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**Title:** Designing, building and engaging inquiry-based professional learning communities in schools: A case study of two pilot schools

## Abstract

An exploratory case study was carried out to gain insight into teachers' and schools' participation in a school-base collaborative inquiry programme. This programme was specifically designed to facilitate the building and engagement of inquiry-based professional learning communities, within which community members conduct collaborative inquiry into their practice. The study draws upon multiple sources of evidence collected and analysed as the study progressed. The understandings drawn from the case study are resonant with our existent understandings of establishing and engaging in practice-based communities and embedding these into the school system. Furthermore, this study suggests facilitating practitioners to undertake and lead collaborative inquiry into their practice, in professional learning communities of their own making, they are empowered to take a lead in directing their schools' development with confidence. This is because they are informed by the *in situ* new knowledge they have generated from their research and practice. In addition the impact of collaborative partnership upon school's development is highlighted.

## Introduction:

In 2001, the Department for Education and Employment, UK put forward the national strategy for continued professional development (DfEE, 2001), which included an emphasis on engaging schools as professional learning communities. In 2002, in response to this strategy, the National College for School Leadership launched the Networked Learning Communities (NLC) Programme[1], a research and development project designed to facilitate schools in becoming learning networks and improve teaching and learning through collaborative enquiry-orientated approaches.

In 2005, The Training and Development Agency for Schools (TDA) invited applications to develop and deliver partnership-driven accredited provision for UK teachers as part of their postgraduate professional development programme (PPD). PPD sought to promote partnership and engage teachers in collaborative enquiry communities to improve teaching and learning. The Networked Learning Partnership (NLP), now The Learning Institute, (TLI, a school-based provider in London and South West England) secured funding and designed school-based collaborative inquiry provision for schools, basing this on TDA school-based accredited provision[2] and DfES good CPD provision (DfES, 2001) criteria, the DCSF revised performance management arrangements (DCSF, 2006) and the learning from successes of the NLC programme.

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[1] http://www.ncsl.org.uk/networked-index.htm

[2] http://www.tda.gov.uk/partners/cpd/ppd.aspx

**Context of Study:**

Following consultation with schools, TLI (formally NLP) in partnership with the London Centre for Leadership in Learning (LCLL) at the Institute of Education-London, designed a school-based Collaborative Inquiry Programme (CIP). This was validated as a masters-level double module called '*Leading Inquiry-based Professional Learning Communities*' by the Institute of Education-London. The exploratory study reported here was undertaken in the first year of offering (2007-08) CIP to schools in London and reports upon the programme design and teachers', schools' and HEI participation.

**Participants:**

During the period 2007-08, 81 teachers and leaders from 12 school sites registered and participated on the programme. The study reported here is based on data gathered from 2 pilot schools in London; a primary (School A) and a secondary school (School B). The study involved 19 participants and their senior leaders in charge of CPD.

The primary school (School A), in the London Borough of Enfield, focus was upon implementation of the creative curriculum. The school principal and deputy principal, in charge of CPD, led the initiative to develop and implement a creative curriculum which focused upon actively engaging pupils in their learning. This focused upon teachers planning 'topic based' lessons which involved pupils in reflecting upon and evaluating their learning experiences, collaborative peer group learning, developing listening skills and learning independently. The collaborative inquiry group were made up of class teachers, deputy phase and phase leaders.

The secondary school (School B), in the London Borough of Brent, focused upon implementation of whole school Assessment for Learning (AfL). An assistant principal led AfL group in school which focused upon applying different strategies in assessment for learning in the classroom. Strategies included use of success criteria, using the 'no hands up rule' and using thinking skills to develop students' self-evaluation. The collaborative inquiry group were made up of the assistant principal and departmental representatives. In addition individual projects were carried out by teachers outside of the AfL group which addressed foci pertinent to the teacher.
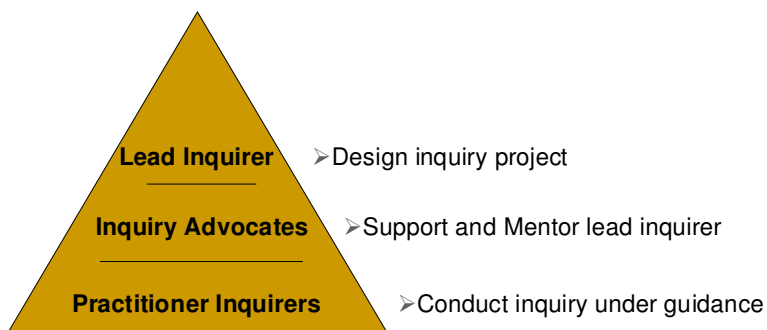
**Methods and Analysis:**

The exploratory case study (Yin, 2003) based on these two schools drew upon multiple sources of evidence. These include: tutor notes and reports; participant impact evaluations; participant portfolio assignments; school/provider and provider/HEI meeting notes and an annual impact report to TDA. Interpretive analysis guided an exploration of evidence as the study progressed (Creswell, 1998). Participants' and Schools' rights to anonymity and confidentiality was respected and identities protected (BERA, 2004).

**The Collaborative Inquiry Programme Design:**

The Collaborative Inquiry Programme (CIP) design encompassed several elements for building communities of practice (Wenger, McDermott and Snyder, 2002) and our understanding of 'situated learning' (Lave and Wenger 1991). The design integrated characteristics of creating effective professional learning communities (Bolam *et.al.*, 2005) through engaging participants in a reflexive process of action research (Robertson 2000) and developing 'enquiry-minded leadership' (Stoll, Bolam and Collarbone 2002).

Building and cultivating an inquiry community was facilitated by modeling a frame for community membership. This was presented as a pyramid model (Figure 1). By following this model participants recognized themselves as lead inquirers who establish, engage and involve colleagues and pupils within their schools as well as parents and members of the wider community. As lead inquirers they designed their collaborative inquiry projects by enlisting the support of inquiry advocates who would offer advice and guidance. They also invited professional staff within their schools (teaching and support staff) to become involved as practitioner researchers to conduct and collect data/information. Finally they invited non-professionals within their schools (pupils, parents/carers, community leaders) to also participate as inquiry assistants.



Lead Inquirer ➢Design inquiry project

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Inquiry Advocates ➢Support and Mentor lead inquirer

Practitioner Inquirers ➢Conduct inquiry under guidance

Figure 1: Pyramid model for cultivating inquiry communities of practice

Participants were also facilitated in designing, conducting and leading collaborative inquiry within these communities by following participatory action research methodology (Kemmis and McTaggart, 1992) and systematically analysing evidence (Denscombe 2007) to evaluate the impact of their research upon practice and school development. These elements are represented as learning curves in Figure 2.



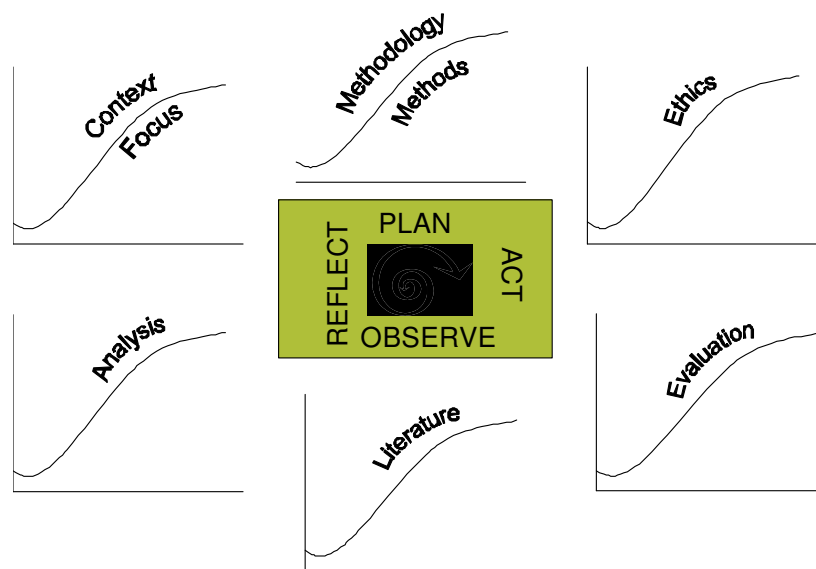Figure 2: A systematic process for collaborative inquiry into practice

In this way the CIP design integrated the elements of building, leading and engaging practitioners in collaborative communities of practice. These elements were delivered to participants as a Master's level double module '*Leading inquiry-based professional learning communities*' comprising of four module aims to ensure participants:

- Conduct systematic inquiry into practice using action research methodology

- Engage in collaboration with colleagues, pupils, parents and key stakeholders by establishing professional learning communities

- Develop leadership roles following distributed or constructivist leadership styles

- Evaluate impact upon practice by interpretive analysis of data providing an evidence base to inform school improvement

The module delivery mode was entirely school based and comprised of twilight group sessions, group seminars and individual tutorials held across three school terms. A review of this module and its impact upon teachers' practice is given in Mayer, 2009.

**Findings from Teachers' and Schools' Participation:**

*Building collaborative inquiry communities within schools*

Building inquiry communities was facilitated in CIP design when cultivation of these communities was modeled for participants (Figure 1). Participants in School A (the primary school) established themselves as an inquiry community and all conducted inquiries towards developing a creative curriculum, an area prioritized for the whole school by the schools' principal and deputy principle. Participants in School B (the secondary school) established their own inquiry communities within the school and based their inquiries either upon their individual professional development needs focusing upon an area prioritized for the whole school or an area pertinent to themselves. Figure 3 shows a representation of how schools A and B established themselves as inquiry communities of practice following the pyramid model.

School A established itself as an inquiry community (blank pyramid) with community membership levels. In this instance the school principal was the lead inquirer establishing their school as an inquiry community focused upon developing a creative curriculum. The principal involved the deputy principal in charge of CPD and an external consultant and HEI tutor to support them in this. Teachers from across the school were invited to participate and a group of teachers eventually established

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themselves as a collaborative community with each teacher then establishing their own inquiry community (filled pyramids) within the school.

At the start of CIP, School B was not established as a whole school inquiry community. In this instance the school principal delegated responsibility of establishing within school inquiry communities to the then assistant principal in charge of CPD. Following a change in headship and the appointment of a new assistant principal in charge of CPD, who was also a participant (filled green pyramid with membership levels) the newly appointed assistant principal established an across school community of teachers focused upon implementing assessment for learning (filled pyramids). Within this school some teachers also established inquiry communities focusing upon inquiries which were pertinent and relevant to their own practice (filled pyramid drawn independent of green pyramid)
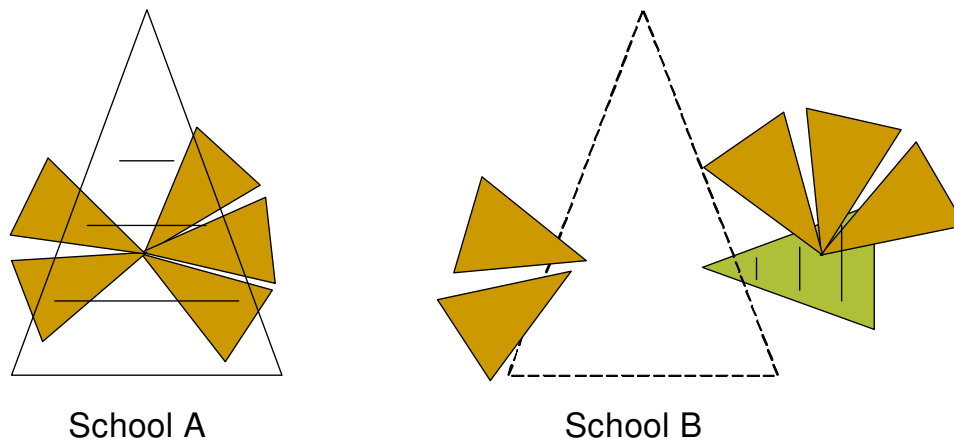


Figure 3: Inquiry communities of practice established within schools

### Teachers as collaborative insider leaders

In establishing and leading their inquiry communities participants demonstrated that by developing as informal leaders or emerging leaders from within schools they had enhanced and steered the effectiveness and integration of school systems. It emerged that teachers were empowered by the opportunity to lead within their communities.

Participants' perceptions of their role as collaborative insider leaders were evidenced in their reflexive accounts given in their portfolio assignments. Participants were categorized as being class teacher (with no leadership responsibility), teacher with leadership responsibility (deputy phase leader, phase leader, KS3 coordinator) and teacher with senior leadership responsibility (assistant principal). There was an indication that the successful engagement and collaboration of members of the inquiry community was by:

- Developing a collaborative style of leadership in which 'control' was delegated and shared amongst all members.

- Working with and involving relevant members as co-researchers to co-design inquiry projects, collect and analyse data/information generated from the inquiry.

- Sharing vision and strategy with relevant members by holding open and regular discussions and making sure all were listened to and their perspectives and views were considered and actioned appropriately.

- Making changes to planning and organisation to promote and embrace collaboration.

- Ensuring mutual benefit to all involved as well as school development.

Participants also indicated they found, in addition to the above, the success of their inquiry community and inquiry projects was ensured by drawing upon their own personal attributes and support from inquiry advocates especially when faced with tensions and disagreements from community members.

*Impact of collaborative inquiry*

During early stages of engagement in CIP participants were asked to indicate in impact evaluations: *'What has been the impact upon your learning/teaching by being involved in the programme?'*. The predominant impact was upon delivery of teaching/classroom practice (67%). They also indicated impact upon pupils learning

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(61%). In addition when asked '*What challenges, if any, have you faced?*' they responded that finding time to conduct the inquiry (40%) and learning how to conduct collaborative inquiry (33%) was challenging.

Upon completion participants were required to indicate in their portfolio assignments the impact upon teaching and pupils' learning, their professional development, their schools' culture as an inquiry community and schools' development.

An overview of this reporting by participants suggests that they understood impact was specific to within the context of their own situation or setting. In this way they were generating *in situ* new knowledge from their collaborative inquiries about teaching and pupils' learning, their professional development, their schools' culture as an inquiry community and schools' development.

Teaching and Pupils' learning

Participants from School A based their individual inquiries upon developing a creative curriculum which engaged their pupils as active collaborative learners who were less dependent upon their teachers. The outcomes from their inquiries informed participants about their practice and it's impact upon pupils as collaborative learners. Participants learnt:

- Collaborative peer group listening and responding led to improved pupils' writing, less competition and increased confidence.

- Collaborative peer group work led to pupils supporting each other and working more effectively when completing independent tasks.

- When pupils are given dedicated time for reflection this led to pupils becoming more self-evaluative.

In School B some participants based their individual inquiries upon developing a whole school approach to AfL. They learnt pupils responded positively when their teachers placed an emphasis upon using AfL strategies in the classroom. For example:

- given the opportunity to collaboratively use success criteria to assess their science evaluations pupils were more successful in writing up their evaluations independently

- when the 'no hands up' rule was used students participation in class increased

- developing pupils' thinking skills meant pupils were given the skills to make their own decisions about identifying problems and creating solutions.

Other participants in school B conducted inquiries pertinent to their own practice. In these instances participants learnt their interventions enabled students to engage more fully in their learning experience.

These outcomes for School A and B are based upon an analysis of participants' evaluation of impact of their collaborative inquiries which were reported in their portfolio assignments submitted upon completion. Participants based these evaluations upon the evidence generated by conducting their individual collaborative inquiries within their own inquiry communities. Their primary source of evidence is from pupil questioning, pupil work, pupil photographs, group video, and lesson observations as their inquiries progressed.

In addition to evaluating impact of their collaborative inquiries upon pupil learning participants also evaluated impact upon their professional development, their school culture and development. These are assessed below and based upon participants reporting in their portfolio assignments. The primary source of evidence is from participants' reflections of discussions, lesson observations and evaluations.

Professional Development

Participants from both schools indicated they became more reflective practitioners. They also developed their roles as classroom teachers and changed pedagogy by becoming facilitators of learning. To illustrate this one classroom teacher wrote how she developed a knowledge and understanding of how children in her class learn effectively and as a result she says:

> *'this impacted upon my classroom practice as I adopted new teaching and learning strategies and through evaluating and refining them I improved my own professional practice'*

> (Participant, School A)

## School Culture

When discussing impact upon their schools' culture as an inquiry community, teachers from school A indicated they felt reassured they were conducting their inquiries within a school which supported their endeavors. One teacher reported:

> The '*school has shown it understands the value of teacher led research, as it has built enquiry and research into our performance management.*'

> (Participant, School A)

Teachers from school B, indicated their school began to value them as teacher-researchers who were generating an evidence-based practice once this began to be shared amongst the school. One teacher reported:

> *'The transfer of knowledge from within the AfL group where we worked in small curriculum groups to trial our ideas in the classroom and then shared that with the whole school, created a school culture of sharing practice, celebrating success and learning from failures'*

> (Participant, School B)

Participants from both schools indicated the importance of the schools' management expectations towards evidence-based practice and school development. This was more challenging in School B where one participant responded:

> At the start and during inquiry *'I was however aware that the culture of a school based on collaborative enquiry does not exist in the college and I questioned how effective this would be.*

> *On reflection, I had achieved success with my learning community but the efforts I applied to developing this group had to be replicated across the school for sustained implementation of AfL strategies to take place.'*

(Participant, School B)

A participant from School A shows the contrast experienced in their school:

> *'The style of management influences the culture of learning. Is it focused on performance or on learning? I feel that the school has found a happy medium. It does lay emphasis on performance but I now feel that after everyone has feedback about their enquiries it will place more focus on the learning that takes place. The management are very open to change.'*

(Participant, School A)

Furthermore, teachers from both schools indicated there was an increased dialogue and sharing of ideas, good practice and feedback between teachers, pupils and parent/carers who were involved in their inquiry communities.

School Development

Participants' inquiry projects were all targeted towards their schools' development. Participants from School A reported they felt very much part of the school's development in developing a creative curriculum. To illustrate this one teacher reported:

> *''Through ... action planning and school improvement planning we are developing a foundation (creative) curriculum where the strengths of the children and staff are utilised.*

> *The benefit of this as a whole school is that the curriculum has more depth and relevance and we work collaboratively with the children at every stage of their learning, including planning and implementing'*

> *There are many plans to involve parent/carers and wider community with what happens in school'*

(Participant, School A)

Whereas participants in School B who were raising whole school awareness of AfL, as well as the value of evidence-based practice to inform school development, led an INSET for the whole school to include AfL more explicitly in their lesson planning. The assistant principle leading this group reported:

> *'This did happen – members of the AfL group were involved in every stage of the work we undertook and in the lead up to the INSET day. This day was very important as there was the need to place AfL once again on the school improvement agenda. … The work of the AfL group led to the need to look at the college lesson observations (proforma for the whole school)'*

(Participant, School B)

Some participants in School B conducted inquiry projects which even though were based upon addressing school development priorities found by the end of their inquiries they were making recommendations for school change. One such participant reported:

> *'There is no targeted attempt to even understand the position of (marginalised) students in relation to the English curriculum.'*

(Participant, School B)

This participant goes on to make recommendations for targeting underachievement particularly marginalised learners who may need a different learning environment in order to achieve and enjoy their lessons.

Both schools learnt their school needed to address ethics and amend their school policy on parental consent. Schools recognised this as part of their schools development in relation to parent-school partnership.

> *'Throughout this module new challenges have constantly been placed upon my thinking and views of what I believe to be at the heart of teaching. These have often been shaped and further challenged by discussions held with our research community, and which ultimately impacted upon the schools' current thinking.*
>
> *For example, gaining parental informed consent was vital to allowing the projects to go ahead. We had to make this the centre of attention and thus review our current parent partner policy.'*

(Participant, School A)

Finally, from discussions with participants and senior leaders it became evident that a successful drive towards school development was ensured when evidence-base was generated *in situ* through a systematic process of collaborative inquiry which was overseen by school senior leaders and involved parents/carers.

### Collaborative Partnership

For the duration of CIP a collaborative partnership between school and provider was nurtured. Continuous dialogue between the tutor with participants and senior leaders in schools and external consultants monitored the effective delivery and engagement with CIP. Through these discussions it became apparent that a professional relationship existed between practitioners and their schools and an academic one existed between participants and tutors. This is represented in Figure 4 as a practitioner relationship scale. These discussions led to a consideration of how effective the schools' approach and tutors' approach towards supporting school-based collaborative inquiry is. These are represented in Figure 4 as the two axes.

What emerged from these discussions was that although CIP was designed to facilitate participants into becoming 'evidence-driven and informed practitioners' (Figure 4), this was dependent upon the schools involvement and support of participants. At the onset both School A and B were interested in engaging their staff who we could consider at that time to be 'uniformed practitioners', to make a contribution to school development.

However as the participants and schools engaged in CIP it emerged that participants in School A developed themselves from being 'uniformed practitioners' to first becoming 'evidence-driven uninformed practitioners' because their school and the schools' external consultant provide professional support towards changing their practice and gathering evidence of their practices. However with facilitation and academic guidance from the tutor to help them make sense of the research process and what the evidence is informing them about their practice and the school about developing the creative curriculum participants eventually become 'evidence-driven informed practitioners' capable of making decisions about changes to their practice and how this will impact upon school development.

In contract participants from School B developed themselves from being 'uniformed practitioners' to first becoming 'informed practitioners' as they were supported academically by the tutor towards considering changing their practice and gathering evidence of their practices. With continued facilitation and academic guidance from the tutor participants eventually also became 'evidence-driven informed practitioners' capable of making decisions about changes to their practice and how this will impact upon school development.
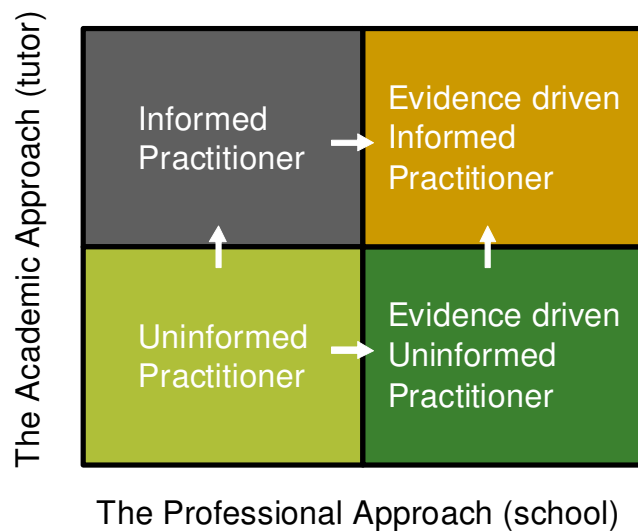


Figure 4: The practitioner relationship scale

In this way it became apparent that practitioners engaged in CIP are able to manoeuver through the quadrant towards becoming 'evidence driven informed practitioners' who confidently make recommendations for directing schools' development because they had generated and evaluated their evidence base from their research, but that the journey they take is dependent upon the level of schools' professional support. There is an indication that when schools' level of professional support is high and targeted towards school development there is an impact upon whole school development as well as teachers' professional development. But, if this is absent then the greatest impact is upon teachers' professional development.

## Summary

The understandings drawn from this case study are that embedding inquiry-based communities into schools develops staff as collaborative 'insider' leaders within their schools. This is because leading, designing, conducting and evaluating school-based 'situated' research in collaborative communities of their own making they are empowered to take a lead in directing school development informed by the *in situ* new knowledge they have generated from their research (Lave and Wenger, 1991; Wenger *et. al.,* 2002).

Furthermore, engaging school staff, pupils and parent/carers in inquiry-based communities enhances school culture and the effectiveness of school systems which leads to school development (Jackson, 2000; Bolam *et. al.,* 2005; Hopkins, 2007; Stoll and Seashore, 2007).

From this study four key aspects of establishing and engaging in school-based collaborative inquiry have emerged:

- The building and cultivation of inquiry-based communities within schools was facilitated by using a model to frame the roles and responsibilities of members of the community.

- Embedding collaborative inquiry into practice into the schools' CPD programme ensures evidence is generated and assessed to inform practitioners and to direct schools' development and support participants

- Teachers are empowered when they are provided with an opportunity to lead and practice within an inquiry-based communities and follow a systematic process of inquiry into their practice

- Successful collaboration and partnership develops within and between schools and HEI when there is shared focus on teacher development and school improvement with mutual benefit for everyone involved.


Therefore in conclusion, based upon this study it is proposed the design of CIP and it's delivery as a Master's level double module has been successful in implementing the Training and Development Agency for Schools' (TDA) partnership-driven accredited provision for UK teachers which sought to promote partnership and engage teachers in collaborative inquiry communities to improve teaching and learning. The aims and purpose of further study into the design and impact of collaborative inquiry communities of practice will be to gain further insight into the synergy between community building and systems integration in schools, *in situ* knowledge generation, professional and organizational development and collaborative partnership.

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