Practitioner Research and Enquiry in Networked Learning Communities

Colleen McLaughlin and Kristine Black Hawkins, with Andy Townsend
University of Cambridge Faculty of Education for Networked Learning Communities

October 2005

Networked Learning Communities
learning from each other | learning with each other | learning on behalf of each other

UNIVERSITY OF CAMBRIDGE

Acknowledgements

We would like to thank the members of the Network Learning Communities who cooperated us with us in the data collection and production of the case studies as well as the NLC national team, in particular Jane McGregor and Mark Hadfield. Their time and cooperation was invaluable and made the research process a fruitful and enjoyable experience. We appreciate the time and efforts they made.

Table of Contents **Page**

EXECUTIVE SUMMARY

The study was designed around three key research questions.

What is understood by research and enquiry?

What is the impact or effect of research and enquiry on a school?

What sustains the effective use of research and enquiry in schools and networks?

Case studies of 6 Networked Learning Communities were undertaken in 2004-05 and questionnaires were administered to the staff of all schools, 651 were returned.

What is understood by research and enquiry?

Enquiry was identified as a key feature of Networked Learning Communities as seen in many Networked Learning Communities' writings. One of the concepts developed to inform this work was the three fields of enquiry. Debates around the synthesis and nature of practitioner knowledge and research-based knowledge have engaged many, as has the use of knowledge to inform teaching and learning. Within these debates certain key issues emerge:

-How to bridge the gap between various constituent groups involved in this work.

-How to integrate and enhance the use of knowledge and research create din different settings

-How to define the work that practitioners engage in when enquiring and researching practice

-How to work with the multiple but overlapping purposes of professional development, reflection on practice, evidence collection and professional knowledge creation.

-How to assess the work undertaken by practitioners.

All of these proved to be live concerns in this study.

Who was engaged in research and enquiry? There was a wide range of people involved. They were across all levels of experience. 50% had worked in their current school for fewer than 5 years. 40% had not been involved in research and enquiry. The group with highest proportion of enquirers had 5-10 years of experience.

Conceptions of research and enquiry. The research and enquiry undertaken mirrored the purposes and the context of the practitioners. This could be source of tension. There was some evidence that the room for manoeuvre of certain organisations was related to the external and particular contexts of their networks. Matters of definition were a serous and ongoing concern. There was a range of emphases within the NLCs studied and

practitioners used different discourses to talk about their research and enquiry. Enquiry is especially strongly associated with reflective practice and school-based or classroom enquiry. The need to find a language and clear definition is a developmental challenge. 55% of respondents identified themselves as being involved in practitioner research. More than 50% felt that educational research should be conducted by practitioners rather than anyone else in education.

What do people choose to do as research and enquiry? **In** many networks a broad theme was pursued, the majority of which related to teaching and learning within the classroom. How binding these themes were varied. In some networks this was a loose binding and in some coordination was evident. This has implications for the creation of a body of knowledge.

What kinds of processes were used? A range of methods was used. Manageable and time-economic methods were very important to practitioners' choices of method. There were many examples of a lack of use of evidence in research and enquiry and of a lack of critical scrutiny of evidence. There were also some well-developed conceptions of research and enquiry and adult learning.

Working within the three fields of knowledge. There was considerable evidence that practitioners were working within the sphere of 'What we know'. There was very limited evidence of the use of current knowledge from theory, research and' best' practice i.e. working in the area of 'What is known'. Where good support structures were available [usually external supports] they were used to good effect to access wider knowledge bases. This suggests that knowledge creation in networks requires external support or a mediator. Those who engage in research and enquiry are more likely to use, and feel positive about using, others research and enquiry findings. The third field of knowledge 'Creating new knowledge' presented two main challenges - the issue of the validation of practitioner knowledge and its dissemination are key developmental challenges. There were some examples of constructive and innovative attempts to engage with this. How do we know this? and What is the basis for our knowledge? are two key questions for practitioner researchers and enquirers to address.

Forms of dissemination varied but in general practitioners felt under pressure to adhere to the more conventional ways of disseminating research and enquiry. In general dissemination processes took longer than people expected and were seen as difficult. This is an important area for support and development.

What is the impact or effect of research and enquiry on a school and/or networked learning community?

There is strong evidence to show that engaging in research and enquiry has a considerable impact on practitioners' professional image and motivation, their learning and their view of themselves as learners. There was evidence of different uses of research to enhance school improvement [McIntyre 2004] i.e. using academic research, making use of their data rich environments, self evaluation, corporate engagement of teachers as action researchers and involving students and others as researchers. The most common was to enhance teacher decision-making and problem solving.

There were very different views on and conceptions of how impact should be measured and a pressure to demonstrate an impact on pupil learning and 'standards 'often leading to dubious assertions. This also undervalued very powerful effects on teacher development and motivation.

Impact in the classroom. Teachers reported considerable influence on and changes in their practice. They argued that increased awareness of practice i.e. reflection on practice, combined with data collection and collaboration led to changes in classroom practice, which were deeply connected to a sense of professionalism, professional learning and professional development. The collaborative element was a very important factor and there were a range of forms of collaboration. In secondary schools groups that were formed around subjects and departments seemed to show a clearer impact trail.

Impact at the school level. The biggest impact at school level was on practitioners' professional self-image, motivation, professional learning and development. Many talked of how effective and different it was as a form of staff development. Engaging in research and enquiry strengthened schools as learning communities. Many interviewees talked of a shift in professional conversations, with a more learning centred focus, with both teachers and pupils being considered as learners. Others commented on a shift in discourse in schools the discourse from one focused on performance to a more enquiring style of debate and sharing.

Impact at Network level. Knowledge creation and knowledge transfer at this level has proved to be slower and more challenging than many anticipated. There was evidence of cultural change in organisations related to attitudes to and the use of research and enquiry. This was both enhanced by and had an impact on networks. Two key questions for developmental tasks are

- How to develop criteria for assessing the effectiveness or the impact of practitioner research and enquiry that is realistic, challenging and does not oversimplify notions of teacher development?
- How to enhance the impact in networks by developing more efficient methods of transferring knowledge created within schools or groups of enquirers?

What sustains the effective us of research and enquiry in school and networks?

There is an interaction between effective, high quality research and enquiry and impact, which has implications for sustaining research and enquiry in schools and networks. Effective and good quality research and enquiry has a larger impact on an individual, a classroom and a school and the more significant this effect, the more likely it is that the research and enquiry will become embedded within the school. This is a cycle and is central to sustaining research and enquiry.

The key factors in sustaining and developing high quality research and enquiry were external support and facilitation, alignment within the school and the network and leadership.

Leadership. The support of senior management is essential and leadership for research and enquiry had the following core elements: establishing the research intentions, securing appropriate resources, dealing with communication [size of school and unit of operation matters] and developing collaboration and teamwork.

The creation of a learning culture sustains research and enquiry and research and enquiry sustains a culture of learning. The key leadership and organisational task is to develop such a culture and the key elements in this are:

- Maintaining a clear focus on pupils' and adults' learning
- The development of confident and competent practitioners
- Collaborative practices
- Shared key values and beliefs
- Clarity of purpose: school and individuals
- A willingness to experiment
- Open and trusting communications

The current organisation of teacher and pupil time does not support these processes easily.

INTRODUCTION

The Research And The Research Questions

This research study was undertaken as part of the overall research programme of the Networked Learning Communities. It forms part of the strategy to address two key questions

- How are practitioner research and enquiry developed and sustained in networked learning communities?
- How do networked learning communities support schools to learn from research and evidence?

  and it aimed to inform the third research question
- Are there particular kinds of learning process that are more likely to occur through school-school connections*?*

In particular the study was designed around three key research questions.

1. *What is understood by research and enquiry?*
    a. By different people who engage in this activity?
    b. What do people chose to do as research and enquiry?
    c. And why do they do it?
2. *What is the impact or effect of research and enquiry on a school?*
    a. How does it benefit a school or schools?
    b. And, how is it understood by those engaging in and promoting research and enquiry?
3. *What sustains the effective use of research and enquiry in schools and networks? What are the implications for sustainability and organisational redesign at the following levels: -*
    a. The organisational level
    b. The leadership level
    c. The level of external support

The research strategy was first to undertake a review of the literature which was submitted separately to Networked Learning Communities [McLaughlin, Black Hawkins and McIntyre, 2004] and to use this to inform the research design. A representative national sample of Networked Learning Communities engaged in research and enquiry were chosen in consultation with the research team from Networked Learning Communities. We then undertook case studies of research and enquiry in 6 Networked Learning Communities. This involved collecting documentation, visiting and observing

network and group sessions, as well as conducting interviews with groups and individuals. Finally, a questionnaire was sent to every member of the staff of each school, 651 questionnaires were returned in total. For further details of the research and the instruments see appendix 1. Case study data collection was negotiated with the co-leaders of the networks and a conference was held in May 2005 at the Faculty of Education in Cambridge to feedback the preliminary findings to representatives of the case study networks and members of the Networked Learning Communities research group. The format of the report was also discussed at this meeting.

Format of the report

The report is shaped around the above research questions and is designed to be developmentally as well as summatively useful to the Networked Learning Communities and the wider educational community. For this reasons the case studies, which appear after the general discussion, are constructed as studies to be used for debate as well as illustration. They may be used individually or as a group. The main sections address the general issues emerging from the literature and the research. For the detail the case studies, which appear at the end of this section, should be examined. They exemplify and illustrate the work and are intended to inform the main sections as well as to be freestanding cases for discussion. Section 1 of the report, *What is understood by research and enquiry?*, is substantially longer than the ensuing sections as it was important to understand the conceptualisations of research and Enquiry in order to understand its impact and the concept of sustainability.

As well as identifying some emergent themes in the general section of the report, developmental challenges have been identified. These are boxed and shaded in the text and appear in sections with a summary at the end of each section and in the executive summary.

SECTION 1.

WHAT IS UNDERSTOOD BY RESEARCH AND ENQUIRY?

> *All well founded curriculum research and development, whether the work of an individual teacher, of a school, of a group.., is based on the study of classrooms. It thus rests on the work of teachers. It is not enough that teachers' work should be studied: they need to study it themselves.*
>
> (Lawrence Stenhouse, 1974)
>
> *Teaching is not, at present a research-based profession. I have not doubt that if it were, teaching would be more effective and more satisfying.*
>
> (David Hargreaves, 1996)
>
> *Enquiry is a journey, a way of working, a mode of being, a process of continuous learning.*
>
> (Jackson and Leo, 2003)

Research and enquiry as a focus within Networked Learning Communities

As the above quotations suggest the vision of teachers as researchers and enquirers is a long standing one within education and this includes the conceptualisation of a research model of teaching and curriculum development. [Stenhouse, 1975] However the last decade has seen an increased and different emphasis on this and the vision of the knowledge-creating school [Hargreaves, 1999] became a driving idea. Networked Learning Communities embraced the idea of enquiry as a core and non negotiable element of the work of knowledge creation. Enquiry was identified as a key feature of Networked Learning Communities.

> *Enquiry is a fundamental tenet of networked learning communities. When networks 'need to know', the members are prepared to routinely investigate their work. Enquiry is the process for systematically and intentionally exploring and considering information from research, from experts and from each other, in support of decision making and problems solving. Enquiry involves thinking about, reflecting on and challenging individual and collective experiences, in order to come to a deepened understanding of beliefs and practices.*
>
> (Earl and Katz, 2005)

The commitment to and hopes for enquiry are seen in many Networked Learning Communities' writings.

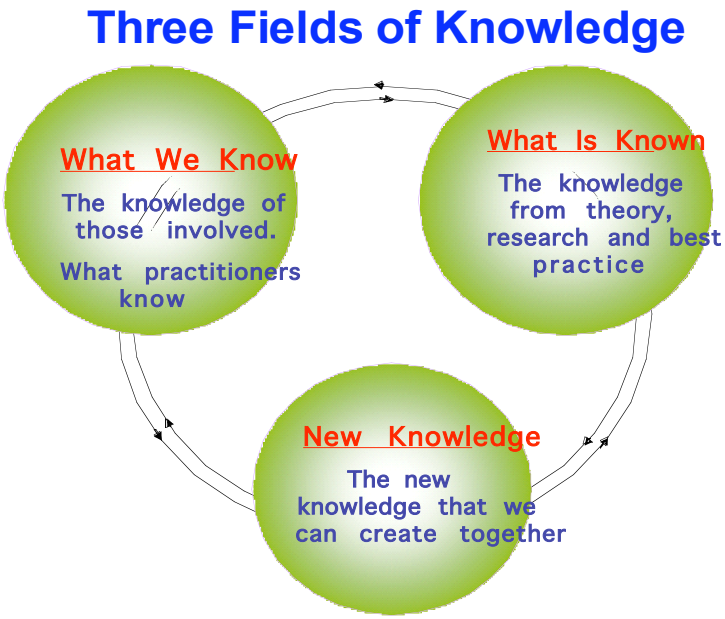
> *By supporting networks to develop enquiry-based practices as a means of generating new knowledge and theory rooted in the analysis of practice, a climate and an evidence-base for enquiry-informed professional practice and organisational development is more likely to be created.*
>
> (Jackson, 2004)

> *Collaborative enquiry as a 'way of being' in schools has the potential to transform the way practitioners think about and relate to the core business of learning and teaching, and in that sense is able to support the transformation of schools*.
>
> (Jackson and Street, 2005)

One of the concepts or analytical tools developed to inform this work was the three fields of knowledge.

> *At the heart of the networked learning models we draw upon in our work lies a recognition of the importance of the social construction of learning, the role of enquiry processes in applying learning in practice, and the need to draw equally upon three fields of knowledge. Within this model of learning, the fields of knowledge are utilised in a dynamic relationship with one another through network-based activity, application and study within classrooms.*
>
> (Networked Learning Communities, 2005)

Figure 1. Three fields of knowledge



Debates about the nature of research and enquiry

Debates around the synthesis and nature of practitioner knowledge and research-based or tacit knowledge have engaged many, as has the use of knowledge to inform teaching and learning. Hargreaves [1999] argued for the application of processes of professional knowledge creation used in industry which combine explicit knowledge and tacit knowledge 'and knowledge creation arises from the interactions between these two forms. [p.127]' Furlong and Oancea [2005] argue that 'defining applied and practice-based research with any precision is difficult because there are many competing definitions with only some areas of overlap between them.' [p7] They cite one model that is currently popular, that of Stokes' [1997] notion of Pasteur's quadrant. This model draws on the combination of 'use' with 'fundamental purpose' to marry the two purposes of knowledge creation and informing policy and practice

Figure 2. Pasteur's Quadrant

Research is inspired by		Considerations of Use? Yes / No	
Quest for Fundamental Understanding?	Yes	Pure Basic	Use- Inspired
	No		Pure Applied

Others have challenged these distinctions and in models of action research and reflective practice these distinctions are seen as over simplistic. Gibbons et al [1994] distinction between Mode 1 and Mode 2 knowledge has been drawn on by many in education [Hargreaves, 1999: McIntyre, 2005]. Jackson and Street [2005] make a further distinction between research and enquiry. 'For practitioners to be described as engaging in research themselves then a range of research protocols would need to be followed and would inform the design of the process' [p.21] They draw on Cordingley's [2003] work and argue that it needs to be informed by evidence and public knowledge, including research knowledge, but that it does not need to be made public.

Within these debates certain key issues emerge.

1. How to bridge the gap between various constituent groups engaged in the common purpose of generating knowledge about education and improving the quality of learning and teaching in schools.
2. How to integrate and enhance the use of knowledge and research created in different settings.
3. How to define the work that practitioners engage in when they are enquiring

into and creating knowledge about their practice.

4. How to work with the multiple but overlapping purposes of professional development, reflection on practice, evidence collection and professional knowledge creation.
5. How to assess the quality of the work undertaken by practitioners.

Those such as Stenhouse [1975] and other more contemporary writers [Hargreaves, 1999: Furlong, 2005] are agreed that there are some key challenges that those who wish to embark on this important task of developing practitioner research and enquiry will face. They are:

1. How to collect the evidence in a way that is economical of time and effort and fits the purposes of research and enquiry.
   First, there is the problem of objectivity. Second, there is the problem of securing data.

   (Stenhouse 1975:157)

2. How to validate the knowledge created.
   In many schools knowledge validation is in a primitive state, consisting largely of the ipsative form with elements of the social, in which teachers informally exchange experiences but with relatively little analysis or concern to identify and agree upon what might be effective practice.

   (Hargreaves, 1999:128)

3. How to disseminate the knowledge created.
   Dissemination of practice between schools is more difficult than within schools because the difference in context and situation may be substantial..

   (Hargreaves, 1999:130)

4. How to create the conditions to support these processes.
   It will require a generation of work, and if the majority of teachers – rather than only the enthusiastic few – are to possess this field of research, [then] the teacher's professional self-image and conditions of work will have to change.

   (Stenhouse, p.142)

All of these concerns and challenges proved to be 'live' ones for all those engaged in research and enquiry at various positions within Networked Learning Communities.

The Conceptions, Concerns and Challenges Faced by those Engaged in Research and Enquiry in the Networked Learning Communities

The Networked Learning Communities referred to here are the six in the sample. This will be the case throughout this report except where otherwise stated. It is important to look at appendix 1 to see return rates. The questionnaire results from Hartlepool, SUPER and Surrey Life enabled comparisons to be made. Returns from other networks were low.

Who was engaged in research and enquiry within the Networked Learning Communities?

There was a wide range of people involved - teachers in primary, special and secondary schools, classroom teachers, head teachers, heads of department, subject and phase coordinators, teaching assistants, and colleagues based in universities and Local Education Authorities. The questionnaire data helped to identify some further characteristics and give us a sense of those who identified themselves as enquirers. It is important here to remember that these were people applying labels to themselves and of course self-reporting systems have their limitations. The table below gives proportions of enquirers per network. The highest numbers of enquirers were from Hartlepool NLC and SUPER NLC. Hartlepool NLC had the highest proportion of respondents [70.3%] identifying themselves as enquirers.

Table 1. Proportion of enquirers by network.

		Active enquirer		Total
		No	Yes	
Hartlepool	Count	38	90	128
	% within network ID	29.7%	70.3%	100.0%
Blackburn	Count	16	29	45
	% within network ID	35.6%	64.4%	100.0%
S.W. London	Count	13	23	36
	% within network ID	36.1%	63.9%	100.0%
Surrey Life	Count	68	87	155
	% within network ID	43.9%	56.1%	100.0%
SUPER	Count	122	102	224
	% within network ID	54.5%	45.5%	100.0%
Bristol	Count	20	14	34
	% within network ID	58.8%	41.2%	100.0%

Total	Count	277	345	622
	% within network ID	44.5%	55.5%	100.0%

Further characteristics of enquirers

When the questionnaire data were examined the following further characteristics of respondents were identified. Tables for these data are shown in appendix 2.

- They were across all levels of experience. There was a marked drop in the responses received from the number of respondents with 11 to 15 years' experience [13.7%] and a considerable peak in response from practitioners with an excess of 16 years of experience [35%].
- 50% of respondents had been working at their school for fewer than 5 years. However, those who had been in same school for over 16 years were more involved [14.2%] than those who had been in the same school between 11-15 years [11.9%]. When later responses regarding the power and impact of undertaking research and enquiry are explored these profiles become important and interesting in terms of motivating teachers in the final stages of their careers.
- The proportions of respondents involved in enquiry are similar throughout all years of experience. For most categories of experience roughly 40% of respondents had not been involved in enquiry, the only exception being in those with less than 5 year of experience. The group with the highest proportion of enquirers had had 5-10 years of experience. The lowest proportion of enquirers were respondents with less than 5 years' experience, although this could have been affected by respondents who had joined the profession in the last 3 years and who, would therefore, have had less opportunity to become involved in enquiry.
- The diverse nature of the networks surveyed meant that respondents had contact with pupils ranging from reception to post-16. Within these groups a higher proportion of respondents working with KS1 pupils had been involved in enquiry, in comparison with any other year group. The higher frequency of responses to working with pupils from KS3-4 is likely to be related to differences in the organisation of primary and secondary schools. As teachers in secondary schools normally teach more than one age group, each respondent from secondary schools are likely to have made several responses, indicating the variety of year groups taught.
- The membership of networks also encompasses all areas of responsibility; however it is not surprising that the highest number of responses were received from class teachers [57.64%]. Questionnaires were completed by respondents

from all other responsibility categories. Within these responsibilities the highest proportion of active enquirers were head teachers, although the numbers involved were very small i.e. 15.

Table 2: Enquirers by responsibility within school.[1]

	2.1 Active enquirer last 3 years		%
	No	Yes	enquirers
Class teacher	172	234	57.64
Teaching assistant	45	33	42.31
Deputy head teacher	10	20	66.67
Head teacher	3	12	80.00
Key stage coordinator	20	35	63.64
Subject coordinator/HOD	60	120	66.67
Pastoral responsibility	39	43	52.44
Learning support teacher	7	9	56.25
Other responsibilities	30	58	65.91

Conceptions of Research and Enquiry

This section explores the influences on practitioners' conceptions of research and enquiry, as well as identifying potential tensions between different conceptions. The debates and the developmental challenges are explored and these are identified within each sub section as well as being summarised at the end.

What influenced practitioners' conceptions of research and enquiry?

The research and enquiry undertaken mirrored the purposes and the context of the practitioners. It was not surprising that the different working agendas of people at different positions within the educational sphere influenced their perceptions of and purposes for research and enquiry. For example, classroom teachers tended to emphasise engagement with pupils and learning and teaching processes; heads of department tended to emphasise the use of data to examine standards and address accountability concerns; head teachers tended to focus on measurable outcomes and showed concern about accountability to external bodies, although this was not a rule. Those working in Educational Action Zones or challenging circumstances were clearly influenced by the aims of their work in these contexts and the pressures upon them. This could be a potential source of tension in some networks if this was not explicit in the negotiated purposes for the research and enquiry.

There was also some evidence in the interviews that the room for manoeuvre of certain organisations was related to the external and particular contexts of networks. Where a

[1] Table numbers in the main document are different to table numbers in appendix 2

network was encouraging the necessary experimentation and risk taking that enquiry involved and they encountered pressures related to standards or accountability, there was a tendency to play it safe and to pull back from the risk taking. This tension between the different agendas of different arms of the educational service is one that needs to be managed and practitioners at all levels will require support to manage this.

Debates around the conceptions

In the earlier section debates about the nature of practitioner research and enquiry were highlighted. These debates were also present in the data. Matters of definition are a serious and ongoing concern since the way that research and enquiry are conceived affects both the processes that practitioners undertake and the use of the enquiry. There was a range of emphases within the Networked Learning Communities studied. These included the following and in many cases were overlapping.

- Professional learning and/or professional knowledge sharing, including joint problem solving
- Reflection on practice and the sharing of that reflection
- To improve through sharing 'best practice'
- A process of improvement focused on teaching and learning
- A process of refining, developing and changing practice
- A process of school, departmental and/or theme focused improvement
- A process of professional development and refreshment
- A collaborative reflection on practice
- A process of enquiry that relies on the use and collection of evidence in a systematic way

The practitioners used different discourses to talk about their research and enquiry. There was evidence that these discourses drove the processes used to undertake the research and the ways in which the research and enquiry was validated. The different discourses used were:

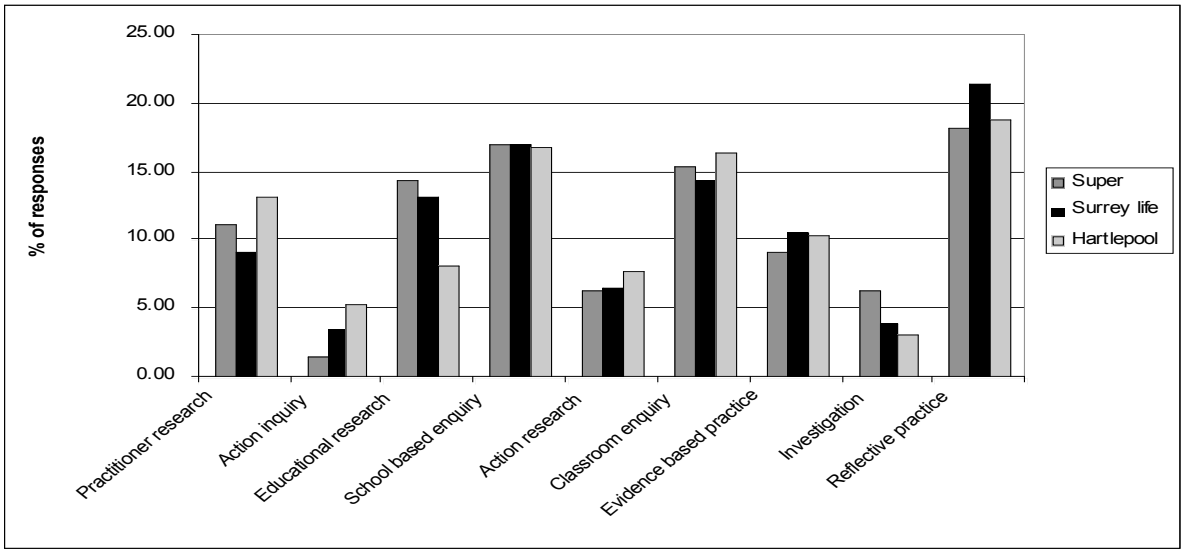
- A standards' discourse which emphasised pupil outcomes
- A discourse of professional development which emphasised collegiality and collaboration
- A discourse of professional learning about classroom and school practice
- A best-practice discourse
- A discourse of knowledge creation, evidence collection and research
- A discourse of social justice and democracy

Some definitions

> *I think I'd look at it in that action research way of meeting with other people and getting their critical feedback and I think that critical feedback is key.*
>
> Teacher
>
> *Rather than just working together on a project and doing it, to actually rigorously looking at what you're doing and be open to a critical friend even if it's just one person, to help you think out of the box and look at yourself. I think to stay open minded.*
>
> Teacher
>
> *Enquiry is … Looking at something in more detail than I would normally have done in my normal day-to-day routine. Being given time out to go and do that and actually try out things in my lesson.*
>
> Teacher
>
> *The goal is not to become teacher researchers but to keep asking questions about practice.*
>
> Co-leader quoting Michael Fullan
>
> *I wanted to find the answer to something. I wanted to find an answer to something that would have solved the problem I had with the class at that time.*
>
> Teacher
> *Enquiry is based upon the exploration of three fields of knowledge and the interaction between them.*
> *1. Focused on professional activity usually in the workplace itself*
> *2. Its purpose is to clarify aspects of that activity with a view to bringing about beneficial change and ultimately to improve student progress, achievement and development*
> *3. It may focus on both teaching and learning at the classroom level and supporting organisational conditions and change management capacity'*
>
> Network Co-leader quoting from NLC conference

The sample size of three of the six networks limited the extent to which comparisons can be made. However, the numbers of respondents from Super, Surrey Life and Hartlepool do offer some form of comparison, as shown in figure 3 and here there are some differences in the perceptions of research and enquiry.

Figure 3. How enquirers in different network view their enquiry.



This question asked respondents to relate their enquiry work to other associated terms. Responses from these networks show similar patterns of association. Enquiry is especially strongly related to reflective practice and to school based, or classroom enquiry, whilst it is generally unrelated to action inquiry, action research or investigations. Whilst responses from these three networks are very similar, there are notable differences in responses relating to educational research, a term which is much more frequently associated with enquiry in Surrey Life and SUPER, but much less so in Hartlepool.

Developmental Challenges and Debates

- **Boundaries and definitions - Finding a language for the work**

Many practitioners interviewed were very unsure how to describe their work and were hesitant to make any claims for it. Many showed a lack of confidence about the status of their work. This is a challenge for those working with practitioner research and enquiry. The issue of how to define what people are doing is relevant. If practitioners are clear about the purpose and definition, they may well feel more confident in undertaking research and enquiry and in applying varied but appropriate criteria for validation.

There was evidence that boundaries and definitions were often deliberately blurred. This had the effect of encouraging experimentation and involvement but it also led to lack of clarity about the outcomes or the basis for the judging the claims made. There is a need to refine, develop and articulate the distinctions between these different processes and

the implications of the differences. There is also a need to get clearer about the nature of the claims made for work beyond the classroom or the school of the practitioner in question.

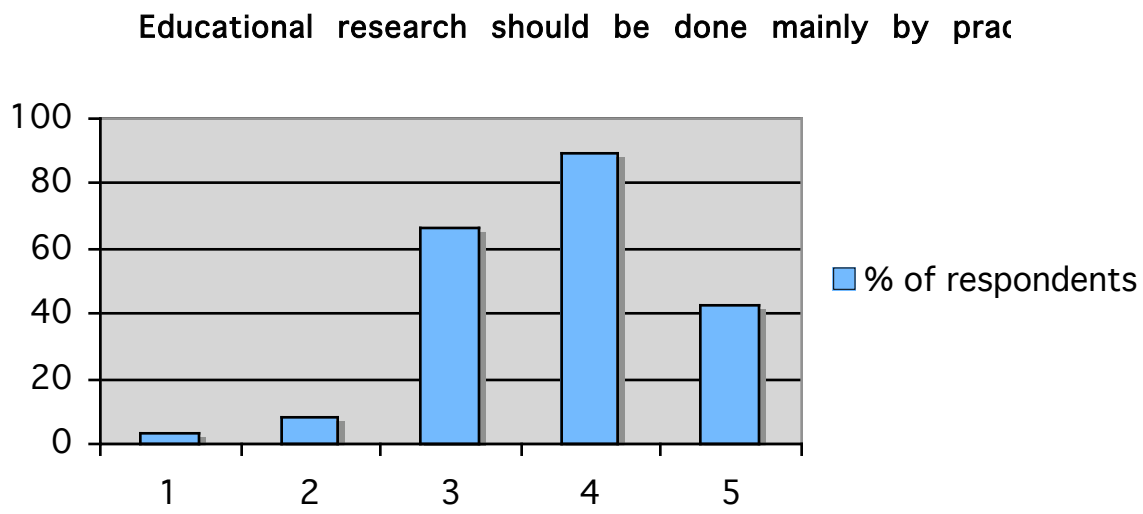
- **Purposes and competing agendas**

There was evidence of a rich set of purposes and emphases in practitioner research and enquiry. This is appropriate and useful, however, there was also evidence of a clash of agendas and some tensions. The multiplicity of purposes needs to be acknowledged, as does the capacity for tension to be generated between these different purposes. The tensions need managing and acknowledging in order for research and enquiry to continue to have a role in going against the grain and in critiquing policy and practice. These different purposes are not necessarily exclusive.

Who should undertake educational research?

55% of respondents identified themselves as being involved in educational or practitioner research as is shown in Table 1. Respondents were also asked whether they thought educational research should be conducted by academics [a response of 1] or by practitioners [a response of 2]. Most respondents believed that educational research should be predominantly conducted by practitioners.

Figure 4: Views on who should undertake educational research – academics or practitioners



This distribution of responses is true for both enquirers and non-enquirers. In both cases

in excess of 50% of respondents indicated that educational research should be conducted more by practitioners, whilst a comparable 6.7% of all respondents felt that research should be conducted by academics. Issues of dissemination and validity become very important if this is the case. The process of how practitioners create knowledge needs to be taken very seriously.

What do people choose to do as Research and Enquiry?

Within Networks

There were many networks where a broad theme was pursued by the schools in the network. The majority of these themes were related to learning and teaching within the classroom.

Table 3. Network based themes

• Building learning power through collaborative learning
• Science and maths based work – the engagement of students in Maths and Science and the use of ICT in these subject areas
• A focus on teaching and learning for students with special educational needs
• The development of independence in teaching and learning
• The development of students' voice in teaching and learning.
• Process based networks that focused on research and enquiry as a/the major theme of the network

How binding these themes were for schools and teachers varied. In some networks the focus was precise and coordinated, in others it was looser. In some networks this independence of focus was very important and in others the coordination of effort was important. This has implications for the creation of a body of knowledge. Some schools contained and planned the research over a long period and this enabled them to build on research and enquiry undertaken.

These themes resulted in classroom-based research and enquiry that was focused on two main areas: improving teaching and learning and identifying a need or a problem on which to reflect or to enquire into. However, it is important to note that the nature of the work undertaken under the heading of research and enquiry varied considerably and many teachers did not engage in systematic collection of evidence or in the collection of evidence of any kind, although most did. It also related to the stage of development of

the network and the schools within the network. As practitioners gained experience of research and enquiry they often engaged in more systematic collection of evidence. If teaching and learning are to be focused on and improved through engagement in research and enquiry then there is a need to engage also with related issues of the basis for the claims i.e. the validity of the processes, and dissemination of the work.

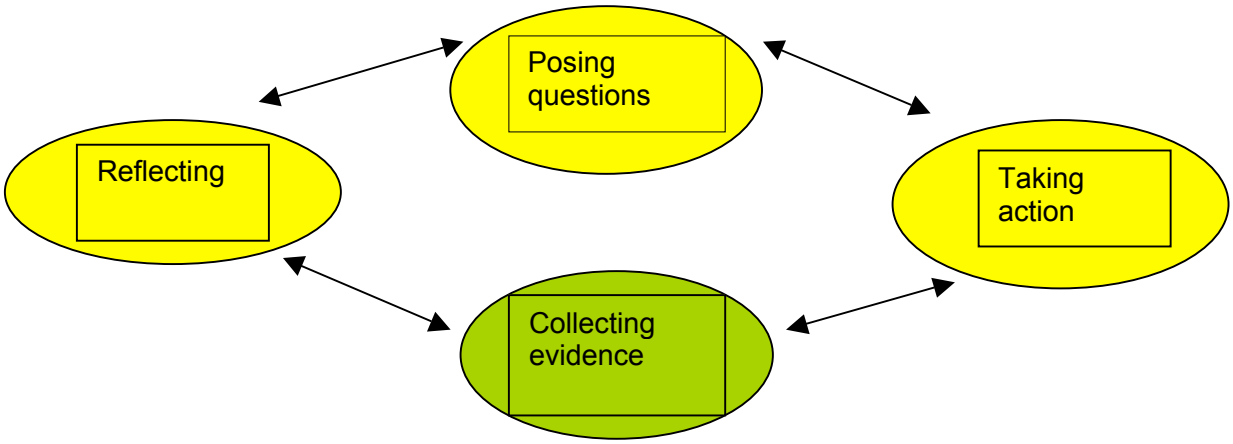
How? Kinds of processes

A range of methods were used in the research and enquiry which included methods of data collection such as observation, using questionnaires and interviews to more practice-based approaches such as the 'research lessons' developed by NLC. It was important that methods were not time consuming and were manageable – a concept used a great deal by practitioners. Other processes used were focused on sharing information in small groups. Methods used included the following:

- Action research model of identifying a problem and then investigating it through evidence collection
- Reflective processes e.g. journals
- Research lessons and subject knowledge sheets
- Working in small groups within and across schools to solve problems or share evidence
- Consulting pupils
- Trawling for resources on the internet and through subject or other professional associations
- Identifying existing research and using it to inform discussions or problem solving
- Sustained group enquiry
- Using research methods such as observation, questionnaires, case studies
- Learning walks
- Discussion in which experiences were shared

There were many examples of the lack of use of evidence in research and enquiry and of a lack of critical scrutiny of evidence. This is often related to the stage of development of research and enquiry within a school or network and there were very different levels of experience. It was also related to the support available and the way in which enquiry was conceived. There were also some interesting examples of where colleagues had developed useful conceptions. One example is that evolved by John Westwell of Blackburn and Darwen.

Figure 5. A model of professional learning



In this model the three elements of posing questions, taking action and reflecting are seen as the elements that constitute reflective practice. Most teachers are seen as doing this. The inclusion of evidence collection is seen as the element that makes this action research or practitioner research. In the Blackburn with Darwen NLC the inclusion of evidence collection was seen as having changed significantly how the practitioners viewed the classroom and teaching.

Working Within The Three Fields Of Knowledge.

The framework of the three fields of knowledge [Figure 1 on page 6] was one that was widely used in the NLCs and was found to be very useful. If we use this as a benchmark to explore the work in the NLCs then certain key issues emerge.

Working within the area of 'What we know'.

There was considerable evidence that practitioners were working within the sphere of 'what we know' i.e. practitioner knowledge. Practitioners drew on their own and colleagues knowledge and stated that they learned a great deal from colleagues and their research and enquiry studies.

Working within the area of 'What is known'.

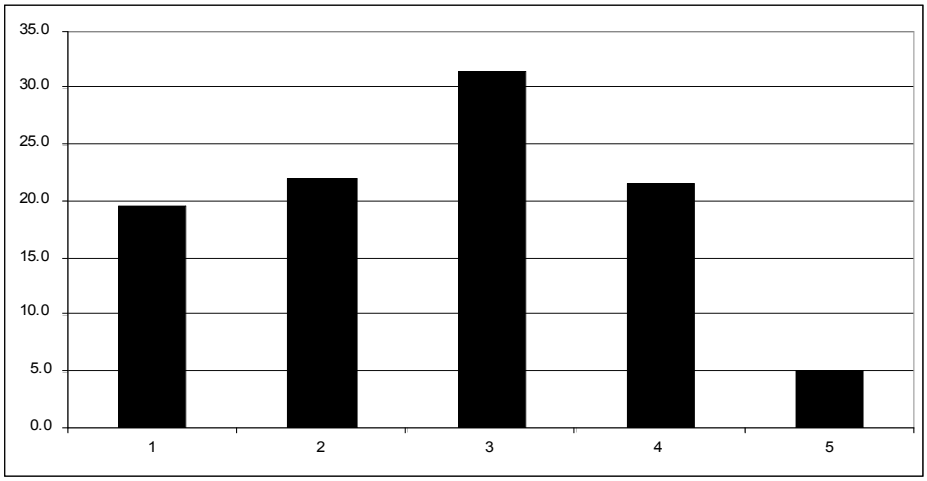
However there was very limited evidence of the use of current knowledge from theory, research and best practice. This was not because they were uninterested but because they had serious problems accessing and using wider forms of educational research or knowledge. The most frequent strategies used to access research were to trawl the internet or to use the resources of subject associations. Where good support structures were available i.e. the NLC facilitators, LEA colleagues or university based colleagues they were used to good effect to access wider knowledge bases. It was important to the

enquirers that the research was presented succinctly and was accessible in terms of style of writing. This suggests that networks engaged in knowledge creation do require support or a mediator [McIntyre 2004 in McLaughlin et al, 2004].

- *Use of published research*

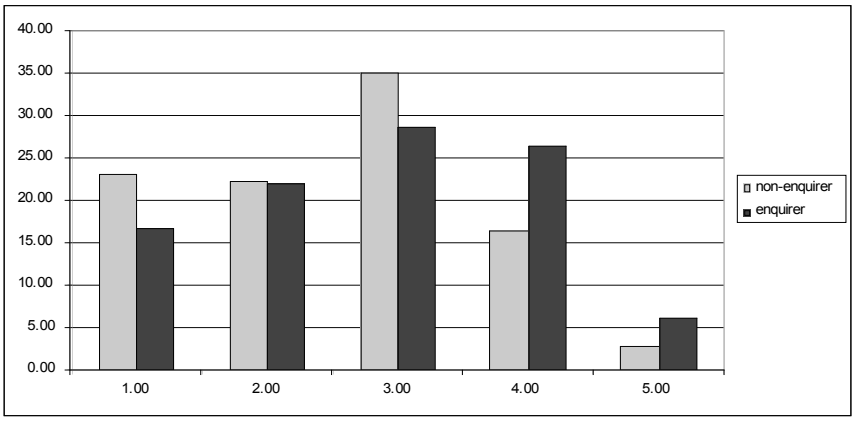
  An area researched was the degree to which enquirers used published research and knowledge i.e. made use of what is already known. Respondents were asked in the questionnaire to comment upon the degree to which they used published research. A response of 5 indicated that that they frequently used published research. The percentage response rates showed a peak in responses at the intermediate position of 3, with a slightly skewed distribution to the left. This suggests that relatively few respondents thought that used published research frequently (5.1%), but that the majority felt that they made some use of published research (80.3%).

  Figure 6: The use of published research. [Percentage response to question 3.2]



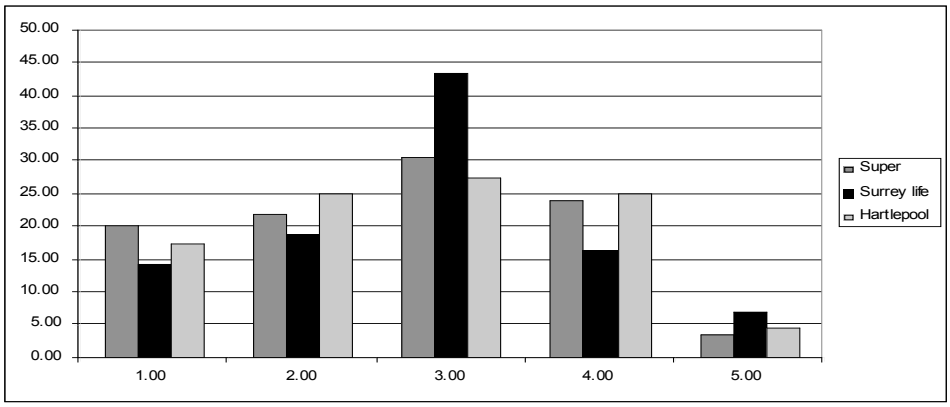
The skewed responses to the left of the entire population are even more marked in the responses of non-enquirers, as is shown in figure 7. In this case the most frequent response (35.07) was in the middle category 3, whilst the second most frequent response was in category 1, 23.13%. This figure is considerably higher than for enquirers. Whilst the intermediate response is still the most frequent, the overall distribution shows a more positive perception of the use of published research amongst enquirers.

Figure 7: A comparison of the % response to question 3.2 by enquirers and non-enquirers.



Although these responses suggests that the enquirers are more likely to indicate that they use published research, the distribution of responses is still slightly skewed to the left, and there are still 16.67% of respondents who indicate that they do not use published research. The responses from the three networks that have sufficiently sizeable samples show a similarly skewed distribution. The responses from SUPER and Hartlepool Networks are very similar, responses at levels 1 and 2 (summed) at 41.9% and 42.7% respectively and at levels 4 and 5 (summed) at 27.5% and 29.7% respectively. The exception is Surrey Life NLC in which there is a much more noticeable peak at the intermediate response of 3 and correspondingly fewer responses at either extreme. Once again, this suggests that most respondents believe that at least some use is made of published research, although there is less variation in respondent perceptions of the extent to which research is use in Surrey than in Super or Hartlepool networks.

Figure 8: A comparison of the % response to question 3.2 by network**.**



Ted Wragg reminds us that this is not a new problem.

> *The best of educational research is well conducted and of central concern to educators, yet a survey by the National Foundation for Education Research in 1970 found that few teachers read research journals or reports, and that those who did were usually not impressed. It is not surprising that some of the most highly regarded researchers were totally unknown to a vast proportion of teachers because teaching is a busy job leaving less time for reading and reflection that many teachers would like. It seemed depressing, however, to find that after all their efforts Piaget, Wiseman and Bernstein were perhaps thought to be a firm of solicitors or the midfield trio of Borussia Moenchengladbach.*
>
> (Quoted in The Guardian November 15, 2005)

> *Engaging in research and enquiry enhances the use of others research and enquiry knowledge.*

The responses of enquirers to the questionnaire showed that those who engaged in enquiry were more positive about using others knowledge both practitioners and others than non-enquirers. The finding that those who engage in research are more likely to use others research supports Stenhouse's thinking. He argued that there could not be any significant improvement in education without the creation of ‘a research tradition which is accessible to teachers and which feeds teaching.’ [1975:165] Teachers needed to adopt a research stance to their teaching and this involved examining ‘One’s own practice critically and systematically.’ [p.156] He argued that teachers would engage with research by conducting research. Baumfield

and McGrane (2000) conclude that 'It does seem to be the case that the catalyst for productive engagement with research is engagement in research.' Recent work on the Teaching and Learning Research Project has also found this. Ratcliffe et al [2005] found that first-hand experience of a research culture enables teachers 'to view practice through an evidence-informed lens, bringing their understanding to bear if their professional context allows'.

Some Networks had found effective means of introducing the knowledge from research theory or best practice. See the Blackburn and Darwen Network as an example of this. All these examples included external support to the Network i.e. there was someone to process and search for relevant literature to support the practitioners' work.

- *Polarities.* There were some examples of the polarising of types of knowledge created by different groups in the educational sector e.g. seeing the work of university researchers as irrelevant to practitioners. Such stereotypes are unhelpful to collaboration and need to be addressed.

Working within the area of 'New Knowledge'.

Validation

The issue of the validation of practitioner knowledge has already been raised as a key developmental challenge. However there were some examples of constructive and innovative attempts to engage with this e.g. in Soham Village College [SUPER network] they used a triangulation of sources for their knowledge creation: Teacher experience and reflection; evidence on pupil outcomes; and evidence on pupils' experience and attitudes. The recent study of Fielding et al [2005] is helpful here in further delineating some of the issues related to the transfer of practice or as they prefer to call it 'joint practice development'. They highlight the lack of evaluation of practices being transferred, the reasons for this and thereby identify the role that enquiry and evidence can play.

Dissemination or knowledge exchange

The other key challenge for networks was in disseminating the knowledge or outcomes of research and enquiry. There was a desire to disseminate to others in the enquiry group, [if this was pertinent], the school staff, others in the network and finally to the wider educational community. However in reality, not many school-based practitioners

felt the imperative to share beyond the school or the network. The audience was felt to be primarily the immediate group of enquirers or those in the school or network. Most enquirers did not feel their work merited a wider audience. They found it hard to perceive themselves as contributing to a wider knowledge base about practice. The easiest form of dissemination was to others in the enquiry group and these verbal methods were preferred. Responses to the question, 'My colleagues usually share findings with me' was positive amongst enquirers [3.2], less so amongst non enquirers [2.95].

The forms of dissemination varied but in general practitioners felt under some pressure to adhere to the more conventional ways of disseminating research i.e. the written report. This was often seen as time consuming to produce and there was anxiety about writing in a form with which many practitioners were not familiar. However there were also examples of practitioners who were comfortable and enthusiastic about writing up their research and enquiry. Many networks had experimented with the use of information technology to report their research e.g. videos and CDs, websites and electronic reports. Many of these methods required considerable technical expertise and technology; this had resulted in efforts often being abandoned. Some useful examples of where the dissemination processes had continued are the posting of reports on websites or other methods that were manageable and not high demand. In general the process of dissemination for outcomes of research and enquiry took longer than people expected and was seen as difficult. This is another area where development and support is necessary and would be welcomed by practitioners.

Developmental Challenges and Debates

- **The three fields of knowledge framework** was found to be useful to many engaged in research and enquiry.
- **Validation**

  If practitioner research and enquiry is to fulfil the hopes of those who work with practitioners and of practitioner themselves i.e. that it can make a contribution to the field of educational knowledge then the issues around the validation of the knowledge will need to be addressed. This relates to issues of definition too. If everything related to professional learning is research and enquiry then the nature of how the knowledge was produced and the validity of the claims made for it become obscured. Hargreaves [1999] warned that self-validation was insufficient.

'It works for me' may be a legitimate claim but personal experiential knowledge requires stronger validation it is to be become generalised professional knowledge.'[p.128]

and

The knowledge-creating school will apply demanding forms of knowledge validation to supply evidence for the effectiveness of its new practices. [p.129]

The questions 'How do we know this?' and 'What is the basis for our knowledge?' are two key questions for those engaging in enquiry and research to address.

- **Working within the area of 'What is already known'**

  The need to support and develop practitioners' access to knowledge from theory, research and good practice is a priority. It is particularly important if practitioners are to make contributions to public knowledge or to policy within schools and networks. There is also work to be done in terms of attitudes to this in some networks. There is evidence that practitioners need a mediator or broker here and Section 3 addresses this in some detail. Our research suggests that this is a capacity issue. The finding that engaging in research and enquiry enhances the use of others' research and knowledge is an important one for development in this area.

  Our review of the literature for Networked Learning Communities [McLaughlin et al, 2004] found that current research showed that, 'The methodology used by practitioners needs to be acknowledged by those who have expectations of this mode of knowledge generation, and the issue of the warrants for this work needs to be further researched and developed. This relates to the role of those in higher education who have been criticised for not developing research that is useful, easy to access and assists those in the classroom. The collaboration of those in higher education and practitioner researchers is one that continues to need development.

  Partnerships between these arms of educational research have been seen to be powerful when well-focused, whilst polarisation of the two is unhelpful.' [p. 20]

- **Creating New Knowledge**

  Practitioners also require support in disseminating their work as this is found to be particularly challenging. Verbal methods are preferred but manageable and appropriate forms for reporting research and enquiry need to be developed further.

- **Supporting the developmental process of practitioner research and enquiry**
  The evidence in our enquiry suggests, not surprisingly, that engaging in practitioner research and enquiry is a developmental process. Those who are engaging in research and enquiry for the first time are often naïve about the claims they can make and with time. This changes as the complexities and ambiguities are accepted and engaged with. The challenge is to continue to work and support practitioners through this process. This includes allowing time for this process to occur.

SECTION 2.
WHAT IS THE IMPACT OR EFFECT OF RESEARCH AND ENQUIRY ON A SCHOOL AND/OR NETWORKED LEARNING COMMUNITY?

In this section the question of how practitioner research and enquiry benefits a school and network according to those engaging in and promoting it are explored**.** There is strong evidence to show that engaging in research and enquiry has a considerable impact on practitioners' professional image and motivation, their learning and their view of themselves as learners, on their collaboration with colleagues, and on their practice. However, before examining this data there is the question of how we measure impact.

Some qualifying remarks

Clearly how impact is assessed is linked to perceived purposes. Different models and aims bring with them perceived benefits e.g. the rationalist improvement model will be measured by pupil impact or measures such as improvement in KS2 results. Research and enquiry also takes time and the extent to which these effects can be more than reported possibilities is something to be considered

> *Hope for impact on teaching and learning but a bit early to say at school level.*
>
> (Head Teacher)

> It also depends where you look and whom you ask. Different products and outcomes are presented in different ways for different persons within the school who have different agendas

I can certainly say that within this school if you questioned certain staff they wouldn't have a clue that a member of staff had taken part.

(Head Teacher)

I want to see a measurable outcome whether it be on practices used with the maths department or across the school. Ideally across the school.

(Head Teacher)

What impact should we be looking for?

'Enquiry for school improvement involves purposeful, focused and informed engagement with the context of the school as a means of learning about our practice and with a view to designing informed improvement interventions. It does not matter whether we start by finding out, or we start by deciding to act in a new or different way and then to study that action. The point is the purposeful engagement with the world of the school in a systematic, planned and collaborative way and to plan informed actions designed to improve practice, based upon what we are confident that we know' (Jackson, 2002)

Enquiry is a fundamental tenet of networked learning communities. When networks 'need to know', the members are prepared to routinely investigate their work. Enquiry is the process for systematically and intentionally exploring and considering information from research, from experts and from each other, in support of decision making and problems solving. Enquiry involves thinking about, reflecting on and challenging individual and collective experiences, in order to come to a deepened understanding of beliefs and practices.

(Earl and Katz, 2005)

Much of the current writing and research on enquiry suggests that it can play a very important part in school improvement. [See McLaughlin et al, 2004]. It is seen as a process that can support learning about practice and can inform teacher and school decision making or problem solving. Baumfield and McGrane [2000] show that expectations are often high i.e. that it can solve problems but through engaging in

research teachers move from rather crude expectations that research should reveal 'what works' to necessary but more subtle concerns with 'why' and 'how' questions. The general suggestion is that research and enquiry facilitate school improvement through improving teacher and school decision making and problem solving. McIntyre in [McLaughlin et al 2004] suggests that at least five different and not closely related strands may be distinguished in the thinking on the relationship between research, enquiry and school improvement, and although it is the fourth of these which is most central and which will merit most attention, all five are potentially significant facets of such schools:

- schools using academic research
- schools making use of their 'data-rich environments'
- school self-evaluation
- corporate engagement of teachers as action researchers
- involving students and other members of schools as researchers

We found evidence of all of these five strands within the case study networks and the fourth was the most central. Involving students as researchers was less evident but where it was used it was seen as a very powerful means of engaging in school improvement.

Research on the effects of practitioners engaging in research and enquiry

In our review of the literature for NLC we stated, 'There is a growing body of evidence about the effects of practitioners engaging in research and enquiry. First, we see that through engaging in research teachers gain a better understanding of their practice and ways to improve it. This often involves close studies of children's learning or curriculum innovations (Elliott & Adelman, 1973; Dadds, 1995; Posch, 1993), as well as examining theories that are part of educational practice. There is still an ongoing debate about whether practitioner research has contributed significantly to public knowledge, but there are some significant and promising examples of this e.g. Hart et al., 2004. There is some evidence that engaging in this type of research and enquiry gives teachers an enhanced sense of the student's perspective in the classroom (McLaughlin & Black Hawkins, 2004).

Richert's (1996) study of the effects on teachers of engaging in research and enquiry in the Bay Region IV Professional Development Consortium mirrors the findings of many

others (Elliott, 1991; Dadds, 1995; Zeichner, 1999; TTA 2000; McLaughlin & Black Hawkins, 2004). The effects were:

- It resulted in a renewed feeling of pride and excitement about teaching and in a revitalised sense of oneself as a teacher.
- The research experience reminded teachers of their intellectual capability and the importance of that capability to their professional lives.
- The research experience allowed teachers to see that the work that they do in school matters.
- The research experience reconnected many of the teachers to their colleagues and to their initial commitments to teach.
- The research experience encouraged teacher to develop an expanded sense of what teachers can and ought to do.
- The research experience restored in teachers a sense of professionalism and power in the sense of having a voice.'

(McLaughlin et al, 2004)

The case studies and questionnaires confirmed these findings and also showed that there were different conceptions of how the impact of practitioner research and enquiry should be measured. There was a felt pressure to show impact on pupil learning and to demonstrate the outcomes in these terms, although the ways in which that impact could be demonstrated were very wide ranging and open. For many networks they felt the need to demonstrate the impact in terms of the standards' agenda and although these correlations at times appeared dubious, the desire to do so was very understandable. The time scales of research and enquiry and the complex relationship between research and practice were often underplayed or could set up tensions with the need to demonstrate quick impact.

Impact at Classroom Level

Teachers reported considerable influence on their practice. They argued that increased awareness of practice i.e. reflection on practice, combined with data collection and collaboration led to changes in classroom practice, which were deeply connected to a sense of professionalism, professional learning and professional development. There was evidence also of changes in classroom practice e.g. changes in teaching and learning methods in the Bath and Bristol NLC and SUPER NLC, considerable changes in the use of ICT in the Blackburn with Darwen NLC: changes in the practice of nursery practitioners in Hartlepool NLC.

'Yes, definitely [it does make a difference in the classroom]. *I think that I am a much, much better literacy teacher for doing it and it gave me a long period of time to set in my mind lots of other issues. I discussed so many different issues that have been - in the last ten years that I've been teaching - things that I've thought about, and it gave me the chance to reflect and write them down and get it all clear in my mind.'*

(Teacher)

'It's making me aware of my own teaching for a start. You can always criticise what you're doing and look for ways to improve, otherwise you just repeat old practice…'

(Teacher)

In the questionnaire the majority of respondents identified at least some changes to practice from enquiry. Only 8.2% of the entire sample [including non-enquirers] perceived no change. There was also a noticeable skew of responses towards positive responses, with 52.4% of responses having a value greater than 3, reflecting a firm view that there had been significant changes to practices from enquiry, in comparison with 17.2% being less than 3.

Collaboration and Dialogue

The collaborative element was a very important factor to the practitioners. Collaborative enquiry was seen as a benefit to the vast majority of respondents. Only 1.9% of the sample gave an answer of 1, indicating no benefit to collaborative enquiry and 8% a response of either 1 (no benefit) or 1 (little benefit). This compares with 64.5% of the sample who gave a response of either 4 or 5, indicating a strong belief that collaborative enquiry was highly beneficial. These findings mirror those of the MORI Research [2004]. This study found that teachers in primary and secondary schools felt that collaboration provided them with greater access to new ideas, improved their motivation and led to improvements in their own teaching practice and thus improved children's' learning.

'It's good because you put your work out, what you're doing '…

(Teacher)

'It points you to things that you haven't actually thought of yourself..

(Teacher)

'This gives us a chance to actually talk about education issues whereas I would say, being honest, that in your teaching training you don't really do that much of. You were given the right ideas on how to teach things but you didn't really discuss them.'

(Teacher)

There was a range of forms of collaboration

- In-school groups who shared a department, phase or area of responsibility.
- Across school groups focused on similar areas
- Network groups or specialist groups within the network

In secondary schools groups that were formed around subjects and departments seemed to be able to show a clearer impact trail. In primary schools across school groups placed heavy demands on schools but many benefited greatly from a wider perspective. Collaboration within a locality was greatly valued since it was felt that there were shared understandings of the problems and contextual factors.

It was not necessarily the case that collaboration led to a critical or reflective dialogue. There was, as Little [1982] has shown, the danger of the reinforcement of unquestioning development or lack of reflection on current practice, but it was not the norm.

The teachers interviewed were largely very positive about the impact on them and of the benefits of collaboration. There was also awareness that not everyone in the schools felt similarly about collaborating in this way. This illustrates the need for the work to be constantly protected and developed. One teacher had this to say about the attitudes of others in the school.

'It's pretty mixed if I'm being honest I would say some people would say 'too time consuming, cant be bothered, don't want to know' … but again you've got a lot of open-minded people who are willing to give things a go.'

Our evidence suggested that engaging in research and enquiry led individual researchers to see themselves as learners and that this in turn influenced the development of schools as researching and learning communities. It also provided pupils with learning models and practitioners reported it as offering excellent and for many 'the best' professional development.

Impact at School Level

The biggest impact at school level was on practitioners' professional self-image, motivation, professional learning and development. Many talked of how effective and different it was as a form of staff development.

On a renewed sense of professionalism and rejuvenated motivation

> *'CPD is OK because you pick yourself, have some sort of choice but this is me starting with a question rather than being given a directive.'*
>
> (Teacher)

> '*Puts the focus back on learning which you tend to forget when get in the office and the day to day job.'*
>
> (Head teacher)

> '*The best professional development I have had.'*
>
> (Head teacher)

For the enquirers engaging in research and enquiry was highly motivating. They talked of how it took them back to primary motivations for teaching.

> *'It's like the inspiration. You have the ideas and you know you want to do it but you get caught up in the everyday job and the children. And it removes you, it doesn't remove you from the children, but it lets you see the children and see what you are supposed to be doing.'*
>
> (Teacher)

> *"This research has enabled me ..... to come out of the box* [classroom] *we all live in. I could seek, see and reach out for new horizons. You're never too old. After thirty-six years in the classroom, did I know it all? Research made me sit up and re-evaluate my ideas and take on new challenges."* (Teacher)

So engaging in research and enquiry has the following impact on schools

- It values and develops staff's existing knowledge, skills and expertise
- It reinvigorates staff which leads to increased motivation, confidence, interest,

sense of worth in the school
- It reduces the isolation of individuals within their own classroom and school
- It enhances staff relationships
- It validates current practices
- It allows sharing of good practices and common concerns and problems
- It promotes 'thinking outside the box'

Research strengthens schools as learning communities

Many of those interviewed talked of a shift in professional conversations, with a more learning centred focus, with both teachers and pupils being considered as learners. Others also commented on how in some schools the discourse had shifted from one focused on performance to a more enquiring style of debate and sharing.

"Because I feel we are a learning school ... that adults are learners as well as children and ... the very best place to learn is actually in the classroom ... where you need to learn and improve on practice. It's all to do with self-analysis, self-evaluation, being able to evaluate yourself. And other colleagues to help evaluate for you as well." [Teacher]

So we see a pathway from individual practitioners adopting a focus on learning, through their engagement in research and enquiry, to a shift in climate at school level i.e. contributing to the development of school as learning communities.

Engaging in research and enquiry can be a successful means to a most important end. Our study suggests that it contributes in the following ways:

- Improving teachers' classroom practices
- Improving pupils' learning
- Contributing to a dialogue about learning and achievement
- Focusing on the real concerns and interests of teachers
- Allowing new policies and practices to be tried out, thus supporting school development planning
- Research activities generate a shared language and a common purpose amongst staff

Impact At Network Level

Knowledge creation and knowledge transfer

One of the hopes of practitioners and co leaders, as well as thinkers and writers in this

field, is that the knowledge generated from individuals engaged in research and enquiry would be transferred from schools to networks of schools. This has proved to be difficult and slower than originally anticipated by co leaders. It has successfully occurred within enquiry groups and through network conferences that have been held but the use of written and other forms e.g. CDs has taken much more time, effort and resources than were originally envisaged and so they have been somewhat slow as a method of transfer. Some schools have been successful e.g. Soham Village College, in using websites to publish the results of their research and enquiry

Network groups

Groups of enquirers that were constituted as across-school groups were the groups that were able to demonstrate an impact at network level. Clearly they had the capacity and the structures within which to have an impact. This links to the concept of alignment, which is discussed in the next section on sustainability.

Cultural change in organisations

There was evidence of cultural change in organisations related to attitudes to and the use of research and enquiry. This was both enhanced by and had an impact on networks. This has been discussed in section 1 but the ability to share professional dilemmas within a context of similar problems and understandings enhanced the impact at network level.

> *Primary school teachers don't necessarily have the time to go out and visit other places but this school was a failing school 9 years ago. We've had to look outside the box and my staff now go into others school as well and support them so there's a lot* [of school to school learning] *so the culture that we've now got has changed.*
>
> [Head teacher and co-leader]

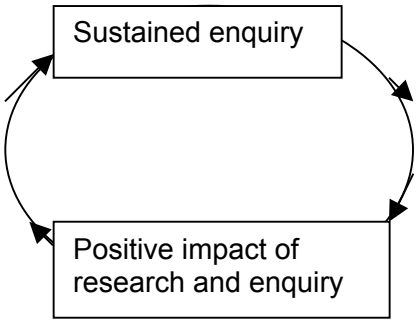
Developmental Challenges and Debates

- How to develop criteria for assessing the effectiveness or the impact of practitioner research and enquiry that is realistic, challenging and does not oversimplify notions of teacher development?

- How to enhance the impact in networks by developing more efficient methods of transferring knowledge created within schools or groups of enquirers?

SECTION 3. WHAT SUSTAINS THE EFFECTIVE USE OF RESEARCH AND ENQUIRY IN SCHOOLS AND NETWORKS?

Our research suggests that there is an interaction between effective or high quality research and enquiry and impact, which has implications for sustaining research and enquiry in schools and networks. Effective and good quality research and enquiry has a larger impact on an individual, a classroom and a school and the more significant this effect, the more likely it is that the research and enquiry will become embedded within the school. This is a cycle and is central to sustaining research and enquiry. Research and enquiry, used effectively, is more likely to have a positive effect or impact on a school. A positive effect or impact is more likely to lead to research and enquiry being sustained by schools.



Sustaining high quality, effective research and enquiry.

External support and facilitation

The first set of factors in sustaining high quality, effective research and enquiry are related to the processes used and the support provided for those processes. There is a need for support and facilitation at every stage of the research and enquiry process: the initial conception and setting of the question or problem; locating what is already known about the area of enquiry; choosing appropriate research or enquiry methods; collecting and analysing the data; exploring the implications and limitations of the findings; and disseminating the results of the enquiry. There was a need for external support or an increased and identified capacity within a network to fulfil these roles. Within the sample

of networks studied this was an important element in the sustainability and capacity building. An LEA consultant, a NLC facilitator, and a university department of education undertook the role. There was also an example of someone being employed solely to fulfil this role within one network. The previous issue of practitioners' capacity to access appropriate external knowledge is particularly pertinent here.

The support needed also to attend to the psychosocial elements of collaboration in research and enquiry. This relates to the emotional aspects of learning and reflection. Stenhouse [1975] saw barriers to the development of teachers as researchers in terms of the social and psychological climate of teaching, since close examination of practice is threatening and therefore requires support. He saw these as major issues in the development of research in schools. *'I conclude that the main barriers to teachers assuming the role of researchers studying their own teaching in order to improve it are psychological and social.'* [1975:159] The conditions under which schools can create knowledge from research and the concomitant social, psychological, organisational and managerial issues have been identified by many as a central challenge and clearly an area for further research and development. Many of the teachers in this study talked of the social and psychological difficulties within groups of enquirers, within departments or within staff groups. Those who work to support and facilitate research and enquiry need to be able to work with these social, psychological, and organisational elements.

Alignment within the school and network

The second key factor in sustaining research and enquiry was the degree of alignment within the school or network. The term alignment is being used in the sense that Gardner et al [2001] employ it.

> *A professional realm is healthiest when the values of the culture are in line with those of the domain, when the expectations of stakeholders match those of the field and when domain and field are themselves in sync. When these conditions exist, individual practitioners are free to operate at their best, morale is high and the professional realm flourishes. We term this a situation of authentic alignment.*
>
> [Gardner, Csikszentmihalyi and Damon, 2001: 27]

All the elements of this definition of authentic alignment were very important i.e. that the values were shared and key, that the focus and expectations were clear and the routes to implementation planned and clear. The areas where this seemed to be least problematic were in departments in secondary schools and where there were shared

agendas in primary schools.

Sustained, but not static

The third key element was how responsive and dynamic the structures and processes were. They needed to evolve over time and respond to development in

- The research itself
- Existing structures to support research
- Changes in the school or network
- Changes in government legislation

What are the implications for sustainability and organisational redesign at the organisational and leadership level?

The first implication if for the level of external support i.e. relationships with other schools, LEAs, universities, national government bodies, etc**.** There is a need to have a mediator or bridge to the wider world of research and enquiry knowledge. The notion of the self-facilitating network free of external support and resources seems a myth. It links to the sustainability of the work. To engage in research and enquiry over a long period of without external support seems to be too draining and without organisational change schools and networks do not seem to have the capacity to continue engaging in research and enquiry.

Embedding Research in Existing Structures

The second key implication is that schools and networks embed the research and enquiry activity into existing structures such as the use of professional development and staff time, national initiatives and the concerns of staff and policy formation. The following were key elements in embedding the research and enquiry.

- Research should not be an add-on
- Existing structures need to be built on
- The research and enquiry should focus on real concerns and interests at all levels i.e. the classroom practitioner as well as those in middle and senior management

> [Research should be] *"focused on classroom practice because, otherwise, if I can't see that it's having an impact on my kids, then I wouldn't do it…I wouldn't justify the time... It has to be something you believe in, that you're passionate about, like raising levels of writing...*

Something we were going to be doing in school anyway."

[Teacher]

- Purposes should come first, structures second. There is always a danger that the concern with structures can take time and divert attention from the primary purposes.
- External structures need to be built and used effectively.
- Collaboration within and between schools will require organisational change if practitioners are to undertake research and enquiry as a structural element of their work rather than an additional short-term task. Research and enquiry which is conceived of as a peripheral rather than a central professional activity is very hard to sustain.

The Essential Role of Leadership

All our evidence shows that the commitment and support of the senior management team is essential, especially that of the head teacher. Resources have to be provided to support the research and enquiry. The key resources are time to collaborate and undertake the work, external facilitation and support, and space within the school or network policy-making areas. In addition there need to be explicit advocates for research and enquiry. These advocates need to

- Value the research and the researchers
- Use the research to inform classroom practice and school/ network policy making
- Use researchers to develop leadership capacity

"So a young teacher can be engaged in vibrant research and it does not really effect the department... It needs leadership capacity to sustain it and use it, both from the SMT in the school and the development of leadership skills in the researcher." [LEA officer]

Leadership for research and enquiry

The leadership skills referred to above need to focus on the following core elements.

1. The establishment of research and enquiry intentions.

   These need to be clear, achievable and agreed by the practitioner as well as by the department(s) and/or school(s) as researching/ enquiring communities. As well as being realistic there is also a need to be creative about methods and questions so that the research and enquiry is manageable. The quality of the

research and enquiry needs to be attended to and earlier comments about validity and credibility need to be attended to. These points all relate to the essential aim of generating research and enquiry that makes a difference in the setting and is seen to do so.

2. Securing appropriate resources - Research and enquiry takes time

   Time is needed for reflecting, meeting and communicating. Our study suggests that this needs to be designated time, not time provided by using supply or substitute teachers since practitioners have a deep commitment to being in class. They are classroom practitioners first and researchers or enquirers second. There were many clear examples of the effective use of existing structures such as staff meetings, school professional development days, etc. If research and enquiry is valued then the practitioners are valued through the allocation of time and resources.

3. Communication - Size of school and unit of operation matters

   The size of the school or the unit of operation has big implications for communications, particularly the sharing or learning about research. Judith Warren Little [2002] has studied high school reform, the role of the department and noted that *a lengthy campaign to accomplish whole school reform in the United States has consistently foundered at the high school level. Analysis of the slow and uneven process of high school reform may result in part from the widespread embrace of whole-school change models that discount [or deliberately supplant] professional community linked to subject affiliations and subject teaching responsibilities.* [p.24] Within the secondary school studied the department and subject affiliations seemed to be particularly effective units for engagement with research and enquiry. This has implications for leadership at head of department level too.

4. Collaboration and teamwork.

   Researching with a team has emerged as very powerful and whether the facilitation is inside and/or outside school the leader ship task is one of supporting work professionally and emotionally. The leadership of enquiry groups is a complex and sophisticated task.

Sustaining Research and Enquiry from the Outside-In

Those who were engaged in supporting research and enquiry from the outside of the

school or network were reported to offer particular elements that give an insight into the leadership tasks for those working from the outside-in.

- They were able to focus and take staff learning beyond classroom/school
- Offer research training and support and respond to the changing needs of the practitioners
- Offer alternative, challenging perspectives
- Form supportive and invigorating relationships

At school level they were able to offer critical friendships and the most valued elements were supporting research across the school and asking constructively critical questions.

A School Culture of Research and Enquiry

In conclusion then we would say that the creation of a learning culture sustains research and enquiry and research and enquiry sustains a culture of learning. The key leadership and organisational task is to develop such a culture and the key elements in this are:

- Maintaining a clear focus on pupils' and adults' learning
- The development of confident and competent practitioners
- Collaborative practices
- Shared key values and beliefs
- Clarity of purpose: school and individuals
- A willingness to experiment
- Open and trusting communications

The current organisation of teacher and pupil time does not support these processes easily.

Culture and research and enquiry are deeply interlinked as this quote exemplifies.

> *"I hope that our* [research] *with the university and the other schools will help us to sustain the culture that we value so highly… of challenging our thinking about what we do and making certain that we're looking for ways to improve our practice."*
>
> [Head teacher]

We were privileged to engage with highly reflective practitioners who were deeply committed to the research and enquiry work they had and wished to undertake. They also had concerns about future directions and agendas.

Final Thought 1

"Are we taking control of our own profession or are we being done to? Does doing individual bits of research in individual schools make a difference anyway to the teaching profession or just to our little empire?"

[Head teacher]

Final Thoughts 2

'What worries me about the...new primary learning networks... They will contain the schools that have heads who are forward thinking and have that ability to network... Then you'll get left with the 'smelly' schools. No one wants to sit by them and no one wants them in their team.'

[Co-leader]

Developmental Challenges and Debates

- How to increase the alignment of purpose and organisational conditions to support and use research and enquiry effectively?
- How to mediate different conceptions of and purposes for research and enquiry amongst and between different external organisations and schools/networks?
- How to develop specific leadership for research from within the community of enquirers within Networked Learning Communities.

References

Cordingley, P. [2003] Research and evidence-based practice: focusing on practice and practitioners. In Lesley Anderson and Nigel Bennett [2003*] Developing Educational Leadership: Using Evidence for Policy and Practice*. London:

Earl, L. and Katz, S. [2005] *Learning From Networked Learning Communities – Phase 2 – Key Features and Inevitable Tensions.* Toronto: Aporia Consulting for NLC

Fielding , M., Bragg, S. Craig, I., Eraut, M., Gillinson, S., Horne, M., Robinson, C and Thorp, J. [2005] *Factors Influencing the Transfer of Good Practice.* London: DfES

Gibbons, M., Limoges, C., Nowotny, H. et al [1994] *The New Production of Knowledge: The dynamics of science and research in contemporary societies.* London: Sage

Gardner, H., Csikszentmihalyi, M. and Damon, W. [2001] *Good Work: when excellence and ethics meet.* New York: Basic Books Hargreaves, D [1996] *Teaching as a Research-Based Profession.* Teacher Training Agency Annual Lecture

Hargreaves, D. [1999] The Knowledge-Creating School. *British Journal of Educational Studies,* Vol.47, No 2, pp.122-144

Jackson, D. (2002) De-mystifying enquiry for school improvement. Bedfordshire: *BUSIP Newsletter*.

Jackson, D and Leo, E [2003] *Knowledge Management in Networked Learning Communities.* Paper presented at American Educational Research Association, Chicago Il.

Jackson, D. and Street, H. [2005] 'Collaborative Enquiry: Why bother?' in Street, H. and Temperley, J. [2005] *Improving Schools Through Collaborative Enquiry*. London: Continuum.

Little, J. [2002] *Professional Community and the Problem of High School Reform*. Berkeley, California: University of California.

Little, J. (1982) Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal, 19*(3), 325-340.

McIntyre, D. [2004] 'Schools Engaged with Research' in McLaughlin, C., Black Hawkins, K. and McIntyre, D. [2004] *Researching Teachers, Researching Schools, Researching Networks: A Review of the Literature.* Cambridge and Cranfield: University of Cambridge Faculty of Education for Networked Learning Communities.

McIntyre, D. [2005] Bridging the Gap between Research and Practice. *Cambridge Journal of Education.* Vol. 35, no 3. Pp.357-382.

McLaughlin, C., Black Hawkins, K. and McIntyre, D. [2004] *Researching Teachers, Researching Schools, Researching Networks: A Review of the Literature.* Cambridge and Cranfield: University of Cambridge Faculty of Education for Networked Learning Communities.

MORI [2004] MORI *Teachers Omnibus 2004 [Wave 3] for the Innovation Unit DfES.* London: MORI

Networked Learning Communities. [2005] *Learning about Learning Networks*. Cranfield:

National College of School Leadership - Networked Learning Communities

Ratcliffe, M., Bartholomew, H., Hames, V., Hind, A., Leach, J., Millar, R. and Osborne, J. (2005) 'Evidence-based practice in science education: the researcher-user interface', Research Papers in Education, 20, 2, 169-186

Stenhouse, L [1974] *An Introduction to Curriculum Research and Development.* London: Heinemann

Stokes, D.E. [1997] *Pasteur's Quadrant: Basic Science and technological innovation.* Washington DC: The Brookings Institution

Case Studies

Aligning, Captaining and Collaborating through Research and Enquiry: **Blackburn with Darwen, Leading into Learning Networked Community**

Bristol Opportunity Networked Learning Community

The Journey of Enquiry - Hartlepool Networked Learning Community

South West London Networked Learning Community

SUPER Networked Learning Community: Cambridge Schools-University Partnership in Education Research

Surrey LIFE Networked Learning Community

Aligning, Captaining and Collaborating through Research and Enquiry: Blackburn with Darwen, Leading into Learning Networked Community

Colleen McLaughlin

Table 1: Background Details of Blackburn with Darwen NLC
Total number of schools = 9 secondary schools
• The LEA Maths consultant is a co leader and a facilitator of the network • HEI link Olwen MacNamara - Manchester University
Approximate number of teachers = 800
Second cohort of Networked Learning Communities (funded 2003 – 2007)
Some features of this network: • Initially focused on teaching and learning in Mathematics • Strong involvement from the LEA Maths consultants • Focused on action learning groups, individual learning initiatives and knowledge distribution tools • Listening to the learners' voices • Effective learning environments for pupil and professional learning

Introductory comments

As the title suggests, the features of this network that have been focused on in this case study are the ways in which purposes and processes have been aligned to facilitate research and enquiry; the nature of the captaining of the team or the facilitation of the research and enquiry; and the process of collaboration, which have lead to interesting and powerful practices of adult learning. The term alignment is being used in the sense that Gardner et al (2001) employ it.

> *A professional realm is healthiest when the values of the culture are in line with those of the domain, when the expectations of stakeholders match those of the field and when domain and field are themselves in sync. When these conditions exist, individual practitioners are free to operate at their best, morale is high and the professional realm flourishes. We term this a situation of authentic alignment.*
>
> (Gardner, Csikszentmihalyi and Damon, 2001: 27)

Key characteristics of the context and the learning community

Blackburn with Darwen became a unitary authority in 1998 and according to the LEA's Ofsted report of January 2001, 'the population is approximately 139,500 with a higher proportion in the age range 0-15 than found nationally. There are severely deprived areas and the authority ranked 26/310 on the 1999 index of Local Deprivation. Unemployment is above the national average. The proportion of pupils eligible for free school meals is above the average and the proportion of pupils from ethnic minority groups is high and mostly drawn from the Pakistani and Indian descent.' This issue of its size and the particular features of the context are themes that run through the thinking and responses of the teachers and other professionals in this network.

The Network itself consists of all of the 9 secondary schools in the LEA and the LEA. The network is co-led by an LEA consultant, a deputy head teacher and an LEA officer with the headteachers driving the steering group. The primary focus was on the development of action learning groups, very much within the context of Mathematics. This subject focus is another important feature. These action learning or enquiry groups were groups of teachers from across the schools exploring various aspects of learning within Mathematics and Science. Table 2 shows some of the topics of enquiry and action learning. The roots of the NLC were in the Secondary Maths Partnership, which had an existing structure and had been in operation for a year prior to the NLC formation. Clearly a lot had been learned for the work has evolved.

Table 2: Examples of Topics of Research and Enquiry
• Raising the achievement of pupils who were below Level 3 • Transition from Primary to secondary school and Mathematics • Improving pupil engagement in Mathematics • The use of different learning styles • The use of video in Mathematics' lessons • Research lessons on various topics including the use of graphical calculators • The use of calculators in the classroom • The use of ICT to enhance learning in Mathematics

Alignment and collaboration

The group of enquirers shared many things i.e. the locality, one authority that was small, and the subject concerns. This was very important to them at all levels.

> *This* [NLC] *is different because it's literally maths focused, on raising achievement in maths, whereas lots of the others are general, just education and learning in general. I prefer this one.*
>
> (Teacher)

> *This is a unitary authority and there are nine secondary schools. So… you've absolutely the perfect opportunity for setting up networks at all levels and fairly easily.*
>
> (Headteacher)

These connections were strengthened and supported by other important elements. The LEA consultant had instigated collaborative curriculum planning in Mathematics supported by meetings of Heads of Department and the meetings of the enquiry groups.

The curriculum materials were pooled on a website which all the schools accessed. Latterly they are using the website as a source of news, information sharing and problem solving. So there was a short history of collaboration, which the enquiry groups built on. This harnessing and alignment of purposes and structures is an important element in the work of this Networked Learning Community. A head of department talking about his action learning illustrates this.

> *I was more involved with the heads of department. We would tackle things together. It was as much an evaluation as a research thing. 'Can you let me know what you're planning? We'll let you know what we are planning… We found we got a lot more from that [collaboration]. A lot of being with other teachers who were helping you think about what's going on, as much as anything else*.
>
> (Head of Department)

Teachers talked a great deal about the importance of this collaboration and how they felt it was strengthened by talking to colleagues who knew the children in that locality and had experience of the sorts of challenges and conditions of work.

> *The thing that has been the most beneficial is the talking and communicating with other people.*
>
> (Head of Department)

> *The most important thing was the sharing of information and sort of having access to other people's experiences in school similar to ours and slightly different as well… The sharing of ideas with like-minded people.*
>
> (Teacher)

The teachers and the heads of department interviewed valued the collaboration very highly indeed but there was some evidence that the national climate of competition between schools did not always fit easily with this. Teachers in one school had been asked to ensure that the school 'maintained the advantage' and one teacher reported 'I know we're to be careful what we shares sometimes. We were told.' The political tensions of the national scene were mirrored in this network. However, the teachers did not find this an insurmountable difficulty or that it affected their desire to and practice of collaboration. What was valued as a focus of and an outcome of the work varied at different positions within schools. The head teachers valued school improvement, the

heads of faculty focused on curriculum development and the standards' debate, and the teachers focused very much on classroom improvement and pupil learning. The network co-leader focused very much on pupil and adult learning.

Research, enquiry and professional learning

The original intention of setting up a mathematics group prior to the inception of the networked learning community was to value teachers as having important knowledge, which the LEA consultant felt was being underused. There was no intention to use research and enquiry as part of the process. However, the process of working towards producing a document at the end of an exploration of the use of lesson structures did not work. The idea of a written product as the end result was felt to be unsatisfactory because no one in the group was used to writing in that way, there was no accreditation for this work, it was pressurising and there was a lack of fit with the audience of other maths teachers.

So in the second year of this group a different frame for writing up was used and the group facilitators started to pay attention to evidence collection. In addition they provided support from two LEA Maths advisors who acted as critical friends and time was provided for these activities. The group of teachers involved met for 3 whole days over the year as they had done the previous year. The methods used were observation by peers or LEA consultants, personal journals and pupil questionnaires. The process was much more tightly focused and the focus was on the question, How do we engage pupils in learning Maths?

In the third year the Maths group had become an official Networked Learning Community. The LEA consultant, John Westwell, said they were influenced in the year before this by the Networked Learning Communities' [NCSL, 2005] framework of the 3 fields of knowledge i.e. what is known - the knowledge from theory, research and best practice; what we know - the knowledge of those involved i.e. what practitioners know; and new knowledge - the new knowledge that is created through collaborative work. This was used to shape the seminars in which the teachers engaged. So each seminar contained the following elements:

- Something for the researchers to reflect on and talk about and there were frameworks for this.
- A presentation to the group with questions, points of clarification and comments.
- Something on research methods. This varied from identifying a focus for the

research, the use of journals or writing up research.

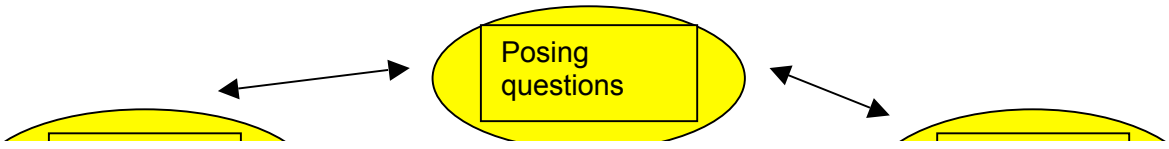
- A stimulus on the main topic of the work, the engagement of learners in Mathematics. This was felt to be important because of the importance for teachers of having something to take away from the session such as a reading, a video or examples of others research.

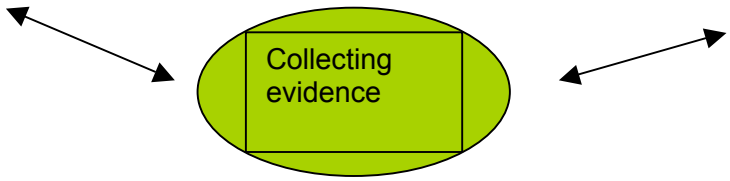
By the third year the pattern of working above was seen as satisfactory and the journal was seen as crucial. New researchers were inducted into the group by more experienced researchers. The pattern of the seminars was changed to 1 full day per year and 3 twilight sessions. In addition a second group was started where the focus was on the use of research lessons and the topic was the use of ICT in maths. 'Research lessons are planned collaboratively by two or more colleagues [research partners] with the aim of solving a pedagogic problem, taking forward innovative practice or refining further ideas in development. The lessons are taught, observed and jointly analysed by the research partners. Participants will be involved in:

- the identification of a large problem or innovation of interest to them and their school
- the design, observation and analysis of a series of research lessons
- working with colleagues from other schools and networks.' [NCSL, 2005]. This new group had a strong agenda to learn about ICT and were not as strongly committed to researching. The wanted to refine and develop practice as well as reflect on it. Key advantages of the research lesson framework were the manageability i.e. there was limited and focused evidence collection, the final product was seen as valuable, clear, and the providing value for time.

A model of professional learning

John Westwell, the facilitator of this group, had developed a model of professional learning which underpinned this work.





In this model the three elements of posing questions, taking action and reflecting are seen as the elements that constitute reflective practice. Most teachers are seen as doing this. The inclusion of evidence collection is seen as the element that makes this action research or practitioner research. In this network the inclusion of evidence collection was seen as having changed significantly how the practitioners viewed the classroom and teaching. The co-leader aimed to develop professional learning and not specifically to develop teacher researchers. There was also evidence that the different needs of different groups merited different emphasis and approach. The importance of alignment of agendas emerged here too. Some teachers in the network were part of the national teacher researcher group and there were tensions and a conflict of purpose between them and this second group. It was felt that the NLC group focused on network and the teachers wanted to focus on classrooms and lessons.

Table 3: Examples of some of the adult learning strategies used in the group sessions

- A clinic request from where each person writes down a request for some information on a problem they are having with maths software. Others consider whether they have a solution or know of someone or somewhere to go to find the solution.

A knowledge exchange process

Teachers complete and share in the group the following sentences:

- Have you heard that… (news related to ICT in mathematics teaching, national bodies, free publications, funding streams)
- I have used and would recommend… (software, books/resources, websites)
- Something we do at our place… (organisation and access to hardware, classroom ICT resources, ways of disseminating and discussing ICT in the team)
- Would you like a copy of… (sharing things you have produced in your own school, Such as software files, resources, plans)
- Would you like to come to… (invitations to observe teaching, see maths area and resources, attend maths professional learning activities)
- Can anybody help me…(information, ideas, invitations)

The teachers described all these elements in the learning process as powerful and important to them, along with collaboration, which is not mentioned specifically in this model. They saw the purposes as classroom improvement, subject development and professional learning. The conceptions of the purposes were varied. There was a strong

emphasis on the sharing of practice between the school and on this being done in a way that matches the school's agendas and on it being manageable or as one person put it,' Tweaking v transforming'. Enquiry and sharing good practice were seen as very closely linked. Some also wanted to critique current policy and practice and emphasised the importance of teachers being able to shape the agenda for learning and enquiry. The agenda for this group was shaped very much by the network or the group as a whole with much input by the LEA consultant. Most teachers were happy with this process but there was some evidence that as teachers became more experienced in the research and enquiry processes, they wanted more freedom and continuity of theme in their enquiry work. This dilemma between individual development, school improvement and national policy control is a difficult one.

In discussing the purposes and outcomes of the process the teachers who had experienced the process had this to say.

> *'It points you to things that you haven't actually thought of yourself ...'*
>
> *'It's good because you put your work out, what you're doing '…*
>
> *'This gives us a chance to actually talk about education issues whereas I would say, being honest, that in your teaching training you don't really do that much of. You were given the right ideas on how to teach things but you didn't really discuss…'*
>
> *'It's making me aware of my own teaching for a start. You can always criticise what you're doing and look for ways to improve otherwise you just repeat old practice…'*

The teachers interviewed were largely very positive about the impact on them and of the benefits of collaboration. There was also awareness that not everyone in the schools felt similarly about collaborating in this way. This illustrates the need for the work to be constantly protected and developed. One teacher had this to say about the attitudes of others in the school.

> *'It's pretty mixed if I'm being honest I would say some people would say ' too time consuming cant be bothered don't want to know … but again you've got a lot of open-minded people who are willing to give things a go.'*

Support for research and enquiry

The teacher enquirers were very clear indeed about the necessary supports and the important elements in their development. They were adamant that they could not proceed without external support and the image of a team and a captain was used to

describe the central role of the LEA consultant, John Westwell. The key functions he performed were the provision of technical support for the research and enquiry, the co-ordination and arrangement of meetings and resources, the facilitation of the meetings, the seeking out and provision of access to external research and in-school support e.g. observation with feedback. Teachers felt very strongly that they could not provide these from within schools due to pressure on time. Senior managers in schools supported this too.

> *'Its very good to have external support to smooth out all the difficulties, you know to sort out all the bits and pieces, of the admin and the setting up. If it's easy for people to do, they're more likely to do it… Anything that makes it easy - easy to use, easy to do, easy to report, anything at all like that is helpful.'*
>
> (Deputy head)

Just providing money was not seen as helpful to senior managers. In addition the LEA consultant was able to harness the agendas and mediate between the heads of department the head teachers and the teacher enquirers. He also was able to develop the sophisticated facilitation processes described above. He acted as 'a bridge' between the outside world and the network.

The greatest challenge to the network was the dissemination of research and enquiry and knowledge transfer between the teachers and the schools. This impinges on two of the three fields of knowledge being used as a framework i.e. the area of what is already known and the creation and sharing of new knowledge. It was a double challenge in that the teachers found it difficult to access or use existing research as well as to write about or share their own research work.

The accessing of what was already known was the least developed aspect of the research and enquiry process. The majority of the teachers reported relying on subject association journals or the Internet and they talked of the need for writing to be brief and accessible in terms of language and style before they would read it. The strategy used by the LEA consultant was to include research articles or summaries of them as part of the framework of the meetings. (See the early section on this). This relied on the facilitator finding and processing the articles. The teachers said they would not have looked at these articles if this had not been done by an external person. They found this strategy useful.

The other challenge was that of the dissemination of what the teachers had learned. One of the initial strategies adopted to address this problem was the writing up of the research and putting it on to a CD. Although the CD was an innovative and a useful tool, it was slow and the process had not been seen as successful in terms of sharing knowledge between the schools. Teachers valued highly the face-to-face sharing of knowledge and did not value other methods as highly. The other strategy being adopted was the appointment in February 2005 of a Network Communications Officer, whose main role was to manage the knowledge transfer across the network. She was clear that her main tasks were the 'monitoring and support of the network, building a portfolio of best practice in pupil voice work and acting as a bridge between theory and practice'. She felt that time was 'an issue with teachers. Time is of the biggest value for teachers.'

Concluding remarks

This network is noteworthy for its alignment of purposes and processes. The collaboration of the Maths departments was linked at many levels - the construction of a shared curriculum, the work of specific groups such as the Heads of Department and the teachers, and the research and enquiry work, which were linked to professional development and school agendas for development. This was planned and aided the research and enquiry work. The recent developments have also been in response to the needs of knowledge transfer and the development of research and enquiry. The fact that these processes meshed with the unitary nature of the LEA and enabled the local collaboration to feel significant and manageable is also a key feature.

Questions arising from the work of this network

1) **This network was successful in increasing and enhancing the alignment of purposes and processes.**
   - ***How can this be done in other networks?***

2) **This network was challenged in supporting teachers' access to wider research knowledge.**

- ***What are the tensions in the different purposes of research and enquiry?***
- ***How can these be approached in a constructive fashion?***
- ***How can networks facilitate and use to the full the knowledge that already exists in a particular field of work?***

References

Gardner, H., Csikszentmihalyi, M. and Damon, W. [2001] *Good Work: when excellence and ethics meet.* New York: Basic Books.

National College of School Leadership [2005] *Networked Learning Communities: learning about learning networks.* Cranfield, NCSL.

http://newportal.ncsl.org.uk/networked_learning/networked_learning_communities/nlg-nlc-developmentresearch. Accessed on March 9, 2007

Table 4: Evidence to Support Case Study of Blackburn and Darwen NLC	
Schools visited	• 3 out of 9 in total
Interviews	• 14 formal in total, comprising… • 1 Co-leader (x3); 1 Chair of steering group; 1 Headteacher; 2 Deputy headteachers; 2 Heads of department; 6 teacher enquirers; 1 with communication's officer.
Observations	• Observed one half day meeting of enquiry group
Archives / Documents	• Enquiry group logs; CD of reports of enquiry; other general documents; NLC submission document
Questionnaires	• A sample of teachers in all schools were given questionnaires

Bristol Opportunity Networked Learning Community

Kristine Black-Hawkins

Table 1: Background Details of Bristol NLC
Total number of schools = 11 secondary schools, comprising…
• 1 infants; 1 junior; 8 JMIs; 1 secondary • All mixed girls and boys • Non selective
Approximate number of teachers = 300
First cohort of Networked Learning Communities (funded 2002 – 2006)
Relevant organisational links / partnerships: • Excellence in Cities (EiC) initiative • Education Action Zone (EAZ) • Bristol LEA • University of Bristol • University of Western England (UWE)

Bristol Opportunity Network operates within an pre-existing Small Education Action Zone, as part of the government's Excellence in Cities initiative (DfES, 1999). The EAZ provides substantial financial support for a range of development work across the schools and these activities are complemented by the network; for example, the Director and Assistant Director of the EAZ are also network co-leaders. The NLC funding has been primarily used to promote and support practitioner research and enquiry through the establishment of a 'leading link' teacher in each school. The Opportunity Zone is one of three EAZs within Bristol LEA, which also supports its work. Finally, the zone/network has a number of important connections with two local universities; for example, the University of Western England has supported the development of student councils in each school and the associated Zone Parliament. Some research skills training for teachers has also been provided.

All eleven schools are situated in the northern area of Bristol LEA and are geographically reasonably close to one another. The ten primaries are potentially feeders for the secondary, however some parents/carers choose other schools. There are also other primary schools in the same area that are not part of this network. The network schools vary in terms of intake, settings and national test results. In the bid to become a NLC, some schools were described as being 'affluent' whilst other were identified as having 'high social deprivation factors'; one was noted as having over 50% eligibility for free school meals. Two schools (including the secondary) have recently been in special measures, whilst a number of others have received DfES achievement awards. When the network was first formed the percentage of children at the primary schools attaining level 4 or above, at the end of key stage 2, ranged from 30% to 98% (national average that year: English = 75%; mathematics = 73%; science = 86%: DfES, 2002). See Table 1 for further background details about the network. See also Table 2 for a summary of the evidence collected to support this case study.

Practitioner research and enquiry: Supporting the learning of children and teachers

Understandings of research and enquiry in this network are partly shaped by its overall aims and these in turn have been formed within the context of the EAZ's main concerns. In the zone's action plan to the DfES (2002) three priorities were highlighted, all directly relating to learning and with a strong emphasis on the raising of standards in schools. These are:

- *'networked learning, powerful learning'*
- *'collaborative learning'*
- *'learning to lead'.*

Related to these, the purpose of research and enquiry undertaken in the network is to improve the learning of both children and teachers. Or, in the words of one co-leader, research is about 'giving a better deal to children in the classroom… [and] getting the teachers to be better practitioners.' More specifically, this is also described in terms of raising children's achievement as measured by national key stage tests.

Each school has established the post of a 'leading link teacher' who is responsible for engaging in, promoting and supporting research and enquiry in their own schools and across the network. They are funded by the network and this provides them with weekly non-contact time to undertake their responsibilities, including regular opportunities to meet each other. As a group they have focused on *Building Learning Power* (Claxton, 1999), which identifies four characteristics of successful learning ('reciprocity', 'reflectiveness', 'resilience' and 'resourcefulness'). Some leading link teachers have used Claxton's work as a basis for their research and enquiry. As a group they have also explored ways of developing 'paired coaching', to support the learning of both pupils and teachers, and this has also formed a research focus for some. However, whatever topics they have chosen, they have been encouraged by their co-leaders, to conceive of research and enquiry as requiring base line measurement, followed by a period of implementation of change and then re-testing to establish whether improvements have taken place. Finally, there is an expectation that research reports in the form of leaflets are written and disseminated across the network and on its website.

Research and enquiry activities undertaken by individual teachers primarily concern changing classroom practices, based on a need/problem that they have identified as being important to children's learning in their classrooms. 'To make it successful, it has to be something you want to do, it has to be something, for me, that's having a big impact for the children… something you believe in, that you're passionate about.'

Rigorous gathering and analysis of evidence is also central to their understanding of research:

> *You need to have a baseline, you need to follow it through… having a methodology, maybe looking at other research that other people have done… It's a sense of achievement really when you are able to say… it's not just professional intuition… I've actually got the evidence, I've tried out… having that rigour.*

However, all teachers interviewed also talked about research and enquiry in terms their professional development and the excitement of being learners themselves. 'I think that's a big part of research, learning from doing it.' Another explained how being a leading link teacher and undertaking research and enquiry had reinvigorated his professional interest in his work:

> *Before… I was stuck in my classroom… I did very few courses and things, so hardly ever got to see other people's classrooms. I love going to see other schools. It's been brilliant…really valuable, because we can get so closed in our own little world… it's so refreshing.*

For those head teachers, who are particularly supportive of research, its purpose is conceptualised more broadly as a means of bringing about whole school improvement by enhancing the learning of both children and teachers. However, this also includes a strong emphasis on robust evidence.

> *We need evidence and an outcome and I'd expect that. For example we had a piece of… research done by a teacher… She put her paper together explaining what she had done... how she set about it and what the outcomes were with hard data… We've really got to get the evidence that will prove that what we did had an impact. We can't just assume it did. We've got to make sure.*

The emphasis on evidence, noted by teachers and some head teachers, is strongly reiterated by co-leaders: 'So that you know that it's made a difference.' However, with their network perspective, they also stress that research findings should be shared with colleagues in the other schools and beyond. Research is also understood in terms of being a good (the best) form of professional development.

> *You can train people… on courses, they can listen to things, they can see things, but actually when you identify something that needs to be addressed yourself, and develop strategies to address that issue and*

> *then evaluate that, it is far more powerful and more likely to be sustainable than just going on a course or a training session… Probably the best learning is where people have done it themselves.*

One head teacher, however, viewed practitioner research and enquiry with some scepticism. She explained: 'Partly because I've got an older staff at the moment, actually interesting them in enquiry-based work is harder… It's the idea that… they're going to have to write something up at length.' She also noted that releasing a teacher to undertake research and enquiry or attend leading link meetings can cause problems with other staff in school. 'You get this, which we have had, particularly when [teacher] started, "Why are they going out every week?" "What are they doing?" "Why is that class having supply?"'

Research and enquiry: Strengthening schools as learning communities

When asked about the effect of practitioner research and enquiry, all those interviewed referred to their impact on learning. This was described in terms of developing the learning of individuals (both children and staff) as well as strengthening classrooms and schools as learning communities. In response to being asked about the role of research in schools, one head teacher explained it as follows. 'It comes down to the ethos of the school, to what extent is the school a learning organisation. I expect young people to learn but… what you want to create is a place where everybody's learning.' A leading link teacher argued that her engagement in research provided the children she taught with a positive model for learning.

> *I can say to them* [the children] *I am researching, I am doing work, I am learning, especially in terms of learning to learn and Building Learning Power… I think that them being part of that learning process is only going to help really and is going to enhance their learning.*

That research and enquiry support teachers' learners is a view shared by head teachers and co-leaders. One head teacher explained:

> *I feel we are a learning school ... that adults are learners as well as children... and the very best place to learn is actually in the classroom... where you need to learn and improve on practice. It's all to do with self-analysis, self-evaluation, being able to evaluate yourself. And, other colleagues to help evaluate for you.*

In this way, teachers' research and enquiry can also have an impact because their findings can be used to support teaching and learning across the school as a whole. For example, as a consequence of one teacher undertaking research into the teaching of philosophy, this subject has been introduced throughout her school. This decision was largely based on the knowledge, experience and expertise that this teacher developed through her individual research and enquiry. In another school four teachers have been researching collaboratively on the teaching and learning of narrative writing. Their head teacher expects that their research will contribute to the work of all teachers in the school. 'We're going to feedback to the rest of the staff on their [research]… and if we feel it's viable then we'll introduce it to the whole school'.

Research in this network has also had an effect on reducing the sense of isolation experienced by some teachers within their own classroom and school and has broaden their understanding of the experiences of their colleagues in other schools. Research has provided opportunities of sharing good practices, common concerns and problems; for example, in the *leading link* meetings.

> *It's been a real eye-opener, feeling part of that wider community which I never did before… It's been great being able to communicate and work with colleagues from very different types of schools… and the research that we've shared and has gone across the different schools has made that really obvious.*

Or as one head teacher noted:

> *It's easy… to forget that a class teacher is really insular in their own classroom and you've got to give teachers opportunities to be aware of other practices in the school and in other schools.*

All interviewees identified similar intangible effects of research and enquiry on their schools. Teacher-researchers described these in terms of increased motivation, confidence, interest, and sense of worth in their work. One head teacher noted the impact on the retention of staff. Another described research as providing a kind of 'buzz… And, it's nice to have that. It's that bit extra that you don't have otherwise'.

Sustaining research and enquiry: In the schools and the network

The following are some of the key ways in which the effective use of research and enquiry in this network have been supported and sustained:

- Membership of the EAZ has provided existing support structures and substantially more funding than is available to NLCs more generally. These include the full-time appointments of Zone Director and Assistant Director, salaried administrative support and designated office space.

- The very active role of co-leaders (Director and Assistant Director of the Zone), has been crucial in supporting and promoting the research of the leading link teachers. (In particular the Director was a head teacher of one of the network schools: she is very familiar with all the schools and is well respected amongst head teachers and other staff.)

- The role of the leading link teachers has been essential in co-ordinating research and enquiry within their schools and across the network. They are most effective when their time to engage in, support and promote research activities is protected.

- The role of head teachers is also important, providing direct practical and moral support for teacher-researchers. The effects of research and enquiry seem much more likely to be sustained when head teachers perceive of them as a means by which to inform their school's overall development plan, rather than a series of 'one-off' projects.

- The development of shared purposes through the *Building Learning Power* programme and paired 'coaching' has supported the sustainability of research and enquiry across the network.

- The nature of individual schools has also affected the sustainability of the effective use of research and enquiry. Introducing and developing research appears to be more straightforward in the primary schools than in the secondary. This is partly to do with the scale and complexity of secondary schools. However, other circumstances affect sustainability; for example, since the inception of the network the secondary school has had three different head teachers and has been put into, and come out of, 'special measures'.

- The external support of two local universities and the Networked Learning Community group has been important in terms of providing research training, especially initially. NLC events and materials have also been identified by some

interviewees as being helpful.

- The network/zone website is extensive, and has played a role in ensuring sustainability as a source of information for members.

Some reflections on research and enquiry, in this network

1) **In this network….significant additional funds were made available through the EAZ.**
   - ***What are the funding implications for sustaining practitioner research and enquiry in other schools and networks? How far are such activities possible when additional resources are not available?***

2) **In this network… research and enquiry were largely defined in terms of providing evidence of measurable improvement from a baseline.**
   - ***What are the advantages and disadvantages of this approach?***

3) **In this network… research was valued as a key means by which to support the learning and teachers and well as children.**
   - ***How is the professional development of teachers enhanced through their engagement in research and enquiry? Are there aspects of professional development that are not so clearly addressed through such activities?***

4) **In this network… the role of the leading link teacher was central to the research and enquiry work.**
   - ***What kinds of support and training do teachers require so that they can effectively promote, support and lead research activities in their school?***

5) **In this network… the enthusiasm of head teachers for research, and the practical and moral support they gave to it, had a significant impact on the work in the schools.**
   - ***What are the key elements in the role of a head teacher when supporting school-based research and enquiry?***

6) **In this network… the development of shared purposes through *Building Learning Power* and 'paired coaching' was encouraged.**
   - ***What are be the advantages and the disadvantages of establishing a research and enquiry focus across all schools in a network?***

7) **In this network… research and enquiry seemed to be more easily developed and shared in the primary schools than the secondary.**
   - ***How important is the scale of a school when developing practitioner research? What existing structures might a secondary school use to sustain useful research?***

References

Claxton, G. (2002) *Building Learning Power,* Bristol: TLO Ltd.

DfES (1999) Excellence in Cities initiative, www.standards.dfes.gov.uk/sie/eic, (accessed September 2005)

DfES (2002) www.dfes.gov.uk (accessed September 2005)

Table 2: Evidence to Support Case Study of Bristol NLC	
Schools visited	• 5 in total, comprising… • 1 infants; 1 juniors; 2 JMIs; 1 secondary
Dates of visits	• November 2004 - May 2005

Interviews	• 10 formal in total, tape recorded and transcribed, comprising… • 5 teachers (all 'Leading Links', including 2 Lead Leading Links); 4 head teachers; Director of EAZ / network co-leader) • Various informal conversations recorded in note form, including… • Deputy director of EAZ, teachers, children, support staff
Observations	• 3 in total, comprising… • 1 Leading Link network meeting: including teacher from each school • 2 teaching sessions, demonstrating research ⇔ practice
Archives / Documents	• Network level, including… bid to become NLC; Spring Enquiry (February 04); A Framework for Sustainability; BPRS and other research topics; research reports / leaflets; website information; newsletters; etc. • School level, including… prospectuses; policy documents; etc. • Classroom level, including… teaching and learning materials; etc.
Questionnaires	• 300 teachers, 38 returned

The Journey of Enquiry - Hartlepool Networked Learning Community

Colleen McLaughlin

Table 1: Background details of Hartlepool NLC
Total number of schools = 12
• Primary schools • All within Hartlepool and so geographically close
Approximate number of teachers = 160
First cohort of Networked Learning Communities (funded 2002 - 2005)
Some features of this network: • The focus is on teacher enquiry and cross-school enquiry groups • The co-leaders are head teachers • The use of CPD time and resources is an interesting feature of the network • The HEI link was not pursued in this network

> *Enquiry is a journey, a way of working, a mode of being, a process of continuous learning. It can create new structural environments within which to operate. The schools that have been involved with enquiry driven improvement work over a period of time, gradually and progressively redesign themselves around the collaborative study of practice.*
>
> (Jackson & Leo, 2003)

This notion of enquiry as a journey is a very central one in Hartlepool Networked Learning Community and the phrase is often heard in conferences and featured in interviews. The notion of a journey and of learning is an important one and is evident in the reported experience of those in this community. It will shape this case study, which will be framed around what the participants have learned since it was one of the first Networked Learning Communities 'to attempt this (enquiry) from scratch, without a history of enquiry or collaboration'. (Network facilitator)

Hartlepool Networked Learning Community

The following extract from a document produced in 2003 'as we started our journey' describes the setting and constituency of the Networked Learning Community:

> *'The learning community of 13 (primary) schools[2] is located in the town of Hartlepool on the North East Coast of England in an area of considerable socio-economic disadvantage. The network covers almost 50% of the LEA as it is as small unitary authority. The community is based around a common and compelling learning focus. We have quite deliberately placed the emphasis on bottom up, inside-out improvement with a focus on re-professionalizing the work of teachers. We wish to move towards shared valued and aligned priorities.*
>
> *We have established collective enquiry as our central and most powerful vehicle for learning and are building our leadership capacity through a*

[2] One of the schools dropped out later

major investment in our lead learners who are the vanguard of the enquiry process. We have an essentially optimistic and hopeful view of who we are and where we are headed. We aim to innovate our practice, find better ways of doing things and make our schools fantastic place to learn and work. We embarked on this enterprise convinced that we would find the unlocked and untapped potential in all our schools.'

(Hartlepool Networked Learning Community, Feb. 2005)

The Enquiry Groups

The co-leaders have learned a great deal about how to facilitate and structure the enquiry groups. 'I think we could tell you how not to do it.' (Co-leader) The Head teachers began with the help of an outside consultant, who identified 15 common themes through a head teacher and skills audit. Groups of teachers were asked to align themselves to an enquiry group under each of these themes. This was later seen as counter productive for the following reasons: the process was left too open ended, groups were too large, the agenda was not one chosen by the teachers, the social cohesion of the group became a critical factor (and will be returned to later) and the process became unmanageable. So much had been learned about scale, sustainability and the architecture of the groups. (Holmes, 2004)

The groups were reconstituted and teachers chose their own areas of interest. Funds were assigned to groups that were active, this was monitored closely and the principle of across school groups was established firmly. Head teacher involvement was seen as 'unbelievably important' to the success of the enquiry groups but the role assigned to head teachers was one of supporting not leading the groups. The democracy of the groups was very important to the co-leaders.

Enquiry groups met in school time and resources were targeted at these meetings. In addition there were whole network meetings of enquirers and whole network staff conferences annually in allocated time. Groups consisted of all relevant staff i.e. teachers, nursery nurses, and teaching assistants. Table 2 shows the current enquiry groups and the number of staff in each group. The larger groups are composed of those who are in a key stage group or have a common role. For example the transition group examined the transition from and to the nursery (this later became expanded to examining KS1 and KS2).

Table 2: The Enquiry Groups in 2005 - topic and composition
15 Enquiry groups topics

1. Breaking Down Barriers to Learning	3 persons
2. ICT Across the Curriculum	4 persons
3. Stimulating Writing	6 persons
4. Teaching and Learning	5 persons
5. Language Interaction in KS1	4 persons
6. Leadership and Management	3 persons
7. Transforming Learning	4 persons
8. Child centred Induction to Smoother Transition	6 persons
9. Life Long Learning teaching skills of independent Learning	2 persons
10. Feeling safe and comfortable enough to make mistakes	3 persons
11. Parental support 'knowing where the learner is right now'	2 persons
12. Pupil Self Esteem	5 persons
13. Inspirational teaching that motivates engages and connects prior knowledge	7 persons
14. Motivating less able pupils	4 persons
15. One group disbanded	
Total: 54 Total staff of the 12 school approx. 160	

What is enquiry in Hartlepool Networked Learning Community?

There was a range of activities and motivations for undertaking enquiry in the learning community. Teachers often struggled to define enquiry and were very keen to assert that what they were doing was not 'research'. In fact there were occasions when 'academic research' was polarised as something very far from what the teachers were undertaking. The work of the national Networked Learning Communities Group at the National College heavily influenced and helped the learning community. The three fields of knowledge (an NLC concept) were used often by the co-leaders. The following e-mail from co-leader to co-leaders encapsulates this.

'Enquiry is …

1. *Focused on professional activity usually in the workplace itself*
2. *Its purpose is to clarify aspects of that activity with a view to bringing about beneficial change and ultimately to improve student progress, achievement and development*
3. *It may focus on both teaching and learning at the classroom level and supporting organisational conditions and change management capacity*

Enquiry is …
Based upon the exploration of three fields of knowledge and the interaction between them:

- *Practitioner knowledge – the knowledge that people brings to the table*
- *Publicly available knowledge – the theory and knowledge which is publicly available to be drawn into learning environments*

- *The knowledge we create together – in community, through collaborative enquiry'*

The enquirers held different and varied conceptions. For some it was closely tied to the national policy agendas.

> *'It was already kind of decided what our main initiative would be through Ofsted in school. So we came with like that in mind.'*

For others it was rooted in notions of social justice, pupil voice and passion.

> *'How dare we? How dare we assume that we know what's best for them when they haven't even been asked.*'

The chance to engage with and ask students was very important. The dominant conception was that enquiry was about solving classroom problems and taking action.

> '*Because I wanted to find the answer to something. I wanted to find an answer to something that would have solved the problem I had with class at that time.'*

For others it was an opportunity to introduce new initiatives that others had tried. An example was the development of circle time based on reading the work of Jenny Mosley (1998), implementing practices and then reflecting with colleagues.

The processes used to enquire in these different ways ranged from systematic enquiry using research methods such as observation, questionnaires to parent and pupils, reflective discussions with colleagues and others outside of the schools such as LEA consultants, sharing ideas and resource with colleagues and searching the Internet for resources. The enquiry embodied the characteristics quotes in the first co leader definition of enquiry i.e. focused on the classroom and classroom or school activity with a view to clarifying it and impacting on practice and policy.

Close to the classroom - the benefits

The closeness to the classroom was the benefit for the enquirers. They distinguished this activity from other professional development opportunities by the control it gave them to address issues of importance to them in their classrooms and schools.

'You haven't got someone standing up there saying this is the team rule, this is what you need to do, blah, blah, blah,. You can say right this is what I want to do and this is what we're going to look at and were going to be producing at the end of it.'

'CPD is Ok because you pick yourself, have some sort of choice but this is me starting with a question rather than being given a directive.'

For the enquirers without exception this was a highly motivating aspect. They talked of how it took them back to primary motivations for teaching.

'It's like the inspiration. You have the ideas and you know you want to do it but you get caught up the everyday job and the children. And it removes you, it doesn't remove you from the children, but it lets you see the children and see what you are supposed to be doing.'

This also applied at head teacher level. Two of the co-leaders described involvement in the initiative as the 'best professional development I have had.' And that it returned 'the focus back on learning which you tend to forget when get in the office and thee day to day job.' For many of the teachers it reduced their sense of isolation as professionals and the collaborative element was seen as very important. For some the desire to go deeper into the enquiry process could also be frustrating. One of the co-leaders saw the closeness to the classroom as central to the work and that the next step was to develop leadership at this level. He talked about lead learners as the key area for development.

Important elements of the process

The initial learning about the process of enquiry was that it had been too general and open-ended lacking clarity of focus. The metaphor of the journey being important was also seen as a drawback in that it distracted from the need to clarify the enquiry. This was an area that the network felt they needed help with and that outside support would be valuable. The facilitator was highly valued and seen as important bridge to the wider world of knowledge and learning.

The social cohesion of the groups was a key factor. Groups that failed to start well soon collapsed and the dynamic within the groups was key to their continuation. This was also noted by those not engaged in an enquiry group and affected their valuing of the activity. Where enquirers shared a key stage or phase such as those working in the nursery found it easier to have a shared sense of purpose. The capacity for primary teachers to

work regularly across schools is unusual and the organisation is a big task. It was also highly valued.

Knowledge use and knowledge generation

One of the areas that many involved were reflecting upon was whether the enquirers had drawn upon publicly available knowledge and how they had generated new knowledge. They had clearly brought their practitioner knowledge to the table and gained much from sharing it. The enquirers had found it difficult and time consuming to draw on wider research and knowledge. They had largely used the Internet or the expertise of others outside of the school such as LEA consultants. The Networked Learning Group played a key role here. Methods and tools such as learning walks had been used widely and seen as important. This is a need for such debate within learning communities and this was reflected upon by one of the NLC facilitators, who talked of the need to moderate the claims of the enquirers based on the enquiry that they had undertaken and the need for 'content knowledge'.

The whole issue of the basis of the knowledge being shared and generated, as well as the status of the claims is a wide one and one that taxed this community in its development. Truthfulness and believability were key criteria for the judgement of findings but it was acknowledged that there was a need to explore further the basis for the knowledge being generated and the impact it had had. Many talked of the need to have a bridge or to have someone who could fulfil this function. The facilitators had been highly valued in this role but they saw the need for someone to mentor the process. One model posited was of using colleagues from higher education. The network had engaged initially with a University but this had been seen as unworkable largely due to the finance required to do this. Some enquirers valued their contacts with higher education and regretted the lost connection. The university was seen as a potential resource for the technical training and support of research and enquiry.

School-to-school learning

The Network had pooled the resource of time and used Continuing Professional Development time to meet as a whole network and to share the results of the enquiries and to also discuss, reflect and plan the work of the network. This was valued and took the work of the enquiry groups beyond those immediately involved. However, as in other networks, the task of sharing what was learned is necessarily slow and if it is to go beyond direct, face to face sharing requires the network to find ways of writing or sharing the outcomes. The writing was difficult and the provision of a writing framework by the

NLC facilitator was valued. Where schools had aligned the work to the groups already existing in schools the school-to-school learning was more efficient.

The head teachers and teachers interviewed were clear that the schools and teachers in classrooms had learned a great deal and that it had affected practice at the level of the classroom and the school. The cross-school collaboration was seen as a key factor. There were many examples of practice changing as a result of the network enquiries e.g. the foundation stage group had decided to continue as part of ongoing practice to consult children and parents on the process and experience of transition as they had done as part of their enquiry.

> *Primary school teachers don't necessarily have the time to go out and visit other places but this school was a failing school 9 years ago. We've had to look outside the box and my staff now go into others school as well and support them so there's a lot* [of school to school learning] *so the culture that we've now got has changed.*
>
> (Head teacher and co-leader)

Sustainability, Support and Leadership for Research and Enquiry

The co-leaders felt that they had learned a great deal about the process and they identified the following as key elements in sustaining research and enquiry: the involvement and commitment of the head teacher; resources to be clearly supporting the work of the enquirers and linked to processes of accountability i.e. not giving schools money unless there was research activity; having external support that provided a bridge to the world of ideas, research and resources; aligning the enquiry to the central school tasks and structures; and having leadership capacity that was closely connected to the classroom.

The leaders of the network were also aware of the tensions and difficulties in the process. They felt that at times there was a cultural tension in that the national climate was one of performance and accountability, whereas learning was about making mistakes, experimenting and critiquing. The development of a 'risk culture' was seen as an important element in the development of a learning community. The different agendas that leaders have to manage could be in tension and this is particularly important in areas such as Hartlepool where the head teachers are often managing very difficult contexts. One of the schools was placed in special measures and this did create a real anxiety within the network that perhaps it would place their much-valued work at risk.

The leaders of the network were clear that this work demanded capacity of different sorts: the capacity to meet the demands of the work of collaborative enquiry i.e. the organisational demands which are considerable; the capacity to facilitate research and enquiry; and leadership capacity. The leaders acknowledged how demanding the work of leading a network was and that they needed as a next step to develop leadership at different levels and to distribute it. They were in some agreement that head teachers did not have the capacity over a long period to carry the leadership alone. They had valued and needed the work of the external facilitator. An example of the leadership dilemmas is exemplified here,

> *It has got to the point now where I'm thinking there's more work here, there's more from yesterday's conference, people have got interests, they want to do this, they want to do that and actually yeah this is brilliant but I don't want my school to suffer or me personally to suffer when most of my time is being pushed towards network and not the school. So I think there's a capacity issue as far as leadership's concerned at the moment which we'll have to discuss.*'

Timescales were also an issue that needed managing. The time it takes to conduct an enquiry, reflect, discuss and then write up or disseminate face to face an enquiry did not always match externally imposed deadlines or the pace of school practice. Dissemination and communication of the outcomes of the research were a clear challenge. So the challenges of research and enquiry were very evident but they were not reasons in the view of this network for not undertaking this work but rather developmental challenges to be met in the next stage of the journey.

References

Jackson, D. & Leo, E. [2003] *Knowledge Management in Networked Learning Communities.* Paper presented at American Educational Research Association, Chicago, IL.

Holmes, D. [2004] *Nuts, bolts, levers and cranks; designing enquiry -based learning in Hartlepool.* Cranfield: National College for School Leadership Networked Learning Group.

Mosley, J. [1998] *Quality Circle Time in the Primary Classroom.* Cambridge: LDA

Questions emerging from this case study

1) ***Are there different criteria for judging the outcomes of research and enquiry and professional reflection?***

2) ***How can the different members of the educational community engaged in research and enquiry be brought together to work in alignment?***

3) ***What is the audience for practitioner research and enquiry? What are the demands of the different audiences?***

4) ***How can schools be supported externally to undertake the additional demands of networked learning?***

5) ***How can school leaders be helped to manage the different and sometimes competing demands of external agents and networked learning?***

6) ***Is there a limit to the ability of school leaders to undertake these activities without structural change?***

Table 3: Evidence to Support Case Study of Hartlepool NLC

Schools visited	• 5 out of 12 in total
Interviews	• 30 formal in total, comprising… • 3 co-leaders (3 interviewed x 2); 2 Networked facilitators; 25 teachers

Observations	• 2 in total, comprising… • 2 conference days
Archives / Documents	• Enquiry group logs; enquiry reports; articles written about networks; other general documents
Questionnaires	• Teachers in all schools were given questionnaire

South West London Networked Learning Community

Kristine Black-Hawkins

Table 1: Background Details of South West London NLC
Total number of schools = 6 secondary schools, comprising…

• 5 (were 6) secondary; 1 junior • Non selective
Approximate number of teachers = 600
First cohort of Networked Learning Communities (funded 2002 – 2005)
Relevant organisational links / partnerships: • Excellence in Cities (EiC), including 'Gifted and Talented' network • London Borough of Hounslow LEA • St Mary's University College, London

Membership of this network comprises one junior and five (were six) secondary schools, all within the London Borough of Hounslow. The overarching purpose of the network has been the improvement of students' academic achievements through the development of higher order thinking skills, with a particular emphasis on teaching and learning within the science curriculum. The primary means of realising this aim has been through the provision of opportunities for teachers to engage collaboratively in research and enquiry activities which focus on the development of their classroom practices. Funding from the NLC has largely been used to support this work, including the dissemination of research findings as well as the sharing of associated teaching and learning materials with all teachers across the network via a CD-Rom.

Schools in this LEA do not necessarily have a strong history of working together, although since the borough became part of the Excellence in Cities (EiC) initiative (DfES, 1999) there have been greater opportunities and incentives for collaboration. An example of this is the establishment of a LEA Co-ordinator to support 'gifted and talented' students, across a group of fourteen schools. The post holder is also one of the two co-leaders of the NLC; the other, is an assistant headteacher in a network school. Both have considerable experience of supporting teachers' professional development and between them have taught in a number of different schools within the LEA. The network has developed links with a member of the academic staff from St Mary's University College, London, who has provided research skills training for the teacher-researchers. Finally, a critical friend from the Institute of Education, University of London has offered advice on and evaluation of the network's activities.

The LEA has 'a low socio-economic profile in many areas' (NLC bid), although some parts are more affluent than others. Whilst the network's six schools are relatively close to each other geographically, there are important variations amongst them. The most obvious distinction is that only one is a junior school: the network was originally for secondary schools only. However, the NLC bid also notes that, across the LEA, progress in primary science is generally better than at secondary level. The later

inclusion of a junior school in the network has therefore provided opportunities for the secondary teachers to benefit from the experiences of their primary colleagues. Amongst the five secondary schools there are significant differences in student intake. Two of the schools are for girls only and three are co-educational; one is Church of England, four are non-denominational. In one school, over 70% of students are classified as being of ethnic minority descent whilst in another the figure is 18%, with student intake being predominantly white. Examination results also vary and local perceptions are that some schools are 'better' than others; certainly some are more popular with parents/carers. When the network was first formed, students achieving five or more GCSEs at grade C or above in the five schools, ranged from 28% to 65% (LEA average = 49.5%; national average = 51.6%; DfES, 2002). See Table 5 for further background details about the network. See Table 4 for a summary of the evidence collected to support this case study.

Developing teaching and learning through planned collaborative research and enquiry

From its inception the primary function of this network has been the development of collaborative practitioner research and enquiry. However, the nature of the research that has taken place has clearly been shaped by previously identified concerns about teaching and learning across the network and within the LEA more generally. Research in this network has particularly focused on bringing about improvements in the areas noted in Table 2.

Table 2: Key Purposes of Research in South West London Network
• The teaching and learning of science • The development of students' higher order thinking skills • Teacher collaboration within the same school, across different curriculum areas • Teacher collaboration within the network, across different schools • The development of leadership skills and qualities in the teacher-researchers

The focus on science is especially relevant to the network's overall approach to research. In the bid to become a NLC, concerns about science teaching were described as follows:

> *'There is a widespread pattern of underachievement in science. This has been exacerbated by the impact of the recruitment crisis and the turbulence of staff which has resulted. Science teachers, in particular, are now having to take on the training and support of temporary and overseas trained colleagues.'*

Practitioner research is seen as having the potential not only to support the recruitment and retention of science teachers but also to provide much needed professional development for those in post but with limited experience of science teaching in the UK. Furthermore, by building in opportunities to research collaboratively with teachers from other subject areas and different schools, but always with a sharp focus on thinking skills, the intention has been to improve students' learning across the curriculum.

Although these may seem a highly ambitious set of expectations for practitioner research, a carefully staged programme was devised to support the work of cross-curricular research (see Table 3). This gradual process was seen as important: as one co-leader explained, they were *'starting from scratch… no history of research in the schools*'. In the first year, therefore, there were to be two teachers (one science and one foundation subject) working together on a research project in which they had a common interest, question or concern. They were to be provided with research skills training and support from St Mary's University College, London. In the second year, the original pair of teachers were to induct two more colleagues into the research process, so that there would be four practitioner researchers in each of the schools. In the following and subsequent years the numbers of teachers engaging in research would increase further, building on the developing knowledge and expertise in the schools, including opportunities for cross-network research. An important intention here was also to develop qualities of leadership amongst experienced teacher-researchers as they supported others in their schools.

Table 3: Programme for Practitioner Research in South West London Network

Year	Number of researchers… at each school…	… in the network
1	**x1 science teacher + x1 foundation subject teacher**	**2 x 6 = 12**
2	**x2 science teachers + x2 foundation subject teachers**	**4 x 6 = 24**
3	**x4 science teachers + x4 foundation subject teachers**	**8 x 6 = 48**
4 →	**Continue to expand…**	**????**

Whilst this programme provided a framework for the research, in terms of numbers of teachers involved as well as expectations about collaborative working practices, it was also sufficiently flexible to support and encourage a wide variety of research activities to take place. Table 4 provides some examples of the topics of research carried out by teachers in year 1.

Table 4: Research topics undertaken in the first year of the South West London Network

- ‘Adding value to learning’. The usefulness, etc, of homework to students (science a and geography)
- ‘The mind’s inner eye – independent learning by reflection’. Student reflecting on their learning and learning style (science and history)
- ‘Altered images – reflecting changing perceptions by pupils of themselves as learners’ (science and geography)
- ‘Investigation in to transition between KS4-5’. Developing strategies to raise added Value in exam results (science and French)
- ‘Road maps and signposts – drawing independent conclusions’. Developing organisational structures that pupils can use to organise their own thinking’ (science and history)
- ‘The question free – Fruitful questioning beyond the question mark’. Developing higher order thinking skills for children and staff, based on Bloom’s taxonomy (two class teachers, junior school)

All these topics fit into the network’s theme of developing students’ higher order thinking skills’. Beyond that, researchers have been strongly encouraged to identify problems, interests or needs which focus on their own classroom experiences. This ‘ownership’ of the focus has been important to the development of the research.

> [We] *start from… the teachers’ needs… “What are the gifts, what are the challenges, what are the passions that this particular person has got? And, how can we harness these to move the school on?”… If you allow people to do that which they’re passionate about they will do it much better… if you employ people who are questioning about their own practice, the nature of the school in which they are, their work will throw up questions that they want to find answers to. And if you enable them to identify and then chase those questions, you are … naturally then answering the school’s problems because the problems that they are interested in have evolved from the school.*
>
> (Assistant Headteacher)

Within these parameters there is general agreement amongst those members of the network who were interviewed that the methodological framework used is an action research model. This has been shaped by the research training provided the HEI in conjunction with the co-leaders. For practitioners, action research is seen as a pragmatic and robust response to their classroom concerns; a process involving the identification of a professional problem or interest, the implementation of a programme of change and the evaluation of the effects of doing so. This understanding is illustrated by the comments from two teachers noted below:

> *‘At the beginning I associated action research with something very academic… that you might do at university… that required lots of data collection… to do with producing an end piece which was reams of paper or a big thesis… Now I just think of action research as enquiry, as doing*

what I do anyway as a teacher, being reflective about the kind of practice I use in my classroom, about the way in which I teach the children, but just making it a bit more evidenced based.'

'You obviously have to have something to measure. In terms of… classroom practices it's seeing whether this thing that you're looking at has any impact on your class… If I use this in my classroom will it improve the things that I'm trying to improve?... So for us it was thinking skills… what tools can we use to improve thinking skills?'

As might be expected, members of senior management teams viewed action research as contributing both to the professional development of individual teachers and also more broadly to the school as a whole. Such purposes are evident in the two statements below.

'There has been thinking and reading and understanding of what we're doing… As an outcome of this, [name] *and* [name] *are more reflective teachers… I think anything that will move people's thinking towards not just the difficulties and the problems but the possibilities… It's that reflective learner which is what we're all meant to be as teachers but in reality very few people are.'*

'Action research… challenges what I think we often get in teaching which is: "This is what happens in my classroom therefore I know it to be true'… We've tried within the school to encourage the staff to be critical, not destructively critical, but to ask difficult questions… in a constructive manner. We don't see it as challenging. We see it as part of a healthy school.'

Putting the programme into practice: successes and challenges

The programme for research (Table 3) has been more effectively implemented in some schools than in others. One co-leader noted that, since collaboration was expected from the start, the original pairing of researchers proved to be *'crucial'*. That is, it worked particularly well when the teachers were mutually supportive and encouraging: keen to learn together and share ideas, methods and materials. She also highlighted two key characteristics of those researchers most likely to persuade further colleagues to engage in and/or with research. These were: to be *'passionate advocates"* of practitioner enquiry and to be highly respected by other staff in terms of *'classroom credibility'.*

All interviewees, involved in the first year of the programme, greatly appreciated the research training provided at cross-network meetings. These were co-ordinated by a member of staff from St Mary's College who was particularly valued for her support and guidance. An assistant headteacher from one school described her as being *'an absolute star'.* The following comment by a year 1 researcher is also typical:

'She was really influential… really good at talking us through the process … making sure that we had all those different elements incorporated in our projects… giving us the confidence.'

From year 2 onwards the amount of research training provided was reduced because new researchers were expected to be supported within their schools by year 1 'mentors'. However, this approach encountered some important and unanticipated difficulties. Most notably, its success was largely dependent on the first pair of teachers remaining involved in the research programme so they could provide the induction for colleagues. In a number of schools some of these key staff left, others stayed but withdrew from the research. In one school, for example, the year 1 researchers dropped out of the programme because of other pressures on their time and were not able to support their new year 2 colleagues. Instead of being part of a group of four, they found themselves in the same position as year 1 researchers a year earlier but without the training programme provided by the HEI. Such circumstances also brought about other tensions across the network when researchers from years 1 and 2 from different schools came together for meetings.

'We found it hard in the second year. In the first year it was fine. There were only two researchers from every school and everyone was very eager but in the second year when we had two more researchers come aboard from each school it was really hard to integrate them … At the beginning we all had the same starting point: we were all brand new, didn't know anything about action research. In second year... we wanted to move on … but we'd taken on some new second year researchers as well, so do we start from the beginning?'

Indeed, the staged process (Table 3) has only been fully been implemented at the junior school: that is, developing from two, to four, to eight practitioner researchers over the first three years. Interestingly, at this school the original model has been expanded so that *all* teachers are now expected to be involved in action research activities.

The co-leaders summarised the main practical difficulties facing the schools as being:

- Establishing a common research strand, across each pair of teachers
- Inducting or coaching new researchers; for example, from year 1 to year 2
- The specific, and often challenging, circumstances of some schools, particularly staff shortages
- Key teachers moving to other schools so that even if excellent research, has taken place, it becomes difficult to sustained.

Some teachers identified an additional problem regarding attendance at network

meetings. They articulated a strong commitment not to leave their classes unless they were appropriately staffed and this has not always been straightforward for those schools where it is less easy to ensure suitable 'supply cover'. Furthermore, irregular attendance at meetings was considered to effect the continuity of the shared work across the network.

The success of the research undertaken in individual schools has partly been determined by the level of support it is given by headteachers and their senior management teams. Particularly important is the provision, by headteachers, of opportunities for researchers to share their findings with colleagues in ways that are likely to make a difference to classroom practices across the school.

> *'Where the head teacher has clearly made a commitment, a real, real commitment, then it's been more successful. It goes without saying… Because then it is going to be in the School Development Plan... It is going to have a profile within the school. … Where those heads have teaching and learning at the heart of their school and driving their school, you've got more effective action research going on.'*
>
> (headteacher)

Headteachers have also had an important role to play in terms of their involvement in the network's steering group, which has overseen planning, including the financing of the research activities.

In some schools it has been possible to be a highly enthusiastic and competent researcher and yet have a limited impact on the teaching and learning taking place outside one's own classroom. One co-leader argued that headteachers have to *'make time and space for* [research] *to happen'.* At the same time, she acknowledges that this has not always been straightforward: there are *'competing priorities for management* [who] *therefore intellectually understand but can not always support in terms of giving time'.* She described one headteacher who was keen to participate but because of *'challenging circumstances and shortage of teachers* [was]… *struggling to maintain momentum'*. By year 3, this school only had three teacher-researchers in place rather than eight as planned.

More generally, interviewees (co-leaders, teachers and senior staff in schools) referred to the importance of the culture of a school in terms of providing a suitable environment in which practitioner research could flourish. However, the notion of a causal relationship between a school's culture and school-based research is seen as problematic. Some

argued that those schools most in need of the benefits of being involved in such work may also be least likely to have the capacity to do so, not only in terms of times and resources but also the leadership skills of their management teams. So whilst one person noted, '*We need to engender a culture of enquiry in the schools'* another described a primary purpose of the network as being to *'Create a culture of innovation, creativity, risk-taking'.*

Sustaining research and enquiry in the schools and the network

The following are some of the key ways in which the effective use of research and enquiry in this network have been supported and sustained:

- The sharp focus on teachers' own classroom interests and problems has helped to sustain the research activities in some schools. Making a difference to the learning experiences of students has been a central concern of the researchers.

- Although the development of paired researchers has encountered some difficulties in some schools, where it has been successful it has worked very well, providing mutual support, encouragement and intellectual rigour, which together have enhanced the quality of the research undertaken.

- In some schools the role of research mentor / coach has provided important opportunities to develop the leadership qualities of teachers who are not necessarily part of established school management structures. This, in turn, has enhanced job satisfaction and may have contributed to the retention of such staff.

- The research training provided by the HEI has been crucial to the success of research activities: offering useful technical skills and knowledge to teachers as well as developing their confidence. It has also allowed a shared language and understandings across the group of researchers, thus supporting their learning as a network.

- The role of the co-leaders has been important in supporting the research. They have guided and promoted the work of individual researchers as well maintaining communications across the network, research training and other associated activities. In particularly, they have co-ordinated the production of a CD-Rom to provide access to the research for all teachers in the network and not just those

directly involved.

Some reflections on research and enquiry, in this network

1) **In this network… the expansion of research within individual schools and across the whole network was organised through a staged programme.**
   - ***What might be the advantages of planning the gradual introduction of research in this way? What might be the disadvantages? What difficulties might arise and what actions might be taken to lessen their effect and/or prevent them from occurring?***

2) **In this network… teachers were encouraged to research in pairs in each school.**
   - ***What might be the advantages and disadvantages of working collaboratively like this? For researchers? For a school? For a network? What professional and personal qualities might teachers require to research successfully in pairs?***

3) **In this network… the preferred methodological framework was an action research model.**
   - ***What are the strengths of such an approach? How might it support practitioners to bring about changes to the teaching and learning taking place in their classrooms? What other methodological approaches might be considered?***

4) **In this network… the provision of a research training programme was considered essential.**
   - ***What might be the core components of such a programme? How can effective training be provided over a period of time, especially in schools where staff turnover is high?***

5) **In this network… the research programme was more successfully**

implemented in the junior school than some of the secondary schools.

- ***What might be the advantages for practitioners undertaking action research in a primary school? For example, what might be the impact of size of school and also classroom teaching and timetabling in such a setting?***

6) **In this network… the progress of the research was partly determined by the cultures of the schools in which it took place.**

- ***What are the key elements required to develop a culture of research in a school? What actions might be taken by members of senior management to support such a culture? What aspects of schools' cultures might prevent practitioners from engaging in useful research?***

References

DfES (1999) Excellence in Cities initiative, www.standards.dfes.gov.uk/sie/eic, (accessed September 2005)

DfES (2002) www.dfes.gov.uk (accessed September 2005)

Table 5: Evidence to Support Case Study of South West London NLC	
Schools visited	• 3 in total, comprising… • 1 junior and 2 secondary
Dates of visits	• November 2004 - May 2005
Interviews	• 10 formal in total, tape recorded and transcribed, comprising… • 1 headteacher; 2 assistant headteachers*; 6 teachers; 2 network co-leaders (*one is also an assistant headteacher) • Various informal conversations recorded in note form, including… • Co-leaders, teacher-researchers from all 6 schools, NLC facilitator

Observations	• 2 in total, comprising… • 1 network meeting: including 10 teacher-researchers • 1 network research presentation at NLC conference
Archives / Documents	• Network level, including… bid to become NLC; Spring Enquiry (February 04); Year 2 Review for NLC; Research Support Programme 2003-04 (Hounslow LEA and St Mary's College University); research summaries; etc • School level, including… prospectuses; policy documents; etc. • Classroom level, including… teaching and learning materials devised by teachers-researchers from each school; CD-Rom and paper format
Questionnaires	• 600 teachers, 28 returned

SUPER Networked Learning Community: Cambridge Schools-University Partnership in Education Research

Kristine Black Hawkins and Colleen McLaughlin

Table 1: Background Details of The Cambridge SUPER NLC
Total number of schools = 8 secondary schools
• Co leaders from the schools and the university • HEI link - University of Cambridge Faculty of Education
Approximate number of teachers = 800 Approximate number of pupils = 10,000

First cohort of Networked Learning Communities (funded 2002 – 2006)
Some features of this network: • Partnership between the schools and the university • Been in existence since 1997 • Three interconnected and shared research foci or themes. These are: • Independence in learning, for students and staff. • The development of student voice in learning and in the use of evidence. • Learning about leadership. • Two key aims: • to support, develop and collaborate on producing research • to research the conditions necessary for effective research to take place within individual schools, across individual schools and between schools and the university. • Has developed roles such as Teacher Research Coordinator, Student Voice Coordinator and Critical Friend

Because SUPER is a network of which we are members, we are particularly aware not only of its strengths but also of its limitations. Furthermore, our involvement necessarily influences this portrayal of the network, as our perspectives are different from those we have brought to the other case studies.

Who are the members of the SUPER network?

The institutional membership of this NLC comprises nine organisations based in East Anglia: eight secondary / upper schools and the Faculty of Education, University of Cambridge. Together this constitutes a population of approximately eight hundred teachers and ten thousand students all of whom potentially could be both the researchers and the researched. The schools are diverse and geographically distant, which has advantages and disadvantages. They are seen as successful schools by common public measures of education. For example, many are beacon schools and/or have been awarded specialist status. Generally, they could not be described as working in challenging circumstances. See Table 1 for further background details about the network. See Table 6 for a summary of the evidence collected to support this case study.

There are key individuals in each of the SUPER schools, and within the Faculty, who are required to fulfil particular roles and responsibilities to support both research and networking activities. These are outlined below in Table 2.

Table 2: Key roles in the SUPER Network
In the schools: • Teacher research co-ordinators (TRC): are expected to co-ordinate and support research generally in their schools and network with each other and the Faculty. • Student voice co-ordinators (SVC): are expected to co-ordinate and support research in their schools around issues of student voice and meet across the network and with the Faculty. • Headteachers: are expected to support the management of research in schools and to network actively with each other and members of the Faculty.
In the Faculty: • Critical friends (one per school): are expected to support research in the schools and also to undertake their own investigations into the nature and development of the research and the networking taking place in the school. • Network manager: is expected to co-ordinate networking activities as well as be a critical friend. • Network research officer: is expected to research the SUPER network as a whole and also be a critical friend.

Why be in the SUPER network?

SUPER was set up in 1997 and, therefore, existed before the introduction of networked learning communities as a national scheme. It developed out of the interest and support of Professors Donald McIntyre and David Hargreaves at the Faculty and from a range of existing associations they had with a small number of local headteachers. Professor McIntyre successfully applied for funding in 1999 from the Wallenberg Foundation and in his proposal to them he highlighted two fundamental and related aims of the project. These were: not only to support practitioner research taking place in and between the schools, but also to research the processes and conditions necessary for such research to flourish. From this the following overall shared research purposes developed, as summarised in Table 3 below.

Table 3: Shared research purposes of the SUPER Network
1. To explore the conditions and effects of schools and a university working together to generate and to make use of educational research.
2. To engage with and in school-based practitioner research.
3. And, in doing so, to address the following questions: • What kinds of research are useful, why and to whom? • How can a school develop a research culture? And, what does this mean? • What kinds of networking structures, processes, activities and relationships help to develop and sustain research within and between the institutions?

There are also three interconnected and shared research foci or themes, chosen by the TRCs, headteachers and members of the faculty. These are:

- Independence in learning, for students and staff.
- The development of student voice in learning and in the use of evidence.

- Learning about leadership.

They have been constructed to be deliberately broad so as to provide teachers, students and schools with opportunities to research specific areas which are relevant and of interest to them, rather than imposed by others. This openness has also allowed scope for connections to be made across the network. (The role of SVCs was established as a direct result of the second research focus/theme).

How these broad research purposes and foci are understood and acted upon by each of the nine institutions, as well as by the individuals within them, is therefore largely determined by their own contexts, interests and concerns. For example, it seems that teachers are generally motivated by the shorter-term practical application and usefulness of research in their classrooms; headteachers are interested in the overall effects of research on their school improvement priorities; members from the Faculty are more motivated than either of these groups by the need to undertake longer-term research and which is publishable. Therefore although there is sharing and collaboration within schools and across the network, the reasons underlying such processes are not necessarily straightforward.

The research undertaken has been highly varied within and between schools and has taken place in various arenas. It has been teacher or university led or initiated; undertaken by teachers, teachers and students, or students alone; across schools or in individual schools; time-limited or ongoing e.g. replicating research already undertaken; or in a classroom, faculty or school wide. Although the levels of research activity have varied considerably, it can be generally categorised as noted below in Table 4.

Table 4: Main categories of research activities in the SUPER Network
1. Individual teacher research – initiated by an individual or a general school question [by far the largest category in terms of research work being undertaken].
2. Subject and departmental research – school or university initiated – individual or collaborative - within or across schools
3. More thematic and collaborative research across the schools- initiated by a school, individual or university
4. Student-undertaken research either on a topic initiated by a teacher, university colleague or by the students themselves

How does the SUPER network work?

Similarly, identifying the conditions, structures, processes and activities, which have supported the work of SUPER, is not unproblematic; it is also necessary to take into account the range of needs and demands of different members and at different times.

Therefore, within the framework outlined below there are significant variations between how (and how much) each school (and the staff and students within it) sets out to engage in its own research and how it chooses to research and to network with others. Nevertheless, the following three areas seem to be crucial to the development and sustainability of the SUPER network: the role of key individuals; clear but broad defined research foci; strategies for network meetings.

The role of key individuals, as described below, appears to be central (see also *Who?* above). However, their effect on research and networking activities is largely determined by how far they are able to encourage and enthuse other members of their institutions to become involved in the work of SUPER.

    - TRCs: are expected to be released from timetable for the equivalent of one day a week to co-ordinate research taking place in their school (e.g. supporting teacher-researchers) and to engage in networking activities (e.g. meeting half-termly with other TRCs). They are able to be most effective in those schools where their time is consistently protected.

- Headteachers: are able to provide opportunities and resources, including time, to enable research and network activities to take place, most crucially by ensuring that TRCs are able to fulfil their role. However, it is clear that the support of headteachers in terms of the creative use of resources / time is important for all those engaged in research activities. Headteachers are also important in terms of establishing the status of practitioner research in their schools (e.g. by building research into the school development / improvement plan; by engaging in research themselves; by responding positively to the research findings of members of their school, etc.).

- Network coordinator/manager from the Faculty: is able to develop and maintain communication strategies for the network (e.g. face-to-face meetings) as well as to encourage debate around key issues such as network relationships and roles (e.g. shared responsibilities, mutual trust, etc). She is also able to provide research training sessions for members of SUPER schools, including not only TRCs and SVCs, but also teachers and students-as-researchers.
- Critical friends: are able to support research in the schools by offering practical help and information (e.g. also training students as researchers; mentoring teacher-researchers to conduct, write and disseminate research) as well as access to the Faculty facilities (e.g. library services and specialist knowledge of academic

colleagues). Critical friends are also able to provide an outside perspective about the school with which they are paired (e.g. asking helpful and, at times, demanding questions and providing feedback on what they observe taking place).

Earlier efforts to engage the network as a whole in more focused collaborative research undertakings were not always successful because of differences between schools, especially their members' context-specific needs and interests. However, the more recently established three shared research foci/themes (see *Why?* above) have provided a common structure for the network's research activities, whilst at the same time being sufficiently flexible to be interpreted in ways which are relevant to individual schools, teachers and students. For example, the theme of student voice has been developed in one school so as to gather students' feedback on teaching and learning across the curriculum; in another school it has become a key process by which to gather evidence in any research undertaken there; in yet another, it has informed the reasoning behind the introduction of a programme of student-as-researchers. This range of activities not only takes into account the contexts of the schools but also provides rich opportunities for learning across the network as the different approaches to the theme of student voice are discussed in terms of not only the substantive issues with which they engage but also the research processes involved.

There are a range of meetings which take place regularly within the SUPER network. Their primary purposes are:

- To develop and sustain research activities in the schools.
- To develop and sustain research activities across the network.
- To support and strengthen relationships between key members.
- To encourage effective communication across the network as a whole.

However, none of these objectives is achievable merely by either organising or attending a meeting *per se*. Their value is in the opportunity they provide for people to get together, talk to one another and share their concerns and enthusiasms. Meetings which focus on the exchange of ideas rather than giving out of information have been the most fruitful. Network-wide meetings take place once or twice a term, and are co-ordinated and supported by the project manager and research officer from the Faculty. They are intended to support, develop and sustain the roles of the following key people: TRCs, SVCs, Headteachers and Research critical friends.

Additional structures for meetings include:

- External steering group: comprising representatives from each of the other groups noted above: meeting once a term to report on and monitor the activities in the network.
- Annual overnight conference: to evaluate progress and discuss future intentions of the network.
- Research support/training sessions: for staff and/or students, facilitated the Faculty (e.g. teaching and learning days, to share research activities with others in the network).
- Internal steering groups: attended by members of individual schools, plus critical friends.

Critical reflections

Vivienne Baumfield (University of Newcastle) was invited to act as a critical friend to the partnership and she identified the following strengths, tensions and dilemmas. 'The benefits of SUPER included being associated with a prestigious university, access to research expertise through the relationship with the critical friend and the opportunity to collaborate across institutions, all of which motivated staff and helped to develop a 'research friendly' ethos in the schools. Tensions tended to reflect issues associated with the management of the partnership in terms of adjusting to different cultures as evident in the difficulty of matching the pace and timing of activities and different expectations across the schools as to what should be a priority for SUPER. Links between individual schools and the university were strong but this was sometimes as much a consequence of a history of overlapping contacts through ITE, CPD and individual research projects as more directly through SUPER but as far as the respondents were concerned this was not important as they did not make such distinctions. However, problems in communicating effectively were raised and the extent to which individual schools had an overview of what was happening across the partnership was questioned. The tendency to channel activity through the university was criticised by some teachers who felt that this restricted the scope to learn from the expertise of school leaders or distribute leadership and there was a suggestion that this issue was becoming more acute due to the expectations of the Networked Learning Group. However this was a minority view and all the respondents were enthusiastic about being a member of SUPER and valued the contribution of the university; it is mentioned here only as an indicator of the complexity of leadership in the partnership.

Unanimity as to the benefits of the link with the university through SUPER overlay differences in the scope and extent of the partnership for the different schools. For some

the benefits were conceived of principally in terms of professional development for staff, for others the link was part of a strategy for school improvement through teacher research, in one instance expressed explicitly in terms of the concept of knowledge creation and for others it was the opportunity of collaborating in university led research projects based in their school. There were also differences in the extent to which the partnership with the university was exclusive as opposed to one aspect of a more diverse set of contacts with external agencies, including other universities. The diversity of activity and conceptions of the purpose of SUPER in terms of being principally an agent of change through promoting professional learning, school improvement or research was not presented as a problem by the school staff who saw all aspects of their involvement in SUPER as potential benefits; however, such distinctions did pre-occupy the university staff.' [Baumfield, forthcoming]

Questions arising from the work of this network

1) **This is a long-term partnership.** ***What are the advantages, disadvantages and needs of such long-term partnerships?***

2) ***What are the tensions, dilemmas and benefits of working in partnership with a University department of education?***

3) ***What structures might inhibit or facilitate networked research and enquiry?***

4) **A particular feature of this network is the involvement of students in research and enquiry.** ***How might this be developed in a network? What are the benefits and challenges of this work?***

Writings by members and associates of the SUPER network

Table 5, below, provides a selection of writing undertaken by members of SUPER which explores further the who, why and how of this schools-university research network.

Table 5: Selected writings by members of the SUPER Network
• Black-Hawkins, K. (2003) Are school-university friendships critical? Developing professional and institutional research relationships. Conference paper. *British Educational Research Association Conference*, September 2003. Heriot Watt University, Edinburgh. • Black-Hawkins, k. (2005) Stories of research from Sharnbrook School, Paper presented at the conference of the British Educational Research Association held at the University of Glamorgan, September 2005. • Ebbutt, D. (2002) The development of a research culture in secondary schools. *Journal of Educational Action Research,* 10 (1). • Jones, D. (2003) Reflections of a teacher research co-ordinator on the impact of teacher research to the school as a learning community. Conference paper. *British Educational Research Association Conference*, September 2003. Heriot Watt University, Edinburgh. • McLaughlin, C. (2003) Participation, dissemination and community: facilitating and developing research-focused learning communities. Conference paper. *British Educational Research Association Conference*, September 2003. University of Edinburgh. • McLaughlin, C. (2005) 'Partners in Research: What's In It For You?' *Journal of Teacher Development*. • McLaughlin, C. and Black-Hawkins, K. (2004) 'A School–University research partnership – conditions, paradoxes and tensions.' *British Journal of In-Service Education.* Vol. 30, no 2, pp. 265-285 • Richards, J. (2003) A case study of a researching school: Sharnbrook Upper School. Conference paper. *British Educational Research Association Conference*, September 2003. Heriot Watt University, Edinburgh. • Worrall, N. (2003) Oiling the wheels and cleaning the plates? Reflections on the first year of being a co-leader of a networked learning community. *British Educational Research Association Conference*, September 2003. University of Exeter. • Worrall, N. (2002) Teaching as a research-led profession: nothing but a pipe dream? Conference paper. *British Educational Research Association Conference*, September 2002. University of Exeter.

References

Baumfield, V [forthcoming] 'Bridging and bonding: perspectives on the role of the University in SUPER' in McLaughlin, C., Black Hawkins, K., Brindley, S., McIntyre, and Taber, K. *Researching Schools: stories from a partnership for educational research.* London: Routledge

Table 6: Evidence to Support Case Study of SUPER	
Schools visited	• Schools have been visited by the Critical Friends at least half termly and these visits have been research occasions as well as development times.

Dates of visits	• September 2000 - July 2005
Interviews	• Interviews with TRCs, SVCs, Headteachers, critical friends, students, teachers and university lecturers
Archives / Documents	• Partnership plans, writings by SUPER members, SUPER research reports
Questionnaires	• 600 teachers, 238 returned 36%

Surrey LIFE Networked Learning Community

Kristine Black-Hawkins

Table 1: Background details of Surrey LIFE NLC
Total number of schools = 10 secondary schools, comprising…
• 8 all age, 2 secondary/FE only (including ages from 2-19) • All special schools, for children and young people designated as having severe learning difficulties and other associated disabilities • All mixed girls and boys
Approximate number of teachers = 250 Approximate number of teaching assistants = 400
Second cohort of Networked Learning Communities (funded 2003 – 2006)
Relevant organisational links / partnerships: • Surrey LEA • University of Kingston

Membership of this network comprises all ten of Surrey LEA's special schools designated for children and young people identified as having severe learning difficulties (SLD). Some also offer specialist provision for pupils with other associated disabilities; for example, profound and multiple learning difficulties (PLMD) and/or autistic spectrum disorder (ASD). Eight are all-age schools whilst two cater for secondary students only: together they provide education for pupils aged two to nineteen years old, from nursery through to further education (FE). The acronym, LIFE, stands for Learning and Inclusion For Everyone. This refers to the network's overall aim to support the learning of *all* children and young people in Surrey, identified as having SLD. An intended focus is to develop outreach work from the special schools to children and young people in local mainstream schools and colleges. The network originally planned to work with the University of Kingston and Surrey LEA, however circumstances, such as staffing changes in those organisations, have meant that collaboration has been minimal. Some members of the network have found especially helpful the support provided by the NLC group, as is evident in their attendance at NLC meetings and use of their materials.

Relationships between the ten schools are described, by those interviewed, as being good and are certainly not constrained by elements of competitiveness that sometimes exist amongst mainstream schools in other networks. More than twenty years before Surrey LIFE was established, the head teachers of these special schools formed a consortium and this has continued to meet regularly to discuss common concerns and to share ideas. Over the years comfortable working relationships have developed and new head teachers are welcomed into the group. The consortium has now become the steering group for the network and all co-leaders are selected from its head teacher

membership.

There have been fewer opportunities for other staff to meet together across the schools or share resources. Two practical reasons hinder such activities. First, the ten schools are spread out across the county of Surrey: travelling between them can take considerable time not least because of traffic congestion. Second, staff-pupil ratios are critical in special school settings. Releasing teachers from the classroom is not straightforward and the use of supply teachers requires very careful management. Furthermore, a distinctive feature of Surrey LIFE is that there are more teaching assistants (TAs) than teachers working in its schools. Not only is it difficult to release TAs from the classroom, they mainly work school hours only and so after-school meetings are unsustainable.

Surrey LIFE is part of the second cohort of NLCs, formed in September 2003. Evidence for this case study was gathered when it had been operating for just over a year. Because this network had has little support from external institutions (apart from the NLC group) it has been reliant on its own members to provide research skills training and to organise structures to support research and enquiry activities in and across the schools. The steering group, understandably, has taken some time to put into place such arrangements, not least because the head teachers are keen to ensure that any changes will be sustainable after the network funding ends. Therefore, the emphasis of this case study report is on what might be learnt when a network of schools, with common interests and shared histories, set out to develop collaborative practitioner research and enquiry. See Table 1 for further background details about the network. See also Table 4 for a summary of the evidence collected to support the case study.

Developing structures to develop research and enquiry

In addition to the steering group, referred to above, the following research related groups and activities have been introduced. Some are more firmly established than others.

(i) Research co-ordinators group
(ii) Teacher research group - pupil voice
(iii) Assistants group
(iv) Learning walks

All include a strong focus on school-to-school learning by drawing on and making the most of the experiences of colleagues across the network.

(i) *Research co-ordinators' group*: Although this is the most recent group to be formed

it is likely to be particularly important in determining the use of research and enquiry in the schools and across the network. Therefore understandings of research and enquiry amongst its members will be influential to this work. Its first formal meeting was in March 2005, some eighteen months after the network started. It comprises one teacher from each of the ten schools plus two of the head teachers who are particular keen to support practitioner research. During this first meeting a general discussion took place about the role of the research co-ordinator and the following key elements were identified and recorded (Table 2).

Table 2: Role of the research co-ordinator

- Have an oversight of research in own school
- Have an oversight of literature resources
- Link with CPD co-ordinator
- Set up [school] systems and structures for sharing and giving feedback
- Attend LIFE research co-ordinator meetings and training sessions
- Contribute to LIFE website
- Develop research plan [for own school and for network]
- Develop research links with other networks / mainstream schools
- Bid for funding

A further discussion took place about the nature and purposes of practitioner research and enquiry in the context of Surrey LIFE. There emerged a high level of agreement amongst the group. Table 3 provides a summary of the key points recorded.

Table 3: Research and enquiry is…

- [A] tool to formalise what we are doing – more focussed, disciplined and structured - involving rigour in what we do - looking at things more deeply
- Asking questions, getting answers and doing something about it
- Staff working together in a collaborative way - sharing and developing ideas – sharing results
- Having the space and confidence to try things out – take risks
- Adding the knowledge and research from outside our own schools

One of the head teacher members of this group described her understanding of practitioner research in terms of ‘action research’ focusing on school and classroom

based issues.

> *It's not traditional research in the sense of… data collection… to see if that group's better than this group. It's really more I've got this idea or… problem about what's not working right and I've really got to look at it… in that more structured rigorous way, having the time and the focus to read up about it, see what other people are doing.*

(ii) ***Teacher research group - pupil voice:*** The pupil voice group was established early on in the network and has met regularly. It comprises one teacher from each of the schools, plus a head teacher. Its work is considered to be highly important by some, especially as many children and young people in Surrey LIFE experience different kinds of communication difficulties. One member of staff noted: 'Our students are done to all the time and it's very hard to get a pupil voice'. Providing a range of appropriate means by which the voices of students are heard is challenging for staff and a number of creative approaches have been developed, such as using photographs, signing and symbols. Across the network two particular aspects of this work have been emphasised: student councils and greater student involvement in annual reviews and associated Individual Education Plans (IEPs). The latter of these relates to the statutory requirements and procedures for students with Statements of Special Educational Needs.

So far, members of the group have concentrated on learning from each other's experiences and sharing classroom expertise, strategies and techniques. There is clear evidence that they consider these types of activities to be useful and that they have strengthened professional dialogue between the schools.

> *You hear about… a new idea or technique. Well, let's try this or let's try that, finding out in that kind of way… We'll discuss it and then we all go away and implement something and then obviously with our findings we come back and… we discuss again.*

The steering group's intention that pupil voice work should also be research focused, as noted in its name, has not yet been realised. However, it may be that the developing role of research co-ordinators in each school will support this proposed shift in emphasis.

(iii) ***Assistants' group*****:** Since the majority of staff in the network's schools are teaching assistants rather than teachers this is a potentially important group. From the start, and

in contrast to many other networks, teaching assistants have been given the opportunity to participate in the work taking place in Surrey LIFE. The group has, however, encountered some difficulties in terms of its members having sufficient time to attend network meetings and then to exchange what they have learnt with colleagues in their own schools. A number of approaches have been introduced to help to alleviate this: for example, the group are producing a network booklet to help disseminate their work. Within their own schools some TAs have tried out 'job-swapping' and others have organised a series of highly focused but brief (say, fifteen minutes) observations of colleagues. As with pupil voice, this group has concentrated initially on sharing classroom expertise, strategies and techniques, rather than engaging in research and enquiry.

(iv) ***Learning walks:*** The network has set up a extensive programme of 'learning walks': an idea based on the work of Lauren Resnick and introduced in Surrey LIFE by a NLC facilitator. The focus of these activities has been the role of the TAs. Schools have formed pairs and arranged reciprocal visits involving one member of the senior management team, a teacher and a TA from each school. Immediately after each visit, a head teacher from a third school joins the trio to lead a discussion about what has been observed. From this, three ideas are identified by each visitor to pursue in their own school.

Responses to the learning walks have generally been positive: they have increased some members' sense of being part a network and have generated excitement and interest about learning from others. One TA described her enthusiasm for visiting other schools:

> *I'd love to be able to go and see all the schools… It's hard in school because you're always rushing around so it is nice when you out of school without* [your] *children around… It helps because* [TAs in other schools] *can say we tried that and it didn't work for us and we can say it's not working too bad for us.'*

Other staff have been less supportive of the scheme. One head teacher argued that it depended on which schools you visited: that her staff 'can't really learn anything from some schools'. Some teachers suggested that the walks, rather than providing them with new ideas, simply affirmed their existing practices: 'Shows us how good we are'. The process of identifying three changes has also encountered some difficulties in terms of its practical application. One head teacher explained:

> *They are all so excited* [about learning walks] *but nobody knows what anyone's doing… It wasn't until… the other week and I said to* [another head teacher] *'Do you know what they're up to? What are people doing?' We hadn't shared it at all… their targets…* [don't] *necessarily fit into any of the school plans.*

The purpose of research and its benefits to schools

The groups and activities described above have contributed to the development of some network members' understanding of the purposes of research and enquiry. They have also brought some benefits to the schools. It is interesting to note that in Surrey LIFE a range of members consider themselves to being engaged in research activities, including head teachers, teachers and TAs. They describe their work in terms of being 'exciting', 'motivating' and 'rewarding'. This sense of democratic involvement is different from that found in many other NLCs, where it is predominantly teachers only who undertake research and enquiry.

All those interviewed and observed talked about the reason for their involvement in terms of improving teaching and learning in their classrooms and schools. This view is certainly reiterated throughout NLCs, but for Surrey LIFE this particularly relates to their working in special education and specifically in schools designated for children and young people identified as having SLD. They consider much current training and published research to be inappropriate to their situation because, as one teacher noted, 'When it gets to severe learning difficulties, it gets more and more specialist'. Another indicated: '[In] a special school… pupils will not respond to something that's not going to work for them, so we have to change, we have to adapt'.

Engaging in research and enquiry, and sharing their findings with others in the network, is really important for some of its members. A research co-ordinator explained her frustration when she first implemented the national literacy strategy a few years ago, because available support materials were designed for mainstream classes and were unsuitable for her students. This, however, gave her the impetus to undertake her own research as part of a Masters degree. '[Now] I think that I am a much, much better literacy teacher for doing it … it gave me the chance to reflect and write… and get it all clear in my mind'. The same teacher described her current enthusiasm about taking on the role of research co-ordinator for her school and being part of a network in which research takes place. She hopes that doing so will provide a pool of relevant and useful research knowledge on which she can draw.

> *I'm really excited because I know that whoever I meet* [in the research co-ordinators' group] *is going to be doing something that is probably relevant to me as a teacher in such a specialist area of education… Everyone coming together as… a network of people means that there will be discussion across the schools.'*

The purpose of research and enquiry in terms of bringing about school-to-school learning as well as alleviating the isolation of special schools is evident from teachers, TAs and head teachers throughout this case study. Some argued that engaging in research helps to reduce their separateness from the mainstream, not only in practical ways, but also in terms of how they are valued as professionals. As one head teacher explained: 'I've always wanted people to do… research to prove that we're part of the profession and we're worth something'.

Sustaining the development of research and enquiry in the schools and the network

Discussing how the effective use of research and enquiry has been sustained in Surrey LIFE is not straightforward as its work is very much at a development stage. Nevertheless, the following points may provide some useful guidance about a group of schools coming together to set up collaborative practitioner research:

- The long-standing relationship between the head teachers is a real strength of this network in terms of their knowledge about each other's schools and their willingness to work together. Their commitment as a group to the network is indicated in their formulation and full membership of the network steering group, including their decision that all three co-leaders should be head teachers.

- The determination of the steering group to be mindful of sustainability, from the beginning of Surrey LIFE, is likely to be a strength when developing practitioner research and enquiry. Initial activities have been focused on establishing structures (such as, the role of research co-ordinators and the pupil voice and teaching assistants groups) rather than on short-term research projects. However, the issue of attendance for teachers and especially TAs remains unresolved in some schools and this may hamper longer-term sustainability.

- Another early decision, likely to effect the sustainability of research and enquiry in the network, is the involvement of a wide range of staff in each of the schools. Head

teachers, teachers and TAs have all had opportunities to engage in network activities and these different perspectives should strengthen the work undertaken.

- The early focus on school-to-school learning, through the sharing of resources and ideas, has provided important opportunities for networking amongst members of the schools and may well help to build a strong foundation for future across-school collaborative research and enquiry.

- The role of the NLC group has been important in terms of providing resources to support research and enquiry through meetings, events and materials. The provision of research support by an external institution seems necessary so as to supplement the knowledge and experience that already exists in the schools.

Some reflections on research and enquiry, in this network

1) **In this network… some teachers consider existing published educational research to be largely irrelevant to the specialist nature of their work.**
   - ***In what ways is collaborative practitioner research and enquiry important to Special school as a means of drawling on their own experiences and and knowledge and that of their colleagues? In what ways might these understandings resonant with teachers in mainstream schools?***

2) **In this network… initial activities concentrated on the sharing of resources and Ideas rather than specifically on undertaking research and enquiry.**
   - ***How far might this type of school-to-school learning be a useful foundation for the development of collaborative practitioner research?***

3) **In this network… there has been a clear intention to take time to build sustainability into activities, including research and enquiry.**

- ***What are the advantages and disadvantages of this approach in terms of the effective use of research and enquiry in schools?***

4) **In this network… TAs have been actively encouraged to be involved in network activities, including research and enquiry.**
   - ***What might mainstream schools learn from their experience? For example, what are the benefits to research of drawing on a wider range of perspective? What difficulties might arise, both practically (such as time constraints) and also in terms of differing priorities and issues of status?***

5) **In this network… head teachers are actively involved in its decision-making processes via the steering group and the co-leaders.**
   - ***What might be the advantages and disadvantages of such arrangements for research and the leadership of that research?***

References

Resnick, L. See www.instituteforlearning.org/howwk.html, (accessed September 2005)

Table 4: Evidence to Support Case Study of Surrey LIFE NLC

Schools visited	• 2 in total
Dates of visits	• November 2004 - March 2005
Interviews	• 5 formal in total, tape recorded and transcribed, comprising… • 2 teachers; 1 teaching assistant; 1 head teachers; 1 NLC facilitator • Various informal conversations recorded in note form, including… • Head teacher; teachers; TAs and other support staff; children
Observations	• 4 in total, comprising… • 1 head teachers' steering group meeting; 1 network 'development day' conference (research co-ordinators and head teachers); 1 research co-ordinators' meeting; 1 pupil voice co-ordinators' meeting
Archives / Documents	• Network level, including… bid to become NLC; agendas and minutes for meetings; research protocols; research support papers; network review / evaluation materials; materials from network conference; LEA website information; etc • School level, including… website information; teaching and learning / research materials; pupil voice 'sharing' materials / papers' etc.
Questionnaires	• 650 teachers and teaching assistants; 159 returned

Appendix 1: Research Methods, Data Collection and Research Instruments

1. The Questionnaire

Questionnaire design.

This questionnaire was designed to explore the perceptions and application of enquiry within case study networks and is constructed with three sections. Section 1 identifies the basic descriptors of respondents, including their sex, years of experience, the nature of their responsibilities within schools and the age of pupils for whom they have responsibility. This section has enabled the responses of different groups within the entire sample to be compared including: enquirers and non-enquirers, different networks, different years of experience and.

Section 2 explored the perceptions of respondents to the enquiries they had conducted within their networks. Nine sub-sections required enquirers (only respondents who identified themselves as enquirers were asked to complete section 2) to select the most appropriate answer(s) from a choice of up to 15 responses per question. Respondents were asked to select answers which most closely matched their experiences or attitudes towards enquiry. In addition for each of the 9 questions respondents were asked to record their own views in open-ended questions.

Sections 3 used opposing statements to record the attitudes of all respondents towards enquiry based issues. Opposing statements provided a semantic differential for respondents, whose responses were separated into a scale of 5 positions relative to the two statements. These statements provided opposing views of one particular aspect of networked enquiry and, in conjunction with section 1, were designed to allow comparison of the attitudes of respondents from different networks and sub-groups towards networked enquiry.

The scope and reliability of the questionnaire.

This section explores the scope and reliability of the questionnaire. The scope of the questionnaire is described in terms of the sample of respondent, whilst the reliability of the questionnaire is described through tests conducted on responses to sections 2 & 3.

Respondent characteristics.

Each of the six case studies networks were provided with sufficient copies of the questionnaire for all network personnel, with some spares. In total 651 completed questionnaires were returned, which forms the sample for the analysis described here. The actual number of responses varies by network, in part in response to the nature of the network and in response to the willingness of personnel to complete and return the questionnaire. These response rates are compared in table 1.

Table 1: Response rate by network

Network	Frequency	Sample Percent
Super	238	36.6
Surrey life	160	24.6
Bristol	38	5.8
Hartlepool	131	20.1
S.W. London	38	5.8
Blackburn	46	7.1
Total	651	100.0

Reliability tests.

Sections two and three of the questionnaire were subjected to tests of reliability. These tests were administered to explore the statistical reliability of the answers given on the questionnaire.

Section 2 reliability test: Kuder-Richardson Coefficient

Section 2 of the questionnaire required respondents to select from multiple choice answers to questions concerning enquiry. As this section was only intended to be completed by enquirers only respondents identifying themselves as enquirers were included in this reliability test and in any subsequent analysis quoted below. As respondents could choose from as many suitable answers as appropriate, each possible response was coded as a separate dichotomous item (i.e. boxes left un-ticked were coded 1, ticked coded 2). The Kuder-Richardson Coefficient was used to test reliability as it is intended for use with dichotomous items rather than Chrombach's Alpha which is intended to multiple response items. The response of this test provided a coefficient of 0.9306 for 345 cases (N.B. enquirers only) and 104 items. This is considerably above the 0.7 threshold for reliable responses.

Section 3 reliability test: Chronbach's Alpha.
As section 3 provides respondents with multiple responses Chronbach's Alpha was used as a test for reliability. This test produced an Alpha value of 0.9047 for 539 cases and 20 items. Once again this is considerably above the 0.7 threshold for reliable responses.

Questionnaire analysis.
This section explores comparisons of the responses of different groups, including members of different networks. This is achieved through analysis of table and graphs of responses to section 3. As these have shown a near-normal distribution, an analysis of variance was used to compare the mean responses of different groups to questions in section 3. Although it is recognised that ANOVA utilises a comparison of means some writers have suggested that this is useful for data from an ordinal level, and that, although the Kruskall-Wallis test provides a non-parametric alternative, comparisons of analysis using ANOVA and Kruksall Wallis have shown very similar results. As a result ANOVA was selected as it provided an increased complexity of analysis in comparison with Kruskall-Wallis.

Appendix 2: Evidence to Support Individual Case Studies

Evidence to Support Case Study of Blackburn and Darwen NLC	
Schools visited	• 3 out of 9 in total
Interviews	• 14 formal in total, comprising… • 1 Co-leader (x3); 1 Chair of steering group; 1 Headteacher; 2 Deputy headteachers; 2 Heads of department; 6 teacher enquirers; 1 with communication's officer.
Observations	• Observed one half day meeting of enquiry group
Archives / Documents	• Enquiry group logs; CD of reports of enquiry; other general documents; NLC submission document
Questionnaires	• A sample of teachers in all schools were given questionnaires

Evidence to Support Case Study of Bristol NLC	
Schools visited	• 5 in total, comprising… • 1 infants; 1 juniors; 2 JMIs; 1 secondary
Dates of visits	• November 2004 - May 2005
Interviews	• 10 formal in total, tape recorded and transcribed, comprising… • 5 teachers (all 'Leading Links', including 2 Lead Leading Links); 4 head teachers; Director of EAZ / network co-leader) • Various informal conversations recorded in note form, including… • Deputy director of EAZ, teachers, children, support staff
Observations	• 3 in total, comprising… • 1 Leading Link network meeting: including teacher from each school • 2 teaching sessions, demonstrating research ⇔ practice
Archives / Documents	• Network level, including… bid to become NLC; Spring Enquiry (February 04); A Framework for Sustainability; BPRS and other research topics; research reports / leaflets; website information; newsletters; etc. • School level, including… prospectuses; policy documents; etc. • Classroom level, including… teaching and learning materials; etc.
Questionnaires	• 300 teachers, 38 returned

Evidence to Support Case Study of Hartlepool NLC	
Schools visited	• 5 out of 12 in total
Interviews	• 30 formal in total, comprising… • 3 co-leaders (3 interviewed x 2); 2 Networked facilitators; 25 teachers

Observations	• 2 in total, comprising… • 2 conference days
Archives / Documents	• Enquiry group logs; enquiry reports; articles written about networks; other general documents
Questionnaires	• Teachers in all schools were given questionnaire

Evidence to Support Case Study of SUPER	
Schools visited	• Schools have been visited by the Critical Friends at least half termly and these visits have been research occasions as well as development times.
Dates of visits	• September 2000 - July 2005
Interviews	• Interviews with TRCs, SVCs, Headteachers, critical friends, students, teachers and university lecturers
Archives / Documents	• Partnership plans, writings by SUPER members, SUPER research reports
Questionnaires	• 600 teachers, 238 returned 36%

Evidence to Support Case Study of Surrey LIFE NLC	
Schools visited	• 2 in total
Dates of visits	• November 2004 - March 2005
Interviews	• 5 formal in total, tape recorded and transcribed, comprising… • 2 teachers; 1 teaching assistant; 1 head teachers; 1 NLC facilitator • Various informal conversations recorded in note form, including… • Head teacher; teachers; TAs and other support staff; children
Observations	• 4 in total, comprising… • 1 head teachers' steering group meeting; 1 network 'development day' conference (research co-ordinators and head teachers); 1 research co-ordinators' meeting; 1 pupil voice co-ordinators' meeting
Archives / Documents	• Network level, including… bid to become NLC; agendas and minutes for meetings; research protocols; research support papers; network review / evaluation materials; materials from network conference; LEA website information; etc • School level, including… website information; teaching and learning / research materials; pupil voice 'sharing' materials / papers' etc.
Questionnaires	• 650 teachers and teaching assistants; 159 returned

Evidence to Support Case Study of South West London NLC	
Schools visited	• 3 in total, comprising… • 1 junior and 2 secondary
Dates of visits	• November 2004 - May 2005

Interviews	• 10 formal in total, tape recorded and transcribed, comprising… • 1 headteacher; 2 assistant headteachers*; 6 teachers; 2 network co-leaders (*one is also an assistant headteacher) • Various informal conversations recorded in note form, including… • Co-leaders, teacher-researchers from all 6 schools, NLC facilitator
Observations	• 2 in total, comprising… • 1 network meeting: including 10 teacher-researchers • 1 network research presentation at NLC conference
Archives / Documents	• Network level, including… bid to become NLC; Spring Enquiry (February 04); Year 2 Review for NLC; Research Support Programme 2003-04 (Hounslow LEA and St Mary's College University); research summaries; etc • School level, including… prospectuses; policy documents; etc. • Classroom level, including… teaching and learning materials devised by teachers-researchers from each school; CD-Rom and paper format
Questionnaires	• 600 teachers, 28 returned

Appendix 3: Exploring School-based Practitioner Research and Enquiry

UNIVERSITY OF CAMBRIDGE

SCHOOL STAFF QUESTIONNAIRE

Introduction

Thank you for completing this questionnaire. It forms part of a current research project undertaken by members of the Faculty of Education at the University of Cambridge, on behalf of the Networked Learning Community Group. It has been given to staff in about 70 schools across England.

Instructions

- The questionnaire focuses on school-based practitioner research and enquiry. It may be that you may prefer other ways of describing these activities, such as 'action research' or 'evidence based practice'. However, to avoid unnecessary repetition in the questions we have used the general term 'enquiry' throughout.

- Because different schools have different ways of doing things, some of the questions may be more or less relevant to your work. However, please answer as many of them as you are able.

- We are interested in your views and what you do.

- We expect the questionnaire to take about 10 minutes to complete.

- Please return the completed questionnaire to the Faculty of Education, University of Cambridge, using the Freepost envelope attached. Please do so within two weeks of receiving the questionnaire.

- Members of the research team at the faculty will analyse the results. Each school will be given some general feedback but no individual school or member of staff will be identifiable. All responses are confidential.

THANK YOU FOR YOUR HELP

Section 1: This section asks for some information about you, your school and your work

1. For how many years have you worked in your current school?

(a) Fewer than 5 ☐
(b) 5 to 10 ☐
(c) 11 to 15 ☐
(d) 16 + ☐

2. For how many years have you worked in schools altogether?

(a) Fewer than 5 ☐
(b) 5 to 10 ☐
(c) 11 to 15 ☐
(d) 16 + ☐

3. Are you …?

(a) Male ☐ (b) Female ☐

4. How old are the pupils with whom you are currently working? Tick all which apply

(a) Foundation stage ☐
(b) KS1 ☐
(c) KS2 ☐
(d) KS3 ☐
(e) KS4 ☐
(f) 16+ ☐

5. Which of following describe your job / responsibilities? Tick all which apply

(a) Class teacher ☐
(b) Teaching assistant ☐
(c) Deputy head teacher ☐
(d) Head teacher ☐
(e) Key stage co-ordinator ☐
(f) Subject co-ordinator / head of department ☐
(g) Pastoral responsibility ☐
(h) Learning support teacher ☐
(i) Other…Please explain: _____

6. Do you mainly work in one curriculum or subject area?

(a) Yes ☐ (b) No ☐

Section 2: This section is about any enquiry activities in which you have been engaged during the last THREE years

1. Have you been engaged in any form of school-based practitioner enquiry activities during the last three years?

(a) Yes ☐ (b) No ☐

- **If you have ticked 'Yes' please answer the rest of the questions in this section.**
- **If you have ticked 'No' please go straight to Section 3.**

(a) How would you describe your practitioner enquiry activities?

2:1 Tick any of the following which describe activities in which you have been involved.

(a) Practitioner research	☐	(b) Action enquiry	☐
(c) Educational research	☐	(d) School-based enquiry	☐
(e) Action research	☐	(f) Classroom enquiry	☐
(g) Evidence based practice	☐	(h) Investigation	☐
(i) Reflective practice	☐	(j) None of these is appropriate	☐

2:2 Please write below how you would prefer to describe your enquiry activities: using either one from the above or your own words.

3. What is the main focus of your enquiry activities?

3:1 Tick any of the following which describe a main focus of any of your enquiry activities.

(a) Whole school issues	☐	(b) School management	☐
(c) Pupils' classroom learning	☐	(d) Subject / key stage focus	☐
(e) Classroom management	☐	(f) Pupils' pastoral / behaviour	☐
(g) Special education needs	☐	(h) Assessment of learning	☐
(i) Parents / carers issues	☐	(j) None of these is appropriate	☐
(k) Use of technology in classroom	☐		

3:2 Please write below how you would chose to describe your main or most important enquiry focus: using either one from the above or your own words.

4. Why do you get involved in enquiry activities?

4:1 Tick any of the following which describe reasons why you have been involved in enquiry

5. Where do people work who support your enquiry?

5: 1 Tick any of the following which describe the workplace of people who have supported your enquiry.

(a) Own school	☐	(b) Networked Learning Communities	☐
(c) School other than my own	☐	(d) Professional body / association	☐
(e) Higher education / University	☐	(f) Outside consultant	☐
(g) DfES / Other governmental organisation	☐	(h) I have not used support from any of the places named here	☐
(i) Local education authority	☐	(j) I have not used support for my enquiry	☐

5:2 Please write below the place where people work who have given you the most useful support for your enquiry: using either one from the above or your own words.

6. What kinds of support for enquiry have you been given?

6:1 Tick any of the following which describe ways in which you have been supported by others when undertaking your enquiry.

(a) Finding an enquiry focus	☐	(b) Ethics of enquiry	☐
(c) Writing an enquiry report	☐	(d) Given time to do the enquiry	☐
(e) Methods for collecting and analysing evidence	☐	(f) Given other resources to support the enquiry	☐
(g) Opportunity to discuss, learn	☐	(h) Opportunity to discuss, learn	☐

7. What type of written information have you used to support your enquiry?

7:1 Tick any of the following types of written information you have used to support your enquiry.

(a) Internet / web	☐	(b) Text books	☐
(c) Journal articles	☐	(d) Times Educational Supplement	☐
(e) Materials provided by academic/ tutor in university	☐	(f) Radio /TV / non-specialist newspapers / magazines	☐
(g) Professional association publications	☐	(h) Government publications (e.g. DfES)	☐
(i) Networked Learning Community publications	☐	(j) I have used none of these forms of information	☐
(k) Union publications	☐		☐

7:2 Please write below the most useful type of written information you have used to support your enquiry: using either one from the above or your own words.

8. With whom do you share the findings of your enquiry work?

8:1 Tick any of the following people with whom you have shared, or expect to share, the findings of your enquiry.

(a) Colleagues in own school	☐	(b) Children / students in other school	☐
(c) Senior management in own school	☐	(d) Professional body / association	☐
(e) Curriculum subject / key stage team own school	☐	(f) Staff in higher education / universities	☐
(g) Children / students in own school	☐	(h) LEA staff	☐
(i) Parents in own school	☐	(j) Networked Learning Communities	☐
(k) Governing body at own school	☐	(l) Do not share my findings	☐
(m) Colleagues in other school	☐	(n) None of these people is applicable	☐

9. How do you share the findings of your enquiry work?

9:1 Tick any of the following ways in which you have shared, or intend to share, the findings of your enquiry work.

(a) Informal discussion in own school	☐	(b) Informal discussion in other schools	☐
(c) Formal discussion / presentation in own school	☐	(d) Formal discussion/presentation in Other schools	☐
(e) Written report for own school	☐	(f) Written report for other schools	☐
(g) Own school intranet	☐	(h) Internet/web	☐
(i) Conference presentation	☐	(j) Local network's publication	☐
(k) Journal article	☐	(l) None of these ways is applicable	☐
(m) National Networked Learning Community publications	☐		

9:2 Please write below your preferred way of sharing your enquiry work: using either one from the above or your own words.

school-based practitioner enquiry.

- **Please tick ONE box in the middle columns for each pair to show which of them you agree with most and how much.**
- **The very central column can be used if you neither agree nor disagree with either statement or if both statements are irrelevant to your experiences in school.**

STATEMENT 1	TICK ✓ ONE BOX ONLY					STATEMENT 2
1. Being involved in practitioner enquiry is currently a high priority for me professionally						1. Being involved in practitioner enquiry is currently a low priority for me professionally
2. I frequently use published research to support my work in this school						2. I rarely use published research to support my work in this school
3. Teaching should be an enquiry-based profession						3. Teaching should not be an enquiry-based profession

5. Enquiring collaboratively with school colleagues usually generates more useful results than individual enquiry						5. Individual enquiry usually generates more useful results than enquiring collaboratively with school colleagues
6. Educational research should be done mainly by practitioners in schools						6. Educational research should be done mainly by academics in universities
7. I can usually find the time to do school-based enquiry						7. I rarely find the time to do school-based enquiry
8. When my school colleagues undertake enquiry they usually share their findings with me						8. When my school colleagues undertake enquiry they rarely share their finding with me
9. Most school-based enquiry needs to include the views of pupils as part of its evidence						9. Most school-based enquiry does not need to include the views of pupils as part of its evidence
10. Engaging in enquiry is a particularly useful form of staff development						10. Engaging in enquiry is not a particularly useful form of staff development

STATEMENT 1	**TICK ✓ ONE BOX ONLY**					**STATEMENT 2**
11. Engaging in enquiry supports practitioners to be more reflective about their work generally						11. Engaging in enquiry does not really support practitioners to be more reflective about their work generally
12. The senior management give great support to enquiry work in this school						12. The senior management give very little support to enquiry work in this school
13. Enquiry work in this school has helped to improve pupils' performance in national tests						13. Enquiry work in this school has made little difference to pupils' performance in national tests
14. I have made changes to my classroom practices as a result of my engagement in enquiry work						14. I have not made any changes to my classroom practices as a result of my engagement in enquiry work
15. I am confident that I have the necessary skills to do practitioner enquiry work well						15. I am not really confident that I have the necessary skills to do practitioner enquiry work well
16. For enquiry work to be most useful it should involve						16. For enquiry work to be most useful it should involve

17. The enquiry findings of colleagues have resulted in me making changes to my classroom practices						17. The enquiry findings of colleagues have not resulted in me making changes to my classroom practices
18. The senior management team in this school place a high priority on staff involvement in enquiry activities						18. The senior management team in this school place a low priority on staff involvement in enquiry activities
19. Engaging in enquiry is essential to develop practitioners' professional judgement						19. Engaging in enquiry is not essential to develop practitioners' professional judgement
20. Even though engaging in enquiry is demanding, I expect that it will always be a part of my work						20. Since engaging in enquiry is demanding, I do not expect it always to be a part of my work

Thank you for your help