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National College
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Schools and academies

Connecting professional learning: leading effective collaborative enquiry across teaching school alliances

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Resource

Contents

Disclaimer

The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education.

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Preface

The 2010 white paper (HM Government, 2010) outlined the coalition government's plans to raise standards and improve the quality of teachers and school leadership through the designation of teaching schools that would offer school-to-school support and facilitate peer-to-peer learning. Teaching schools have a significant contribution to make in harnessing the practice of the best schools by creating powerful learning communities with their teaching school alliances (TSAs). They are also responsible for ensuring that: trainee teachers learn from the best teachers and are supported by a culture of coaching and mentoring; that professional development is school based and classroom focused; that talent development and distributed leadership are the norm and that leaders have local knowledge and can identify where key resources and expertise reside. A pivotal role therefore is that of leading collaborative professional learning and enquiry in order to extend, expand and create new professional knowledge.

This resource has been developed to assist teaching schools in supporting the learning of others through a process of focused collaborative enquiry. The main purpose of this resource is to outline a methodology of collaborative enquiry, Connect to Learn (C2L[1]), that teaching schools can use to inform their research and development (R&D) work within their alliances. This resource has been specifically developed for themes 1 (pedagogy) and 2 (professional learning) but could be used more widely by other schools interested in taking an R&D approach to support their collaborative school improvement work.

The C2L model outlined in this resource is essentially an overarching framework for facilitating collaborative learning and enquiry. It does not claim to be the definitive approach to collective enquiry - many other approaches exist - but rather provides a guide for those responsible for facilitating the professional learning of others through focused R&D.

1 Connect to Learn is a global education initiative designed to promote professional collaboration within, between and across schools © Harris and Jones www.connecttolearn.org.

Introduction

> Collaborative professional development is more strongly associated with improvements in teaching and learning [and]… appears more likely to produce changes in teacher practice, attitudes or beliefs and in pupil outcomes.
>
> HM Government, 2010:77

This resource outlines a collaborative methodology that can help shape and frame collaborative enquiry. The Connect to Learn (C2L) approach has been developed primarily but not exclusively to support the research and development (R&D) work of the teaching schools focusing on pedagogy (theme 1) and professional learning (theme 2). C2L is intended to provide an overarching framework for action that can encompass the research propositions for each strand (see Appendix 2) and accommodate a wide variety of enquiry methods. The C2L model is deliberately content free as each school and each TSA will need to decide its own enquiry focus or focuses based upon an analysis of data and scrutiny of the relevant research evidence.

The C2L model of collaborative enquiry outlined in this resource is premised upon developing new ways of working through mutual engagement that opens up professional practice.[2] Its central intention is to offer teaching schools and their partner schools a way of supporting and extending the professional learning and enquiry of others. The resource focuses on how to facilitate[3] effective collaborative enquiry, both within a school and also between schools.

The resource outlines three inter-related phases of the C2L[4] model (implementation, innovation and impact). It suggests that those with a responsibility for facilitating meaningful collaborative R&D (between schools and between professionals) need to understand how these three phases connect and mutually reinforce each other.

2 There is a strong link with joint practice development.

3 See Section 6.

4 The C2L model has been generated from research about effective collaborative learning and enquiry and from the practice of supporting hundreds of schools through a collaborative learning and enquiry process in the shape of professional learning communities (Harris & Jones, 2010).

Overview of the Connect to Learn resource

The skill of the facilitator is central to the success of any collaborative enquiry. Too much support will result in complacency; over-challenge the group or alliance and it will feel stressed and unable to deliver. The real skill of facilitation is knowing when to support and when to challenge, as well as continually reinforcing a clear model of enquiry that is effective and has a positive impact on outcomes.

The C2L resource consists of the following sections:

Section 1: Leading collaborative professional learning looks at the evidence concerning effective collaborative learning and enquiry and highlights the importance of actively leading or facilitating this learning.

Section 2: A model of collaborative learning and enquiry introduces the C2L model with an explanation of its three phases.

Section 3: Phase 1 implementation outlines what needs to be understood and put in place to start the collaborative enquiry process.

Section 4: Phase 2 innovation outlines what needs to be understood and put in place for effective enquiry, change and innovation to result.

Section 5: Phase 3 impact looks at how the outcomes and impact of collaborative learning and enquiry can be captured, measured and recorded. It also outlines the reporting requirements for each TSA.

Section 6: Facilitator guide is a practical guide for facilitator(s). It offers a quick route into the C2L model and provides materials that the facilitator can use at each phase.

The appendices contain additional information for the facilitator.

Collaborative professional learning and enquiry are centrally about improving professional practice. Improving professional practice means changing the way teachers think about and reflect upon their own learning. In order to think and reflect effectively teachers need to know:

— What am I going to learn?

— How will I recognise success?

— Where is new learning taking place?

— What is the evidence of impact?

The facilitator role is pivotal in ensuring that collaborative learning and enquiry take place and that new professional knowledge and understanding are generated and result in improved outcomes.

Section 1: Leading collaborative learning and enquiry

> The path to system transformation requires every school to be willing to give away its innovations for free, in the hope of some return, but with no guarantee of it.
>
> Hargreaves, 2003a:17

The central purpose of collaborative learning and enquiry is the improvement of student learning outcomes. Evidence shows that where professional learning experiences focus on the links between particular teaching activities and improved student outcomes they are more likely to have a positive impact.[5] To be most effective, collaborative learning and enquiry have to be driven by analyses of student data and focused upon the associated development in teachers' knowledge, skills and understanding. Information about what students need to learn should directly influence what teachers need to learn.[6]

Collaborative learning and enquiry should be based upon individual and collective professional learning needs. As Hargreaves's maturity model points out, it should allow for a range of starting points and should appropriately differentiate between different professional learning requirements.[7]

In summary, effective professional learning:

- uses research and enquiry as key tools
- is strongly enhanced through collaborative learning and enquiry and joint practice development (JPD)
- is enhanced by creating professional learning communities within and between schools
- requires leadership of participative learning

In order to make significant changes to pedagogical practice, teachers need multiple opportunities to learn new information and to understand the implications of this information for their practice. They need to encounter these opportunities in a climate of trust and support.[8] Collaborative learning and enquiry are primarily concerned with investigating instructional practice in order to improve learner outcomes. This necessitates reviewing different sources, trialling different instructional methods and innovating before making substantive changes. To be systematic, collaborative enquiry has to be informed by evidence and should draw upon the best sources and examples of practice.[9]

Effective collaborative learning and enquiry recognise, endorse and actively model the best ways that adults learn.[10] They require active facilitation with appropriate challenge in order to question assumptions, introduce new ideas and develop the types of knowledge and understanding associated with improved learner outcomes.

The remainder of this resource will explain the facilitator role and will outline key responsibilities at each of the three phases in the C2L model.

5 Garet, Porter, Desimone, Birman and Yoon (2001); Reitzug (2002); Hawley & Valli (2000); Timperley, Wilson, Barr & Fung (2007); Timperley & Alton-Lee (2008);

6 Harris & Jones (2010); Butler, Lauscher, Jarvis-Selinger & Beckingham, 2004

7 See Appendix 1.

8 Bryk & Schneider (2002); Reitzug (2002); Hawley & Valli (2000)

9 Little (1994)

10 Garet, Porter, Desimone, Birman & Yoon (2001); Hawley & Valli (2000); Loucks-Horsley & Matsumoto (1999); Darling-Hammond & Loewenberg-Ball (1998)

Facilitator role

Within collaborative enquiry it is important that leadership is shared or distributed, as essentially the learning belongs to the group; it is a collective enterprise. But without some co-ordination or overall steering of the collaborative enquiry process, the work could easily veer off track. Consequently, the facilitator is needed to keep momentum going and to maintain enthusiasm for the collective activity.

Teaching schools in themes 1 and 2 are already in action learning sets and have an external facilitator from one of the participating universities. This facilitation role is essentially to offer challenge and support to guide the professional learning of the group. As the leader of a teaching school alliance (TSA), the teaching school itself is already a facilitator of a wide range of professional learning and is responsible for:

— training new entrants to the profession with other partners, including universities

— leading peer-to-peer learning and professional development, including the designation and deployment of specialist leaders of education (SLEs)

— identifying and nurturing leadership potential

— leading an alliance of other schools and partners to improve the quality of teaching and learning

— forming a national network to support the schools in innovation and knowledge transfer

— being at the heart of a different strategy of school improvement that puts responsibility on the profession and schools

As highlighted above, it is the teaching school's responsibility to facilitate peer-to-peer collaboration and enquiry. In addition, each school within the TSA will require its own facilitator (eg the R&D lead) in order to support its own school-based enquiry. The process and the skills required of this school-based facilitator are exactly the same as those of the external facilitator. They can therefore both use the materials outlined in this resource.

Facilitation describes the process of taking a group through a process of learning or change in a way that encourages each member of the group to participate and to play an active part. Research shows that without focused co-ordination and support, group members can opt out or become passengers in the collaborative enquiry process. To avoid this possibility the TSA will need purposeful and consistent facilitation to ensure a maximum return on the group's time and effort.

To be most effective, the facilitator will need to recognise that each person has something unique and valuable to share with the group. The facilitator's role is to elicit existing knowledge and ideas from different members of a group to encourage them to learn from each other, to think and act together and to generate new knowledge and ideas that can be shared with others. An effective facilitator is someone who:

— understands how adults learn

— holds a clear model of effective collaborative enquiry that he/she uses to support the group

— recognises the strengths and abilities of individual group members and helps them to feel comfortable about sharing their learning

— supports the group, giving participants confidence in sharing and trying out new ideas and practices

— values diversity and is sensitive to the different needs and interests of group members

— leads by example through attitudes, approach and actions

— offers challenge and support at optimum times

Facilitation is about empowering other professionals to learn both individually and collectively. It involves letting go of control over the process and giving that responsibility to the group. It is not about leading or driving the group but involves the ability to stand back and guide collective learning. This can be a challenge, particularly if there is a wish to take control or to see immediate results: effective collaborative enquiry takes time. Therefore the real skill of facilitation is knowing how and when to intervene. If the collaborative enquiry process is to lead to meaningful change that is sustainable, this will only be achieved if strong, trusting relationships are forged within the group and the group owns its own learning process.

What makes an effective facilitator?

An effective facilitator will have certain personal characteristics that encourage all group members to participate actively in the learning process. These characteristics include empathy, humility, generosity and patience, combined with understanding, acceptance and affirmation. An effective facilitator also needs certain skills and abilities. Facilitation skills are essential for anyone who is seeking to lead others in a participatory process of discussion, learning and change. If the collaborative learning and enquiry process is to be owned by the team or alliance, it needs to be clear within the group and agreed exactly what the role of the facilitator is and is not. The main skills of the facilitator are as follows:

- listening
- motivation
- ability to build trust
- ability to promote effective collective learning
- brokerage
- research and enquiry
- networking
- ability to manage conflict
- and most importantly, empathy

The skill of the facilitator will vary due to:

- the varying degrees of maturity[11] in professional learning exhibited by each school in the TSA
- different phases in building a collaborative team or group
- characteristics and culture of the collaborative group
- attitude and approach of school management to collaborative working
- focus or purpose of the collaborative team
- internal–external facilitator relationship

Facilitation will also vary due to the differences between schools in the TSA in terms of their understanding of collaborative learning and enquiry. It will also vary depending upon which phase of the C2L model is being supported.[12]

- Implementation: the facilitator's role is to build trust, establish norms or ways of working and to secure a shared focus of enquiry and a methodology for exploring that focus.
- Innovation: the facilitator's role is to maintain momentum to ensure that innovation is taking place and that this is subsequently trialled, refined and shared with others.

11 See Hargreaves's maturity model (2012).
12 See Section 6.

— Impact: the facilitator's role is to ensure that throughout the collaborative process impact is captured at each phase and that there is evidence to share and disseminate with others outside the group.

Internal and external facilitators will deploy a range of approaches to encourage group members to participate in collaborative enquiry and innovation. These approaches may include:

— asking the group to look at data to identify a shared focus or question of enquiry

— inviting the group to agree a set of rules or protocols for working together as this will ensure that its members can work most effectively

— using group discussion and activities that allow participants to be actively involved in the learning process

— giving particular tasks to those with appropriate expertise while allowing others to participate, thus keeping everyone actively involved

— managing conflict in a sensitive and appropriate way so that differences are valued and respected

To support the group in its collaborative efforts the facilitator will have to first establish a set of agreed principles which could include:

— how the group works (norms and protocols)

— collective responsibility for students' learning

— collaboration focused on learning

— professional learning (individual and collective)

— reflective professional enquiry

— openness and transparency

— inclusive membership

— mutual trust, respect and support

— optimising resources and structures

The facilitator's core responsibilities are those of building the capacity of the group by providing timely support and challenge. They are primarily there to ensure the collaborative work stays on track. They also need to ensure that leadership is distributed widely and wisely, guide and co-ordinate activities, sustain momentum and generate new learning and next practice. They should promote knowledge transfer and the dissemination of impact along with outcomes.

An essential responsibility of the facilitator is to create a climate in which it is possible for the group to:

— create new professional knowledge

— engage in focused enquiry and innovation

— test the validity of new knowledge and applicability of new practice

— transfer the knowledge and new practice within schools and between schools

Effective facilitation also means acknowledging that there may be mistakes, U-turns and dead ends as well as breakthroughs, new insights and exciting possibilities. Collaborative enquiry is not a fail-safe process and there are no guarantees of success. There will be challenges along the way but these are challenges that can be overcome. The facilitator will play a pivotal role in surmounting these challenges.

Challenges

Inevitably there are some challenges with the facilitation role. A first challenge is the temptation to take control of the collaborative process. This might be out of a genuine desire to help the group move forward but if the group becomes too dependent on the facilitator its members will not take responsibility for their own learning. The second challenge is the view that facilitators have all the answers or that others expect them to have the answers. In collaborative enquiry the facilitator is part of the group and therefore the group has to take responsibility for finding its own answers and moving the enquiry forward.

The third challenge is that of managing dissent or conflict. Inevitably, people will have strong and often conflicting ideas about what constitutes effective pedagogy or excellent professional learning. Some will want to push their own ideas over and above those of the group. The facilitator needs to be sensitive to any differences and tensions and to encourage people to work through these, keeping their common goals and interests in mind. Finally, the main challenge for the facilitator is that he or she is both a participant in the collaborative enquiry process and a guide. In order to fulfil their role most effectively, facilitators will need a clear, overarching model of collaborative enquiry to help them guide and facilitate the learning of others. The next section outlines the C2L methodology.

Section 2: Connect to Learn

> What is collaboration? A systematic process in which we work together, interdependently, to analyse and impact professional practice in order to improve our individual and collective results.
>
> Eaker, DuFour & DuFour 2002:26

One of the most influential books to emerge in the past few years is Visible Learning by John Hattie (2009). His meta-analysis of the most effective teaching approaches reinforces that when teachers work together in collaborative teams to: clarify what students must learn; gather evidence of student learning; analyse that evidence; identify the most powerful teaching strategies to address any gaps in student learning; and deploy them, the subsequent impact can be significant. The collaborative learning and enquiry model called C2L explicitly embodies all these elements in its three phases of implementation, innovation and impact.

The C2L methodology concentrates on changing pedagogy and professional practice as a route to improved learner outcomes. This relentless and continuous focus upon improving learning outcomes is at the heart of effective collaborative working. It encourages professionals to enquire collectively into practice in order to improve that practice. The C2L model is predicated upon improved outcomes for learners, professionals and the school(s) involved.[13] It reinforces that without an impact on learners, collaborative working may have been enjoyable, stimulating and engaging but will have achieved little more than that.

The C2L model has been designed to support the collaborative enquiry processes within individual schools, and across groups or networks of schools. It provides guidance for those facilitating collaborative enquiry in these contexts. It also accommodates different approaches or methods of enquiry (eg instructional rounds, learning walks, lesson study etc). It is important to understand the difference between the overarching methodology of collaborative enquiry (eg C2L, which guides the overall collaborative process) and the collaborative methods of enquiry (ie how a group gathers information or data within an overarching enquiry methodology).

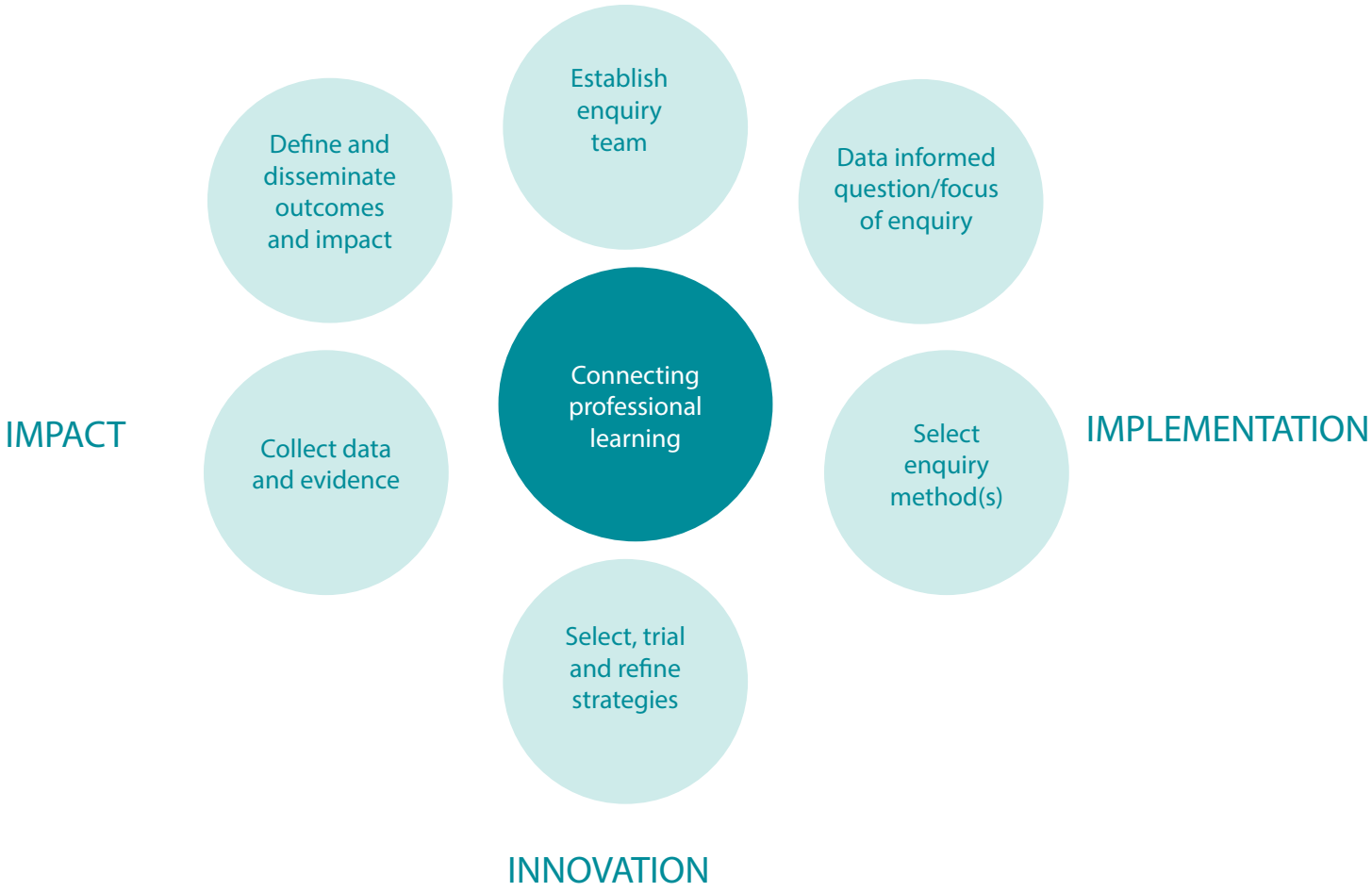
The model

The C2L model draws upon evidence from contemporary research and practice about the most effective forms of professional collaboration. At the core of C2L is a shared and clearly articulated focus on systematic enquiry.[14] In order to be most effective, facilitators using C2L have to develop mutual trust within the group at the outset. Developing trust is important as strong relationships and positive connections between professionals are critical to making progress and securing positive outcomes.[15] Within TSAs the recognition of respective roles and contributions of individuals and schools is critical.[16] In order to achieve this end, multi-level, distributed and multi-site leadership will be essential.[17]

The C2L methodology has three inter-related phases: implementation, innovation and impact. It reinforces that the combination of well-established and carefully constructed implementation processes coupled with dynamic innovation can result in positive outcomes with a demonstrable impact. The components of the C2L model appear in figure 1. While they are divided into the three phases of implementation (establish team, enquiry question and strategies), innovation (trial, refine, collect evidence) and impact (review outcomes and disseminate), together they represent an inter-related and overarching model of collaborative enquiry.

13 See Section 5.
14 Earl et al, 2006
15 Earl et al, 2006; Cooper & Levin, 2010
16 Wikeley, 1998; Fielding et al, 2005; Earl et al, 2006; Hargreaves, 2011
17 Allen & Cherry, 2000; Earl & Katz, 2007

Figure 1: C2L methodology



Within C2L, the role of the facilitator is to:

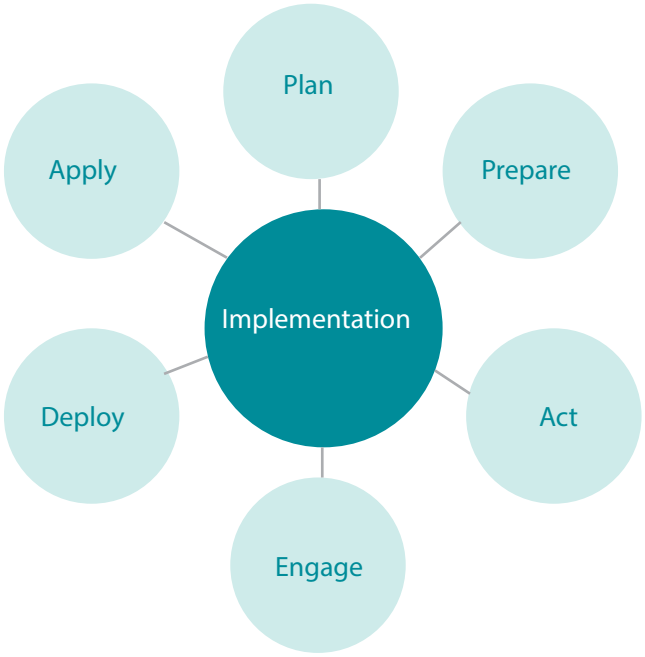
- help the group identify a shared focus or question of enquiry
- identify what each team member already knows about the area of enquiry
- decide on the method(s) of gathering further information
- develop the team's collective professional knowledge
- assist the group in choosing instructional strategies to trial
- facilitate professional development activities and differentiated support
- develop a clear protocol and action plan for how the team will communicate, share findings and reflect upon its learning
- assess new information and adjust strategies accordingly
- evaluate the impact on student learning outcomes and professional learning

The next three sections will outline each phase and will specify the specific role of the facilitator for each.

Section 3: Phase 1 implementation

> Collaborative cultures, which by definition have close relationships, are indeed powerful, but unless they focus on the right things they may end up being powerfully wrong.
>
> Hargreaves & Fullan, 2012:3

Figure 2: Phase 1 of C2L: implementation



Introduction

The first phase in the C2L model is implementation. In this phase the initial task of the facilitator is to ask the group: 'What do we already know from our data, how well does our current practice equate with leading practice and what does contemporary research tell us about these issues?' The research propositions[18] can help the facilitator to diagnose the different starting points of the group and to establish a baseline of current understanding and activity. The propositions can also act as an aide-mémoire as the group chooses its focus or question of enquiry and its preferred method of gathering more information. The propositions reveal what is known about effective pedagogy and professional learning and therefore should be a general checklist that the group returns to occasionally to inform its collaborative enquiry.

The group needs to be continually asking itself: 'How far is our collective work connecting to and reflecting what we know from the research evidence about great pedagogy and great professional learning?' The propositions themselves however cannot be the prime focus of the collaborative effort, if an impact on learning outcomes is the goal. For example, the propositions on professional learning may reinforce the insight that coaching is an effective form of professional learning but in isolation from a particular learning issue or problem, this becomes a disconnected or independent activity. The main point is that the chosen approach should be for the purpose of improving learner outcomes through better pedagogy and professional learning.

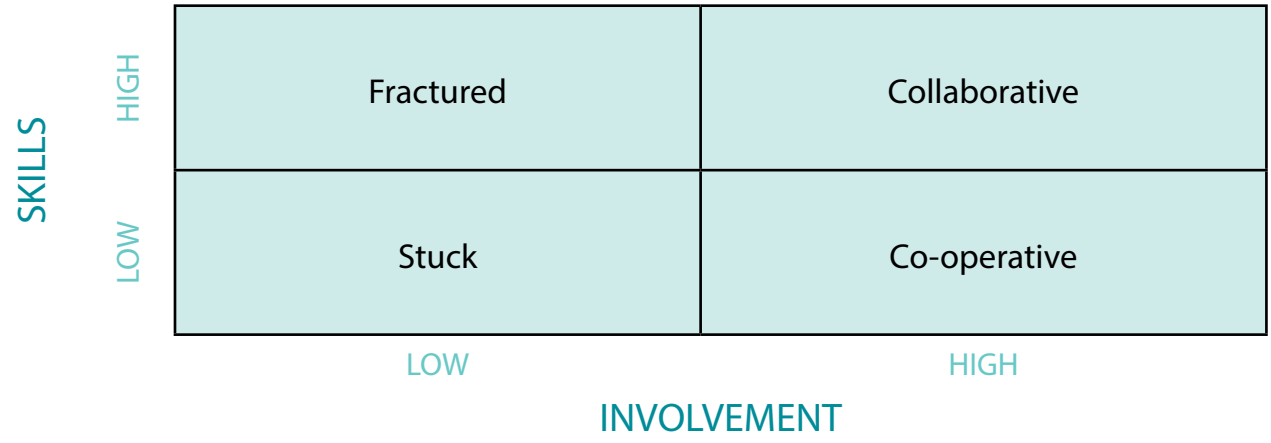
18 See Appendix 2.

The propositions should provide guidance about what is most effective, but the specific focus of enquiry has to be a shared issue connected to student learning that the entire group wishes to address. It will then be important to think about the best collaborative methods or strategies best suited to investigate this issue and to guide the selection of instructional approaches. Hence coaching is a legitimate strategy but only if it is the best and most appropriate approach to address the agreed question or focus of enquiry that the group has identified. In short, if coaching is the answer, the group should be able to articulate the issue or question that it is trying to address.

Implementation is a critical part of successful innovation and improvement but is often misunderstood as simply putting plans into action. Implementation is certainly about moving to action, but planning and preparation are necessary parts of ensuring the correct action is taken, and this is where the facilitator role is important. The facilitator has to be sure that sufficient consideration has been given to the group's shared focus or question of enquiry before any real action or innovation commences. Rushing headlong into activity may seem exciting but rarely leads to productive outcomes. For the facilitator, the implementation phase is primarily concerned with establishing the group, agreeing norms or ways of working, looking at data in order to select a collective focus or question of enquiry and subsequently agreeing a method of enquiry that will elicit potential instructional strategies to trial collectively in practice.

It will be important for the facilitator to create the conditions for collaborative enquiry to be most effective. At the outset, the facilitator has to diagnose the group's different starting points and its ability to collaborate. The facilitator can do this by using the grid in Figure 3, which assesses the group's ability to collaborate using two axes – its collaborative skill level and its degree of participation or involvement. Making an assessment using this grid will allow the facilitator to diagnose the capacity of the group to collaborate effectively and to decide what next steps are needed.

Figure 3: Assessment grid for facilitated groups



Focus of enquiry

Supporting the group as it chooses a focus or question of enquiry is a critical role for the facilitator. If the focus is too broad or too vague or too diverse then the group will inevitably flounder in its collaborative work. The focus or question of enquiry has to be an issue (connected to student learning) that is tightly and clearly expressed. There is little point in the group innovating on too many fronts or trying to cover too many issues as people will soon become disheartened and distracted. Limiting and focusing the group's priorities is much more likely to result in the identification of a focus that can be effectively explored so that disciplined and meaningful innovation is possible.

Choosing a focus or question of enquiry can be achieved through an initial sharing of data or information by individuals (from within schools or between schools) to assess strengths and areas for development. In thinking about achieving a shared focus or question of enquiry, the following questions may be useful to the facilitator:

— What is the group interested in finding out?

— Why does the group want to know this?

— What data analysis has helped the group to identify this issue?

— Is it a reasonable focus to be considering? Why?

— Will learners benefit if the group focuses on this issue? How?

— Are there any ethical issues the group needs to consider?

Having established a shared broad area, such as improving boys' literacy, the next stage is to formulate a clear question of enquiry that everyone within the TSA can sign up to and is happy to investigate together. Each school in the TSA has to decide where it wishes to place its efforts and what shared challenge, focus or issue it wishes to address collectively.

What does a good enquiry question look like? The facilitator might use the following prompts to check the appropriateness of the enquiry question:

— What data have you used to arrive at your enquiry question?

— Is the enquiry question broad enough to allow for a range of insights and findings?

— Is the enquiry question narrow enough to be measurable and to be specifically related to improvements in learner outcomes?

— What further data and evidence might you need to inform your enquiry and address your question?

— What success criteria will you use to assess its performance and outcomes?

— How will you gauge the impact of your work on learner outcomes, professional learning and organisational learning?

The tests of a good enquiry question are that it is:

— data generated or informed

— specific

— measurable

— simply stated

— easily communicated

— linked to improvement

The important point is that the focus or question of enquiry has to be manageable and measurable and important to every member of the group. Collaborative learning and enquiry do not imply uniformity or demand conformity, and schools can address the question of enquiry in their own way, as long as there is an agreed overall focus and a shared collaborative methodology. Some schools may innovate a little and other schools will innovate much more. There is no standard way of engaging in collaborative enquiry and inevitably different school contexts, experiences and school cultures will mean that contributions to the group will vary. Ultimately, the members will be working and learning together as an enquiry team.

The skill of the facilitator will be turning an individual issue, identified through data analysis, into a shared focus or question of enquiry so that each member of the group can innovate accordingly. In summary, a first task for the facilitator in phase 1 is to ensure that the question of enquiry is clear, concise and practical. A second task is then to secure agreement about exactly how this question or topic will be explored. It is here that enquiry methods like instructional rounds, learning walks, peer triads, lesson study or coaching[19] will be deployed in order to gather evidence about what is currently happening at the school, where the gaps are and what instructional strategies might fill those gaps. Essentially, whatever method of collaborative enquiry

19 See Section 6.

is chosen, the group needs to know why it is the most appropriate method to choose and then to apply it across all the schools. For example, if lesson study has been selected as a method of collaborative enquiry, then what issue is it hoping to address? If the answer is 'not sure', the group will need to think again.[20]

Following this analysis, the group will then decide on the practical classroom strategies that it will trial as a first step in innovating[21] in order to address the issue. To assist the group through each phase of collaborative enquiry, a facilitator guide (section 6) has been developed with five elements:

— diagnosis (continually assessing group needs)

— data (ensuring the work of the group is data-informed)

— development (supporting innovation)

— distributed leadership (ensuring broad-based leadership)

— drive (sustaining engagement and securing outcomes)

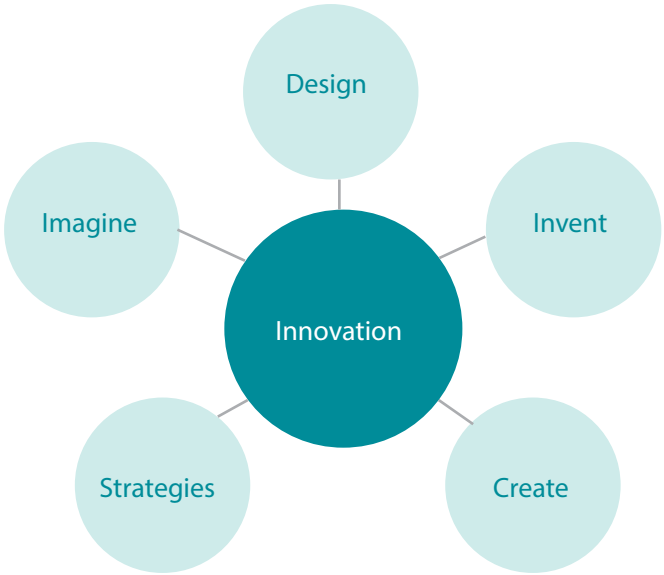
20 See Section 6 for choosing a collaborative enquiry method.

21 See Section 4.

Section 4: Phase 2 innovation

> Students cannot raise their level of achievement until teachers become more effective in their own practice.
>
> Carmichael, 1982:58

Figure 4: Phase 2 of C2L: innovation



It will be important for the group to move from the implementation phase to the innovation phase fairly quickly, as it is only through innovation that changes in classroom practice will actually happen. It is important that the facilitator is aware of the possibility that groups may become preoccupied with planning in the implementation phase and will need to be encouraged to move into action. Consequently, the facilitator will need to be prepared to move the group forward by imposing a timeframe and some very clear expectations.

The whole point of collaborative enquiry is that it leads to productive change that leads to improvement. TSA schools are expected to produce high-quality outputs from their collaborative work and therefore it is imperative that the groups are supported to move through each phase of the collaborative enquiry process in a timely way.

In the commercial world, innovation is "conventionally defined as the 'exploitation of a new idea that through practical action adds value to the product, process or service' " (Hargreaves, 2003b:27). The references to processes are important as it is only through better teaching and learning processes that better learner outcomes will result. Innovation can be defined as a change that creates a new dimension of performance. This definition is appealing because it captures the idea that the change should result in a new way of working, a departure from existing practice.

Innovation is about knowledge creation. It is fundamentally about practitioners learning to do things differently in order to do them better. Innovation can involve radical change and incremental change. Innovation is not just about producing artefacts or materials, although they could support the innovation. It is about intervening and innovating in practice. Unless professional practice changes then learner outcomes will simply remain the same.

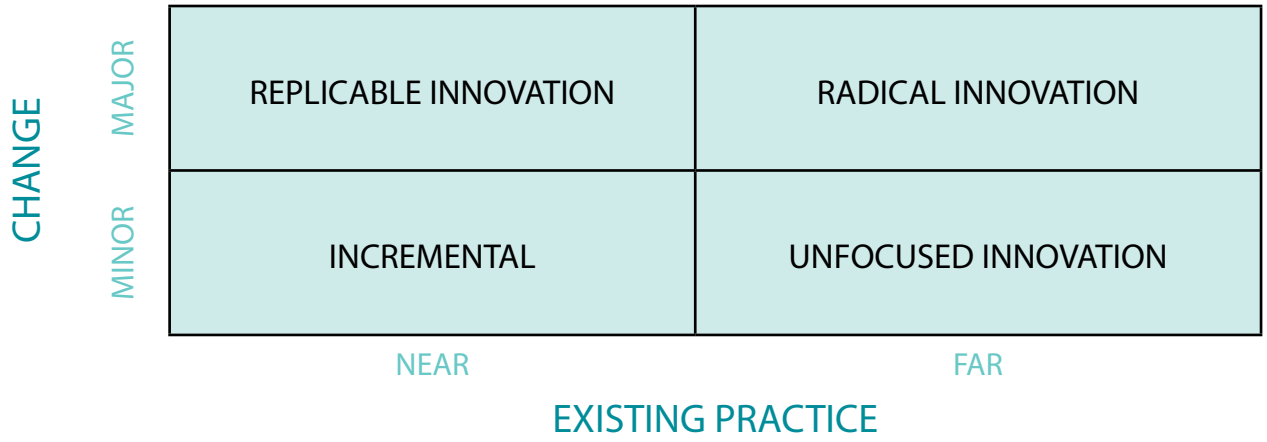
David Hargreaves offers a way of thinking about the nature of innovation, and the grid in figure 5 has been developed based on his ideas. Essentially it challenges the group to think about two things:

— What is meant by innovation?

— What different forms of innovation exist?

The grid can be used by those facilitating collaborative practice to gauge how far their efforts are resulting in low-level or minor change rather than significant innovation and change. The vertical axis refers to the change that is near to or far from teachers' current professional practices. The horizontal axis refers to the extent of the change. Incremental innovation is a minor change that is close to existing practice and radical innovation is a major change that is far from existing practice. However, it is recognised that schools in a TSA may be at different starting points and that incremental innovation might be a first step to radical innovation. It will not always be the case that every collaborative effort results in ground-breaking innovation, and it is perfectly possible that the innovation is incremental rather than radical. The main point here is to know the difference and to be transparent about the type of innovation that is firstly being aimed for, and secondly being generated.

Figure 5: Grid for charting innovation



Innovation is a systematic approach to changing and improving practice through focused enquiry. Professional learning is a form of personal enquiry: it is about becoming more expert so that learners benefit. The important point here is that collaborative learning and enquiry need to aspire to be in the lower right-hand box. The skill of the facilitator will be to guide the group away from safe or familiar territory and to push the collective boundaries of what could be known rather than what is already known.

Trialling and refining

During the innovation phase, the group will be engaged in trying out new teaching and learning strategies, approaches and interventions aimed at addressing the particular focus or question of enquiry it has identified. To gather feedback on the effectiveness of these new strategies, one or more of the following approaches[22] could be used:

— learning walks

— lesson study

— peer observation

— instructional rounds

— JPD

— coaching and mentoring

22 See appendix 1 for guidance on some of these approaches.

The main aim of this innovation phase is to test new pedagogical or professional development approaches and to collect feedback on the effectiveness of these approaches from various perspectives. Inevitably, a lot of material will be generated and information collated by group members to aid the review process. The challenge for the facilitator is one of synthesis, ie how to make sense of what has been collected. To help this process, it will be important that each individual in the group describes what he or she has done and experienced, and what the reflections and recommendations on this are. Then it will be important for the group as a whole to follow these steps:

- Look for patterns, commonality, recurring themes or issues. The facilitator will need to record these in a format that is accessible to the group.
- From this analysis, create a set of main themes or issues arising as well as strengths and weaknesses.
- Look for contradictions and seek to find out the reasons for these differences.

The important point here is that there might be several cycles of innovation before the group feels ready to extend its work further or share the outcomes.

There are some important prompts that the facilitator can use to support the synthesis of the collective findings so that the group is confident about moving forward:

- What is the evidence telling us about the new strategies we are using?
- Does the feedback require that we make some adjustment or refinement to the strategies?
- Does the feedback fit what we anticipated or what we already know, or are there some challenges to our thinking?
- Are we able to agree a shared and clear view of what the trial is telling us?
- Can we agree a way forward?

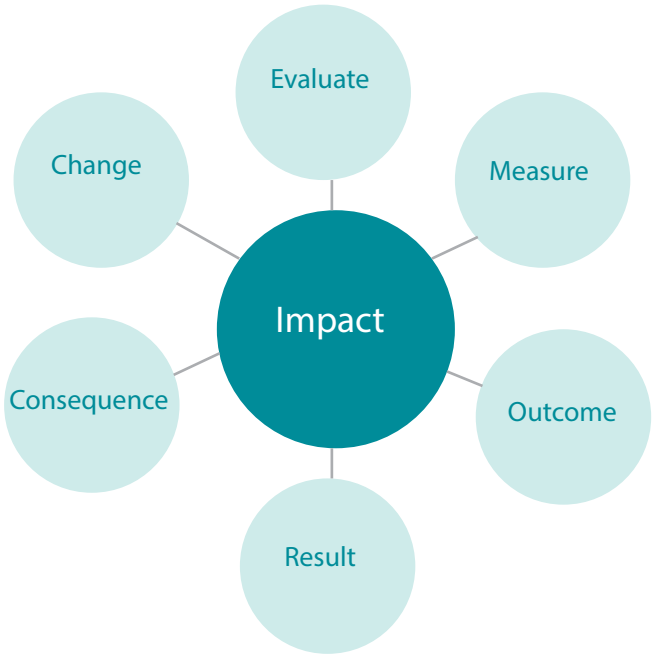
Once the group is clear about the next steps, the facilitator can also gauge what specific challenge and support will be required.

Section 5: Phase 3 impact

> Outcomes of collaborative learning and enquiry can be measured in a consistent, systematic and robust way demonstrating the impact of either the individual school collaboration or the team collaboration i.e. a network of schools.

Harris & Jones, 2010:24

Figure 6: Phase 3 of C2L: impact



As outlined at the start, the three phases of the C2L model are inter-related so there is no suggestion that the issue of impact is an afterthought. Indeed the converse is true, and at the very outset the group will need to think about ways in which it will measure impact and exactly how it will assess the extent to which the intervention or change has made a difference. During the impact phase, the facilitator needs to encourage the group to review what has happened, examine the strengths and weaknesses of the joint enquiry and having reflected on the entire process, begin to formulate some overall assessment of what has been learned and achieved.

Within the C2L model, impact can be measured at three levels:

— student learning

— professional learning

— organisational learning

The types of data that can provide evidence of impact at the student level are:

— performance data

— teacher assessment data

— trend data

— comparative data

— pupil feedback

— pre- and post-intervention tests

— pupil logs

— online blogs and commentaries

The types of data that can provide evidence of impact at the professional level are:

— peer assessment

— coaching/mentoring reviews

— professional logs

— performance management records

— peer observation

— professional forums, including online

The types of data that can provide evidence of impact at the organisational level are:

— performance data

— staff survey

— trend data

— comparative data

— school climate questionnaire

— website statistics

— feedback from parents/wider community

— change of policy

— other external indicators such as climate, culture and community engagement indicators

Without question, the most important of these is student learning. Essentially if collaboration does not result in positive outcomes for students then the group has to question whether its focus was properly selected, whether it was an appropriate focus and whether impact measures were in place from the start. While professional learning and organisational learning are important, if there is no impact on students then the whole collaborative process needs to be called into question. As highlighted earlier, the purpose of the group is not to form a cosy collaboration of professionals, but to make a positive difference to learner outcomes.

As well as looking at existing data it will be important to also think about gathering additional data that will help the group gauge impact. Part of assessing impact is to know what data could be collected about impact and how it can be recognised and collected. For example, a phrase such as 'assessment for learning' is not unfamiliar to teachers but measuring its impact will require detailed consideration of data-collection methods. Similarly, most teachers have an understanding of what high-quality student engagement might involve but there need to be clear criteria and a degree of consensus before data is collected about it.

So to help the group think about assessing the impact of its strategies on the focus of enquiry identified, it is necessary to ask the following questions:

— How would I or others recognise the focus of enquiry, and what are its main features?

— What data needs to be collected about the focus of enquiry to gauge impact?

— Is this data available or does it require collecting?

— If it requires additional data, what methods will I use and why?

— Are my data-collection methods (see overleaf) appropriate?

If any of these questions cannot be answered clearly then the group will need to think again. Table 1 outlines the pros and cons of various data-collection methods that could be used to collect evidence about impact.

Table 1: Data-collection methods

Method	Advantages	Limitations
Interviews — obtain information that would not easily be secured using other methods — complement other methods	— allows for an in-depth, direct response from various stakeholders, eg pupils, teachers, parents, governors	— time-consuming — analysis can prove difficult
Questionnaires — obtain specific information and feedback from a large number of respondents	— Provides both qualitative and quantitative data	— depends on intelligent questionnaire design and trialling, which may be time-consuming — information gathered may be low quality — low return rates
Online surveys — obtain specific information and feedback from a large number of respondents	— easy to set up and administer — very cost-effective — instant and remote analysis of data — prompt sharing of results via web cloud	— requires technical skill and IT expertise
Observation — obtain data that cannot be collected using any other method, eg skills, interaction, practice	— provides data and evidence that would be difficult to obtain by other means	— time-consuming and highly subjective
Audio/visual — obtain a complete and accurate record that can be easily shared and revisited	— readily shared with others — completely reliable and accurate record of the information — wide access via web cloud	— inhibitive and time-consuming
Learning logs — obtain a progressive overview of individual or group learning over time	— quick and easy to produce, eg diary format — can be completed and shared online both individually and collectively	— relies heavily upon disciplined and continual commitment

It is also important to consider whether the chosen data-collection method will actually measure what you intend to measure. The validity of the method is basically the extent to which the data collected is what you have set out to capture. For example, the group may want to gauge the impact of a classroom innovation involving peer-to-peer interaction but if the method selected is a questionnaire then it is an inappropriate tool for capturing this sort of data. Consequently if questionnaires are used in this case, the data will be limited and potentially invalid.

One way of strengthening the validity of data is to employ more than one method of data collection, or to collect data from more than one set of respondents. This is known as triangulation. This does not mean that you will need three data-collection methods or three types of respondent, just that various perspectives on the same issue are required. In addition, it is important to ensure that your data is reliable in the sense that there is consistency in the production of results. This would necessitate at least in principle another person being able to replicate your evidence and/or results. Reliability is concerned with minimising the errors and biases which could occur when evaluating impact.

In summary, the facilitator will need to assist the group by asking the following questions:

— Validity: Will the selected data-collection methods actually collect what they are intended to collect?

— Triangulation: How many different viewpoints are considered in evaluating impact and how are different perceptions captured?

— Reliability: If someone else were to collect the data using the same methods what would be the chances of obtaining similar results?

In an impact assessment it will be important to apply these three tests to the data, otherwise any data collected will be of dubious value and might not demonstrate impact. The role of the facilitator will be to ensure that the group carefully considers these issues and as a result selects the way it collects data about the impact of its collaborative work. It is also important to note that the impact phase is not an end-point but could be another potential starting point in the next cycle of enquiry, depending upon the findings and evidence concerning impact. It may be that the group needs to go through another cycle or cycles of enquiry to demonstrate an impact from its work.

Reporting

As the TSAs go through the three phases of implementation, innovation and impact, they will need to report the progress of their collective enquiry. Appendix 4 outlines the reporting requirements. Essentially, the TSA should see their formal reporting requirements as an integral part of measuring impact and gauging distance travelled and or added value from their collective work. It will help them to answer such questions as:

— Where are we in the C2L process?

— Where are we making most progress?

— What do we need to do next, as a priority?

— What is our data telling us about impact?

— How well are we recording our collective professional learning journey?

— Where do we need to focus our efforts to increase impact?

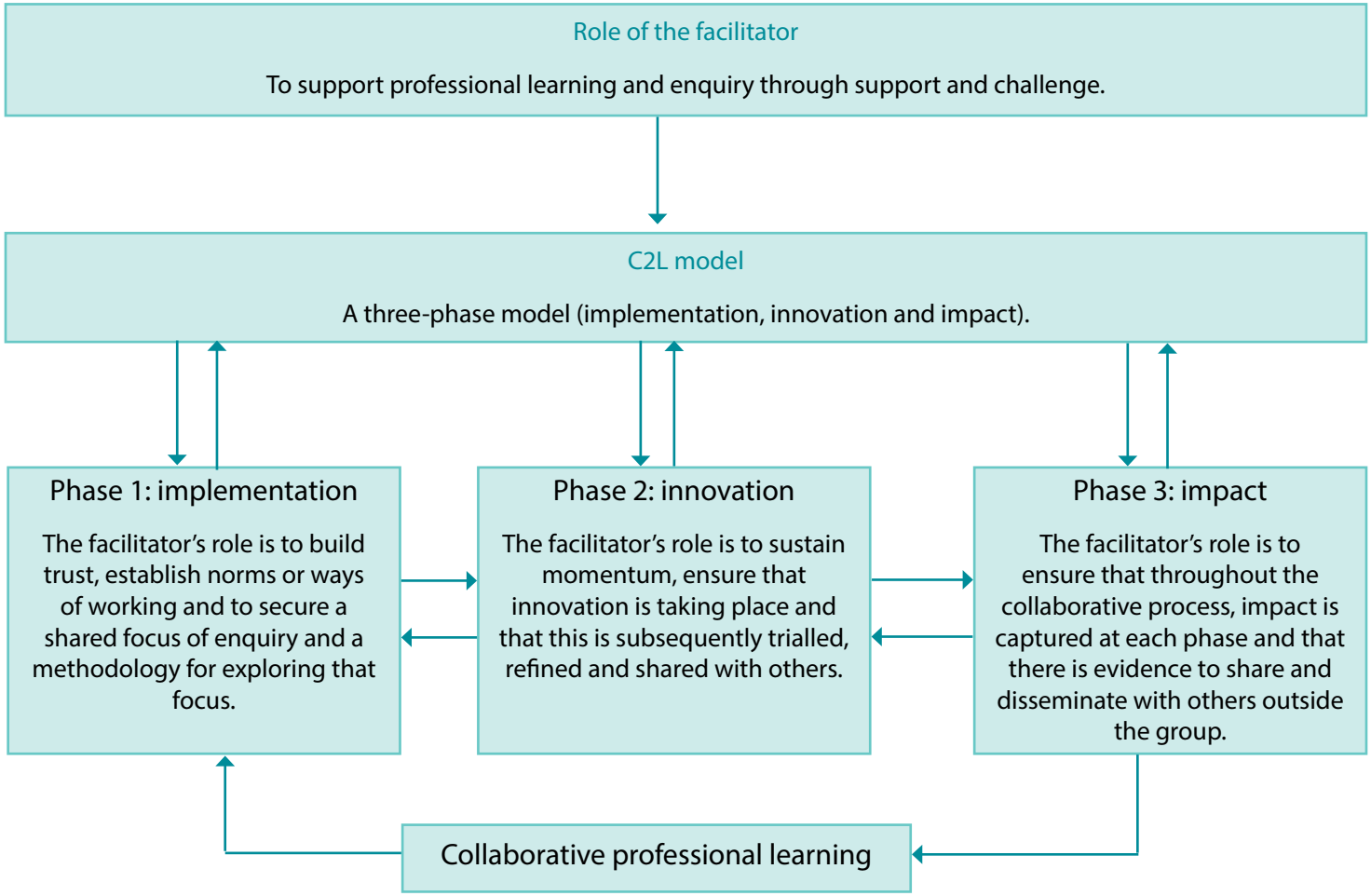
Section 6: Facilitator guide

This section provides a quick overview of C2L and provides guidance for the facilitator to use to support the group in making progress at each of the three phases of implementation, innovation and impact.

The guide is essentially a series of resources and templates that facilitators can use to structure the collaborative learning of others.

The flowchart in figure 7 offers a brief overview of the C2L model and summarises the role of the facilitator (ie, the person supporting and co-ordinating the collaborative enquiry) at each phase. It reinforces that the three phases are not mutually exclusive but together offer an integrated methodology of collaborative enquiry that is cyclical and is premised upon securing meaningful change and innovation.

Figure 7: Supporting and sustaining collaborative learning and enquiry



Facilitator guides

For each of the three phases there is a facilitator guide that outlines what needs to be ascertained from the group (ie questions to ask), how to interpret the responses (ie assessment) and an aide-mémoire, which highlights what the facilitator needs to record in order to track the progress of the group.

Phase 1: Implementation

Individual school	Start-up stage	Assessment stage	Aide-mémoire
Diagnosis	When encountering a new school to be part of your collaborative group it will be important to diagnose the real, rather than perceived, need. This diagnosis is important because it will allow you to gauge the needs of the individual schools versus the collective needs of the schools that intend to collaborate. Questions to ask: — From the school's self-evaluation or other assessment(s), what are the main strengths and priorities for school development? — How does the school intend to meet those priorities? — How well developed are collaborative practices within the school?	From the answers to these questions you should be able to judge the growth state of the school, its performance level and its capacity to collaborate (low, medium or high). You should also be able to judge the levels of support the school will need and how far you need to develop the skills of collaboration with the school before it enters into partnership with other schools.	In this box you will record the evidence you have used to make a diagnosis of the school and the agreement between yourself and the school about the levels of support and the extent of the school's involvement in the collaborative partnership.

Individual school	Start-up stage	Assessment stage	Aide-mémoire
Data	Having established the school's broad priority, it will be important to try and generate a precise question of enquiry that the school wishes to pursue that is linked to its main priority. This way you should be able to create a more precise focus or set of focuses among your schools so they can work together more productively. Questions to ask: — What data will you use to inform your focus of enquiry? — What baseline data will you use to gauge the progress made relating to your question of enquiry? — How will you measure or gauge the overall impact on learner outcomes, professional learning and organisational change? — What will you use to monitor interim progress?	Broad statements of intent are not precise questions of enquiry. The school may identify a problem with literacy but you need to push group members to identify a particular issue or problem that could be a focus for enquiry by drilling down further in the data. It could be that by looking at diagnostic assessments the school could identify a precise problem (eg, reading for meaning) with a particular cohort (Year 8 boys). This precision means that the issue is more manageable as a focus of enquiry as it is specific and measurable.	Note the question of enquiry and the data sets that the group proposes to use.
Development	Having make a diagnosis and prompted the school or group to be explicit about a question of enquiry, the next step is to think about the best mode of collaboration that could help that specific group. Gauge its experience in collaborative models first before drawing any conclusions. Questions to ask: — Have you ever used any specific approaches to collaboration in your school (prompt with examples such as professional learning communities (PLCs), instructional rounds, learning walks etc)? — How effective did you find the approaches you used? What worked, what didn't?	This needs to be thought about for all your schools before embarking upon a particular collaborative course. It may be that there has to be some compromise as the model might be ideal for the majority of schools but not all. This judgement is not shared with the school but is used by you as you make a decision about the collective approach you wish to use. If the answer is that the group has not tried anything specific, you will need to explain a few of the potential approaches so the members are totally clear about the nature of the collaborative partnership and informed about the available options.	Record the extent of the group's experience with various approaches and its judgement of its success. This will help you to gauge experience in collaborative ways of working.

Individual school	Start-up stage	Assessment stage	Aide-mémoire
Distributed leadership	To work effectively the group will require an understanding of distributed leadership where different members of the group at different times take on a leadership role. It is also important that the group understands that the facilitator is not the formal leader of the group and is not going to play a dominant role. Questions to ask: — How far is distributed leadership developed in this school? — What experience do staff have of distributed leadership in action?	It is important that you gauge the extent to which the school and the individuals therein have direct experience of distributed leadership as this will influence how they work collaboratively. It will also affect how you work with the group initially as if there are some members who are not familiar with distributed leadership then the ground rules will need to cover this aspect explicitly.	Note the experience of distributed leadership at different schools to assist you in your initial meeting with the individual members from each school.
Drive	It is important to think about sustainability from the outset because initial enthusiasm may wane as the workload increases or the novelty of collaboration wears off. It is important to impress upon the school and the individuals that they need to think about ways of maintaining and supporting this collaborative activity over time. Questions to ask: — What time and support will be given to the individual and the school group? — Is the collaborative activity part of the staff action plan and linked to the school development plan? — How is this linked to monitoring and school self-evaluation?	The effectiveness of collaboration between schools depends upon their ability to stay the course and upon the support they get from the school. The more this activity is linked to the school's internal improvement processes, the more likely it will be that this collaborative activity will be integral to the work of the school.	It is important to ascertain at the outset how far the collaborative efforts can be maintained and sustained. The commitment of the school and the individuals is essential if the collaborative effort is to result in positive outcomes. If these are not forthcoming then they will need to be highlighted, negotiated and fostered as the collaborative process unfolds.

Implementation phase			
Group/network overview			
Individual priorities		Group focus(es)	
School (Record individual priorities here)	Agreed collective focus	Having determined a collective focus, record each school's specific priority and agreed enquiry strategies	Collective question of enquiry
A →	→	A →	→
B →	→	B →	→
C →	→	C →	→
D →	→	D →	→

The purpose of the form above is to record the individual priorities and issues that schools bring and to record them in order to agree a collective focus that will become the priority for the collaborative enquiry.

Phase 2: Innovation

Individual school	Action stage	Assessment stage	Aide-mémoire
Diagnosis	In this phase you will need to work with your schools to support them through the process of enquiring, trialling and refining their strategies. Questions to ask: — To what extent is the strategy working? — What have been its strengths and weaknesses?	From the answers to these questions you should be able to judge the progress made and the changes in practice undertaken. You should also be able to judge how far you need to support the group's thinking about how to refine the strategies used.	In this box you should record what has been achieved along with an assessment (from the group) of the strengths and weaknesses of the strategies used. You need to also ascertain the group's next steps.
Data	In terms of judging the impact of the strategy used, it will be important to ascertain what data has been used. Questions to ask: — What interim data have you used or collected to inform your judgement about the effectiveness of the strategy?	It will be important to reinforce the importance of data to form judgements. Subjective judgements are fine but some independent data (eg from students or other stakeholders) will be required to quantify how far the strategy worked.	Make a note of the data that is being used to make the judgement. If no data or inappropriate data is forthcoming then you will need to return to the original data from the first meeting to determine the distance travelled.
Development	It is important that schools go through several cycles of trialling and refining so that the conclusions reached are not superficial, and the process of innovation is grounded in practice rather than a bolt-on. Questions to ask: — How do you plan to embed these strategies or develop them further? — How do you intend to promote these strategies to others?	This development phase is crucial because it is the hard graft; it is where the real work of collaboration takes place. It is here that the strategies agreed by the group are put into practice. Therefore you will need to decide how far the strategies have been deployed by all. If this has not happened, you need to reinforce the collective accountability without blame or identifying individuals.	Record the group's collective views about the use of the strategies and how far it feels this work is changing practice. If the verdict is that it is not, then the group should be encouraged to think of other, more challenging strategies. The role of the facilitator in this phase is to challenge the group and to question how far its work both individually and collectively is really innovative and breaking new ground.

Individual school	Action stage	Assessment stage	Aide-mémoire
Distributed leadership	It is important that each member of the team contributes to the collaborative effort and has the opportunity to lead at different times. At each meeting it will be important to renegotiate roles and responsibilities so that leadership is shared. Questions to ask: — Who is best placed to organise the group for the next meeting? — Who will lead on the next phase of enquiry? — Who will broker resources and support?	You will need to gauge how far individuals are fulfilling their roles and responsibilities and how well the group is functioning. Assess the group's potential as well as the quality of collective working as there may be individuals getting in the way of progress. There may be a need for some intervention to keep the group on track at this phase and to judge how best to manage the situation with individuals.	Note how far the group is sharing responsibility. Are some group members dominant? Note what challenge and support are required to help the group keep going to achieve a positive outcome.
Drive	Through the process of innovation there will be inevitable peaks and troughs. The role of the facilitator is to keep momentum going and to ensure the group makes progress.	Assess individual and group progress or contribution and be prepared to offer support or intervene if an individual or school is in need.	You will need to gauge each person's contribution to the original focus of enquiry and to the overall learning and progress of the group.

This form can be completed at each meeting of the innovation phase to record the ongoing collaborative enquiry of the group and to determine the strengths and weakness of the enquiry strategies being used.

Implementation phase	
Group/network overview	
Feedback (enquiry-informed strategies and approaches)	
School feedback	Group feedback (record what is working well or what might need revisiting to keep the group on track.)
A	
B	
C	
D	
Agreed next steps:	

Phase 3: Impact

Individual school	Action phase	Assessment	Aide-mémoire
Diagnosis	In this phase you will need to encourage the group to reflect upon the original data and in so doing to gauge the impact of the individuals and the group as a whole. Questions to ask: — What evidence do you have to judge whether your innovative work has been successful or not? — What strategies were most/least effective? Why? — What would you do differently next time? Why?	From the answers to these questions you should be able to assess the degree of impact and assess progress made. You should also be able to judge how far the work of the group has influenced individual efforts and vice versa.	In this box record the evidence of impact and any observations about the effectiveness of the group as a whole in achieving its objectives.
Data	It will be important to ascertain what data the individuals and group have used to gauge the impact of their efforts at three levels: learners, professionals and school(s). Also it will be important for the group to assess its own effectiveness. Questions to ask: — How far has your work had an impact on learners, you as a professional and others, and your school/other schools? — What is your evidence?	The data should relate directly to the focus of enquiry and therefore the assessment of impact should be straightforward. If this is not the case it is worth reflecting upon and discussing with the group what other data sources could have been used.	Record the types of impact data provided by the group and make an overall judgement about the extent to which the collaborative effort has resulted in positive and meaningful outcomes for learners, professionals and school(s). Note the reflections on the impact at each of the three levels.

Individual school	Action phase	Assessment	Aide-mémoire
Development	The group needs to reflect upon the way it has worked collaboratively. Questions to ask: — How well did you work together as a group? — What were the collective outcomes?	The group needs to honestly and accurately reflect upon the extent to which its collaborative work has made a difference, has had an impact and how this might be shared with other professionals and other schools.	Record the group's assessment of impact and note any data sets it has used to corroborate the impact of its work. In terms of development, the collective outcomes might be how the group wishes to continue, whether it needs to enquire further or what advice it would give other groups.
Distributed leadership	As the group has come to the end of its work, consideration needs to be given to how well the members shared the leadership responsibility within the group. Questions to ask: — How far has leadership been distributed within this group? — Were there times when the group felt a lack of leadership? When and why? — What will the group take away from the experience of working in this reciprocal way?	In assessing the success or otherwise of the group, it is important to look at how far leadership was properly distributed as this is a key component of collaborative learning and enquiry and group success.	Note the group's and your own reflections on whether leadership was adequately shared or not and record how far the group feels that this had a bearing on the outcome of its collaborative work.
Drive	It is important that collaborative working is not an end-point but a means to influencing the learning of others more widely. Questions to ask: — How do you intend to share this work more widely? — What are the group's plans for dissemination? — What are the next steps? — Are you entering another cycle of enquiry?		

Impact		
Group/network overview		
Student	Professional	Organisation
Outcomes	Outcomes	Outcomes
School A		
B		
C		
D		
Agreed recommendations and dissemination: Agreed next steps:		

The form below is intended to capture a summary of the entire process and is an aggregate of the three forms that appear for each phase.

Collaborative learning and enquiry overview								
Implementation				Innovation		Impact		
Data-informed priority		Collaboration process		Enquiry-informed strategies and approaches: feedback		Student	Professional	School
School	Group	School	Group	School	Group	Outcomes	Outcomes	Outcomes
A		A		A		A		
B		B		B		B		
C		C		C		C		
D		D		D		D		
Collective question(s) of enquiry:		Agreed strategy and approach to trial and refine:		Agreed next steps:		Agreed recommendations and dissemination:		

Appendix 1: Links and resources

You may find the professional development dimension of David Hargreaves' maturity model helpful. An updated version of the maturity model can be found in The self-improving school system: towards maturity (Hargreaves, 2012).

Collaborative enquiry methods

As highlighted earlier there are a range of collaborative enquiry methods that can be used within the C2L methodology. What follows is a brief summary of four methods:

A. Learning walks

B. Instructional rounds

C. Peer triads

D. Lesson study

A. Learning walks

The learning walks model was created by the University of Pittsburgh's Institute for Learning (IFL) based on research by Director of IFL Professor Lauren Resnick.

A learning walk is a short, structured 'visit' to classrooms (or anywhere where learning is taking place) using specific agreed criteria to gather information on a particular topic. The purpose of a learning walk is ultimately to improve pedagogy.

Learning walks can be used to:

— track initiatives to assess impact

— share good practice within, between and across schools

— support continuing professional development

— develop a climate of trust in which teachers are able to be constructive rather than destructive

The focus for the learning walk is linked to an aspect of school improvement. Anyone in the school community can be involved in learning walks.

There are normally four people in the 'learning walk team'. Each member is allocated a specific role eg talking to pupils. The team then begins to visit each classroom for approximately 5-10 minutes to find out as much information they can about the agreed focus. After each class, they share their findings with each other in a 'corridor' debrief (5–10 minutes).

At the end of the learning walk they then record and share their outcomes and suggest next steps.

B. Instructional rounds

The concept of instructional rounds is based on the work of Dr. Richard Elmore (Harvard) who adapted ideas from the professional practice of medical rounds used by doctors. When implemented at its best, this work results in systemic improvement developed through distributed instructional leadership focused upon the rigor of all students learning well. The roles and actions of all those in schools become redefined by that which is necessary to result in the highest levels of student learning.

The process begins with the formation of a network that takes on challenging work by focusing on a "problem of practice" (POP) or an unresolved question of student learning at a network school. The POP is selected by the school principal and staff because of its importance in the school's improvement efforts. It is based upon this POP that the entire network will visit the school and visit classrooms in small groups, using expert and precise observation techniques. Once the network members have observed in numerous classrooms throughout the school, the network reconvenes as a whole to share, analyse, and come to agreement on what they observed. This stage of the process keeps the analysis on the factual description of what the visitors actually saw, not personal judgments of what they believe occurred. This debriefing does not identify individual teachers or classrooms; rather it identifies patterns of teaching/learning within and across classrooms throughout the school.

The next stage of the process is to use the patterns as the basis for further work to connect the teaching and learning taking place in relation to the stated school problem of practice. Network members conclude their work by taking on the central questions of what would need to happen within the instructional core (teachers and students in the presence of content) to cause the learning the school wants to see take place, and what roles the school and network play in this endeavor.

The network generates options for the 'next level of work' including ideas for what could be done next week, next month, and by the end of the year.

C. Peer triads

Peer triads, or peer coaching triads, occur when a group of three teachers come together to support each other to attain learning goals using a coaching approach. At the first meeting you all identify professional learning goals and strengths. You assign each learning partner to one of the roles and agree a protocol for working.

In a peer coaching triad, we use three roles: coach, client and observer. Each time they meet, each person in a triad gets to play each role once.

Role 1 – coach: the role of the coach is to listen, to reflect back, and to ask questions.

Role 2 – client (or the person talking): the role of the client is to be coachable, to be honest with themselves and the coach, to genuinely look at what's going on.

Role 3 – observer: the role of the observer is to take it all in. Where did the coach ask a question that seemed to open things up for the client? Where did the coach miss a question that you thought to ask?

D. Lesson study

Lesson study is a form of classroom enquiry that focuses on improving an aspect of teaching and learning through collaborative study.

In a lesson study process, groups of teachers identify an area of need in pupil learning that is in need of improvement. They then enquire into developments in teaching that are likely to have an impact on this aspect of pupil learning. The group of teachers plan a 'study' lesson together, aimed at addressing the problem they have identified. Having jointly planned the research lesson in detail, one person teaches the lesson and the others observe, always focusing on the behaviour and learning of the pupils – what they were predicted to do and learn compared with what actually happened.

Following the lesson the group has a discussion where the learning of the pupils is discussed in detail using the observation notes.

Appendix 2: Effective pedagogy

Theme 1: Great pedagogy: nine strong claims from research

Great pedagogy is not straightforward. It is complex, multi-faceted and demanding. Great pedagogy develops when outstanding teachers make active use of the research and knowledge-base for teaching. There is a robust research-base which helps to identify the ingredients of great pedagogic practice. Truly successful pedagogy depends on making connections between ideas from the research-base in systematic and sophisticated ways.

1. Effective pedagogies give serious consideration to pupil voice.
   Meaningful pupil consultation about learning and teaching engages pupils, gives them ownership of the learning process and leads to improved practice.

2. Effective pedagogies depend on behaviour (what teachers do), knowledge and understanding (what teachers know) and belief (why teachers act as they do).
   Teachers' knowledge and understanding of subject matter, pedagogic approaches and the way children learn underpin effective practice as do teachers' beliefs in relation to this knowledge and understanding.

3. Effective pedagogies involve thinking about longer term learning outcomes as well as short-term goals.
   Genuinely successful pedagogies involve attention to outstanding lessons as well as longer term planning and a clear sense of what long-term outcomes are intended.

4. Effective pedagogies build on pupils' prior learning and experience.
   Taking account of pupils' prior experience is critical in engaging them in learning: good practice extends experiences and raises aspirations, and does so by taking account of what pupils already know and understand.

5. Effective pedagogies involve scaffolding pupil learning.
   Pupil learning needs to be actively structured, with scaffolds put in place to support pupils moving on to the next phase of learning. Scaffolds are gradually removed as pupils gain mastery and confidence.

6. Effective pedagogies draw on a range of techniques, including whole-class and structured group work, guided learning and individual activity.
   Successful pedagogies involve a variety of experiences with a carefully planned sequence of appropriately applied techniques, taking into account the fact that different techniques are fit for different purposes in shaping learning.

7. Effective pedagogies focus on developing higher order thinking and metacognition, and make good use of dialogue and questioning in order to do so.
   Active teaching of higher order skills by deploying a range of questioning techniques enables higher order thinking in pupils and therefore raises their competence.

8. Effective pedagogies embed assessment for learning.
   Giving good-quality feedback to pupils plays a critical role in improving learning when it is used to inform the next steps in teaching.

9. Effective pedagogies are inclusive and take the diverse needs of a range of learners, as well as matters of student equity, into account.
   The most effective pedagogies are concerned with enhancing the learning of all pupils and expecting all pupils to gain mastery.

A full version of this literature review is available on the National College website.

Theme 2: Great professional development which leads to great pedagogy: nine claims from research

Great professional development is effective professional development. Effective professional development is the process of professional learning which results in great pedagogy within and across schools. This process, which includes putting in place supporting conditions for professional learning, leads to improved pupil learning, achievement and wellbeing.

1. Effective professional development starts with the end in mind.
   To make a difference, professional development starts by analysing pupils' needs, and pupils' learning directly influences what teachers need to learn. Evaluating impact is planned at the outset, gathering baseline data and identifying data to support judgements of impact.

2. Effective professional development challenges thinking as part of changing practice.
   Developing great pedagogy is more than doing something differently. It involves digging in deep and understanding why one strategy is more effective than another. Powerful professional learning challenges and interrupts assumptions, and encourages teachers to develop their own theory from their practice.

3. Effective professional development is based on the assessment of individual and school needs.
   Understanding specific needs helps promote ownership and relevance of professional learning which is essential for positive impact.

4. Effective professional development involves connecting work-based learning and external expertise.
   Continuing professional development is most effective within schools where it is linked and applied to classroom practice. Although school focused and school led, it also draws in and uses external expertise where appropriate.

5. Effective professional learning opportunities are varied, rich and sustainable.
   Diverse professional learning experiences are based on an understanding of effective adult learning. They are sustained and intensive, rather than brief and sporadic.

6. Effective professional development uses action research and enquiry as key tools.
   Engaging with and using research and enquiry help to improve practice. Developing structured collaborative partnerships between schools and with researchers increases teachers' involvement in and use of research.

7. Effective professional development is strongly enhanced through collaborative learning and joint practice development.
   Social learning with and from others in and between schools is powerful. This involves mutual engagement where colleagues share and co-construct ways of developing practice.

8. Effective professional development is enhanced by creating professional learning communities within and between schools.
   Collaborative professional learning communities ensure that professional development occurs within sustainable learning cultures and environments. Where these are properly constructed and focused on improving learning outcomes, teachers develop and integrate new learning into existing practice.

9. Effective professional development requires leadership to create the necessary conditions for learning.
   Acquiring and using knowledge and skills depend on organisational arrangements that support ongoing learning and the application of new learning. Leaders who promote and participate in professional development also give it a central role in planning and reflect it in policies. They develop the capacity to enrich formal and informal leadership of great pedagogy.

A full version of this literature review is available on the National College website.

Theme 3: Leadership of great pedagogy in teaching school alliances: evidence from the literature.

Eight modest claims on leadership for learning through inter-school partnership: evidence from the literature.

1. Context matters.
The ways in which the structure and governance of the partnership are designed demonstrate responsiveness to the contexts in which schools work and are fit for purpose.

2. Leadership structure and governance arrangements matter.
The form of governance should reflect the purpose, scope and intensity of the partnership's activities. Although there is no prescription for effective partnerships, all should have strong and clear strategic, operational and professional arrangements as well as dedicated, tiered leadership support for managing the development of the partnership (Hill, 2008).

3. Relationships and trust matter.
Social relations among schools and individuals play a fundamental role in developing and deepening a collaborative culture that facilitates knowledge and practice transfer both within and across schools. The strength of trust is the most important influence on collective capacity for collaboration. Accumulated evidence suggests that strong social ties lead to collaborative leadership, collective school capacity, school improvement and greater knowledge transfer within and across school boundaries (Hallinger & Heck, 2010; Mourshed, Chijioki, & Barber, 2010).

4. Shared vision and values matter.
They serve as a necessary precondition for creating, building and deepening communities of practice for learning, development and achievement.

5. Communication matters.
Effective communication is vital in every aspect of how a school-to-school partnership works.

6. Distributing leadership matters.
Distributed system leadership builds upon an organisational commitment to raise the achievement of other schools and is a necessary condition for mature inter-school collaboration and healthy competition.

7. System leaders' personal characteristics and professional competences matter.
Successful system leaders possess core competences and share similar behaviour patterns in promoting collaborative working within the partnership.

8. Identifying broad phases of development matters.
These development phases enable leaders to prioritise combinations of strategies which create the optimum conditions for effective learning and development within and across these phases.

A full version of this literature review is available on the National College website.

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Appendix 3: Ethical guidelines for data collection

Research and development (R&D) work will involve data collection and analysis. While schools will gather data in the normal course of their professional activities, there will be other data that they will need to collect as part of their R&D work. There could also be wider dissemination of findings and sharing across the schools engaged in the project and possibly beyond this group. Consequently, it is important that ethical issues surrounding data collection and analysis are considered.

At an early phase in their R&D process, TSAs need to consider whether there are any ethical issues that they need to address:

- Who will have access to the project data and for what purposes?
- How will the data be protected?
- What data is being gathered from pupils and staff beyond that readily available?
- Has permission been granted from participants to collect this data? Is a consent form necessary so this permission is explicit?
- Could individuals be identifiable in findings (within and beyond the TSA)? How will this risk be minimised?
- Is there any data gathered on sensitive issues? How will this data be safeguarded?
- How will confidentiality and anonymity for participants (when appropriate) be guaranteed?
- What might participants have to give consent for and have the right to withdraw from? For example, would they be expected to participate in action research as part of normal school activities, or only in activities that are solely research focused?
- Should parents be informed about the project and data-collection activities, for example in a school newsletter? Is parental consent needed for any of the data-collection activities?
- How data will be stored securely and protected?

These questions are particularly important to address across all R&D work but particularly if the data collected is to be used externally in project reporting and dissemination through academic publications. Schools need to judge how far the data they are using and/or collecting is of a sensitive nature and if it is, will need to ensure that this data can be used by explicitly seeking permission from those who could potentially be identified or compromised once the data is used for R&D purposes. TSAs may already have protocols in place for sharing data across their alliance. If this is not the case the project group will need to discuss this at an early stage.

Schools should not be overly concerned about the use of data, particularly their own data sets, but simply need to think about the ethical issues that could arise if appropriate consent is not secured or the issue of permission is not considered early in R&D work. It is important to reflect on potential ethical issues and to double-check that the data can be used at the outset, rather than addressing this part-way through a project.

Appendix 4: Progress assessment

Where are you now? Implementation phase

Name of your teaching school:

Your name:

Please complete the questionnaire below by circling the response that best fits the situation in your teaching alliance right now in relation to the R&D project.

Scale

SA = strongly agree A = agree U = uncertain D = disagree SD = strongly disagree

We have met our alliance partners and agreed how we will work together.	SA	A	U	D	SD
We have agreed a common focus or question of enquiry.	SA	A	U	D	SD
We used data to inform our focus or question of enquiry.	SA	A	U	D	SD
We have agreed an approach for enquiring together.	SA	A	U	D	SD
We have collected data in order to establish a baseline to gauge impact.	SA	A	U	D	SD

Our focus or question of enquiry is:

We need help with:

Where are you now? Innovation phase

Name of your teaching school:

Your name:

Please complete the questionnaire below by circling the response that best fits the situation in your teaching alliance right now in relation to the R&D project.

Scale

SA = strongly agree A = agree U = uncertain D = disagree SD = strongly disagree

We have agreed classroom or instructional strategies to trial in relation to our collective focus or question of enquiry.	SA	A	U	D	SD
We have trialled these strategies and gathered evidence of their impact and effectiveness.	SA	A	U	D	SD
We have plans to refine the strategies used and to retrial them.	SA	A	U	D	SD
We have agreed to trial other strategies.	SA	A	U	D	SD
We are using our baseline data to continually monitor impact.	SA	A	U	D	SD

Our interim findings are:

We need help with:

Where are you now? Impact phase

Name of your teaching school:

Your name:

Please complete the questionnaire below by circling the response that best fits the situation in your teaching alliance right now in relation to the R&D project.

Scale

SA = strongly agree A = agree U = uncertain D = disagree SD = strongly disagree

We have some clear outcomes and conclusions from our collective enquiry.	SA	A	U	D	SD
We have evidence of impact upon student outcomes.	SA	A	U	D	SD
We have evidence of impact upon professional learning.	SA	A	U	D	SD
We have evidence of impact on our teaching school alliance.	SA	A	U	D	SD
We have a dissemination strategy and know how we will share our work more widely.	SA	A	U	D	SD

Our main findings are:

Our dissemination plans are:

We have learned:

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