Net). This software package was used to produce sociograms to reveal the nature of the staff networks in the partnerships and the extent to which particular ideas were being shared across the individuals involved.

The draft findings emerging from the various strands of the evaluation were tested for face validity by the research team's external expert panel and by the advisory committee and feedback to partnership stakeholders at the national events.

2. The School Improvement Partnership Programme: Findings update

This section reiterates and updates the key findings for the SIPP evaluation, highlighting further progress since the situation reported in the previous evaluation report (SIPP Phase 2, August 2015). For this final report there is little added regarding findings for those evaluation objectives that focused on the inception and early implementation of the Programme. These topics were addressed in detail in the Phase 2 evaluation report.

The new findings in this report emerge from evidence from the SIPP partnerships' own reports, the external evaluation focus groups and interviews conducted by the University team with insights gathered during their research support events, visits and activities that took place during the third year of the Programme (Phase 3). The focus of this work was on gathering evidence of further impact, sustainability and spread of the activity and innovation developed during the later stages of the SIPP.

The evidence indicates that, overall, the partnership initiative has continued to have a positive impact regarding its stated objectives, including:

- Fostering collaborative working to tackle educational inequity
- Developing capacity at school and local authority level to effect positive change, including improving enhanced leadership opportunities at all levels
- Building teachers' knowledge, confidence and skills to challenge inequity
- Improving teachers' understanding of evaluation and collaborative practitioner enquiry
- Increasing learners' aspirations and achievement in those partnerships that have implemented specific targeted projects.

Further, in most of the partnerships, the original SIPP development and lessons learned to tackle educational inequity have influenced learning and teaching and other measures more widely in the participating schools and other schools in their local authorities. Often, this has occurred at a time of considerable flux and change regarding personnel and a context of reduced funding available to the local authorities.

We now consider the main findings set against the external evaluation's main research objectives and related questions.

A) Objective: **To assess how well the overall SIPP, and each individual partnership project within it, have been initiated. (Process/ formative question)**

Research questions and key findings

2.1 How well was each project initiated and could it have been improved?

This research question was fully addressed in the first two SIPP evaluation reports. Feedback from those SIPP project team representatives who had been with the Programme since its inception stressed that the success of their projects and collaborative working had been promoted by the time that had been sanctioned and allocated at the start of the Programme. This had facilitated the building of relationships across their partnership, planning and provided time for reflecting on emerging findings and considering implications. In particular, teachers stressed the value of ensuring that the inception stage set aside time for meetings of those involved. This facilitated professional dialogue and forged good working relationships. As one headteacher stressed "There had to be that initial face to face contact so everyone knew who you were". This time was also well spent in that it allowed communication of the underpinning values and principles across each partnership and also intensive input from the University, local authority and Education Scotland team to support the design of appropriate CAR and learning and teaching approaches.

2.2 How well was the overall Programme implemented and could it have been improved?

Taking stock after three years of the SIPP, teachers and other stakeholders in all but one of the partnerships reported that the Programme had been fully implemented with the development of projects that demonstrated an impact on learners. There was consensus that partnerships were able to collaboratively develop appropriate plans, infrastructures and networks in line with those recognised by the literature on collaborative enquiry and improvement. This was seen as a factor in the success of the partnership projects, particularly where the inception and implementation process:

- Achieved early buy-in from a range of staff at different levels

- Was characterised by coordinated activity to establish a focus for the projects and organise enquiry groups

- Promoted an understanding of the partnership and project objectives and underpinning SIPP principles.

However, as the funded phase of the SIPP ended, the collaborative focus in three of the eight partnerships 'drifted' somewhat as some of the partnership local authority's policy priorities changed and/or key personnel moved outwith the partnership or took up different duties. While the close partnerships between such local authorities dissipated, the SIPP activity continued to influence practice and policy to varying levels in their schools and at local authority level.

Previous SIPP evaluation reports revealed that partnerships typically involved school staff and sometimes other partner professionals, rather than parents and pupils, in the setting up and planning of their SIPP projects. As the funded part of the Programme came to a close, partnership representatives reported that their SIPP experience had highlighted the

need to engage more with pupils, parents and the community and that this was being reflected in their planning of new developments.

The SIPP feedback from local authority representatives and teachers attending national events and research support visits indicated that the Programme had been well supported and well conducted at local and national levels. As the various partnership projects developed, partnership members found that the organisation and communication regarding their projects was enhanced as roles and lines of communication became better established and this in turn had positive benefits for wider professional dialogue.

At the end Year 2, there were still reports of challenges of time constraints, teacher cover issues, personnel changes and resources. In general, partnership teams, with the support of local authority and school managers, continued to develop creative ways to tackle such issues, including forward planning and sharing tasks across the team. The detrimental impact of financial pressures on staffing was ameliorated to some extent where the partnerships were within Attainment Challenge local authorities. This enabled access to funding to support coordinating personnel who assisted with sustaining and spreading SIPP innovations, securing commitment from managers as well as providing integration of activity with policy and planning frameworks.

It is noteworthy that even in cases where funding cuts in local authorities meant that the original SIPP teams were severely disrupted by managerial changes, the evidence of impact that local authorities had gathered from their SIPP activity meant that there was a motivation in the reconstituted education teams to adopt the SIPP approach and build on lessons learned. This included placing an emphasis on using the data and evidence from the SIPP projects to inform their on-going policies and approaches. This was particularly evident in the Falkirk partnership where the learning from the SIPP project was used by education and CLD services to inform new collaborative projects and activity to tackle educational inequity within the contact of their Attainment Challenge plans.

2.3 Did teachers build effective working relationships and what factors supported or inhibited this?

Reflecting at the end of Year 2 of the Programme, key stakeholders reiterated that a key reason for the success of their projects was the strength of relationships and collaborations that had been facilitated by the Programme. The partnerships established persistent and effective collaborative networks and a crucial factor in this was the presence and effectiveness of 'intermediaries'. These were typically local managers at authority or school level who were committed to the partnership's objectives, understood the SIPP principles and were good at building relationships and encouraging staff to become involved. These people also had an awareness of local systems and available resources and had the power to sanction action that facilitated the effectiveness of their partnership. Importantly, the network of intermediaries also included

teachers from a range of professional levels who had the opportunity to develop leadership roles within their partnerships.

The face-to-face meetings and events organised nationally and locally also helped to promote the relationships and coordination between committed teams of teachers who worked to develop and evaluate SIPP activity within and across schools in their partnership.

However, in one partnership, despite high levels of stakeholder commitment, the process of building effective and sustained working relationships was challenging and protracted. Insights from stakeholders and the research team suggest that the large number of schools to be involved and geographical distance between partners required a particularly complex and responsive level of infrastructure and communication between strategic and local managers and personnel. This initially appeared to work against the coherence of the partnership regarding its practical organisation and focus at local level. However, by the end of the second year of the SIPP it appeared that the organisation of the collaborative model was reinvigorated. This was characterised by renewed efforts by coordinating personnel to support the development of the local multi-partner teams and work to promote collaboration and sharing across these teams.

During the Programme, the Robert Owen Centre and Education Scotland teams were reported by partnership members to have helped to facilitate the collaborative process and building relationships within the partnerships. The hosting of support events that allowed professional dialogue, provision of advice on evaluation methods, policy and learning and teaching approaches were particularly valued.

2.4 What forms of collaboration were most and least effective in identifying a focus for partnership projects?

Section 3 looks at this topic in detail. Effective collaboration was most evident in working teams constituted to develop and coordinate the various SIPP projects within each partnership. These promoted sharing of valuable ideas for learning and teaching and developing new skills, including research and enquiry capacities and leadership opportunities. The most effective teams and partnerships grasped and reflected the core principles underpinning the SIPP that were set out at the beginning of the initiative and were informed by the research literature.

Opportunities to meet during the research support events facilitated by the local authorities, the University and Education Scotland members were reported as factors promoting effective collaboration. This was particularly so where such opportunities were frequent and occurred near the start of the collaboration, involved relevant staff and allowed sufficient time for planning and discussion. The national SIPP events held approximately twice a year provided opportunities for cross partnership sharing of ideas and demonstration of progress. The Midlothian and East Lothian SIPP partnership also introduced its own annual conference and was credited by participants as sharing lessons learned from SIPP, establishing new

relationships and strengthening partnership working and collegiality both within and across the schools involved.

Some forms of collaboration were ambitious in scale and arguably faced particular challenges in establishing coherence. In the Glasgow component of the Glasgow / Fife partnership there were eight Local Improvement Groups (LIGs) across the City organised in three areas; North West, South and North East of the City. In each, Quality Improvement Officers and educational psychologists were supporting developments within. The intention was for LIGs to provide:

- Clear, accountable systems which enable continuous improvement

- The sharing of professional learning to support delivery of high quality learning

- Improved leadership of change to deliver improvements

- Action research and challenge to support and evaluate improvements.

The LIGs are seen by managers as aligning with the 'Transforming Glasgow' strategy and tap into the efforts to promote digital leadership to contribute to change. From November 2016 an online digital hub using Glow tools will provide an environment to stimulate innovation and generate ideas. The LIGs articulate with key national and Glasgow local authority education policies and benefit from senior, middle and practitioner leadership programmes. The LIGs are seen as an integral part of a drive for improvement that involves:

- A strong emphasis on impact evidenced by data supported by collaborative professional enquiry and self-evaluation using various methods, including *How good is our school 4* (HGIOS4) and *How good is our early learning and childcare* (HGIOELC)

- Improvement methodologies e.g. transformational thinking tools developed by the Early Years collaborative

- Effective use of School Improvement Plans

- The involvement of professional learning communities.

Glasgow local authority management reported that the development of the LIGs reflected insights gained from the dialogue with the University team and colleagues at the SIPP national events.

During the SIPP, there were examples of inter-authority collaboration between Glasgow and Fife local authorities that involved hosting and planning events for teachers to draw on SIPP principles and approaches, including the Collaborative Action Research approach. This did not appear to stimulate specific collaborative projects between schools within or across the two local authorities. Over the duration of the SIPP the two local authorities appeared to have learned what they could from their collaboration and the partnership working between them became less active.

In June 2016 a LIG 'snapshot' was conducted to look at emerging LIG practice. Three teams, led by Head Teachers, carried out this activity,

linked to identified themes. This revealed that there was variation in LIG activity and impact but that LIGs had significant potential. There were reports of increasing use of data and evidence to inform measures to tackle educational inequity. This reflective snapshot review found that a key task throughout session 2016/2017 was identified as being the need to:

> Clearly communicate the links between national and local priorities, learning communities, establishments and LIGs. In addition, the improvements that can be achieved by better understanding the educational 'scaffolding' surrounding schools is essential if the LIGs are to progress.

<div align="right">LIG 'Snapshot' of Emerging Practice – May/June 2016. P.8</div>

These tasks are currently being planned.

2.5 Did teachers have an increased understanding of evaluation and what factors supported or inhibited this?

Overall, the SIPP has promoted notable progress regarding this objective. As detailed in the previous SIPP report, by the end of the second year of the Programme it was clear that all but one of the partnerships had been able to develop and sustain appropriate collaborative action research activities to assess the impact of their respective projects.

The nature, range and complexity of data and evidence that was being gathered across the SIPP partnerships, as the second year of the Programme came to an end, demonstrated that the SIPP experience had provided teachers and managers with particular knowledge and skills regarding CAR as well as an increased awareness of the importance of using evidence as part of their practice and particularly for tackling education inequity.

At the end of the third year of SIPP, the range of research methods that teachers felt confident to deploy was noteworthy across most of the partnerships (Appendix 2 provides an overview of the range of research approaches used across the partnerships). The University research support visits revealed that this included understanding when and how to use an appropriate mix of quantitative and qualitative methods to supplement testing. The majority of partnerships used their evaluation methods to inform the design of appropriate learning and teaching approaches and to provide pre and post-intervention evidence for projects to trial approaches and assess impact.

In all but one of the partnerships, teachers and managers reported in their project reports and during their focus groups that their increased capacity regarding CAR was extending beyond the core SIPP teams in the partnership schools. In some cases, the increase in CAR capacity through the SIPP experience was influencing approaches at local authority level. For example, in West Dunbartonshire, managers reported that SIPP experience meant that teachers across the learning communities would be

using the following methods and data over the next academic session (2016-17) to inform and assess practice:

Quantitative Data

Standardised Testing:

- *Numeracy GL Data*
- *Literacy GL Data*
- *Myself as a Learner.*

Pre and Post Tests – teacher generated: Examples include:

- *Pre and post word problem assessments*
- *Mental agility assessments (50 Club)*
- *Observations – Science Enquiry Questions (Bloom's Taxonomy Scale).*

Pre and Post Tests – Externally created: Examples include:

- *Spence Anxiety Scale*
- *Metacognition Strategy Index*
- *Reading Routes comprehension assessment*
- *ELCC and P1 Numeracy Baseline Assessments*
- *Teacher Attitudinal Questions*
- *Pupil attitudinal questionnaires.*

Qualitative Data:

- *Pupil focus groups*
- *Teacher focus groups*
- *Class observations*
- *Lesson Studies*
- *Observations during assessments*
- *Collection of pupil/staff quotes*
- *Case studies – specifically observing selected children.*

In West Dunbartonshire, a development officer had worked with teachers to develop the following range of ambitious 'enquiry questions', that had emerged from the SIPP experience:

- *Does ensuring a balance between teaching skills/concepts and application of the skills raise attainment in Numeracy (P4 and P5)?*
- *Does the explicit teaching of specific learning and teaching approaches raise attainment in Numeracy (for Pre- School – P1, P4 and P5 and P6 and P7)?*
- *Does the planned learning of skills in understanding and using money through thematic play raise attainment in Numeracy (Pre-school – P1)?*

- *Does the shared development of an explicit, progressive programme for Mental Maths raise attainment in Numeracy (P2)?*
- *Does the focused and regular teaching of 'hundred square strategies' raise attainment in Mental Maths speed and accuracy (P3 and P5)?*
- *Will a series of Cognitive Behavioural Therapy (CBT) activities (10 weeks) have a positive impact on children's levels of anxiety and will this correlate with SIMD levels (P2 and P6)?*
- *Does a pupil-led Science Enquiry approach increase children's confidence and ability in asking effective scientific questions (Pre-school – P1)?*
- *Does a focus on explicitly teaching metacognition skills raise attainment in reading (P5 and P6)?*

In the Angus, South Ayrshire and Edinburgh partnership, all three schools involved continued to gather attainment and related data which was monitored to explore levels and patterns of underachievement. This data then informed targeted responses to support pupils and parents to improve learner outcomes. The three schools were continuing to pursue and develop their SIPP strategies including promoting the attendance of pupils and parental engagement. Again, relevant data collection and analysis was an integral part of these strategies. One of the three schools gathered evidence from pupils and staff regarding the impact of the work carried out on learner feedback and associated primary schools are collaborating on the learner feedback approaches that the SIPP partnership developed. This currently includes pupil council representatives coming together to provide feedback.

The SIPP project based in the school forming the pilot of the South Lanarkshire Council Partnership focused on nurturing approaches. Here teachers reported that their experience had facilitated the embedding of enhanced data collection and information sharing into their practice. Their spring 2016 report revealed that data was now being shared between the High School and associated primary schools, with collaborative analysis by school staff to identify those pupils who are likely to benefit from the nurture approach developed as part of their SIPP project. Following input and advice from the University team the tracking and monitoring data collection now follows the learner from primary through to end of their High School experience and includes:

- Gender
- SIMD
- FME
- Reading age
- Spelling age
- Attendance
- Exclusions
- Reasons for referral
- Number of primary schools attended
- Positive destinations.

Their analysis also included Boxall profiles to indicate where the teachers should be targeting their work.

In the East Lothian and Midlothian Partnership there has been an increase in the range of methods used to collect data, including qualitative and quantitative approaches to gather data from staff and learners, for example, surveying students on their opinion of the impact of the newly introduced strategies such as the use of visualisers and quiz graphs. One of the schools in this partnership, supported by the University team, put in place a system to collect data on motivation from a cohort of students that was mapped with SIMD data. Other CAR analysis and data collection conducted in this partnership included:

- Analysis of S1 attitudes to Personal Support within and across participating schools, including use of student Focus Groups

- S1 Visible Learning Questionnaires

- S1 CAT Data

- S1 CfE Attainment Data

- S1 SIMD Data.

At the end of the second year of the SIPP, the partnerships generally had increased their ability to deploy a range of complementary research methods to gather data to address their project objectives. This increased capacity to select appropriate multi-method evaluation approaches, using bespoke as well as 'off-the-shelf' research instruments and tools, meant that these teachers were able to move beyond narrow testing and explore the reasons and processes underpinning the success or otherwise of their interventions and projects.

Nursery and P1 staff have been working with the SIPP team to analyse and interrogate data including P1 Baseline Assessment results, P1 Developmental Milestones screening, CfE judgements and pupil profiles. The older children in the project were able to complete an attitude survey called MALS which helped to measure attitudes linked to problem solving and mathematics. As we are not aware of a tool suitable for pre 5 children to use, teachers have been using observations and judgments to gain a picture of children's attitudes to mathematics.

East Renfrewshire partnership report. Spring 2016

Teachers within this SIPP partnership were leading a working group in each of their clusters with data being analysed in order to identify the common grouping of children who would benefit from the approaches developed by their project. This has included:

- Looking at CfE levels and Standardised Test results across the cluster

- Use of MALS questionnaires with pupils across the whole cluster. (Teachers have been supported by the University team to analyse these surveys)
- Analysis of questionnaires linked to lesson study across the cluster.

While the range and rigour of evaluation approaches and overall CAR capacity was enhanced in the participating schools during SIPP, some of the coordinating teachers acknowledged that not all of their colleagues were confident in their evaluation abilities.

We have found that some teachers are less confident in their abilities to carry out robust research whilst simultaneously planning and preparing for their classes.

Head Teacher. East Lothian and Midlothian Spring 2016

Drawing on SIPP partner stakeholder feedback, the key factors that have facilitated teachers' increased understanding of evaluation and their CAR capacity were reported as being the support from the University team and collaborative networking within and across partnerships. One partnership representative noted that where geographical distance had limited teachers' ability to attend the monthly drop-in support sessions at the University, this had implications for the level of practitioner research development.

Writing the report was hard. I could never come to the drop in events. I think we could have collected data more meaningfully; we made sure we had data but we missed a lot of opportunities.

Angus, South Ayrshire and Edinburgh Councils partnership report. Spring 2016

While there was consensus across the SIPP partnerships that teachers' collaborative research and evaluation ability and skills had improved and were increasingly being embedded in schools' systems, a notable theme was the request from teachers for ongoing periodic support from University partners. This support was specifically for assistance with more advanced statistical analysis of data regarding impact of measures to promote attainment and other learner outcomes. Increasingly, local authorities were drawing on the support from school psychological services for assistance with analysing data. However, there was some indication that the availability of such support and level of expertise within psychological services varies. Teachers involved in coordinating one SIPP partnership suggested that the University partner could play an important role in helping to assess the impact of those interventions and measures that had been developed between school collaborations once they were rolled out more widely, such as at local authority level.

2.6 Did teachers find out more about leadership development, opportunities to take on new roles and responsibilities and effective learning and teaching approaches?

One of the most notable impacts of the SIPP has been the reporting of increasing impact on promoting leadership development opportunities. At

the end of the second year of the SIPP, the majority of teachers surveyed reported that involvement with the SIPP had resulted in the creation of leadership opportunities and professional learning of staff at all levels. This finding was endorsed and illustrated across the final SIPP reports from partnerships as well as in the interviews and focus groups with teachers and managers.

In the South Lanarkshire Council SIPP, the project undertook an extensive training programme that included accreditation for staff to develop the nurture knowledge base of a number of key staff working directly with pupils in the school and across the wider Youth Learning context. As the partnership developed its collaborative network the core SIPP team also facilitated the training of key staff from Kear Campus who support pupils who have the greatest social, emotional and behavioural needs to enable these staff to mirror the approaches taken at Trinity High. The High School team also shared knowledge via whole school presentations and have trained the area specialist support teachers, early years, primary and secondary teachers to provide a coherent approach with knowledge of the key principles of nurture and how these fit within GIRFEC, CfE and Health and Well Being.

In the East Lothian and Midlothian partnership, the SIPP experience was reported to have promoted leadership for a variety of staff.

A variety of staff have taken leadership opportunities. For example a teacher in her first year of teaching at Newbattle is leading a group for the SIPP partnership, and a number of middle leaders have been given the chance to work at a strategic level between schools…The SIPP work has contributed to inspiring a number of teachers to join the Midlothian and East Lothian first steps to leadership and career-long professional learning opportunities. Many are using the leadership experiences provided by the SIPP to evidence their 'Professional Update'.

East Lothian and Midlothian SIPP partnership. Feedback report. Spring 2016

In this partnership, distributed leadership was evident, with teachers organised in working groups developing a Personal Support Programme and Visible Learning Programme that included including collaboration with the local Education Psychology Service. Indeed, one senior manager in Midlothian Local Authority stressed how SIPP had acted as a catalyst to develop the leadership of teachers that is necessary to drive improvement and tackle raising attainment.

Local authorities have to understand they cannot drive improvement… unless the school has clear vision, effective leadership in terms of what they need to do in terms of raising attainment…SIPP has worked with schools collaboratively and given schools the power…It is the younger staff in the schools who have really seized the opportunities and it's started to permeate upwards.

Senior Education Manager. Midlothian Council

In the East Renfrewshire Partnership, teachers in the SIPP team led Career-Long Professional Learning (CLPL) within their own schools and clusters and were leading cluster-working groups. These teachers were also leading and

facilitating Lesson Study cycles within their own schools with the aim that, after supporting teachers in this, those teachers would be able to research and plan development cycles independently within their on-going partnerships. Head Teachers in this local authority also noted that the SIPP had facilitated access to Masters level learning.

> *The teachers have led working parties and have taken this forward in the school and cluster and one of the teachers has moved on to a promoted position*
>
> East Renfrewshire Partnership teacher focus group. June 2016

B) External evaluation Objective: To assess the extent to which the SIPP has contributed to its intended intermediate outcomes. (Outcome objective)

Evaluation Questions and key findings

2.7 Do teachers have an increased understanding of disadvantage and its relationship with other factors such as health, wellbeing and student outcomes?

The previous SIPP evaluation report revealed that the majority of teachers reported an enhanced awareness and understanding of disadvantage and that this awareness substantially increased as the Programme developed. The practitioner enquiry process, inputs during the national SIPP events and an increasing national prioritisation of educational inequity were cited as contributing to practitioners' understanding of disadvantage.

During the final round of visits by the University's external evaluation team, teachers and mangers reiterated the importance of being part of the SIPP and collaborative working across their partnerships for increasing their awareness of the factors that influenced educational inequity. This was particularly apparent where a partnership included services and personnel from other agencies working to promote wellbeing and equality.

2.8 Are teachers using more effective learning and teaching approaches with learners from disadvantaged backgrounds?

In the previous SIPP evaluation report, survey data between the first and fourth survey rounds indicated that partnerships had developed an increased understanding across staff of disadvantage and its relationship with other factors, such as health, wellbeing and pupil outcomes, and had begun implementing approaches to address inequity in education across schools. During the final phase of SIPP, evidence from partnerships' own reports and the external research visits and focus groups indicated that the pace of implementing learning and teaching approaches informed by SIPP experiences that aim to tackle disadvantage had accelerated.

For example, Trinity High has positioned itself as a Nurture Hub offering training, advice and ongoing support to Nurture practitioners across South

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Lanarkshire Council. The Nurture provision within Trinity High has secured the Marjory Boxall Quality Mark Award, which recognises the following strengths:

- Safe base, calm, caring environment

- Welcoming ethos across the school

- Quality of relationships evidenced by parents, staff and pupils

- Strong, powerful vision from the Head Teacher working alongside the Senior Manager Pupil Support in leading collaborative work with our partner agencies; Social Work, Health as well as other local schools / bases.

- Excellent working practice.

In the East Renfrewshire partnership, the learning and teaching approaches that were developed between the two schools have informed practice more widely in the schools. This has included:

- The piloted approach to the teaching of mathematics becoming embedded in both schools

- Selected colleagues in both clusters having an increasing understanding of the approach piloted by the SIPP project

- The transition process being supported and enhanced

- Lesson Study being used effectively to bring about school improvement in the area of numeracy and mathematics as well as other subjects. Both schools have embedded Lesson Study into their collegiate calendars in order to facilitate sustainability of the project. This approach has been used to provide an opportunity for professional enquiry and research linked to reading and talking and listening skills

- Moderation of expectations through collaborative working.

The learning and teaching approaches and use of lesson study have now influenced this local authority's approaches with the partnership school staff providing input to authority-wide CLPD. Furthermore, the collaborative approach has been adopted to promote early years transitions and assessment of impact:

Some have been focusing on transitions, so from nursery to primary 1. There have been opportunities for teachers in both of those year stages to collaboratively plan with each other…alongside that there has also been analysis of the P7 standardised test assessments

East Renfrewshire Head Teacher and teacher focus group Spring 2016

In the East Lothian and Midlothian partnership there were reports of the SIPP activity leading to better use of data to inform and assess newly introduced learning and teaching methods.

Specific examples of good practice are now much more widely spread: we are now using visualisers in over 10 classrooms at Newbattle and this good practice is being explored in other schools. Our discussions about research have suggested that students with low SIMD frequently lack sufficient recall of

background knowledge. As a result we are using mini quizzes and self-recording of progress in some form in 5-6 departments across the 3 schools. We are also exploring increasing motivation to follow next steps by using techniques such as 'self-written reports' leading to students delivering their own parents' evenings at St David's H.S. and Newbattle H.S.

Midlothian and East Lothian SIPP report. Spring 2016

One of the strategic managers in Midlothian stressed that effective learning and teaching was crucial in what SIPP and their partnership was aiming to do, stating: "It's only through a focus on pedagogy that we are going to raise attainment and that's what we did".

2.9 What has been the impact of SIPP activity on learners?

Evidence gathered since the previous external evaluation report has shown that those partnerships that demonstrated impact on student achievement and other outcomes by September 2015 (i.e. Falkirk partnership, Edinburgh, South Ayrshire, Angus partnership, West Dunbartonshire and Renfrew partnership, East Lothian and Midlothian partnership and the East Renfrewshire partnership) continued to report that their data indicated on-going progress regarding impact on learner outcomes.

The Clydeview Academy and Dunoon Grammar partnership now have data that indicate an increase in the number of target pupils achieving Nat 4 numeracy and there are signs that more of these students will continue with their Maths into S5, either looking to achieve Nat 5 numeracy unit or Nat 5 Maths Lifeskills. The partnership also reports that there has been a marked improvement in the target group of students' behaviour and confidence to learn.

In the South Lanarkshire SIPP partnership, the number of pupils who attended the Nurture project in the early stages of their secondary career and who had gone on to a positive destination was 96%. The staff noted that:

We could not have predicted this when the pupils started in S1 but their involvement in nurture has clearly enabled them to become confident individuals who have found a clear pathway for themselves.

South Lanarkshire *SIPP report. Spring 2016*

In the East Lothian and Midlothian Partnership, there was further evidence of reduced exclusions and referrals for S1 year groups and pupils were reporting improved learning experiences. Here, the opportunity for enhanced professional dialogue and haring of lessons learned from the SIPP experience were highlighted by teachers.

Wider sharing good practice has been very beneficial. We intend to continue the observation programme that we ran between the schools. Feedback from staff who participated in the visits suggested that having this opportunity was extremely valuable and inspiring and as a result is having an impact on practice and further improvement in learner's experiences in the classroom. We hope that

improved classroom experiences will help to close gaps. Further development of collegiate links happened during sharing good practice lunches with the wider staff on the observation days.

East Lothian and Midlothian Partnership SIPP report. Spring 2016

The East Renfrewshire Partnership team reported continued improvement in the numeracy attainment of the target learners. In addition to tests, the teachers had also used questionnaires and interviews to explore the learners' confidence and enjoyment regarding numeracy.

From our analysis it looks as if children enjoy numeracy and mathematics more…When we interviewed the pupils it was very evident their confidence and motivation had improved… their whole perceptions of maths have changed

East Renfrewshire Head Teachers' Focus group. June 2016

The most recent information available from the Glasgow/ Fife partnership has indicated that the SIPP approach and principles have influenced the thinking regarding collaborative working between the Local Improvement Groups (LIGs) that were being put in place around the start of the Programme. However, these LIGs have taken time to facilitate the development of specific projects and systematic activity to tackle educational inequity and demonstrate impact on learners. It is important to note that the University research team are aware from their research projects outwith SIPP that there is much activity in Glasgow schools focused on the attainment gap and tackling educational inequity. These activities work within local and national policies and the University team has seen numerous examples of teachers working together in their own schools using available data and gathering new data and information to inform their practice. There are also examples of collaboration across schools seeking to tackle the attainment gap. However, while the LIG approach provides a framework to facilitate greater collaboration to enhance working at a local level there is little evidence of this in practice to date. The 'snapshot' review of the LIGs conducted in May/June 2016 by Glasgow City Council Education Services does, however, indicate positive developments and a renewed impetus to establish the LIGs as part of the system to tackle educational inequity.

3. Sustaining and extending the SIPP developments

The evidence gathered during the final year of the external evaluation strongly indicates that local authorities are moving to adopt more widely the lessons learned from the SIPP. West Dunbartonshire and East Renfrewshire councils are particularly good examples of this. The Falkirk partnership is also a strong example of how education services and other partners, notably CLD, have seen the value of approaches developed through their SIPP approach and deployed these more widely, despite council restructuring that has involved a complete reconfiguration of the original partnership leadership team.

One partnership where the learning from SIPP schools has not spread across the wider local authorities is the Edinburgh, South Ayrshire, Angus partnership. The partnership was driven by three Head Teachers with limited external involvement from the local authorities. This may explain why impact was restricted to the schools involved rather than being spread more widely.

Those partnerships reporting sustained SIPP activity also reported impact on developing teachers' leadership capacity, with middle leaders being given opportunities to work strategically across schools to support the sustaining and expansion of lessons learned from SIPP. This is a practical example of how SIPP has contributed to the professional development of those involved and built leadership capacity across the system.

There is evidence that the Collaborative Action Research approach and use of wider research evidence has also become a sustained feature in most of the partnerships. There is also more sophisticated use and understanding of data in some partnerships, including mapping findings against SIMD data (e.g. Falkirk, East Renfrewshire, East Lothian and Midlothian). However, the partnerships continue to express a need for further professional development in this area and for greater levels of high quality statistical and analytical support as well as insights on 'what works' (and doesn't work) from the wider research literature. Selected examples of sustained and extended SIPP are outlined in this section.

In the West Dunbartonshire and Renfrewshire partnership, the learning from SIPP has been adopted widely across West Dunbartonshire Council (WDC) in particular. Here, as SIPP developed, teachers and managers saw evidence of impact both from the learning and teaching approaches piloted by their projects and also the CAR and collaborative way of working.

In West Dunbartonshire there are plans to build on the partnership working, practices and impacts developed through the SIPP with the expectation that in the session 2016-17 every Learning Community within the authority, including all schools and Early Learning and Childcare Centres (ELCCs) will be involved in either a Literacy, Numeracy or Health and Wellbeing CAR Project. Furthermore, the aim is for one third of all teachers within each school to have been involved in a CAR project by June 2017. The CAR and partnership approach to tackling educational inequity has almost certainly been given additional impetus by WDC's involvement in the Attainment Challenge. Their commitment to the CAR process is a particular highlight and includes plans for:

- A WDC agreed Collaborative Action Research (CAR) Policy outlining the process of CAR

- A training programme to support the CAR process

- A consistent method of planning and sharing a CAR Project

- Investment in supporting CAR Projects through employing a SIPP Coordinator and Raising Attainment Maths Teachers, downloading money to schools to support commissioning for collaborative meetings and employing supply teachers to allow teachers to observe lessons

- An agreed consistent written method of reporting findings

- Plans to showcase effective approaches to allow teachers to share their findings and experiences

- Systems to collate and share consistent and tested assessments that can be used to measure impact

- Use of tested approaches to research and measure across the authority to assess whether interventions have had an impact on raising attainment in Numeracy and Literacy.

- A commitment to scale up interventions that have had a positive impact in the session 2016-17.

In the South Lanarkshire Council partnership there has been stronger collaboration with new partner schools; Stonelaw High School and Uddingston Grammar School. The lessons learned from Trinity High School's SIPP experience are now shaping the practice in these schools, including:

- Nurture provision in place for S1 & S2 pupils
- Initial tracking & monitoring in place
- Boxall Profiles used to identify pupil progress
- Emotional Literacy based programmes in place
- Staff training across the school / wider community
- Participation in Nurture Hub network meetings.

These schools will use Trinity High as the Hub for future training and network support events. As the numbers of staff members trained increases the core team hopes hope to be in a position to include them in the networking events, enabling them to receive support from more experienced practitioners, allowing Nurture to develop and grow across the local authority. A key part of this strategy is the inclusion of Youth Learning colleagues and Specialist Support colleagues in the training to support others to develop similar approaches in their schools whilst retaining the required bespoke elements.

The lessons learned from SIPP are also finding their way into other local authority schools that are part of the Scottish Attainment Challenge, with the Nurture group network linking these schools into the Hub support network. This will include an increase in the number of Nurture Bases across the authority, with a special focus on Secondary schools.

In the Midlothian schools, commitment to the use of Hattie's Visible Learning research in improving learning and teaching is consistent with the wider local authority strategies, SAC and HGIOS 4, and this has helped facilitate the spread of SIPP-related learning more widely. As the partnership's SIPP report highlighted, the SIPP was part of a wider local and national strategy.

> *Staff are much more receptive to ideas behind the use of SIMD and Insight benchmarking data to explore ways in which the attainment gap can be tackled. A major piece of work this session has been the up-skilling of all staff in the use of the Insight tool to evaluate and measure where 'gaps' are and stimulate discussion on how to address issues…[The] schools are committed to the principle of Self Improving School Partnership working with all…Headteachers meeting to ensure the implementation of all aspects of the project is completed.*

Importantly, the take up and sustainability of SIPP principles and approaches within the original schools and then across the authority was enhanced by a policy to promote teacher ownership of school improvement. This was supported by council-wide activities to communicate developments and foster professional dialogue and collaboration. For example, a Midlothian conference (in January 2016) built on the ideas and skills developed in the previous SIPP conference of May 2015.

> *We have a regular plan of sharing good practice through conferences and observations between the schools. Joint twilight sessions between schools are also planned for example on the use of visualisers and success criteria…We also plan to maintain the relationships between staff in our schools at both a management level and a classroom level. Our head-teachers feel that they have a mutually supportive relationship that helps sustain both this partnership and a wider improvement agenda. We have set up email networks between classroom teachers on a subject basis which are beginning to be used more frequently to further develop partnership links.*

> *The injection of financial support [through SIPP] has kick-started very valuable partnerships between our schools. We are now in a position to build on this work and further develop sustainable relationships, opportunities for development and CLPL. By looking outwards and learning from each other we hope to challenge our own thinking and further improve the learning experiences of our young people. We believe that we are now building a robust self-improving schools model.*

Midlothian and East Lothian SIPP report. Spring 2016

In East Renfrewshire Council (ERC), the SIPP approach has grown from a partnership involving two primary schools to an authority-wide partnership. ERC and WDC developed a cross local authority collaboration where knowledge, expertise and ideas move organically across local authority boundaries. This is an example of what can be achieved by an improvement intervention that provides a set of guiding principles, an overarching framework for action and CAR approach to the generation and movement of knowledge across institutional, political and geographical boundaries.

Within ERC every school will form a SIPP partnership with one or more schools. Each school has a nominated SIPP coordinator. The two teachers involved in the Education Scotland SIPP have led presentations for school coordinators and are viewed as lead practitioners who can offer support and guidance. Other developments that have been spread more widely include:

- Professional enquiry/ CAR approach being cascaded throughout the LEA.
- All staff given CLPL in using relevant methods to analyse data and look for equality and equity trends.
- The piloted numeracy approach is being trialed with High School Staff.
- Every school in East Renfrewshire Council now has a SIPP champion who is responsible for action research in schools.
- Staff empowered to use Lesson Study to support professional enquiry and improvements to learning and teaching.
- A number of staff in both schools have continued to learn about CGI through further study and professional leaning and development at Strathclyde University provided by Dr. Lio Moscardini. This is the only such module in the UK. This provision also supports teachers with an active and international online CGI discussion forum. Dr. Moscardini's work is independent of the SIPP project run by ROC and was contracted directly with the University of Strathclyde by the schools.

This partnership demonstrated the importance of achieving synergy between SIPP activity and local, regional and national priorities and policies in order to support sustainability and promote the spread of innovative and evidence-based practice across the system.

An educational psychologist and a QIO were linked to each of the projects and we now have 14 projects up and running. The authority has used SIPP as a model for other things. The thinking behind SIPP gave a vision. East Renfrewshire has always had that vision, but this refreshed and clarified it. But there has always been a focus on everyone achieving and attainment and so often we talked about raising the bar for all. Now we talk about excellence and equity. We are really drilling down and looking at the groups…It helps with bringing together the NIF and HGIOS 4.

East Renfrewshire strategic interviewee. Spring 2016

There is now a whole authority approach to having the data to drill down…Every school in East Renfrewshire Council has a SIPP champion who is responsible for action research in schools

East Renfrewshire Headteachers Focus group. June 2016

3.1 Dealing with challenges to sustainability

All partnerships reported that their SIPP activity had faced challenges during the Programme and that further challenges were anticipated in their plans for sustaining and expanding SIPP-related activity. The most common of these was seen as staffing, i.e. finding cover to release staff to attend meetings and

CLPD in general was a challenge. However, schools generally had worked hard to enable staff to meet and plan as teachers and managers viewed SIPP activity as a priority because it had been shown to make a positive difference to the learning outcomes and experiences of students from disadvantaged backgrounds. Therefore, teachers agreed time should be built into collegiate planners to support developments.

> *I think because we valued it as an approach we made sure we could work around everything…I think we were really lucky with the group of teachers and maybe there would have been some challenges if there had been another team.*
>
> East Renfrewshire Headteachers Focus group. June 2016

Changes in personnel, particularly at local authority level were a potential challenge to sustaining the SIPP developments. However, as previously noted, the value placed on the SIPP collaborative approach and the learning and teaching methods demonstrated to be effective meant that teachers and managers were committed to forging new partnerships and relationships to sustain and spread the developments.

3.2 Implementing and sustaining the SIPP approach in challenging times

While the SIPP was funded over a two-year period, the level of funding was modest and intended to provide a stimulus for innovative collaborative working and experimentation to allow partnerships to develop approaches to tackle the attainment gap and educational inequity.

The rationale for providing limited funding was to encourage partnerships to explore approaches that were not reliant on funding and, therefore, were more resilient to economic uncertainty and flux. The funding for the Attainment Challenge has helped to offset the impact of pressurised budgets and provided the opportunity for local authorities to build on SIPP. Part of the ethos of the SIPP is to develop approaches that essentially do not rely on additional funding. This section, therefore, looks at what lessons can be learned from the experience of the SIPP and the partnerships regarding delivering and sustaining the approach without additional funding and in times of change. In particular, it considers what ways of working are required for effective partnerships?

The external evaluation findings, insights across the three years and the experience of the University research team from its vantage point as external critical friend has allowed the team to develop an understanding of the factors that influence the delivery and sustainability of the SIPP approach, with its focus on collaborative partnership working and enquiry to tackle educational inequity.

As noted in Section 2, there are a number of key features characterising successful SIPP partnerships. These align well with the research literature on effective partnerships, indeed, such research helped develop the framework for the SIPP. The external evaluation's insights add to this literature and can

be used to inform others who wish to implement educational change to tackle educational inequity.

Our evaluation highlights the features of successful collaborative partnerships. These typically:

- Maintain a clear focus on closing the attainment gap

- Develop approaches that are tailored and context specific

- Promote the meaningful use of data and evidence from numerous sources to inform practice and the use of data to understand impact but particularly framed by a commitment to Collaborative Action Research across partnerships

- Provide structured opportunities for collaboration, including investing in time and space to build positive relationships

- Quickly establish a group of committed practitioners, supported by school and local authority leaders, to drive the activity/ project. This group is able to engage other staff and expand the influence of the Programme to affect behaviours more widely across schools and partnerships

- Have a clear focus on literacy, numeracy and parental engagement. However, in addition to effective learning and teaching there is a need for broader partnerships, including Colleges, CLD, employability services etc. in order to tackle educational inequity. This allows partnerships to have capacity and expertise to work with and empower families and communities to allow them to actively participate in measures to promote learning. This is key to making a difference to learners' attainment and wider achievement

- Embed the collaborative projects/approaches in school and local planning

- Are locally owned and led and have a commitment to developing empowered leadership at all levels

- Establish an equitable partnership within and between schools involving, teachers, learners, families and other relevant stakeholders and organisations

- Draw on external expertise where necessary, including colleagues from universities and other partner services

- Promote a risk-taking culture

- Use frameworks for change, not prescription, and allow high levels of autonomy

- Invest in professional dialogue and networks to build the 'infrastructure' needed for CAR and change.

Educational change is technically simple but socially complex, i.e. planning the actions that are needed can be relatively straightforward; the challenge for teams is to find ways of getting everybody involved to implement them. Here the role of leaders/ managers and other key intermediaries is crucial. Findings from the SIPP evaluation indicate the importance of key intermediaries who

play a fundamental role in the success of the collaborative programmes and their wider adoption. These intermediaries:

- Provide early identification and mobilisation of individuals at different levels who are well placed to lead and manage change and improvement through partnerships/collaboration
- Facilitate and sanction practitioners' time and resources for use in collaborative enquiry
- Support communication and brokering of knowledge exchange across partners within, between and beyond organisations
- Encourage others to embed lessons learned regarding what works to promote effective change in longer-term planning and systems.

These intermediaries are typically:

- Skilled at recognising how strategic plans and objectives can be operationalised locally within particular contexts
- Socially skilled to encourage and enlist the participation of colleagues in partner agencies to develop the plans into action
- Sufficiently influential in their networks to mobilise knowledge and facilitate and sustain action in local and national systems.

It is arguable that the above characteristics and features of successful partnerships do not necessarily require additional funding. Rather, they can be instituted through understanding how these features impact on effective partnerships and a commitment at all levels to implement them.

Without key intermediaries there will be challenges in fostering the cross-organisational and cross-sectoral collaborative change processes. While additional funding can help create secondments and buy the time of managers to support coordination and act as these key intermediaries, it can be argued that the reallocation of existing resources could also be considered where these individuals are recognised as key to the effectiveness of collaborative partnerships.

While the value of such intermediaries is clear, the positioning of key co-ordinating and development individuals in partnership networks, especially managers, can be seen as potentially vulnerable in times of economic uncertainty. Indeed, economic cuts in local government are having a detrimental impact on levels of senior staff who would otherwise be playing a key role in the facilitation and development of the necessary 'infrastructure' for change and sustained developments. This places an emphasis on greater levels of 'empowered leadership' at practitioner, school and third-sector partner organisation level. Those partnerships reporting sustained SIPP activity also reported developing teachers' leadership and middle leaders being given opportunities to work strategically across schools to support the sustaining and expansion of lessons learned from SIPP.

3.2.1 Promoting the sustainability of the SIPP developments

Regarding the issue of sustainability and spread of the SIPP approach and developments the evaluation has highlighted a number of considerations. Sustainability can be defined as the continuation of an intervention or its effects (Shediac-Rizkallah 1998, Swerissen 2004). Shediac-Rizkallah's (1998) framework reflects health-based interventions but provides useful insights on the sustainability of programmes in education. Sustainability is further defined as:

- Maintenance of impact from the programme
- Institutionalisation of a programme within an organisation
- Capacity building in the recipient community.

Taking these defining characteristics of sustainability we can look at what promotes them. Taking into account the above features of what promotes effective educational collaborative partnerships, the external evaluation findings resonate with the findings of Shediac-Rizkallah (1998) and Bossert (1990) who identify key factors influencing sustainability. These are:

- Factors in the broader environment
- Factors within the organisational setting
- Project design and implementation factors.
- The economic and political variables surrounding the implementation
- The evaluation of the intervention
- The 'strength' of the institution implementing the intervention
- The full integration of activities into existing programmes/ services/ curriculum/ etc.
- Whether the programme includes a strong professional learning component (capacity building)
- Community involvement/ participation in the programme.

The majority of these factors and features are reflected in those SIPP partnerships that have gone on to be sustained and expanded within their original schools and beyond. The evaluation team have noted from the SIPP and other collaborative approaches in public services that impact and sustainability are enhanced when partnership teams consider at the outset:

What works: What are the core elements of the project/ intervention that are critical to its effectiveness. What are the specific outcomes it delivers?

For whom: What are the characteristics of the target group with whom the intervention is effective (e.g. what age group, specific needs etc.)?

In what context: Are there key elements of the context (the circumstances, time, environment in which it was delivered) which supported the impact of the project?

4. Conclusion

After three years of development and implementation, the evidence from the external evaluation and the partnerships' own evaluative findings and reports strongly indicates that the SIPP is having an impact in relation to its stated objectives. While partnerships have developed at different rates and have approached their goals in different ways, almost all can demonstrate an impact on promoting attainment and other learning outcomes for the target groups of learners. The main outcomes have been:

- Fostering collaborative working across the partnership schools and their networks to tackle educational inequity

- Developing capacity at school and local authority level to effect positive change, including improving enhanced leadership opportunities at all levels

- Building teachers' knowledge, confidence and skills to challenge inequity

- Improving teachers' understanding of evaluation and practitioner enquiry, in particular the use of Collaborative Action Research

- Increasing the aspirations, motivation and achievement of the target learners.

- In most of the partnerships, the original SIPP development and lessons learned to tackle educational inequity have influenced learning and teaching and other measures more widely

- The strategies and approaches developed in the partnerships have also influenced the participating local authorities' thinking and policies. This has occurred at a time of considerable flux and change regarding personnel and a context of reduced funding available to the local authorities

- Where the SIPP developments have been sustained and expanded more widely across schools and reflected in the policies and strategies of their local authority, this has partly been stimulated by the Attainment Challenge but also by the commitment of key individuals at various professional levels but particular middle and senior managers. These people have acted to plan, communicate principles, facilitate co-ordination and mobilise knowledge and resources around the system.

- While the value of such intermediaries is clear, reliance on these individuals can make collaborative networks potentially vulnerable in times of economic uncertainty. This places an emphasis on greater levels of 'empowered leadership' at practitioner, school and third-sector partner organisation level and having a more distributed network of intermediaries. Indeed, those partnerships reporting sustained SIPP activity had invested in developing teachers' and middle leaders leadership skills and duties and middle leaders being given opportunities to work strategically across schools to support the sustaining and expansion of lessons learned from SIPP.

5. Commentary

This section considers some of the issues emerging from the SIPP evaluation findings, particularly those that have implications for policy and practice regarding the development of approaches within, between and beyond schools to tackle educational inequity.

5.1 Implications for SIPP from other research

Looking at the SIPP findings in relation to other research regarding tackling educational inequity, meta-reviews such as Mincu (2016) have found that the principles and approaches adopted by SIPP feature in successful strategies to tackle the achievement gap and educational inequity. Namely, most of the SIPP projects focused on collaboratively developed and evaluated learning and teaching approaches. In addition, research-based and shared professional knowledge is key to ensuring both effective learning processes and whole school improvement. School improvement is also much more likely to emerge as a result of collective capacity building than through the application of a series of 'external' accountability measures. For improvement to take place, there needs to be a focus on the development of teachers' knowledge, skills and commitment and for the process to be inspired by distributed, instructional and inquiry-minded leadership (Mincu 2014). Recent research, including that of the Sutton Trust (Coe *et al* 2015), stresses the importance of the following in tackling the attainment gap:

- High quality feedback to pupils.
- Peer-to-peer learning (peer-tutoring).
- Developing thinking skills (meta-cognition).
- Early years interventions

However, other relevant research (e.g. Egan, 2013; Carter-Wall and Whitfield, 2012; Chapman et al., 2011) has also shown that measures to tackle educational inequity and the attainment gap need to look beyond learning and teaching to address:

- Pupil wellbeing
- Enrichment experiences
- Engaging parents and families in their children's learning
- Strengthening links with communities,

Such research stresses that parental and family engagement is the most important factor, outside of schools, in influencing the achievement of children from disadvantaged backgrounds. Therefore, multi-agency working is key to partnership working to tackle educational inequity e.g. in supporting school-family links, out-of-hours learning and mentoring interventions. There needs to be further co-ordinated work that links the full range of assets available both within schools and also externally to the community to achieve collective impact (Egan 2012). The development of a small number of area-based approaches within Scotland's most disadvantaged settings that are adopting

the principles of collective impact used in Harlem Children's Zone in New York and the Strive Partnerships in Cincinnati would be a valuable investment in closing the attainment gap.

5.2 On-going periodic support from research partners

There is evidence that the Collaborative Action Research approach and use of wider research evidence has become a sustained feature of most partnerships' activity. There is also more sophisticated use of data in some partnerships, including mapping findings against SIMD data. However, the partnerships have expressed a need for more sophisticated statistical and analytical support as well as insights on 'what works' from the wider research literature and the conduct of major evaluations of local authority-wide projects and interventions. For this to be realised, partnerships will need access to on-going appropriate support from research partners. This may come in the form of university collaborations, from support by research and analytical services within government, or through HMIe and local authorities, or a combination of the above. Our experience suggests that bringing a range of stakeholders together with access to different forms of knowledge and access to different data is likely to have the greatest impact.

More sophisticated insights are needed throughout the system and this has been highlighted across the SIPP partnerships, with teachers in particular expressing a need for more guidance on 'cutting edge' research findings that can inform their teaching.

5.3 Moving forwards

In addition to ensuring the best research evidence and expertise informs future development within the system, the OECD has recognised the need to build research capacity within the system (OECD 2015. p18). SIPP has been a mechanism for answering this requirement in a systematic and practical way, by connecting researchers with government agencies, local authorities and teachers and school leaders involved in the project to collect, analyse and make meaning with a range of data.

The OECD also highlighted the need to rethink the 'middle tier' within Scotland. SIPP has been at the forefront of some of this work. Prior to the publication of the OECD report SIPP called for the creation of a number of 'innovation hubs' where reservoirs of expertise in specific methods (e.g. lesson study, improvement science, learning rounds or generic collaborative action research) or specific content (literacy, numeracy etc.) could be developed and then moved around the system (OECD 2015 p21). These ideas are also evident in early ADES thinking with Bruce Robertson's contribution to a review of hub approaches and about inter-authority working in Scotland, (Christie *et al* 2014). Such ideas now form part of the rationale for the ADES inter-authority hubs.

The changing educational landscape, with the introduction of the Scottish Attainment Challenge and the governance review that is being undertaken by

Government provides a significant opportunity to realign and create coherence within the system, and specifically the middle tier.

SIPP has built capacity by creating nodes of expertise within the teaching profession and local authorities across the system. The emergence of new actors, including Attainment Advisors and Improvement Advisors combined with a potential reorganisation of existing capacity which includes Education Scotland Area Lead Officers and Development Officers, SCEL Regional Officers, Quality Improvement Officers/ Managers etc. provides an opportunity to capitalise on SIPP's capacity building efforts to create a new, agile middle tier with a cadre of differentiated expertise that can work across local authority boundaries.

This regional resource could be located within inter-authority hubs and has the potential to offer a set of arrangements which, with national co-ordination from key stakeholders, could serve as a coherent professional learning/ capacity building resource for in-service professional learning to support the ultimate implementation of Teaching Scotland's Future.

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Appendix 1: SIPP partnerships and examples of impact

Partnership	Description	Examples of impact based on University team data gathering and schools' own research
1. West Dunbartonshire and Renfrewshire Partnership project	This partnership project initially included 13 primary schools from across the two education authorities and involved building partnerships across sectors (including pre-5 partners). The specific areas for improvement include: • Learners' attainment in numeracy/ maths and literacy • Pedagogical skills of practitioners, • Leadership of the agenda to raise attainment by Head Teachers and across schools.	Impact on mathematics in primary pupils: • Increased ability to correctly solve mathematics problems: pre- to post- assessments revealed an increase in correct answers from 52% to 67% • Evidence of increased ability to justify chosen strategy and communicate answer: teacher observations and feedback from pupils • Scale to gauge distance travelled by each pupil – increase from baseline attainment in maths for target pupils from 40% to 68% • Evidence of increased ability to interpret questions: pre- and post- assessments • Increase in pupils' mathematics confidence, independence, engagement, perseverance and creativity: evidence from Myself as a Learner questionnaire results, pupil presentations at showcase, teacher observations, pupil feedback, child case study. Impact on literacy in primary schools: • Mean percentage of literacy assessments increased from 46% on the pre-test to 69% on the post test • Increases in scores for reading understanding, reading analysis, and reading evaluation were all evident with the largest increase evident for reading evaluation • Improvement in pupils' confidence, perseverance and enjoyment.

Partnership	Description	Examples of impact based on University team data gathering and schools' own research
2. Angus, Edinburgh City and South Ayrshire Partnership project	Arbroath Academy, Holy Rood RC High School and Ayr Academy collaborated to improve attainment of young people in S4-S6 through improving the quality of feedback, attendance and parental engagement. Their action research enquiry questions were: • Will regular feedback, both oral and written, result in raising attainment? • Does improvement in attendance result in improved attainment? • Does providing parents with clear expectations regarding parental engagement raise parental aspirations? • Does involvement in parental engagement result in improved attainment?	Impact on secondary school attendance: All schools in the Partnership had increased attendance • Holy Rood High School: average attendance improvement 7% • Ayr Academy: targeted group attendance improvement 5% • Arbroath Academy: overall school attendance improvement 1%. Impact on parental engagement: • Parent attendance at S4 evening increased from 21% to 43% for Arbroath Academy and attendance at S3 evening increased from 29% to 44%.
3. South Lanarkshire Partnership project	This project aimed to drive forward a number of aspects of the wider closing the gap agenda through the use of an improvement science model to further review, evaluate and develop strategies to close the gap between the bottom 20% of pupils and their peers. Working initially in one targeted secondary school, Trinity High School, with the aim of applying small tests of change, evaluating the impact of a caring significant adult in improving outcomes for individual young people and then modelling these (scaling up) across other secondary schools across the authority in the longer term.	In the South Lanarkshire Partnership SIPP partnership, the number of pupils who attended the Nurture project in the early stages of their secondary career and who had gone on to a positive destination was 96%. The Boxall profile has demonstrated improvements in pupil mental wellbeing. There are also indications of improvements in targeted pupils' attendance and motivation to learn. Other reported developments include: • 30 staff across three schools and other establishments supporting targeted students have received Basic Training • 15 staff have completed Accredited Training from the Nurture Group Network from establishments across SLC • Evidence based review now means the authority has validation, further evidenced by an HM Inspectors of Education visit • 3 schools with a common approach are now acting as a 'partnership hub' sharing expertise and ideas • There is mentoring of other staff in the approaches • 'Pairing' recently trained staff with a vulnerable young person and with a Behaviour Support Specialist • Developed a nurture trained member of staff to work across schools and offering advice to other groups • Now embedding best practice approach influenced by data

Partnership	Description	Examples of impact based on University team data gathering and schools' own research
4. Glasgow City and Fife Partnership project	This collaboration between Glasgow City and Fife involved Local Improvement Groups set up as a key driver of improvement. There was increasingly bespoke solutions to local priorities for improvement. It included an increased role for Leaders of Learning in supporting aspects of school improvement and in modelling good practice in learning, teaching and assessment. There was be a greater focus on wider intra, and inter authority, partnerships (e.g. Fife) to support school improvement.	An Educational Services review has reported that there was variation in LIG activity and impact but that LIGs had significant potential. There were reports of increasing use of data and evidence to inform measures to tackle educational inequity.
5. Falkirk Partnership project	This project involves Falkirk High School and the Grangemouth High School community learning clusters. The action research is targeted at the current P6 stage for those children from disadvantaged backgrounds with low attainment in literacy, and is to form part of an extended transition across P6-S1. It considers multi-agency and cross-service aspects, such that the interventions are as holistic and effective as possible. This includes targeted and sensitive interventions to support family literacy, involving schools, parents, CLD and family support workers.	Impact on pupil literacy: • Increased reading age of participants was 5.9 months greater than peers in control group using CEM data • Qualitative data revealed increased pupil confidence, engagement, motivation and interest in reading Impact on family literacy: • Evidence of increased involvement of parents with their child's literacy at home and at after school club. Impact on educational professionals: • Teachers, Support for Learning Assistants, and Community Learning Development workers all reported increased knowledge and skills related to teaching reading to pupils and families in disadvantaged areas. The Local Authority is now building on lessons learned form SIPP to develop their strategies as part of their Attainment Challenge activity

Partnership	Description	Examples of impact based on University team data gathering and schools' own research
6. Midlothian and East Lothian Partnership project	This partnership involves 6 secondary schools from each local authority working as sets of trios. Each set has agreed areas of focused improvement which include: • Tackling inequity by improving learners' experiences • Introducing pedagogical approaches, e.g.: Hattie's Visible Learning • Improving monitoring and tracking • Improving the delivery of the CfE entitlement to 'personal support' • Improving use of data, intervention and assertive mentoring and Improved feedback.	Impact on education professionals: • 230 staff shared good practice at a conference organised by partnership schools • 24 staff led workshops at the conference • 37 staff currently leading and/or participating in working groups and/or school visits • Evidence of increased ability of staff to identify levels of attainment and appropriate interventions • Innovative Personal Support Programmes currently being implemented • Newly developed school tracking, monitoring and reporting database. In this Partnership, there was further evidence of reduced exclusions and referrals for S1 year groups and pupils were reporting improved learning experiences. Here, the opportunity for enhanced professional dialogue and haring of lessons learned from the SIPP experience were highlighted by teachers.

Partnership	Description	Examples of impact based on University team data gathering and schools' own research
7. East Renfrewshire Council Partnership project	This partnership involved Crookfur Primary School and Thornliebank Primary School collaborating with a focus on raising attainment in maths for boys and learners from minority ethnic backgrounds through improved learning experiences. Evaluation will include impact on learners, parents and staff, involving Psychological Services. The action research questions are: • To what extent has gender and EAL impacted on attainment? • What learning and teaching approaches would improve attainment for boys and pupils using English as an additional language? • How can schools further engage these learners and their parents?	Impact on primary pupils' mathematics: • Impact regarding attainment in mathematics for almost all learners • Boys and minority ethnic pupils have made progress in both attainment and attitude as evidenced in standardised test results and MAL questionnaire • Parental responses in questionnaires and discussions have been overwhelmingly positive, citing their children having an improved attitude towards mathematics and problem solving, commenting about how the approach is the way forward • Pupils no longer restricted to using a set procedure or algorithm, but instead developing their own strategies for problem solving; observations of pupils recognising that a maths question has more than one solution • Increase in pupil enthusiasm regarding maths problem solving, stating that they want to do more • Pupils demonstrating more confidence by choosing more challenging questions; having a more 'can do' attitude to problem solving; pupils seeing themselves as problem solvers; fully engaged in the sessions • Children are explaining their findings both orally and in writing in pairs, mixed ability groups and class situations; exploring their learning through discussion and questioning • Pupils highly motivated; teachers identified that this is not always the case in other areas of the curriculum • Younger pupils in the school are now tackling problems involving multiplication and division. Impact on education professionals: • Lesson study has improved teachers' knowledge and understanding about teaching mathematics • Lesson study has promoted a culture of collaboration and professional dialogue around mathematics • Teachers have become more skilled in their approaches to observing, evaluating and assessing pupils' learning and understanding in mathematics.

Partnership	Description	Examples of impact based on University team data gathering and schools' own research
8. Inverclyde and Argyll and Bute Partnership project	This partnership involved Clydeview Academy and Dunoon Grammar School collaborating to close the gap between their high attaining students and those of lower ability. The focus of the action research has been: • Does the identified profiling champion with responsibility for a group of young people generate improvements in their achievement? • Will the sharing of student progress through the use of profiling, lead to improved achievement for young people? • Will increased regular professional dialogue focused on profiling, within and across establishments, lead to improved progress for young people?	There is evidence of positive impact on parental engagement, effective profiling methods and the use of mathematics learning and teaching techniques for low-attaining pupils. The Partnership have data that indicate an increase in the number of target pupils achieving Nat 4 numeracy and there are signs that more of these students will continue with their Maths into S5, either looking to achieve Nat 5 numeracy unit or Nat 5 Maths Lifeskills. The partnership also reports that there has been a marked improvement in the target group of students' behaviour and confidence to learn.

Appendix 2: Partnership evaluation methods

Target group	Target issue	Data collection tool	Issues investigated	Key points (what did they do?)
Primary pupils	**Attainment in reading**	CEM (Primary)	Reading comprehension, reading age, word decoding	CEM was used by primary school teachers for measures of reading ability both before and after introducing new teaching approaches. In some cases, CEM was used prior to interventions to determine attainment gaps and to aid the selection of target groups. In other partnerships CEM was used to assess improvements after an intervention.
		N.A.R.A. (Neale Analysis of Reading Ability)	Reading comprehension, reading age, word decoding	This was used in place of CEM by a primary school to assess reading ability pre- and post- intervention.
		School-based literacy assessment	Phoneme/grapheme, phono awareness, high frequency words, big writing	Used with primary pupils to assess reading ability.
		Pupil work samples, presentations, and profiles	Evidence of improved confidence, reading enjoyment, reading ability, spelling, story-writing, improved self-perception, attitudes.	Pupil work samples were used by teachers to aid selection of target group. In addition to work samples, pupil presentations at school events and profiles were used to assess post-intervention improvements.
	Attainment in mathematics	Bespoke assessment for an approach based on Cognitively Guided Instruction (CGI)	Pupil ability to do problem solving in a wide range of problem types in primary mathematics	This assessment tool was collaboratively designed by teachers who were using an approach informed by Cognitively Guided Instruction to teach mathematics. The assessment was used before and after the implementation of the approach to determine the improvement in pupils' ability to solve mathematics problems.
		CEM (Primary)	Maths	CEM was used by primary school teachers for measures of mathematics ability both before and after introducing new teaching approaches. In some cases, CEM was used prior to interventions to determine attainment gaps and to aid the selection of target groups. In other partnerships CEM was used to assess improvements after an intervention.
		Bespoke scale created to measure distance travelled by each pupil	Improvement in mathematics problem solving	This scale was applied to the pre and post assessment results. It enabled a closer look at the results, not just in terms of correct answers, but in such a way that staff were able to judge how learners' approaches and thinking had developed following the intervention.

Target group	Target issue	Data collection tool	Issues investigated	Key points (what did they do?)
Primary pupils	**Attainment in mathematics**	MAL – Myself As a Learner scale	Primary pupil attitudinal survey to investigate self-perception attitude to learning	This existing survey was used in primary schools before and after interventions to assess changes in pupils' self-perceptions. The primary schools using this survey added the following question to the beginning of the questionnaire: How good are you at Maths?
		Lesson study (observation grids and lesson study focus group videos)	Evidence of pupil learning and staff learning	Cycles of Lesson Study facilitated opportunities for multiple teachers to observe learning in a single class before sharing observations, re-designing lessons, and then observing additional classes.
		Pupil focus group		Used to discuss and evaluate subject-specific learning experiences.
		Parent events and surveys	Pupil improvements in mathematics	Parent events and surveys were used in the assessment of pupil attainment, confidence, and enjoyment
Secondary pupils	**Attendance and behaviour**	SEEMIS data	Attendance and behaviour	SEEMIS data was used to access data regarding attendance, truancy, exclusions, behaviour, merits, etc.
		Bespoke pupil surveys and pupil focus groups	Pupil attendance	Surveys were created to determine key issues regarding pupil attendance. Pupil focus groups were also used.
		Parent focus groups	Pupil attendance	Parent groups were used to facilitate discussions regarding issues around pupil attendance that informed planning and strategies that teachers and parents could collaborate on to improve children's attendance.
	Learner feedback	Pupil groups, surveys, and feedback diaries	Learner feedback	Used to collect data and discuss preferred learner feedback and learners' experiences directly informing school strategies and pedagogy.
		Motivation to learn questionnaire used for secondary pupils	Adapted for Pelletier's SMS scale on self-determination theory	Provides measures of motivation based on self-determination theory and intrinsic motivation related to particular outcomes.
		Hattie's Visible Learning Profile on Relational Trust	Assesses the level of trust between peers in educational contexts which, research has indicated can affect learning outcomes	This informed school and local authority approaches on learning approaches and measuring impact regarding pedagogies, particularly the use of effective learner feedback.
	Attainment	SQA	Exam data	SQA data was used for attainment measures both before and after introducing new approaches. In some cases, examination data was used prior to interventions to determine attainment gaps and to aid the selection of target groups. In other partnerships SQA data was used to assess improvements after an intervention.

		CEM (Secondary: SOSCA)	Subject specific assessment	Secondary On Screen Computer Assessment (SOSCA) was used to assess subject specific knowledge.

Target group	Target issue	Data collection tool	Issues investigated	Key points (what did they do?)
Secondary pupils	**Attainment**	CEM Secondary: MidYIS, part of a suite of monitoring systems established by CEM. Part of Durham University	Non-subject specific assessment of learning potential	Durham CEM MidYIS was used to assess non-subject specific learning potential of secondary pupils.
		Insight	Secondary school online benchmarking tool	Used to examine data on post-school destinations, attainment in literacy and numeracy, local measures related to curriculum, subjects, courses.
Both primary and secondary schools	**Parental engagement**	Parent focus groups, surveys and parent evening evaluations	Parental engagement	Focus groups, surveys and evaluations were used to collect data regarding issues around parental engagement to directly inform approaches to improve parental engagement and then to gather feedback on these changes after time had elapsed.
		Parent events	Parental engagement	Parent events were held at both primary and secondary schools. Sometimes these events took place during the school day and sometimes during the evening. These events were used to gather feedback from parents regarding a number of issues depending on the partnerships' project focus.
	Knowledge and approaches to teaching in disadvantaged contexts	Bespoke educational professional survey	Staff knowledge, learning, and/or attitudes	These bespoke surveys were designed by educational professionals within partnerships to assess changes in staff knowledge and attitudes after the partnership had tried an intervention designed to improve pupil attainment, behaviours or attitudes.
		Staff learning evaluations, profiles, event evaluations, and reflective journals	Staff learning and attitudes	Staff profiles, reflective journals, bespoke staff evaluations and other staff evaluations (such as CLPL- Career long professional learning evaluations) were used to collect data regarding staff learning and attitudes.

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