NCSL National College for School Leadership

Learning from networked learning communities

Phase 2 – key features and inevitable tensions

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May 2005

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APORIA

Confronting an open question with an awareness both of the complexity of the issue and of the fundamental importance of pursuing a solution.

(from the Socratic Dialogues)

Contents

Executive summary

In 2003, the National College for School Leadership (NCSL) established the Networked Learning Communities (NLC) programme as a short-term research and development programme to support the implementation of NLCs in English schools and to learn from their experiences. As the programme moved from the drawing board into practice, the senior leaders of NCSL's Networked Learning Group (NLG), who have responsibility for the NLC programme, were aware that it was critical to engage in ongoing monitoring, evaluation and adjustments to the programme. A good deal of internal monitoring was built into the programme from the beginning to focus and streamline the work. It was also deemed important to include an evaluation that went beyond the internal evaluation structures associated with individual NLCs to an investigation of the NLC programme, with a focus on what could be learned from the programme to inform future policy and practice.

The Aporia evaluation

Aporia Consulting Ltd was contracted to undertake an evaluation designed to fulfil several purposes, namely, to:

- learn from and inform the international arena through embedded links with international researchers in areas related to networked learning communities
- build evaluation capacity within NLG as an intentional part of the evaluation process
- describe the key features of NLCs
- examine the impact of NLCs on learning at all levels

Because the mandate was not only to conduct the evaluation, but also to intentionally attend to the way in which the evaluation can help those in the institutions themselves to analyse, map and plan for systemic change (Church et al, 2002) and to both learn from and inform the wider research and evaluation audience, the design of the Aporia evaluation included several distinct approaches. First, it intentionally engaged national and international experts at several stages in the evaluation. Second, it used participatory evaluation methods to engage members of NLG staff and policy-makers in England in discussions with international experts and with data collection or interpretation in order to build expertise in evaluation, share knowledge among members of stakeholder groups and bring a range of disparate perspectives to bear on the data and its interpretation.

The evaluation proceeded in three phases. This report describes this three-phase evaluation process, with particular attention to phase 2 – identification of the key features of NLCs, and a discussion of some inevitable tensions related to NLCs in education.

Phase 1 was designed to consolidate and share existing knowledge in the field and to establish a plan for the details of the evaluation. Phase 2 focused on constructing a conceptual model of key features of NLCs and gathering data from a small number of schools engaged in NLCs to exemplify the features in action and to inform the measurement model in phase 3. Phase 3 is still under development and will focus on investigating the relationship of the key features to school improvement and student learning. Although the three phases have occurred consecutively, they are intimately interconnected and build on one another.

Key features of networked learning communities

The investigation of key features was a two-stage process. The first stage of identifying the key features involved an extensive search of existing knowledge to develop descriptions of features that have been associated with networked learning and why they were seen to be important through a review of literature, interviews with the Department for Education and Skills (DfES) and NCSL personnel, analysis of NLC documents and interaction with international experts. The resulting key features formed the basis for the development of an interview protocol used by trained NLG researchers in phase 2 to interview key staff in 20 schools selected from across the country to provide images of the features within NLC schools. Seven key features were identified as important underpinnings of NLCs.

- **Focus:** Establishing an explicit statement of purpose about classroom practice, school improvement and/or student learning moves a professional network towards clear and purposeful actions. The process of identifying a focus can involve challenging, reconceptualising and making changes to existing practice and structures; legitimising the change process; making the status quo more difficult to protect; and offering opportunities for joint attention to issues that are relevant for all the schools in the network.
- **Relationships:** Networks are a function of the ongoing and dynamic interactions between members of the group. These relationships contribute to the establishment, development and maintenance of the professional culture. Strong group cohesion is based on and engenders trust, mutual accountability and agreed power-sharing, which in turn strengthens relationships and commitment to shared goals and social norms.
- **Collaboration:** Collaboration within networks is intended to engage educators in opening up beliefs and practices to provide them with opportunities to participate

actively in the development of their own practice and that of the profession. This interaction allows for sharing within schools and across systems; it spreads innovations beyond discrete sites; it creates a dynamic process of interpretation and evaluation of practice between colleagues; and it fosters identification with the larger group, extending commitment beyond the single classroom or school.

- **Enquiry:** Enquiry is a fundamental tenet of networked learning communities. When networks need to know, the members are prepared to investigate their work as a matter of routine. 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 problem-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.
- **Leadership:** Leadership in NLCs is both far-sighted and pragmatic and is different throughout the life-cycle of the network. Leaders in networks develop the vision and focus, provide support (intellectual and instrumental), monitor development, disseminate information and provide buffers from challenges posed by the larger environment. Networked learning communities encourage a broad base of leadership in schools and across the network, with many people with and without formal positions of authority providing a range of leadership functions.
- **Accountability:** Accountability within networks includes both providing transparent and informative statements of account to others, and active self-monitoring to support and challenge the work of the group, in the process of striving for improvement. Accountability also implies a sense of responsibility for the quality of work and of value for pupils.
- **Building capacity and support:** Significant change in schools is a function of high pressure and high support. Networking initiatives require planned strategies for building capacity for change and improvement within schools and between schools. When networks are focused on learning, they intentionally seek out and/or create supporting activities, people and opportunities to push them beyond the status quo within their school and network development needs.

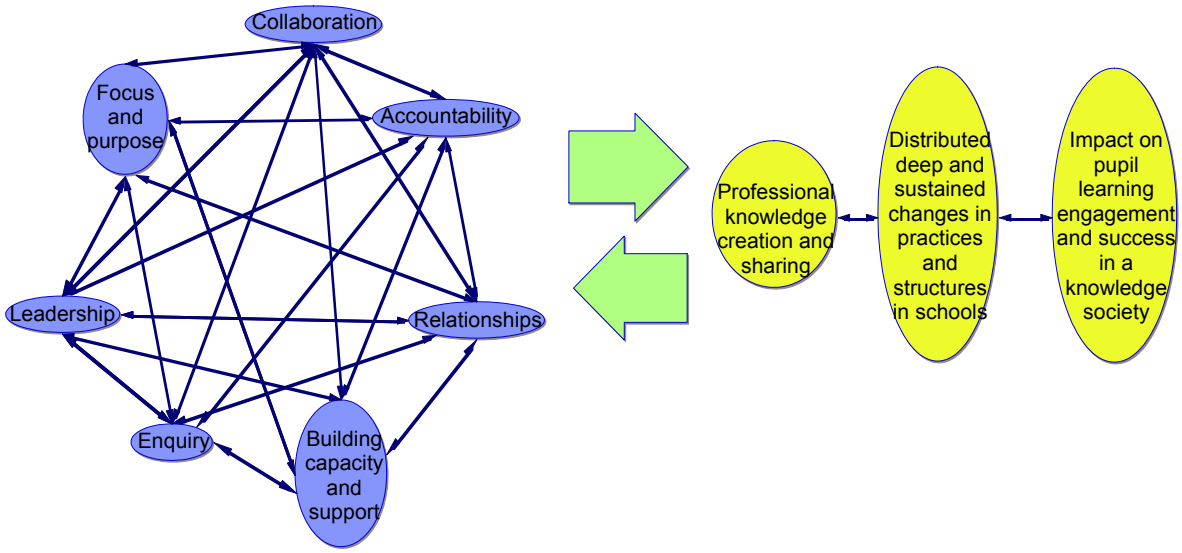
In theory, these seven key features, taken together, are connected with the main goal of NLCs – creating and sharing knowledge in ways that will influence sustainable learning for teachers, schools and, ultimately, pupils.

- **Creation and sharing of knowledge:** Effective educational change is complex, multi-faceted and innovative, and it depends on creating new knowledge together and

spreading it to others. Individuals, working together, consider ideas, test them out and share them. Although individuals do the learning, systemic change depends on having them learn together and share their learning with each other.

- **Impact on teachers and schools:** When adults interact in NLCs, they engage with new ideas, new information and new skills. The expectation is that the knowledge that is created and shared will change them in a range of ways and will influence what they do in their schools and classrooms and how they do it.
- **Impact on pupils:** Ultimately, the changes that teachers and schools make in their practices are intended to have an influence on pupils that will enhance their learning and their long-term success.

  The relationships are shown graphically below.



These are the relationships that will be explicated and tested in phase 3 of the evaluation.

Inevitable tensions and questions

It was clear from the investigation of the key features that there are inevitable tensions associated with the key features of NLCs. Sometimes the tensions are particular to NLCs and sometimes they extend beyond the networks and have applicability more broadly.

We have identified a number of areas in which there will be an inevitable 'push-pull' effect that arises within the key features of NLCs, but is even more evident in the relationships among them. We used these tensions to raise questions that require ongoing attention and balance to capitalise on the positive elements of both sides of the issue, without succumbing to the negative.

- **Preserving local flexibility within system coherence:** The notion of NLCs is premised on unique local solutions determined by educational professionals who have flexibility and opportunities for self-determination. At the same time, governments are unlikely to give up their responsibility for establishing educational directions and ensuring that the work of schools is consistent with these directions and achieving policy goals.

  The question: How will the national agenda be balanced with stimulating the flexibility required for local innovation in NLCs?

- **Defining adults in schools as teachers and as learners:** The focus on learning for adults (teachers and leaders), is a fundamental change from a long-standing image of the adults in schools as teachers, not as learners. Networks need to be sophisticated learning systems that are organised and structured to encourage professional learning that honours both explicit and tacit knowledge. Engaging in new and challenging learning can be risky, and collaborative work that pushes beyond people's comfort zones into new territory is inherently challenging.

  The question: How will NLCs combine a safe environment for experimentation with a culture of enquiry, collaboration and struggle that pushes the adults in schools to be daring learners?

- **Focusing on compelling ideas with high leverage:** A clear vision and focus on learning is one of the key features of NLCs. Not all focuses are equally worthwhile, however, and some are relevant in some contexts but not in others. It is important that networks focus on compelling ideas that stretch their capacity and ratchet up the effects of schooling.

  The question: How will NLCs ensure that they have a focus that is right for their context, and that has been demonstrated to make a difference for pupils?

- **Using evidence in an era of rapid reform:** Most current educational reforms rely heavily on collecting, analysing, using and communicating with data. This is a new area of expertise for most school and network leaders who need support not only to gather data and conduct analyses but also to display the data, interpret it, think about it, use it for making decisions and communicate it to various stakeholder groups. At the same time as enquiry and appealing to evidence has risen to the foreground as a requirement for educational decision-making, and practitioners are beginning to see the value in standing back, assessing the situation and reflecting on their progress as routine activities, changes in policy and in expectations for practice are moving faster

than ever before. The evidence is not always available when it is needed and decisions are often made on the basis of incomplete or ambiguous evidence.

The question: How will members of NLCs develop the skills and dispositions to become adept at using data to support wise decisions in uncertain circumstances that are routinely changing?

- **Ensuring quality control:** Networks provide structural and relational opportunities for sharing knowledge and practice among schools. The value of this sharing, however, emerges from the quality of the material that the participants choose to share. The danger is that they will choose new ideas without coherence and quality control.

The question: How will NLCs monitor and evaluate the quality of what gets shared?

- **Going to scale with networked learning communities:** Voluntary participation is at the core of what makes a network different from other organisational or process forms. People engage in activities when they feel commitment to, and ownership of, the agenda. The tension arises because systemic reform depends on more than volunteers. Going to scale with any reform agenda, by definition, requires the active involvement and commitment of a critical mass of people.

The question: How will the key features of NLCs become widespread practice for all teachers in all schools?

- **Blending formal leadership and distributed leadership:** Headteachers continue to be key players in NLCs, with many others taking on a whole range of leadership roles and activities. Establishing patterns of distributed leadership is a subtle dance of power and authority. Sharing leadership can cause confusion, resentment and protection of position and power, especially if the expectations for the differentiation of roles are not clearly specified.

The question: What form(s) of distributed leadership are consistent with the principles of NLCs?

- **Broadening diversity:** Diversity brings flexibility, resilience and the need for tolerance of new ideas and new people into routine interactions and pushes the boundaries of thinking among network members. Because there are limits on the diversity that exists within education, the risk is that networks will initially develop a broader scope but will become stale and entrenched over time.

The question: How will NLCs capitalise on the diversity that exists within and outside schools to challenge their ideas and encourage innovation?

- **Keeping and growing the vision of networked learning communities:** The language of networks and networking provides many new images of possible structures, relationships and activities in education. Within this melange, networks can take many different forms and fulfil many different purposes. Our experience in NLC schools reinforces this variability.

The question: How will the vision of NLCs be maintained and evolve, while guarding against proliferating networks based on the superficial aspects of the structure, without attention to substance and vision?

Chapter 1: Introduction

> *"The world is becoming a networked environment. This is having a profound impact on the way we organise at the local, national and international level."*
>
> *(Church et al, 2002)*

Networks are increasingly visible as we exit the industrial age and enter an age of information, of knowledge, of open access and of flexibility which requires life-long learning, where citizens quickly learn to take on new tasks and continuously adapt to new and changing environments (OECD, 1997). Networks and networking have moved to the foreground of the discussion of policy and practice in fields as diverse as business, health, social services and economic development. For some, the advent of the networked society is a harbinger of nothing short of a revolution in which information technology will enable the mobilisation of resources on a global scale: societies will no longer be based on negotiated institutions; and new identities will be established through networks built around key themes and based in values (Church et al, 2002). A network, as a dynamic organisational form that can mediate between the personal and social worlds, is seen as having the potential to capture the complex and reciprocal relationship between individual and collective competencies. Networks can 'feed the creative co-production of new knowledge that is the source of better professional practice and renewed professional pride' (Hargreaves, D, 2003).

Networks in educational reform in England

England is a forerunner in considering networks as an integral part of its policy landscape in education. During the last few decades, education reform in England has been characterised by centrally driven national strategies and an emphasis on school improvement. This approach was effective in boosting short-term attainment levels through a clear delineation of targets and outcome expectations and served to mobilise and focus the profession, but, as Jackson, Hannon and Cordingley (2004) explain, such 'outside-in' change approaches have not worked well in the medium- to long term. One reason for the difficulty of going to scale with these approaches has been an under-estimation of the way that implementation of any reform actually gets negotiated and understood in schools (Datnow et al, 2003). Fullan (2004) suggests that moving beyond these plateaus requires 'marrying the world of moral purpose and collective identity' and proposes that 'by working together differently, the goal is to produce quality ideas and practices on an ongoing basis and to inspire

collective effort to the extent that it becomes possible to achieve breakthroughs never before experienced'.

In 2003, the National College for School Leadership (NCSL) established the Networked Learning Communities programme as a short-term research and development programme to support the implementation of networked learning communities (NLCs) in English schools and to learn from their experiences. As the programme moved from the drawing board into practice, the senior leaders of NCSL's Networked Learning Group (NLG), who have responsibility for the NLC programme, were aware that it was critical to engage in ongoing monitoring, evaluation and adjustments to the programme. A good deal of internal monitoring was built into the programme from the beginning to focus and streamline the work. It was also deemed important to include an evaluation that went beyond the internal evaluation structures associated with individual NLCs to an investigation of the NLC programme, with a focus on what could be learned from the programme to inform future policy and practice, especially since the Networked Learning Communities programme is only one networking initiative in England. Others include Education Action Zones, Excellence in Cities, Leading Edge Partnership programmes, and specialist schools. The Primary Strategy has recently included a statement that every primary school should have the opportunity to be a member of a network by 2008.

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- build evaluation capacity within the NLG as an intentional part of the evaluation process
- describe the key features of NLCs
- examine the impact of NLCs on learning at all levels

The evaluation has proceeded in three phases. This report describes this three-phase evaluation process, with particular attention to phase 2 – identification of the key features of NLCs, and a discussion of some inevitable tensions and challenges related to NLCs in education.

Networked Learning Communities: the programme

Networked learning communities were conceived as inter-organisational networks: 'groups of school working together to enhance the quality of professional learning and to strengthen capacity for continuous improvement' (NCSL Bulletin on NLCs, www.ncsl.org.uk/mediastore/nlc-text.doc 2001). To this end, volunteer networks of schools were invited to prepare proposals for supporting networked learning for pupils.

Successful bidders received £50,000 annually for three years and the opportunity to work with other, similar networks and to be supported by NCSL's Networked Learning Group (NLG), comprising approximately 50 professional and administrative support staff, including facilitators assigned geographically to support networks. In their fourth year, NLCs receive support from NCSL but no funding. By April 2004, two cohorts of networks had been accepted for a total of 137 networks, involving over 1,564 schools. Most of the schools tend to be clustered locally, but they are not necessarily from the same local education authority (LEA), and nor are all the schools in the NLC necessarily working with the same age group of learners.

The NLC programme is an ambitious one, with a vision of fundamentally changing schools and learning for pupils. It is based on the conviction that groups of schools working together in a focused and sustainable way on an area of learning can collectively deepen their learning and use resources to solve problems more effectively.

As Jackson and Leo (2003) describe them, NLCs are based on an image put forward by the Organisation for Economic Cooperation and Development (OECD):

"Networks are an effective means of supporting innovation in times of change, promote the dissemination of good practice, enhance the professional development of teachers, support capacity building in schools, mediate between centralised and decentralised structures, and assist in the process of re-structuring and re-culturing educational organisational systems."

(CERI/OECD, 2000)

The Networked Learning Communities programme has developed and evolved over time, as the NLCs and the Networked Learning Group (NLG) have engaged in the programme and clarified their principles and ideals. The following quote comes from a paper delivered by a co-leader of the NLG to an International Congress of School Effectiveness and Improvement conference and gives a flavour of their conception of the nature of NLCs.

"Implicit in the NLC model of practice is a belief that situated and contextually relevant learning is at the core of professional community. To this end, the NLC model invites groups of schools to design their network from the 'inside-out', planning it (using data from self-evaluation and peer review) to fit the specifics of their context, and drawing purpose from the aspirations for pupil learning and achievement they hold for all the children in their patch.

"NCSL's hypotheses were that groups of schools working together had the potential to apply both practitioner knowledge and publicly available knowledge in relevant ways; that they would be able to create contextually appropriate solutions; that school-to-school networks would provide a route to greater coherence in a potentially fragmented world; and that through collaborative enquiry, data analysis and local problem-solving those involved would create expanded units of meaning and engagement – the network rather than the school. It was also a belief that teachers

would feel more motivated through collaborative working; that they would feel more in control; that leadership opportunities would expand. It was anticipated that children and adults would learn more effectively. It was expected that organisational changes would occur which would generate different kinds of learning opportunities, both within and between schools, and that new teaching strategies would result. There was confidence that knowledge transfer would be enhanced, and that data analysis processes would lead to a focus upon impact.

"The overarching expectation was that if some or all of these things happened – all of which we viewed as being in the domain of proxy indicators for better learning contexts (for which there is research evidence) – pupil attainment would rise, achievement would increase, well-being of pupils and adults would be positively affected, and that there would be evidence to support these changes."

(Jackson and Burns, 2005)

Jackson (2004) described the strands and non-negotiable principles that underpin the NLC programme this way:

"There are six strands to the basic framework of the networked learning communities design, and four non-negotiable principles. The six strands are ***pupil learning*** *(a pedagogical focus);* ***adult learning*** *(with professional learning communities as the aspiration);* ***leadership learning*** *(particularly headteacher learning);* ***organisational learning*** *(progressive re-design around learning principles);* ***school-to-school learning*** *(between communities of practice) and* ***network-to-network learning*** *(a programme priority). The four non-negotiables are* ***moral purpose*** *(a commitment to the success of all children);* ***shared leadership*** *(co-leadership);* ***enquiry-based practices*** *(evidence and data-driven learning) and* ***adherence to a model of learning****."*

From the beginning, one of the distinguishing features of the Network Learning Communities programme has been its explicit focus on enquiry. The programme was designed both to develop NLCs and to learn about networked learning, with a research or enquiry focus embedded in all aspects of the work. This focus on informing policy and practice is described in an NLG paper this way:

"It sets out to inform policy learning both through illustration of what is possible and the creation of living experiments that others can visit or encounter … The Networked Learning Communities programme was introduced as a means both of applying what, in this country and abroad, has been learned about successful school-to-school networks, and … to provide a source of learning and knowledge flow for future policy extension."

(Jackson et al, 2004)

Within the NLCs themselves, participants engage in a range of enquiry activities and they participate in year-end self-reviews. The Networked Learning Group monitors the work of NLCs by requiring annual reports and uses the data to learn about the successes and challenges inherent in being a networked learning community. In addition, the NLG has undertaken a robust programme of enquiry and research through its internal research unit and an external process of interaction with international experts to study, challenge, add to and critique the work of NLCs with a focus on informing policy and practice more broadly. Commissioning this external evaluation is another example of this enquiry focus.

Chapter 2: The external evaluation

The Aporia investigation has been intentionally evolutionary, with ongoing consultation and adjustment through interaction with key personnel in the NLG and DfES. Because our mandate was not only to conduct the evaluation, but also to attend intentionally to the way in which the evaluation can help those in the institutions themselves to analyse, map and plan for systemic change (Church et al, 2002) and to learn from and inform the wider research and evaluation audience, we have added several distinctive approaches to the design of the evaluation study. First, it has intentionally engaged national and international experts at several stages in the evaluation. Second, it has used participatory evaluation methods to engage members of the NLG staff and policy-makers in England in the discussions with international experts and with data collection or interpretation in order to build expertise in evaluation, share knowledge among members of stakeholder groups and bring a range of disparate perspectives to bear on the data and its interpretation.

- **National and international experts:** Although educational reform has been a cyclical phenomenon for many decades, reform efforts have intensified in the 1990s and the dawning years of the new century. As this wave of large-scale reform progresses, many researchers, in many different countries, are working to understand the nature of the changes, to describe what contributes to their success or failure and to identify ways to infuse the learning from successful reforms into other locations. The Aporia evaluation was designed to draw on this literature and to engage international experts with broad diversity of experience and knowledge in change, networking, professional learning, leadership and evaluation in education. Bringing this group together also created a context for the creation of a network of researchers interested in networks – researchers with different theoretical orientations from many educational fields and parts of the world to create and share ideas and methodologies and generate new theories. Given that networked learning communities are increasingly appearing on policy agendas, this network of researchers can continue to interact with one another to deepen and broaden knowledge about the nature and influence of networks in different contexts.
- **Participatory evaluation:** Our work, and the work of others, has found that the results of evaluations are more likely to be used by stakeholders and decision-makers when they are not only aware of the nature of the evaluation, but have played important roles in its development and in the analysis and interpretation of the findings (Cousins & Earl, 1992; Patton, 1997). In participatory evaluation, members of the programme community are involved in defining the evaluation, developing

instruments, collecting data, processing and analysing data, reporting and disseminating results and taking corrective action towards the programme goals. This process builds capacity by clarifying and deepening the conceptual understanding of the programme components, inter-relationships and consequences within the organisation and providing training and experience in evaluation methods (Cousins & Earl, 1995). Staff from the Networked Learning Group (and in some cases NCSL and DfES) have been part of defining the evaluation, have received training and have participated in data collection and interpretation activities. These experiences give the participants a deeper understanding of the evaluation and build evaluation skills and dispositions among group members.

The Aporia evaluation has evolved over three phases. Phase 1 was designed to consolidate and share existing knowledge in the field and to establish a plan for the details of the evaluation. Phase 2 focused on constructing a conceptual model of key features of NLCs and gathering data from a small number of schools engaged in NLCs, to exemplify the features in action and to inform the measurement model in phase 3. Phase 3 is still under development and will focus on investigating the relationship of the key features to school improvement and student learning. Although the three phases have occurred consecutively, they are intimately interconnected and build on one another.

Phase 1: charting the territory

Phase 1 included a search of literature related to networking and networked learning, interviews with key players connected to networked learning communities, commissioning papers from experts in various areas and mapping of existing data, and a day-long seminar of international scholars[1] to talk about networks in education and discuss ways of evaluating them. In advance of the seminar, five commissioned research papers and other background material[2] were distributed to the seminar participants to provide a starting point for discussion. Following the seminar, 12 of the participants prepared briefs based on elements of their own work that were relevant to networked learning communities and to the evaluation[3].

The expert seminar brought together international experts with varied perspectives and experience of networks, networking and evaluation to share their knowledge and make suggestions about the framework for the evaluation. The invited experts brought an impressive

[1] The names and affiliations of the participants are included in Appendix A.
[2] References to these papers and materials are listed in Appendix B.
[3] These briefs are also listed in Appendix B.

combination of research expertise and specialised knowledge in areas relevant to the evaluation of networked learning. This outstanding group of scholars spent the day engaged in spirited dialogue around themes and issues related to networked learning communities[4]. These conversations culminated in a set of evaluation questions and a series of recommendations.

The evaluation questions were as follows.

- What are networked learning communities?
- What are the focuses of networked learning communities?
- How are networked learning communities supported?
- What is the nature and depth of impact of networked learning communities?
- What does it take to sustain networked learning communities?
- What are the policy implications of networked learning communities?

The recommendations were to:

- produce a plain-language descriptive document for broad dissemination
- consolidate and map the wealth of extant data sources (and access procedures) within and around the NLC programme to form a comprehensive guide for ensuring the full use of available data in planning the evaluation
- develop a long-range evaluation plan

It was clear from the seminar discussions that the next step was clear and careful documentation of the distinctive features of networked learning communities.

Phase 2: key features investigation

Phase 2 and the learning from it make up the bulk of this report. In this phase, the focus has been on answering the overarching question put forward by the international expert panel in San Diego, namely, 'What are networked learning communities?' The international group was very clear in its advice that it is not possible to conduct an evaluation without first having a clear description of exactly what you are evaluating – 'What is this creature?'

We proceeded in Phase 2 with attention not just to the NLC programme but to issues of design and intention – 'What are the key features of networked learning in the literature and in practice in NLCs?' and 'What implications do they have for policy?' Because the long-term intention of the NLC programme is to inform the broader policy audience about important

[4] A description of the complete process is included in Appendix C.

considerations related to networked learning communities, the focus of this phase is not on the NLC programme as a separate entity. Instead, it is on identifying promising features and processes that underpin the notion of NLCs as they are being conceived by the NLC programme, giving examples of what these features look like in practice, and identifying tensions or challenges that may have implications for future policy decisions.

Phase 2 involved identifying key features of networked learning through an extensive literature review, ongoing interaction with international experts, interviews with key informants in the NLG and DfES and an analysis of NCSL NLG documents, as well as interviews in a small selection of schools within NLCs to gather descriptions of the features in practice.

Phase 3: links to improvement

Phase 3 will address the second series of questions raised by the international experts by focusing on examining inter-relationships among the key features and assessing the association of these features, singly and in combination, with changes in practice and on learning for pupils. The intent is to develop models of relationships among the key features identified in the phase 2 of the evaluation and test these models through statistical analysis to assess how the key features are related to school improvement and pupil learning. Phase 3 will include:

- development of conceptual maps (logic models) of expected relationships
- creation of survey instruments based on the key features investigation
- development of measurement models to test the logic models
- data collection in randomly selected NLC schools
- statistical analysis to test the logic models

Chapter 3: Phase 2: the key features investigation

There is a large and growing body of literature related to the role of networking and networks in a knowledge society but there is not a singular definition or conception of what networking means. A brief internet search using the word 'network' brings up millions of references that include everything from interconnections of computer hardware to dating agencies. Even within the field of organisational change, networking and networks are difficult to define. As Church et al (2002) say:

"…answering the question 'What, or who, is a network?' is always confusing because the structures, the people and the activities often are conflated and overlapping. Networks represent action and structures at the same time."

The key features investigation (Phase 2) focused on clarifying and describing the structures and activities within the notion of networked learning communities, as they are emerging and evolving in the Networked Learning Communities programme. What is meant by networked learning communities, what are their key features and what do these features look like in practice? Network theory is based on some underlying beliefs about how people interact and the activities that result from these connections. The key features investigation was designed to uncover and make some of these underlying theories explicit and visible. We recognise that by deconstructing the network features we stand to lose some of the uniqueness of the whole structure. At the same time, it is important to understand the logic of the potential contribution of different features in order to deepen the understanding the whole.

The key features investigation has evolved as a two-stage process. The first stage of identifying the key features was an extensive search of existing knowledge to develop descriptions of features that have been associated with networked learning and why they were seen to be important. This phase involved attention to the literature, interviews with DfES and NCSL personnel, analysis of NLC documents and interaction with international experts. The resulting key features formed the basis for the development of an interview protocol[5] used by trained NLG researchers in phase 2 to interview key staff in 20 schools selected from across the country geographically to provide images of the features within NLC schools.

[5] See Appendix E.

Identifying the key features

Understanding a complex dynamic system involves searching for the key concepts and ideas embedded in the system and working to comprehend their relationship to each other. We were interested in exploring the nature of the theories behind networked learning communities to gain insights into what features are associated with their potential success and illustrating these key features in practice.

Review of literature and of NLC programme documents

We began the investigation with an extensive review of literature and of NCSL's NLG documents, which provided the basis for the following framework of key features. Although the features have been identified as separate entities, they are very much intertwined in practice. The following are brief descriptions of the key features that emerged. They are developed more fully in Chapter 4.

- **Purpose and focus:** Establishing an explicit statement of purpose about classroom practice, school improvement and/or student learning moves a professional network towards clear and purposeful actions. The process of identifying a focus can involve challenging, reconceptualising and making changes to existing practice and structures; legitimating the change process; making the status quo more difficult to protect; and offering opportunities for joint attention to issues that are relevant to all the schools in the network.
- **Relationships:** Networks are a function of the ongoing and dynamic interactions between members of the group. These relationships contribute to the establishment, development and maintenance of the professional culture. Strong group cohesion is based on and engenders trust, mutual accountability and agreed power-sharing, which in turn strengthens relationships and commitment to shared goals and social norms.
- **Collaboration:** Collaboration within networks is intended to engage educators in opening up beliefs and practices to provide them with opportunities to participate actively in the development of their own practice and that of the profession. This interaction allows for sharing within schools and across systems; it spreads innovation beyond discrete sites; it creates a dynamic process of interpretation and evaluation of practice between colleagues, and it fosters identification with the larger group, extending commitment beyond the single classroom or school.
- **Enquiry:** Enquiry is a fundamental tenet of networks that focus on learning. When networks need to know, the members are prepared to investigate their work as a

matter of routine. 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 problem-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.

- **Leadership:** Leadership in networked learning communities is both far-sighted and pragmatic and is different throughout the life-cycle of the network. Leaders in networks develop the vision and focus, provide support (intellectual and instrumental), monitor development, disseminate information and provide buffers from challenges posed by the larger environment. networked learning communities encourage a broad base of leadership in schools and across the network, with many people with and without formal positions of authority providing a range of leadership functions.
- **Accountability:** Accountability within networks includes both providing transparent and informative statements of account to others, and active self-monitoring to support and challenge the work of the group, in the process of striving for improvement. Accountability also implies a sense of responsibility for the quality of work and of value for pupils.
- **Building capacity and support:** Significant change in schools is a function of high pressure and high support. Networking initiatives require planned strategies for building capacity for change and improvement within schools and between schools. When networks are focused on learning, they intentionally seek out and/or create supporting activities, people and opportunities to push them beyond the status quo within their school and network development needs.

These seven key features, taken together, are connected to the main goal of NLCs – creating and sharing knowledge in ways that will influence sustainable learning for teachers, schools and, ultimately, pupils.

- **Creation and sharing of knowledge:** Effective educational change is complex, multi-faceted and innovative, and it depends on creating new knowledge together and spreading it to others. Individuals, working together, consider ideas, test them out and share them. Although individuals do the learning, systemic change depends on having them learn together and share their learning with each other.
- **Impact on teachers and schools:** When adults interact in networked learning communities, they engage with new ideas, new information and new skills. The expectation is that the knowledge that is created and shared will change them in a

range of ways and will influence what they do in their schools and classrooms and how they do it.

- **Impact on pupils:** Ultimately, the changes that teachers and schools make in their practices are intended to have an influence on pupils that will enhance their learning and their long-term success.

Advice and insights from international experts

Descriptions of the provisional key features were sent to a group of international experts[6] to provide them with a starting point and shared focus for their thinking. We asked them to provide us with advice and insight about:

- what they thought we should look for or ask about in networks or schools that would allow us to describe this feature
- any other features that they felt we should add to the list
- any pertinent literature that they felt we should know about

The experts provided us with key ideas about what they felt the enquiry questions should be to gain insight about the features. These enquiry questions are displayed in Table 1.

[6] See Appendix D for a description of the process and a list of the participating experts.

Table 1: Enquiry questions generated by international experts for each feature

Feature	Enquiry question
Purpose and focus	How is the focus determined for both a network and a participating school? How is this focus maintained or revised? What are the purposes of participation (eg, to change learning and teaching practices, to respond to immediate or pressing demands, to disturb the status quo, for resource and cost sharing, etc)? Is there a sense of shared goals, expectations and mutual responsibility for both adult and pupil learning?
Relationships	What relationships can be identified? How can these relationships be described (eg, in terms of dimensions such as trust, power, respect, etc)? What purposes do the relationships serve (eg, moral support, coaching and mentoring, critical friendship etc)? What processes exist for forming and maintaining relationships? How are conflicts solved?
Collaboration	What structures and processes are in place to facilitate collaboration (eg, are there working teams? how is time for collaboration handled? how are new members inducted into the processes and practices? are there incentives for participation? etc)? Is voluntarism a component of participation? What are the forms of collaboration (eg, to what extent is there professional dialogue and questioning of ideas about practice? are practices open to scrutiny? is there an instrumental sharing of resources and information? are there shared practices such as team teaching? etc)?
Enquiry	To what extent is evidence used in the planning and changing of practice? What is the nature of the evidence considered (eg, tacit knowledge based on experience, evidence that is external to the individual, school and network, reflective dialogue about practice, etc)? To what extent are enquiry processes a habitual part of the mindset (eg, practices of questioning, reflecting, analysing data, weighing consequences, seeking alternatives, etc)?
Leadership	Who leads? What forms do leadership activities take (eg, individualistic, shared, distributed, etc)? What functions do leadership activities serve (eg, facilitation, instruction, architecture, brokering, boundary spanning, etc)? How is leadership supported (eg, time, training, etc)?
Accountability	What self-motivated, self-directed, and self-monitored (internal) accountability processes and practices exist?

	What processes and practices exist to describe the network activities and efficacy? To what extent are accountability patterns based on evidence related to practice?
Building capacity and support	What opportunities exist to enhance the capacity of individuals within the school or network (eg, professional development, critical friends, resources, etc)? What opportunities exist to enhance the collective capacity within the school or network? How does the school and/or network identify and locate the necessary support to build their capacity for change?
Knowledge creation and transfer	What new collective ideas are generated? How do new collective ideas get generated? How are new collective ideas shared (eg, within the school, within the network, beyond the network)?

The experts also provided additional references and offered some alternative images of the nature of the key features from our descriptions. No one suggested adding any new features.

Investigating the key features in a sample of schools

The key features and the enquiry questions that emerged from the international experts formed the basis for a focused interview protocol that was used to gather data from 20 Cohort 1a schools[7] that are part of NLCs across the country. This sample was not intended to provide sufficient data to generalise to the NLC programme as a whole. Instead, these schools were randomly selected to provide images of the key features in practice.

Because this evaluation is a participatory one, with an emphasis on building capacity among NLG staff, NLG researchers and facilitators were trained to collect the data and prepare case summaries.[8] During February 2005, five NLG researchers (accompanied at each site by an NLG facilitator) visited four schools each and interviewed the headteacher and up to five teachers involved in the network, configured in groups depending on the nature of the school's NLC project. The conversations were audio-taped and the researchers completed a case summary template for each school. These summaries were discussed and categorised by the group of NLG researchers, NLG leaders and Aporia staff[9] in a seminar in early March 2005. The

[7] That is, schools that were admitted to the programme in the first cohort.
[8] The complete interview protocol, the training materials and the case summary template are included in Appendix E.
[9] A list of participants is included in Appendix F.

interpretation seminar was followed by a policy seminar in which a group of policy leaders[10] considered the work of the interpretation group and identified questions and areas for further consideration. All these activities were conceived as opportunities for discussion among members of stakeholder groups and the inclusion of different perspectives in the interpretation process. The outputs of all these analyses and discussions have been considered by the authors in formulating this report.

[10] A list of participants is included in Appendix F.

Chapter 4: Key features of networked learning communities

The concept of networked learning communities as a programme, but even more importantly, as an idea, is a bold and audacious initiative. networked learning communities have been defined within the NLC programme in this way:

"The 'networked' part is designed to imply interconnectedness, interdependence and sustained commitment – shared destinies; the 'learning' element suggests collaborative commitment to learning processes such as enquiry and knowledge generation; and the 'community' dimension is about moral purpose – caring about one another and working on behalf of one another.

"Networked learning … occurs when people from different schools in a network engage with one another to enquire into practice, to innovate, to exchange knowledge and to learn together. It doesn't happen by accident and, in order to happen by design, alternative organisational patterns, new professional relationships and different forms of facilitation, intervention and brokerage are required."

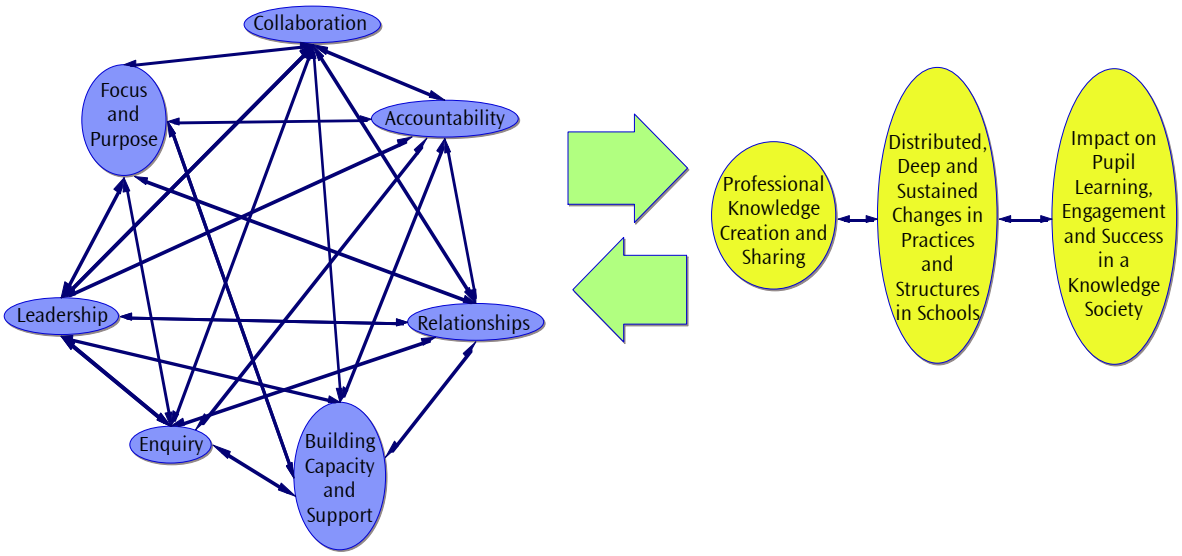
(Jackson, 2004)

In this study we have attempted to make the underpinnings of the concept of networked learning communities visible and explicit by:

- describing the logic theory behind each key feature
- showing how each feature is characterised in the NLC programme through excerpts from participants' documents
- giving prototypical examples of aspects of each feature from the interviews in NLC schools

Although we have tried to deconstruct these elements, none of them stand alone and their promise emerges from the ways in which they are interwoven in practice. Figure 1 shows the complex interconnections that are likely to exist among these features and how they can influence each other.

Figure 1: Key features of networked learning communities



We begin the investigation with a consideration of the intended outcome of networked learning communities – creating and sharing professional knowledge, followed by the seven key features in this order: purpose and focus, relationships, collaboration, enquiry, leadership, accountability and capacity building and support.

Professional knowledge: creation and sharing

Understanding NLCs has to begin with an investigation of theories of knowledge creation and sharing, since this is the intermediate outcome put forth by the NLC programme that is intended to lead to changes in practice and in pupil learning. NCSL recognises that 'it is hard for excellent practice to transfer, even from classroom to classroom, within a school, never mind between schools and across geographic areas' and that 'fundamentally changing practices and beliefs requires deep and profound learning' (NCSL, 2002). The NLC programme is based on *learning from one another, learning with one another and learning on behalf of one another*.

The NLC approach is based on knowledge creation theories of learning rather than theories of replication or transfer. These are the notions that are reflected in David Hargreaves' (1998) vision of a knowledge-creating school. He argues that answering the challenges of the knowledge society requires that teachers and heads make an intentional effort to make professional experiences visible and translate them into shareable knowledge within and between schools in order to create new professional knowledge. Hargreaves goes on, in *Working Laterally* (2003), to describe the demands of knowledge creation in terms of innovation. Young people need to be innovative to succeed in work and life, and education is an institution that can both model this requirement and also support its development.

Innovation, for teachers, involves new professional learning about their work that is useful in their practice and allows them to do things differently and better.

Historically, the route to understanding (and supporting) knowledge creation has focused on what individuals do 'in their heads'. More recently, learning theory has added the notion that knowledge creation is a process of participation in various cultural practices and shared learning activities, rather than a process of individual knowledge formation – the 'individual in social action'. Hakkarainen et al (2004) argue that both are necessary, with learning occurring through dialogue or conversations that make knowledge, presuppositions, ideas, beliefs and feelings explicit and available for exploration.

As NCSL (2002) states:

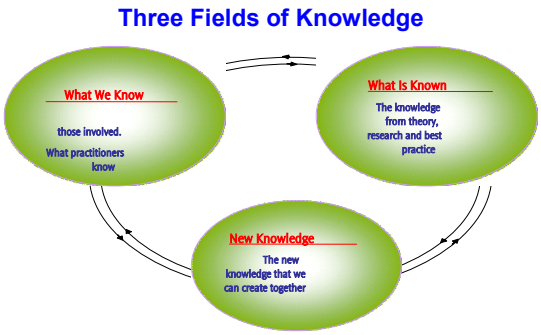
"In networked learning communities, schools and teachers will create and exchange knowledge collaboratively, continuously and systematically. By ensuring that adults learn, that schools learn, and that schools learn from one another, we can help all children to become powerful learners."

(NCSL, 2002)

Theories of knowledge creation are also based on the value of both tacit and explicit knowledge (Hoban, 2002). Explicit knowledge is externally created, measurable and expressed formally; tacit knowledge is educators' personal subjective knowledge that is embedded in individual experiences, actions, intuitions and values. Innovative solutions, according to some theorists (Nonaka & Takeuchi, 1995; Von Krogh, Ichijo & Nonaka, 2000), arise when individuals both draw on outside explicit knowledge and combine it with tacit knowledge in response to authentic problems.

Blending explicit and tacit knowledge is certainly a central component of the model of networked learning put forward by NCSL and used by the Networked Learning Group. They describe the inter-relationship of three knowledge fields through network-based activity and use within classrooms – represented by the connecting ring of the model in Figure 2 (Hadfield et al, 2004).

Figure 2: Three fields of knowledge



Source: Hadfield, Spender, Holmes, & Bavington, 2004

As Jackson (2004) describes it:

"[Networks] … find ways for 'inside knowledge' (the knowledge that teachers create on the job) to inform 'outside knowledge' (the knowledge of reformers, researchers and policy-makers), and vice versa and … are consistent with the challenges of an increasingly knowledge-based era, which is triggering new ways of learning that involve leveraging diverse perspectives into collective or shared group intelligence and integrating theory, new capacities, and practice with one another."

If deep change comes from creating new knowledge, a fundamental challenge for education is to operate in a way that facilitates ongoing knowledge creation and sharing among members of the community, to tap both tacit and explicit knowledge and to process it. Members of the community need to develop competencies that allow them to function as knowledge workers who can engage in a productive interchange between tacit and explicit knowledge to generate new collective knowledge that is now explicitly codified so that it is accessible throughout the organisation (Hakkarainen et al, 2004; Lam, 2000).

People in the interviews offered images of the ways in which they were drawing on explicit knowledge from elsewhere.

"We've got a whole range of individual projects going on, all centred around the idea of pupil recall, seeing that there's a lot of theory about Ebbinghaus' curve of forgetting, and how you can rectify that by introducing a review cycle into work."

"I've learned a lot just from having the time to sit and read something, and discuss it with colleagues and share ideas."

"The action research in the classroom was based on an article from NFER, some research that had taken place. So we tried it out and researched it – not in the sense of postgraduate research, we

can't do that in a school. So we tried it and evaluated it as rigorously as we could – with hard data and with soft data like attitudes. And we shared the results with the department and now the whole department is going to use it and we're developing a scheme of work that we will use."

"Because of the research that I did on review, I found out how important it is and now I incorporate it into my lessons."

"I've gained from the best-practice research scholarship and I have gained a lot of knowledge from other IT co-ordinators about curriculum and technical issues."

Networked learning communities are intended to produce organisational cultures that facilitate the *dynamic spiral* critical for knowledge creation and sharing. Hakkarainen et al (2004) describe the following seven elements of this spiral.

- **Creating context:** Through explicitly creating a context, the issues being investigated are connected with deep principles of the knowledge domain in question, and anchored in authentic, practical, and complex problems of the external world, or issues that the participants generally care about.
- **Engaging in question-driven enquiry:** An essential aspect of progressive enquiry is generating one's own problems and questions to guide the enquiry: without questions generated by the participants themselves there cannot be a genuine process of enquiry. Questions that arise from one's own need to understand have a special value in the process of enquiry.
- **Generating working theories:** Construction of their own working theories guides inquirers to systematically use their background knowledge and become aware of their presuppositions. Progressive enquiry is aimed at the explication of these intuitive ideas.
- **Critical evaluation:** Critical evaluation underscores the need to assess the strengths and weaknesses of the tentative theories (explanations) produced so as to direct and regulate the evolution of enquiry. It is essential to focus on constructively evaluating the advancement of the enquiry process itself, rather than simply an end result.
- **Searching for new information:** Searching for and working with research is necessary for deepening one's understanding. New information can come from literature, consulting experts, or conducting one's own explorations. Explicit comparison of the intuitive working theories with the well-established ones makes the limitations of individual and collective knowledge apparent.
- **Engagement in deepening enquiry:** A critical condition for progress is that inquirers focus on improving their ideas by generating more specific questions and searching for

new information. The dynamic nature of enquiry is supported by the fact that generating working theories and obtaining new research knowledge makes new guiding questions accessible.

- **Shared expertise:** The agent of knowledge creation is not an isolated individual but an individual embedded in a community, or even the community itself. All of the preceding aspects of enquiry can be shared with other inquirers. Enquiry can advance substantially through relying on socially distributed cognitive resources and collaborative efforts to enhance shared understanding.

The spiral of knowledge creation and sharing continues, always converting knowledge from individuals to groups and back again.

Within the NLC programme, NLCs are guided by the levels of learning framework, a series of nested levels with ***pupil learning*** at the centre, surrounded by ***adult (teacher) learning***, ***leadership learning***, ***school learning***, ***school-to-school learning*** and ***network-to-network learning***, as an organiser for thinking about how their work cuts across groups in ongoing interactive attention to creating and sharing knowledge in the service of 'continuous innovation, adaptation, problem generation and recreation' (NCSL, 2002).

In addition to the networking activities that are occurring in each of the NLCs, the Networked Learning Group (NLG) has a number of strategies to support the practice of intentionally making knowledge explicit and sharing it across NLCs and beyond. These include NLG programmes, NLG research activities, NLG publications and NLG resources.

- **NLG programmes:** The Network Leadership Programme (NLP) and the Facilitating Collaborative Leadership Learning (FCLL) Programme work to build and consolidate network leadership as a distinct discipline. Networked learning walks, research lessons, and collaborative enquiries are promoted and supported as models that networks can use for capturing the knowledge they create and sharing it effectively. Building capacity for sustained networked learning is a facilitated process that brings together a critical group from across a network to focus on core aspirations and goals. Networked pupil involvement is also recognised as a discrete programmatic focus and models that are considered effective are shared through this learning component.
- **NLG research activities:** NLG research activities represent the umbrella organiser that encompasses NLG research team activities, programme enquiry, external research projects, development and enquiry groups, international research partners, and other work with external consultants and policy organisations. They conduct investigations and routinely publish documents to disseminate their ongoing learning.

- **NLG publications:** The NLG produces three regular publications that are distributed widely in print and electronically:
  - ***What are we learning about…?*** – This series is designed to make public what is being learned about various topics related to networked learning communities. Previous, current and future titles in the series include: LEA involvement in school networks, Establishing a network of schools, Community leadership in networks, Professional development within school networks, Leadership within school networks and Sustaining a network of schools.
  - ***Nexus –*** *Nexus* is a magazine that features contributions written by networks for networks. It is published three times a year and is distributed to over 10,000 partners and network subscribers. Previous themes include: leadership, pupil voice and pupil learning.
  - ***Networked News*** – *Networked News* is a monthly e-newsletter that is designed to bring together research and information about the practice and theory of networks from the UK and abroad. It also serves as a vehicle for communicating about NLC happenings and events (eg, annual conference etc).
  - **NLG invitational papers and publications** – The NLG routinely invites researchers nationally and internationally to write or share short articles that address issues of interest to NLCs. These include: Charles Desforges, 'On learning and teaching'; Ann Lieberman, 'Networks' and M Dadds, 'Perspectives on practitioner research'.
  - **NLG resources** – The NLG maintains a set of resources that have been selected and developed with networked learning in mind. Some come from international scholars and others come from within NCSL and the NLG in particular. The network resource library has several hundred documents from both the NLG and the NLCs themselves that are categorised for ease of use. Some resources are print-based (eg *Students as Researchers*, *Partnerships and Participation in Teacher Research,* and *Knowledge Management and Action Research),* while others take a multimedia format (eg 'What is a networked learning community?' and 'East Manchester EAZ' CDs). Learning Exchange Online (LEO) is an electronic resource designed to allow searching for networked community activity. It was set up for NLC participants to share resources but is open to anyone who registers. Each NLC has a community homepage where the respective network and current activities are introduced. The NLG also maintains a presence on talk2learn, the NCSL online arena for the professional development of school leaders. The relevant networked

learning communities area within talk2learn offers members the opportunity to gain access to peer support, share practice, develop and disseminate ideas, and question policy-makers and experts and so on.

- **NLG dissemination activities** – In addition to the internal modes of sharing and communication, NCSL has hosted national and international conferences focused on networked learning. Members of NLG and associated groups (eg Demos, DfES, CUREE) also routinely present papers at scholarly conferences (BERA, AERA, ICSEI) and participate in think tanks and forums around the world to share their learning from the NLC programme and learn from academics, practitioners and policy-makers in other contexts.

There were many comments from the interviews in schools about ways in which they share their learning within the school, within the network and beyond. Members of the networked learning teams in the schools had a range of mechanisms for sharing with other staff in their school.

"Research teachers stand up at staff meetings and talk about what they are trying and learning."

"The research project is always on the agenda for faculty meetings."

"It started off just me. Then I shared what I was doing at a department meeting and three others volunteered to have a go at replicating what I was doing. I gave them some guidance and they did an experiment across the three classes and fed me back the data, which I analysed for them. We shared the analysis with the department and the conclusions were strong enough that next year, the whole department will be involved."

There were examples of both formal events and informal contacts for sharing across schools within networks.

"We have had one of the very successful INSET days … we called it the open forum or marketplace, and we just bring all the schools together … and you set up your store and you present something … that works really well in your classroom."

"We have visits with other schools and personal conversations with other teachers and ask them questions about how they deal with particular things or what new is going on."

"Next week we are having a networked community development day. All of the people who did some action research last year are giving a presentation in their schools. All of the staff in the

networked schools are moving around to see the presentations – so it's beginning to filter down to all staff."

"We have network days when the staff come together from different schools and carry out workshops and share."

"At every meeting of the heads, we each give a 10-minute presentation on one piece of research that our school is doing at the moment."

There were also mentions by NLC schools of participation in network-to-network events and dissemination beyond NLC.

"We've got a teaching and learning website at the school where all the research that has been done at the school has been put into a digest form where anybody can actually search it, download it, whatever. We will put updates on as researchers in the coming year, as we work through projects."

"The LEA consultant and the LEA senior officers … wanted to see copies of all our training plans … they actually asked me to go to the Key Stage 3 [KS3] strategy meeting in the LEA to present ours – to share it with all the other schools."

"We went to a big show in London [with] all different learning communities, country-wide … And some of the ideas there, we've actually used since we've got back … So not only were we sharing our knowledge and what we'd done in our research on that day, we also had the opportunity to go round and see what other people had been doing, and talk to them as well."

"One of the teachers wrote an article for the KS3 bulletin to share the different practices we have been doing."

"I gave a talk at a national conference about the work we were doing."

"When I went over to South Africa, I did quite a lot of work in the classroom the fortnight that I was there, but I also did some staff training, based on the literacy support and the literacy hour, which they weren't using at all."

The remainder of this chapter describes the seven key features of networked learning communities.

Purpose and focus

Establishing an explicit statement of purpose about classroom practice, school improvement and/or student learning moves a professional network towards clear and purposeful actions. The process of identifying a focus can involve challenging, reconceptualising and making changes to existing practice and structures; legitimating the change process; making the status quo more difficult to protect; and offering opportunities for joint attention to issues that are relevant for all of the schools in the network.

Stoll (2004) suggests that mission and vision – having a fundamental and clear organisational purpose – are critical to the success of professional learning communities and of networked learning communities. As Michael Fullan (2004) has often said, moral purpose is a pervasive commitment to improving education for all. It includes raising the bar and closing the gap of pupil achievement, treating people with respect, improving the environment for learning and changing the context for learning at all levels. Successful educational change is driven by a deep and abiding conviction that some activity will influence learning and success for all students. The NLC programme is founded on a principle of moral purpose:

"Networked learning is the place where this global belief in the potential of children is acted out locally in collaborative learning and enquiry activity by those who work inside and alongside schools. It matters if it makes a difference for children and for teachers, and we believe that it does."

(Jackson, 2004)

The comments in interviews supported this view.

"It makes us aware of everybody else in [the network] and trying to work together so that we can share our resources and share our ideas and share our skills, and looking at the children as a whole community rather than just our children."

"We're accountable to all the other schools as well. That's the whole idea. We work together as a team, and share expertise."

"It's to make things better for the children. I mean, it has to be that, doesn't it, I think. To make learning more fun, to make it more accessible; to share practice; to improve learning."

"From what I've … seen and heard it's more … than being a single unit as a school. It's being a group of schools working together for the benefit of all children within."

"There's no point in being selfish as a school. We are all about raising standards and doing what's best for all children in the cluster."

There are other purposes that have a role in understanding how educational networks are formed and operate. Lieberman's (2004) survey of education network purposes highlights a broad spectrum of possibilities, some of which are instrumental, some motivational and some directed at capacity building for teachers.

Lieberman and Grolnick (1996) describe instances in which the pursuit of funding actually helped to create and strengthen the network because it encouraged prospective constituents to share available monies more broadly. Sharing funding resources was also seen in Wohlstetter and Smith's (2001) study as having the benefits of pooling staff and enhancing access to external partners as networks provide the skills and resources to negotiate as a group. The NLC schools mentioned funding as a resource that allowed focused discussion and as a mechanism for leveraging their work by sharing what they have with each other:

"We started off as a group of like-minded heads across the city outside of the normal clusters we were arranged into. The NCSL funding enabled us to move away from informal chats and coffee mornings to something that is much more formal."

"The funding we had from NLC has been relatively small in the sense of cash, but the way we have used it [for a higher education institution link] has been very important."

Some writers see the purpose of networking as intentionally disrupting the status quo by 'pulling teachers out of the isolation of their classrooms' (Hudson-Ross, 2001) and motivating them to think and act in different ways. Initial participation in network activity may come by way of extrinsic incentives, but members are most likely to continue participating because of the intrinsic motivation that comes from focusing on learning that proves useful to their practice and to their students (Firestone & Pennell, 1997; Katz et al, 2002; 2005). The NLC programme has a fundamental belief that:

> *"Schools that function as professional learning communities will be dynamic and motivational contexts for children and teachers."*
>
> (NCSL, 2002)

Participating in an NLC can be a mechanism for motivating teachers and giving them a broader vision of what is possible, as is expressed in the comments below.

"The school was inward looking, performance was declining, morale was low, and as part of the reinvention of the school we had to become more outward looking. We had to get ideas from elsewhere, we had to be more radical in our curriculum design, and we needed to feed off ideas from other people. We needed to be part of that wider educational community."

"I think it's been good for me personally. It's given me something to focus on. I'm heading towards the end of my teaching career and it would be all too easy just to say, 'Oh, you know. I've three or four years left. I can just slide into retirement.' But I found it really valuable to have a real focus that I can work towards to keep enthusiastic and keep me working."

"I think if you're not developing yourself, you ought to address why not … Being put in the situation whereby you've got to deal with internal conflict is always interesting. It's an interesting challenge to see how you take that one forward."

The process of identifying a particular focus for the work of the network can often involve challenging, reconceptualising and making changes to existing practice and structures, legitimating the change process, making the status quo more difficult to protect and offering opportunities for joint attention to issues that are larger than any one school could address alone (Timperley, 2004). The interviews gave us both positive and negative images of focus in NLCs.

"In our network, we did a lot of work on Guy Claxton's 'Developing the Four Rs of Learning' and 'Building Learning Power' and through that we rewrote our teaching and learning policy to

become a learning policy. It's all a learning policy now – finding ways to look at how our children learn and how we can provide best for them."

"I would say really, to be honest, I think that the whole network is focused on sort of a lot of disparate elements that come together annually in a conference where we hear what's happening across the network and sort of then erupt back into disparate elements and then come back."

"I'm wondering why it has ended up really as something that we seem to have done [only] as a school, and maybe that's because we had a strong vision at the very beginning, and that's why the other people didn't stick with us and weren't part of that … maybe the area that we chose as our project wasn't actually the right area for a network kind."

Ultimately, improved learning needs to be the dominant and overarching organisational mission in any improvement effort (Bryk et al, 1999; Firestone & Pennell, 1997; Hopkins & Levin, 2000; Stoll, 2004).

"If I go back to '99 when the push was to get the focus on teaching and learning, I think that all schools are learning schools. I don't want to be twee, but I think learning is at the heart of the school. But, now there is a culture where people are openly talking about the job, in ways that they weren't before."

A learning focus is likely to have a more direct impact if it is *focused* in ways that are concrete and useful (Timperley & Robinson, 2003). The learning focus needs to be compelling (Lieberman & Grolnick, 1996), shared (Bryk et al, 1999; Firestone & Pennell, 1997) and rich enough to allow the network members to use it to examine and extend their practices.

The NLC programme has explicitly identified establishing a focus on learning that has value locally and more broadly, as central tenets of the work.

"Each Network is asked to identify a pedagogically grounded 'Learning Focus', a unifying theme, around which 'networked learning' is located and which underpins activity undertaken between schools – and it must act itself out in classrooms."

(Hadfield, 2005)

"This learning focus is locally owned, and also has to have something of relevance to other networks, in order to facilitate wider transfer of knowledge."

(Jackson, 2004)

The 20 schools in which we conducted interviews talked about a wide range of initiatives and focuses within their networks (eg, the role of teaching assistants; teaching and learning; sharing good practice and community; skills-based curriculum; barriers to learning; problem-solving; able and gifted students; shared learning; leadership; gender and schooling; multiple intelligences; inclusion; assessment for learning; pupil voice). They also talked about the process that their network was using to establish a focus.

"We have begun to look at how you develop good teaching and learning and what practice is happening in all the schools at the moment … so we are sharing those at the next meeting …. We will work on what happens in the different schools, and what works well and what doesn't, and what you need to have in place for it to be a good supportive mechanism that actually works."

"We've had a bit of a teaching and learning revolution. We've changed our focus as a school to look at teaching and learning and share good practice."

"We're not following any particular line, we're not adopting accelerated learning and embracing the whole thing … We've decided we're picking out bits and pieces that we think suit our schools and our children."

Having a learning focus inscribed on a piece of paper is not enough. The learning focus is just the beginning to set the parameters of the work and give headteachers and teachers direction for their learning and their work. As they proceed, they need to become knowledgeable about the core components of their chosen initiative so that they can integrate them into the everyday practice and ensure that they respect the intents of the initiative rather than inadvertently eliminate or erode them (Crandall et al, 1986; Timperley, 2004). This latter point is particularly important given Lieberman's (2004) findings that networks are often in a constant struggle to hold onto a particular focus while participants want solutions to their current problems.

"There isn't a school in the land that can't claim teaching and learning as a focus. It goes without saying really, but then it's precisely what does that mean and what is going to be the focus within that general category. In our case, Assessment for Learning [AfL] narrows it down to a degree and coaching as a means for addressing some of the issues in AfL seemed a good way of developing staff and linking in expertise that we had and from other schools."

Having a clear vision and focus is critical for providing direction and establishing the parameters for the work of the NLC. Not all focuses are equally worthwhile, however, and some

are relevant in some contexts but not in others. Determining a focus involves more than choosing a good idea or someone's pet initiative. Networked learning communities are intended to ratchet up the effect of schooling and to prepare students for the knowledge society that they will live in. Simply changing structures is not enough to change (improve) practice (Wohlstetter & Smith, 2000; Elmore, 2002). Networks need to choose the right focus for the participating schools, given their particular context and history and what is known (explicit knowledge) about innovations that work. Some innovations are more powerful than others in fostering pupil learning (Marzano et al, 2001). Choosing a high-leverage focus involves a careful analysis of the context and needs within the network, finding out what innovations are worth considering and how well they have worked elsewhere, and monitoring progress regularly to see what (if anything) needs attention. David Hargreaves (2003) describes this process as 'disciplined innovation' – the continuing identification of high-leverage best practices and in-depth interaction conducive to transferring best ideas into practice.

Relationships

Linkages and interdependencies are the threads that form the foundation of networks (Church et al, 2002). Allen and Cherrey (2000) argue that it is misguided to try to understand the connections through organisational structure. Their alternative is to recognise that the relationships *are* the connections. On one hand, relationships are what allow a network to knit together (Church et al, 2002). On the other hand, the network needs to provide the mechanisms to support the relationships in the service of sustainability and vitality.

The argument that relationships are the connective tissue of networks (Allen & Cherrey, 2000; Church et al, 2002; Hudson-Ross, 2001) finds support in the notion of social capital. Social capital very simply means that relationships matter (Halverson, 2003). It refers to the character and quality of the social relationships within any organisation. When organisations have social capital, the people within them can engage in social interaction that allows them to work together over time and exceed what any of them could accomplish alone (West-Burnham & Otero, 2004).

The NLC programme is premised on establishing relationships among schools in support of new learning for all.

"Networked learning occurs where people from different schools in a network engage with one another to enquire into practice, to innovate, to exchange knowledge and to learn together. … Joint work arrangements with staff from network schools are the means through which trust, openness and relationships are fostered. Which comes first? (It is a similar question to the structure-culture question in school improvement theory.) The answer is probably that both are

important and that development is iterative. What is certainly true, though, is that the 'threads' will not precede the 'knots'. We need to do good work together to develop strong threads. Knots are the right place to start for networks."

(Jackson, 2004)

In practice, networks use social capital to create a common language, channels for communicating and disseminating information to one another, knowledge about network members' expertise, shared responsibility and widespread readiness to trust one another (Smith & Wohlstetter, 2001; West-Burnham & Otero, 2004).

"We appreciate that in all of our schools there is good practice, there are difficulties to overcome, and the relationship we have [with the network] has really helped to bring those things out in the open. We are quite prepared to actually say, 'Your results were much better than our SAT results last year. Why was that?'"

Trust is a key condition of productive relationships. Indeed, Bryk et al (1999) found that social trust among members of staff was considerably the strongest facilitator of professional community. They propose that a base level of such trust may be necessary for a professional community to emerge. In Lieberman and Grolnick's (1996) work, robust and trusting relationships among network members allowed them to work together even when they had different orientations and views.

"We have a very friendly relationship, but our friendship is mainly built out of trust and respect."

"I think just knowing that you are part of a community, and you can identify the other people in that community, and that there is a familiarity that you are seeing people, and you know people's names, and then there is a link in the form of a website that everybody can access, and there is a sharing of ideas … I think that very successfully creates community spirit, and that's what makes it successful."

"So you can see the different layers there – you've got the link with the department, you've got the link with members of the faculty, you've then got updating the whole staff on what's happening, on where we are and where we're looking to go."

"[If] you put people who are already a tight team [together], you're not going to help them share their good practice. Staff aren't always as confident as you might first think around somebody else

who's come in as a critical friend and tells them, 'That was great. I never thought about doing it like that, but have you also tried…?'"

"X is not someone that I'd worked with before. I've gotten to know her better and it's moved from a relationship where we were pleasant with one another to a working relationship. It's good because she is in another subject."

"I know that the school down the road from us, literally a two-minute walk, who I wouldn't have naturally gone out and known about, I have now made a link with them and within their year groups."

Trust does not build itself. Activities that can produce trust as a consequence may, in fact, require it as an antecedent. In an iterative way, working and reflecting together can build trust and strengthen relationships but conflict is inevitable, sometimes difficult to overcome and sometimes not. Both were illustrated in the interviews.

"I'd like to think because we have a good working relationship we would be open but we haven't had a conflict to put it to the test. We are broadly in tune about what we want for the school. I hope that if there was something that we didn't agree about, we would talk about it and reach an agreement and an acceptance."

"Being put into a situation whereby you've got to deal with conflict is always interesting. Trying to see how you can take it forward and maximise the impact, and also build up the individuals."

"They were really honest … and within that group there was the trust that they could say that, and it was ok to say that as long as you make mistakes – there was a genuine will to do something about it."

"Maintaining trust is interesting. We've had new heads come in [and] they've had to almost be inducted into the group."

"There were one or two that you could see were trying to … build and work towards a future rather than be stuck in an old way. But there was still this hard core in the group that just spoiled it really … and I think maybe having five or six from the same school did not help. It was too overpowering and they had their own ways, and everything kept getting pushed towards their school."

"Occasionally blood is spilt. We have had dramatic votes, sort of outvoted and outflanked different people, particularly again with the secondary sector. Invariably primary sector are into compromising and can cope quite happily with different opinions, different feelings. The secondary section, it tends to go to blood, and tends to have to sort of outvote and outmanoeuvre people. But you know, inevitably in a group that size there is conflict. There are different opinions and different decisions. But my hope is it strengthens us rather than weakens us."

"We have heads in the group losing their temper completely, saying, 'I can't work like this.' I think you have to be a particular type of person who will allow things to flow and have that flexibility to change how things are done, and to be able to sit down and discuss and see what comes out of discussions."

"We tend to work in a democratic way so we all discuss what we would like. Sometimes it's very obvious that one particular person wants something slightly different to everybody else, but I acknowledge [that] … Then the next time I usually tend to go back and revisit the idea … very often [they] will have changed their mind anyway … So it isn't deliberately knocking a person's idea out of them. It's actually trying to incorporate it almost next time around but going with what the majority wants as long as it's a sensible majority."

Enlarging the social capital of the school also includes establishing a forum for student relationships (Otero et al, 2001). Within the NLC programme, pupil voice and connections among students within and across schools have been intentionally fostered as well.

"The key assumption is that more explicit involvement [by pupils] in the process of learning, including being able to articulate how they feel about it, will lead to improved student learning."

(Hadfield et al, 2004)

Several people in the interviews commented on the changing nature of their relationships with pupils.

"We discuss things with the children. They have a chance to say what they think about things. We tell them that we want to improve in these areas, 'How shall we improve?' We ask for their advice."

"We believe that children have a voice … it isn't empty vessels being filled. It is: 'How do you learn?' making the children realise, or informing them as to the purpose of what we are doing … They become owners, in a sense, of their own learning. They realise what is happening in the school, why we are doing it, why we are changing emphasis."

Relationships provide the foundation for collaborative activities.

Collaboration

> Collaboration within networks is intended to engage educators in opening up beliefs and practices to provide them with opportunities to participate actively in the development of their own practice and that of the profession. This interaction allows for sharing within schools and across systems; it spreads innovations beyond discrete sites; it creates a dynamic process of interpretation and evaluation of practice between colleagues, and it fosters identification with the larger group, extending commitment beyond the single classroom or school.

Collaboration encompasses much more than relationships. In the model put forward by Church et al (2002), interactions among network members are characterised as 'threads' and 'knots'. The threads represent the relationships; the knots represent the *activities*, the structures and content of collaboration. Timperley (2004) indicates that it is critical to make the activities central and warns against privileging the threads (relationships) as ends in and of themselves. The knots are the vehicles through which schools and networks conduct the work of improvement. Collaboration is the process for spreading innovations beyond single sites, building consistent modes of operation (Smith & Wohlstetter, 2001), addressing tough problems of teaching (Firestone & Pennell, 1997), building commitment through group understanding (Crandall et al, 1986; Lieberman & Grolnick, 1996), and solving issues of mutual concern (Wohlstetter & Smith, 2000).

The NLC programme puts heavy emphasis on collaboration among schools as one of its basic tenets.

"Collaboration that allows practice to be developed and tested through collaboration within and between institutions – offers a more effective method of integration and adaptation, and has been shown to be so in many different organisational settings."

(Cordingley, Hannon & Jackson, 2004)

"A central idea of the English reform agenda is that of a world class system driven by the energy of the schools. There is an assumption that collaboration is one of the ways in which that energy is

generated and sustained. Accordingly, we need to look at how the reform agenda can build collaborative capacity across the school system – hence there is a reciprocity, a virtuous circle, in which reform now both depends upon collaborative capacity and seeks to build it."

(Bentley, cited in Jackson, 2004)

"We see it as almost axiomatic that schools committed to learning and to collaboration will know that they need to do so. … recycling the existing knowledge-base is an insufficient foundation for learning. … innovation is a complex rather than a linear process, with interactions among many actors creating innovation systems. Developing companies seldom innovate alone."

(Jackson & Leo, 2003)

The people we interviewed in NLC schools mentioned a range of activities that they were involved in as part of their networks: training days, email communication, research groups, coaching, conferences, meetings etc. However, a great deal of literature in the area points out that collaboration needs to be considered as more than just an inventory of promising activities. For collaboration to have an impact on teaching and learning, it needs to engage practising professionals within and across sites in opening up their beliefs and practices.

Judith Warren Little (1990) offered a useful four-fold taxonomy for examining collaboration as it ranges 'from sporadic contacts and idiosyncratic affiliations among peers to joint work of a more rigorous and enduring sort' – storytelling and scanning for ideas; aid and assistance; sharing and joint work.

In **storytelling and scanning for ideas**, the contacts are informal and opportunistic, as teachers make occasional forays in search of specific ideas, solutions and reassurances. They gain information and affirmation in the quick exchange of stories, casual camaraderie and friendships that occur at a distance from the classroom. In this case, teachers do not feel as if there are any problems to be resolved and they exercise personal preference in who they talk with and how they use the information. The interviews provide examples of this kind of collaboration.

"The teachers' talking meetings are once every half term – they drop in, it's got less of an agenda really … it is more what comes up, and what is on people's minds, what is stopping people from teaching effectively, or stopping the pupils from learning effectively, whether it is diet or whether there are processes that are going on in the school, and what we can do about it."

"Supportive aspects of the network in terms of being able to talk to people who were from different schools and ask them questions which were relevant and generic … those conversations were priceless."

"We get together to share ideas with other colleagues, to have time to have a moan, yes."

"[It] was nice [to] just talk through a problem … that you were having in general, in the class. And I found that reassuring that maybe I wasn't the only one experiencing problems."

"We do cake and coffee. It's a drop-in – you come and go as you want to but people have stayed up to two hours talking after school, which is a long school day."

"We would go to a meeting and somebody would say, 'How is it going?'"

Aid and assistance occur when mutual aid or helping is readily available. Questions are interpreted as requests for help and there is the expectation that colleagues will give one another help and/or advice, as well as concern and sympathy, but not interfere in another's work in unwarranted ways. Sometimes the expression of empathy has the potential to dissuade teachers from more analytic examinations of practice.

"X and Y are friends as well as colleagues. We don't see much of one another outside school activities but we chat about things anyway, and I value their opinion. I'd ask them a direct question and expect a direct response. I wouldn't expect them to butter it up and change what they thought."

"We know when we need help, we have phone numbers to contact people who will help us."

"Immensely strong and immensely supportive, both on a social and a formal level, such that I think, almost without exception, anyone in the network who had a problem wouldn't have hesitation in grabbing advice from somebody else, phoning them up, dragging them round and looking quite strongly at what's going on."

"When you get a bit desperate – when you think, 'I am not doing it the right way. Where am I going wrong?' – it is nice to have someone say it is normal."

The next level of collaboration is the **sharing** of methods and materials or the open exchange of ideas and opinions. By making aspects of their work accessible to others, teachers

expose their ideas and intentions to one another, but sharing does not usually extend to direct commentary on curriculum, learning and instruction. The interviews gave examples of ways in which they shared their practice (or not).

"We went to a conference by Shirley Clarke [on] the three stars and wish type marking system … I brought it straight back into my classroom and started doing it, and it was great. The children really responded well to it … We then presented that to our Assessment for Learning group … The other schools weren't doing any of that … so they sort of took it back to their classes."

"We've had coaching seminars – not too formal – that enable us to share information in both directions. We've gone away and tried things out and then we come back and review the process."

"We've done things like learning walk-throughs, so we've been involved in each other's schools. We're not yet at the point of doing sort of assessments of each other's schools, but that's quite a hard one to take. We'll be there one day. It just needs an awful lot more trust before we can get to that point."

"Networking is not supposed to be about competition. However, I would disagree and say I think our network is a good network, very productive in many respects, and there is an element of competition there. But it's a positive element where my teachers like to go and look at other people's schools, and I know that other schools like to come and look at ours so that they can say, "Oh, that's a good idea. I'll pinch it." And so they can say, "We do that but we do it well, and we do it better than that." There's nothing wrong in that, because it's not nasty competitiveness. It's invigorating to look at other schools."

"Pairing up opened up a conversation. We haven't really been into each other's lessons but we've discussed activities we're going to try and shared ideas."

"We've had no conflict … we pass resources around. That's the best way of using the capacity of what you have in the cluster."

"After the training and the school-based work you meet up in a twilight session to evaluate how well you did and how you might improve next time with your leadership skills. It's very well structured and you get feedback from other people outside school, which is one of its strengths because it is conflict free because people have no agenda with you inside school."

"I think our meetings should be feedback sessions for data but it doesn't seem to be working."

"Each of the schools undertook a piece of research and we worked closely to plan it to find ways to raise children's self-esteem through role play … We had a few meetings about it – what we were going to be looking for, how we were going to achieve those targets, what types of research questions we were going to use. … It's been a process of really communicating with others about what works in their school and everyone's been very open about what we are doing and what we are going to do now."

The final level of collaboration in Little's framework is **joint work**, which she describes as:

"…encounters among teachers that rest on shared responsibility for the work of teaching (interdependence), collective conceptions of autonomy, support for teachers' initiative with regard to professional practice, and group affiliations grounded in professional work."

(Little, 1990, p10)

Teachers' motivation to participate in joint work is grounded in needing each other's contributions in order to succeed in their own work and a confidence in the others' competence and commitment. Moderate conflict is essential for the development of high joint benefit, while the desire to avoid conflict can undermine this outcome (Engestrom, 1999). The interviews included comments such as those shown below.

"I was coached, my lesson was videoed and we went through the whole process looking at the shortcomings and the difficulties and the like. That was a learning activity for us."

"There's one teacher who is the challenger … who constantly says, "Is this what we should be doing? Is this where the network should be going? Do you think we should be pursuing this? Is this the point of us? Is that what we really want to achieve?". X does that for us."

"It's really beneficial recognising that there is more than one way to do things. I feel privileged to be allowed to go into someone else's classroom. You want them to feel it's beneficial and that you are not there to pass judgement. You want to challenge but not threaten, and give them a chance to think things through."

"If I can actually see it happening … I find that much easier to copy or put into practice myself … [so] my mentor videoed my lesson and we looked at it afterwards, and she said, "Did you hear

how you introduced that?" I actually thought about the words I'd used and thought about who it was aimed at … it was a bit of a wake up."

Collaboration among people in networks can be a powerful mechanism for changing ideas and practices, particularly when it involves joint work that includes a balance of personal support with critical enquiry about present practice and future direction (Borko, 2004; Hudson-Ross, 2001) and sustained scrutiny of practice.

Enquiry

> Enquiry is a fundamental tenet of networks that focus on learning. When networks need to know, the members are prepared to investigate their work through the lenses of new knowledge. 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 problem-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.

Systematic analysis of the situation and professional reflection are regarded as core activities for both individual and collective construction of meaning. We have written elsewhere about having an e*nquiry habit of mind* – a habit of using enquiry and reflection to think about where you are, where you are going, how you will get there and then turn around and rethink the whole process to see how well it is working and make adjustments (Earl & Katz, 2002; 2005).

The cognitive architecture of human beings operates by preserving and conserving existing understandings and interpretations. These cognitive biases of conservatism and confirmation are unavoidable, as people work hard (mentally) to make sense of new ideas by making them fit with what they know already. For the most part, individuals trust what they know and search for support for their own beliefs, but transcending the blissful ignorance of Plato's paradox (not knowing what you don't know) is a fundamental prerequisite to knowledge construction and new learning (Bransford et al, 1999; Katz, Sutherland & Earl, in press). Effective social communities can help overcome these limitations by providing diverse ideas, distributed knowledge and multiple perspectives for solving problems (Hakkarainen et al, 2004). This is the promise of collaborative enquiry within networks (Lieberman & Grolnick, 1996).

When networks are founded on 'needing to know' and the members are prepared to investigate their work and consider new knowledge, engaging in a systematic enquiry process

provides them with personal experiences of searching for and considering new knowledge and examining it in relation to their own beliefs and practices.

Enquiry of some form was a stipulation of networks' proposals to become NLCs and NLC programme documents are full of references to collaborative enquiry and to its fundamental place in the design of the programme, as shown below.

"Schools seeking to redesign themselves as enquiry-based professional learning communities will be able to do so more potently by working and learning together."

(Jackson & Leo, 2003)

"Collaborative enquiry is systematic learning, the product and process of which are made public in order that others can benefit."

(Dudley & Horne, 2004)

"Collaborative enquiry generates data and findings, which can be widely shared alongside a deeper understanding of the learning activities involved in the knowledge creation process."

(Jackson & Leo, 2003)

"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. Schools that have been involved with enquiry-driven improvement work over a period of time, gradually and progressively re-design themselves around collaborative study of practice."

(Jackson & Leo, 2003)

"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)

Strong networks are built around teachers who regularly engage in discussions with colleagues to examine and study their work. By engaging in extended conversations that place beliefs about learning and teaching under scrutiny, assumptions about practice can be examined and reflected upon in a way that leads to deeper understandings (Bryk et al, 1999; Hudson-Ross, 2001). Enquiry is the mechanism by which networked learning communities can counter and push through the cognitive biases and assumptions that people hold.

Little (2005) references a large body of research suggesting that conditions for improving learning and teaching are strengthened when teachers collectively question

ineffective teaching routines, examine new conceptions of teaching and learning, find generative means to acknowledge and respond to difference and conflict, and engage actively in supporting one another's professional growth. The interviews included examples of ways in which people engaged in collaborative enquiry within their networks.

"I had designed a [continuing professional development] questionnaire which I then reviewed with the group, we trialled it out, had a look at it, changed one or two of the questions … I collated the results of that and I shared that with the teaching and learning group, and from that we have been planning the INSET sessions. Each of the schools then undertook a piece of research to find out how to raise student self-esteem."

"The original project was about student recall, how to improve it. And my project was on how mind maps affect pupil recall. So I did some mind mapping work with a pilot group and we had three ways of measuring whether it made any difference – my voice, pupils' voice and some test data. The first term was successful so we carried on. The next question the pupils came up with – now we can mind map, what do we do with it? So the focus for this year is how to use a mind map to revise from it."

"The research started with [our] identifying that some of the children in our school needed their self-esteem raised. "How do we do that?" We set about giving them questionnaires … Then we thought, 'How are we going to explore these topical issues?'"

"In terms of impact, it is not a gut feeling that it has worked well. [We know if] it has worked well – the data is there, and the analysis of the data will show it, whether it be in terms of exam results, or in terms of the percentage of the lessons. We do lots of lesson observations and we always grade them."

"We're now almost data rich, and we use the data to inform the type of activities that would be going on."

"We've reflected, if you could call that research or evaluation. I suppose that's more evaluation. We've reflected on the quality of the play that the children have been using. And from our own observations, we can see that it really has improved, but then we haven't actually done a proper scientific research into it."

The enquiry processes of questioning, reflecting, seeking alternatives, and weighing consequences (Collinson & Sherrill, 1997; Earl & Katz, 2002) promote the 'transparency' (Little,

2002) of what otherwise might remain unobservable facets of practice, making tacit knowledge visible and open to scrutiny.

"I think probably the best thing I've gained from being in any sort of network really is … the ability to be more reflective, to think about not just what we're doing, but why we're doing it, and how we're doing it, and how we might do it better as a result of having seen other people doing things, and having visited other settings."

"The network has brought people together to bash ideas about … I think the staff are quite reflective and open, and that's because as a network we're working together and so there's more ideas coming into the melting pot to think about so that makes staff more reflective and reflective in a wider way."

"We have begun to look at how you develop good teaching and learning, and what practice is happening in all the schools … we obviously all have monitoring and self-evaluation processes, so we are sharing those at the next meeting."

"We talked about the baseline research and the strategies we'd used. It was quite scary, but it was quite good because it opened up some conversations about different things other people had tried and I did then make a note of some of the other things I could try."

Enquiry is also an important skill for pupils to learn and practise. We heard examples of pupils being involved in enquiry activities of their own.

"The pupils wanted to improve the grounds. So they are going to the network schools to investigate ways of doing that – to look at what other schools have got, how well they are being used. They'll bring their ideas back to our school."

"We have the pupils writing down their thoughts on something, getting them to record summaries of what people say."

Collaborative enquiry creates an opportunity to investigate practices and ideas through a number of lenses, to put forward hypotheses, to challenge beliefs, and to pose more questions. When educators have an enquiry habit of mind, they have developed a *way of thinking* that is a dynamic, iterative system for organising ideas, seeking out information and moving closer and closer to understanding some phenomenon. However, it is a new activity for many teachers and school leaders. They may need to develop new skills and dispositions in

order to generate and make use of valid knowledge about how to improve learning and teaching, through their own development of strategies for enquiry and improvement (Bentley & Horne, 2003).

Leadership

> Leadership in networked learning communities is both far-sighted and pragmatic and is different throughout the life-cycle of the network. Leaders in networks develop the vision and focus, provide support (intellectual and instrumental), monitor development, disseminate information and provide buffers from challenges posed by the larger environment. Networked learning communities encourage a broad base of leadership in schools and across the network, with many people with and without formal positions of authority providing a range of leadership functions.

Fullan (2004) makes the point that 'if a system is going to be transformed, leadership at all levels must be the primary engine'. Networked learning communities include many levels of leadership, both formal and informal. Networks have some system of leadership to direct the work of the network itself, which usually coexists alongside the formal leadership of headteachers in schools. Within networks there are projects and activities that require direction and co-ordination.

Although the leadership literature continues to emphasise the role of principals or headteachers in successful change and instructional improvement, leadership models are increasingly focusing on what Rowan (1990) called 'network patterns of control', where leadership activities are distributed across multiple people (Smylie & Denny, 1990; Heller & Firestone, 1995).

Headteachers certainly have a key role in the work of the NLC programme.

"Heads' commitment tends both to symbolise and to facilitate school commitment. Headteacher groups become the 'gatekeepers' of ideas and a critical means of accessing wider engagement. They are a communication channel – they control internal school communications and decision-making. Beyond these reasons, though, their commitment to 'networked learning' values and practices sends sound waves across the network. Networking is hard. It requires unlearning as well as new learning – and no one finds lateral learning, humility, openness, collaboration and the uncertainties and explorations of learning more alien than those placed at the pinnacle of hierarchies."

(Jackson, 2004)

People whom we interviewed in NLC schools gave us many examples of the roles that headteachers play in the networks and in the network projects as they unfold in individual schools.

"The real leadership in the network … comes from the headteachers. More and more of our headteachers have a particular function running focus groups, running activities, and so on … there's probably a good half of them who have actually now got quite a central role in leading a bit of it in different ways."

"Several years ago, when this whole thing started, the headteacher made it very clear to the school in general that he wanted to focus on teaching and learning and that we were going to use research – to look into best practices. He provided direct leadership there."

"People have confidence in the head. So, if she says, "Give it a go", they do. You need a head with the drive to want to keep it going. If she said, 'What's this all about?', it would be difficult."

"As a group of heads, we got on socially and now we are trying to replicate that model with our staff. We feel that people work better together if they get to know one another a bit socially as well as professionally. We've tried to be conscious of that in trying to put the new groups together and try to give them some time, like the numeracy and literacy co-ordinators."

"My job and the other heads' job is to say, 'Let's get people enthusiastic about issues'. My leadership role is to hold and capture a broad picture of possibilities, present them and support the decisions that come out of that … I do from time to time find myself under pressure to be the decision-maker and I try to avoid that."

"As co-leaders, we started at first taking control almost like despots. Eventually people are taking more and more on board and we're at a place where we are not always running things. We have working parties from all of the schools, run by other heads."

"Obviously the heads set the agenda. Anything that is put forward, we come back and do it in our own school. But we're all doing the same thing."

They also illustrated some of the problems associated with headteachers' leadership roles in NLCs.

"You have to have someone who is independent of all the schools to do the groundwork. If it were left to heads, it wouldn't happen – they haven't got time to do it … Networking sucks talent out of

schools and if you don't have someone who is there just to service the network, you'll suck out too much talent and time."

"My headteacher left and now I feel I've got no part at all of the network … And I was quite sad because it became part of the way that I worked, having this facilitation and having the support and having the network there. And when that went, I felt it quite a lot."

"The headteacher is involved with our network. So it all comes from her really. She leads the group. I feel it's quite insular at the moment."

Headteachers are not the only leaders in networks. Researchers in many countries are investigating a model of distributed leadership in which multiple school members are seen as exercising leadership in order to effect programmatic change and instructional improvement (eg, Ogawa & Bossert, 1995; Elmore, 2002; Spillane, Halverson, & Diamond, 2001; Timperley, 2004 and Harris, 2002).

Distributed leadership is not yet well-defined. It has been used to refer to the delegation of leadership responsibilities to other competent staff members, or to the creation of a team of leaders who divide up the school's workload and leadership responsibilities, or to the explicit use of teacher leadership to provide functions of instructional leadership, staff development and staff mentorship. Each of these conceptions suggests a different approach and all of them complicate the roles, relationships and interactions among people in and across schools.

Allen and Cherrey (2000) make a compelling case for leadership in networks to extend over many different people engaged in a myriad of activities.

"In a knowledge era, an intelligent adaptation strategy is to accelerate the shared learning that occurs in an organisation. The faster an organisation can learn together and apply new insights, the quicker it adapts to changing conditions in the external environment. Therefore, leadership in a networked knowledge era experiments with and focuses on ways organisations and groups continually learn. As organisations model deep learning they also support and teach individuals to engage in learning as well."

Leadership in organic systems is not the kind of leadership that one person can do. It is leadership that requires many people – a leader-full organisation. In an organic system, one person cannot control the system, nor can one person fully understand it. Therefore, models of collaborative, shared, or multi-level leadership become more important and critical in organic organisations. Developing the capacities of others becomes essential in building a leader-full organisation."

Others argue that the distribution in itself does not necessarily ensure effectiveness. Instead, it is important to ensure a focus on leadership that influences instruction and maintains organisational coherence (Timperley, 2004).

The NLC programme has formalised the notion of distributed leadership into its structure and organisation in the form of co-leadership.

"From the beginning, overall leadership of each NLC is shared. Each NLC is led by at least 2 co-leaders (one of which is supposed to be a headteacher). This is designed to ensure that no single organisation or individual dominates. Some NLCs rotate the co-leadership roles for the same reason. The co-leaders report to a steering group that oversees the strategic direction of the NLC. This steering group is comprised of the headteachers of every school in the NLC in order to ensure that those who have the final say are able to agree collectively to mutual and binding decisions. Steering groups often also include other stakeholders including Governors, 'Lead Learners' and Local Education Authority officers."

(Horne, 2004)

"The requirement of co-leadership within the NLC programme was a practical response to some of the conditions and objectives generated by networked structures. The 'co' in co-leadership serves both to reduce the burden on individual leaders and to build a degree of resilience into the network by preventing excessive reliance on any one person. The actual boundary of 'co-leadership' has become increasingly fluid. Initially, co-leadership typically equated to two people but now it ranges from approximately two to twelve people. The specifics of how many co-leaders and who performed the role are left to the network to decide."

(Anderson, 2005)

Although it is not a formal requirement, the NLC programme aspires to a more pervasive kind of distributed leadership that will have large numbers of teachers engaged in leadership activities, regardless of their official position.

"Beyond these obvious 'levels' of leadership, though, lies also the more potent potential of school-wide collaborative enquiry – which is to empower all staff, at all levels, to become interchangeably leaders and followers, partners and participants in the use of enquiry and the creation and application of knowledge for school and system renewal."

(Jackson & Leo, 2003)

"The demands of leading a network have created the need to grow leadership capacity and led to the adoption of various models of distributed leadership. This has drawn in both practitioners who previously had little leadership experience and those who would not normally be considered as leaders. These middle leaders are involved in leading enquiry, as well as curriculum and professional development initiatives within networks. … The role initially was mainly to lead specific innovations in networks. Latterly though, this has changed as they have taken on more of the responsibility of building the network itself."

(Hadfield 2005)

Comments from interviews in NLC schools illustrate this view of leadership being distributed across a number of people in a wide range of configurations, leadership of the network itself, of network initiatives across schools and within their school-related network activities. The following comments show how leadership of the network is distributed.

"Initially … I saw myself as a facilitator. I was the gatekeeper … the leadership had to come from the heads, but obviously it has to disseminate down because the heads – wonderful as we are – are only human. We rely on the great expertise and ability and quality and talent there is in our school. So it was given to, disseminated to the teachers who have now become leaders. They are now leaders. The teachers are now seen as leaders."

"I think there are a number of leaders, and I think that is the way I would prefer it, rather than it being centred on one person who then gets promoted outside of the school … I think there is a solid foundation within that group of leaders who are comfortable within themselves, and gaining in confidence across the whole school."

"There isn't a leader of the network – we are all committed to the aims of it and so different people take on different roles. So in terms of cluster meetings, the cluster manage themselves in terms of getting things under way."

"We've got an internal steering group (teachers, students and the headteacher) and we look together at what we are actually trying to do in terms of developing the network."

"We have decided between us that it is a unique model of emerging leadership and distributed leadership rather than the heads. The heads are integrally involved, but they are not the main drivers in that way. They are wholly and fully supportive. [That's] my perception, but the drivers are the co-leaders, and I think that has been fantastic."

"There's leadership in the year group, so with the colleagues I work with, we would then do something using what you've learned, and we'd work together, and slowly you can influence others through the school by showing them what you've done."

"Truth is … we're all partially reliant on each other. Having taken on different tasks, it gives ownership for various things. Somebody might go off and do additional work on Gifted and Talented and lead on that area, and someone else will lead on other curriculum issues."

Research on distributed leadership in the context of other reform initiatives suggests that it is difficult to distribute leadership more broadly across members of the school community because conditions within and around schools worked against the broad exercise of shared leadership (Smylie & Denny, 1990; Little, 1995). The interviews gave images of challenges associated with distributed leadership.

"There must be about eight in that group. And they have been very clear that they are acting on behalf of all six schools and that what they've produced in terms of Assessment for Learning – in one part of it they're saying, 'You must put this in place in your school', and in another part they're saying, 'We'd like you to try this or experiment with this'. But what's noticed is the fact that they're telling the network what to do after they've seen themselves as representatives of the network. That's very interesting because a lot of time has been spent by heads saying to their staff, 'You have control. It's up to you to make decisions'."

"We have worked as a team. We've got two co-leaders but we have worked largely as a decision-making team … We've now reached the point where we're saying, 'We need a network manager. We need a network leader'."

"Nobody is in charge – co-leader is a fascinating term to look at because there is no one in charge. We may convene the meetings and structure the thoughts, structure the way we look at issues – but we've got no control over any of the other heads. There's no power in it – there's no power base – that's why imposing networks doesn't necessarily work. Networks are not hierarchical – they're more sort of changing – they rely on trust and personalities being open."

"Many of my senior leaders have been part of different groups but it's been difficult to make a senior leadership team common across the network because they're very functional in the tasks they do in schools. They're really a group of people who haven't had as many opportunities to share good practice."

"Boring meetings with lots of professional teachers and deputy heads, assistant principals, heads, around a table and really the subject matter hasn't been the substantive issues of research. I found that really quite stifling."

"[The] strength [is] teachers, primarily … Teachers on the ground, in the schools, have decided what they want to do and have then gone on and done it. And I think in a way that's the strength but it's also the weakness."

"It is not yet clear what system of leadership is productive and manageable for networks of schools."

Accountability

Accountability within networks includes both providing transparent and informative statements of account to others, and active self-monitoring to support and challenge the work of the group, in the process of striving for improvement. Accountability also implies a sense of responsibility for the quality of work and value for pupils.

Accountability is the watchword of education, with policy-makers demanding that schools focus on achieving high standards for all students, and requiring evidence of their progress (Fullan, 1999). Both external and internal accountability have a role to play in how change happens.

External accountability in networked learning communities means being open and transparent in showing policy-makers and the public what they are doing and how well it is working. Strong external accountability systems can also contribute to the achievement of a widely shared sense of purpose, create a sense of urgency, provide pressure for change and offer a forum for conversation about the work of schools.

In England, initiatives such as Ofsted inspections, key stage tests, target-setting, self-evaluation and national strategies provide a backdrop of external accountability. NCSL and the Networked Learning Group have also instituted a number of external accountability procedures to monitor the work of NLCs and learn from them. Each year, NLCs undergo a review process, in which they revisit their original application, indicating which activities had never been initiated or had been abandoned, which were still to go ahead, and which had been completed, with an elaboration on why they may have altered their plans. NLG also hosts an annual conference in which all networks present their work, with opportunities for challenge and discussion.

"In the last few months, it's been focused on the Year 2 review. I've found that a distraction from the work."

"We also have to be accountable to the people at the National College who are co-ordinating it, provide evaluations and reports to them."

"The national conferences go a long way towards [providing] accountability, with people presenting their work."

"In some cases, the interviews in schools indicated that the funding was an important accountability incentive."

"I know how much work we did on the Year 2 review, and nobody nowadays gives you money without a return."

"We are also accountable in the sense that we are getting money for doing this – we're having funding."

"I feel accountable [to the headteacher] because we have got this money and we want to make it work … It's no good getting all this money and then letting them flop."

"I think we are accountable to our heads … there is matched funding involved and more so than money there is teachers' time … and headteachers will want to see value for money in that respect."

There were other examples of NLCs developing external accountability mechanisms as well.

"The network is accountable basically to demonstrate that what it is doing, at the end of the day, has an impact. So, the meetings are logged, findings are logged, everything is recorded."

"We have to measure impact as well as we can in the school. We listen to whether pupils liked the approach, did they find it easier, did they feel more motivated to learn that way? But we also looked at exam marks."

Networked learning communities are founded on principles of transparency and enquiry, both key dimensions of internal accountability. Internal accountability is a process of using evidence to identify their priorities for change, to evaluate the impact of the decisions

that they make, to understand their students' academic standing, to establish improvement plans and to monitor and assure progress (Herman & Gribbons, 2001). As Elmore (2002) says:

"Knowing the right thing to do is the central problem of school improvement. Holding schools accountable for their performance depends on having people in schools with the knowledge, skill, and judgment to make the improvements that will increase student performance."

Internal accountability is what moves the agenda from schools where teachers and leaders are working hard and showing enthusiasm for change, to schools that are constantly engaged in careful analysis of their beliefs and their practices, to help them do things that they don't yet know how to do.

Although NLG's monitoring of NLCs is an example of external requirements, the processes have also been designed specifically to create the urgency and also the time for NLCs to engage in self-reflective and self-monitoring activities. We heard comments about personal responsibility and professional accountability both to the school and to schools and pupils more broadly.

"The upcoming Year 2 review means that you've got to reflect, it forces reflection."

"We want to improve our schools, and so we are accountable but it's a sort of professional accountability if you know what I mean."

"We knew what we did had to be of high quality. If you're passing things on to other teachers, materials have to be of a high quality. You don't want to let them down. I think that it's valuable to have people from other schools asking why you did that and why you didn't do this because it puts you on your mettle. You suddenly have to explain why you did something. You know, to be accountable for your actions."

"I sometimes feel that I'm not held to account enough. I would much rather we were a bit more rigorous with each other in our group … sometimes we need to say to each other, 'Hold on – show me much more clearly what structure you've got in mind to make this happen from beginning to end'. … There seems to be a lot of front-end enthusiasm and that needs to be matched by sustained support."

"I mean, we've all agreed to take part in this project so we're all accountable for how well it works and how it goes. … I think we're all accountable for what we do."

"I would say probably to the National College … [I'm accountable to] put forward the things that I'm learning as I go to different places to make sure that it doesn't just sort of slide down the cracks, that it is valued, and it is made use of."

"I'm also accountable to the staff here and the head because I am paid to bring back ideas that make a difference for children and that's what really counts, that's why we're here, isn't it?"

"Because of the size of our community and the large number of activities which are going on, we also formally evaluate each year the activities. We employ an external person to come in and do an external evaluation of the network. … It seemed, right from the beginning, no point in doing it unless you're actually knowing you're achieving something and getting somewhere."

A combination of local self-monitoring and external accountability systems is a difficult but high-yield approach that links transparent accountability with continuous organisational learning and adaptation.

Capacity building and support

Significant change in schools is a function of high pressure and high support. Networking initiatives require planned strategies for building capacity for change and improvement within schools and between schools. When networks are focused on learning, they intentionally seek out and/or create supporting activities, people and opportunities to push them beyond the status quo within their school and network development needs.

Harris (2001) defines capacity building as being concerned with creating the conditions, opportunities and experiences for collaboration and mutual learning. Networked learning communities are the most recent addition to decades of attention to improving schools. Years of school improvement research have shown that improving schools are ones that take charge of change, rather than being controlled by it (Rosenholtz, 1989; Hopkins, Ainscow & West, 1994 and Stoll & Fink, 1996). As Senge (1990) describes it, a learning organisation is one that is 'continually expanding its capacity to create its future'.

All the previous key features of NLCs are intended to build individual and systemic capacity. Networks build capacity by focusing on locating and using resources, ideas and people to support their individual and collective learning, all detailed more specifically in the descriptions of the key features. For example, resources and professional development are critical to building capacity, especially if they are specific to the particular initiative; visits to

already established sites where programme success is in evidence can enhance capacity; facilitators or critical friends who facilitate reflection, probe and ask questions, make capacity building more efficient.

The NLC programme recognised that capacity and capacity building were the core purpose of networked learning communities. The document *Building Capacity: Developing your School(Hadfield, Chapman, Curryer& Barrett, 2002)* introduces NLCs to models of capacity building, and practical strategies that they can use. It also offers a myriad of programmes designed to build the capacity of NLC members.

The interviews provided a multitude of examples of capacity-building activities as a result of participation in NLCs. We have only included a few in this report.

Some mentioned formal professional development sessions.

"The residentials that we run are designed specifically … to enhance our knowledge and improve our knowledge of what we are actually doing, and to fill in gaps."

"This is something that would not have happened three or four years ago … where a cluster of schools would get together and they would put on 30 workshops in one day."

"I had two full days of training and then we set aside twilight sessions and we coached each other so we all felt more confident."

"I've had time to do research and to go on courses. Whatever we need, we ask, and normally we get it."

Others described support mechanisms within a school and across a network.

"In the first year, a number of staff said that they found it difficult to actually do it, even though they knew what to do. So we had some training sessions. I provided support and when they knew that the support was there, a lot of their doubts evaporated."

"I'm numeracy co-ordinator so I go in and observe and sometimes coach. I'll just go and work with them and support them."

Some comments illustrated the role of people from outside the NLC.

"Our university partner acts as a mentor and supporter. If we come up against something, she's the port of call to narrow down the questions and think with me."

"Actually having experienced people to go to makes a big difference … I think having people that are working with you who have those skills and you can draw upon them is quite important."

"The LEA critical friend has been closely involved in writing the bid so that was useful because we knew that we had someone rock solid behind us."

"The NLG facilitator helped us a lot. The model we chose was very similar to something that she had done before. That was quite useful."

"X was our university critical friend. He was fantastic, the staff really loved him – he took away all that mystery of research so that was good."

Building capacity depends on intentionally fostering and developing the opportunities for members to examine their existing beliefs and challenge what they do against new ideas, new knowledge, new skills, and even new dispositions (Stoll, Fink & Earl, 2003).

Summary

In this chapter, we have identified the key features that appear to underpin the promise of networked learning communities in education, with some insights into the way that each of them contributes to the overall 'creature'.

Networked learning communities are indeed a complex interaction between structures and activities. Each of the features has a role to play, and, like any complex system, the ways in which they combine and interact are innumerable and cannot be predicted in any particular context. A change in any one invites changes in the others. Complex systems theory is useful for understanding the workings of networks. A central characteristic of complex adaptive systems is the interdependence of the features, with each one being connected to all the others. For example, the nature of collaborative enquiry will depend on the quality of relationships. Capacity building and support will depend on the kind of leadership. The role of accountability will depend on the focus and purpose. As Figure 1 portrays it, the overlap among the features is obvious. Separating them in this analysis, although artificial, has allowed us to examine each one in a deliberate way.

Chapter 5: Tensions and questions

In a commissioned paper written for phase 1 of this research trilogy, Levin (2004) addressed the issue of the paradoxical relationship between central policy levers and networked learning communities (NLCs). He framed his paper in terms of the inevitable tensions that arise between centralised policy levers and NLCs because of their very different assumptions about change. As he describes it:

"… advocates of central policy are likely to be uncomfortable with NLCs because the latter have the potential to undermine the former. Similarly, proponents of NLCs may actively dislike central policy approaches because these approaches violate most of their deepest beliefs about how effective schools can be fostered. A substantial amount of the literature on education reform mirrors these different views and can result easily in a dialogue of the deaf between people whose basic assumptions are highly divergent."

The danger, says Levin, is that the two streams may carry on in mutual suspicion if not active hostility, with the result that neither will be as effective as it might. He goes on to suggest that central policy and NLCs could actually complement each other by bringing together different and equally necessary strengths while curbing each other's excesses in an effort to combine a strong sense of common direction and priority with strategies that can bring about the local commitment and action that is necessary for real and lasting educational change (Levin, 2004). He offers some suggestions about ways to allow co-existence and even ways in which the two approaches could move from peaceful co-existence to a productive synergy by building bridges between the two ways of thinking. In his view, the tension could be lessened with compromise from both groups. Leaders of NLCs could ensure that networks give significant and meaningful attention to the key objectives of central policies, and guard against the tendency to avoid hard action in professionally driven initiatives. Central policy managers could work with NLCs to generate local capacity and commitment to educational improvement and to provide a sufficient degree of local autonomy and flexibility in policy implementation to allow NLCs to become important allies on key priorities.

In this chapter, we extend this idea of tensions in order to raise questions in a range of areas in which there will be an inevitable 'push-pull' effect associated with the key features of NLCs that we have identified. These tensions arise within the key features, but are even more evident in the relationships among them. Undoubtedly, there are many more issues than we have identified. We have selected the ones that emerged from our investigation as significant and relevant to the work of networked learning communities.

Although these tensions often appear to be polar and opposing, there are typically strong arguments for both ends of the continuum and elements of each orientation are desirable. The challenge is to identify the tensions and to find ways of integrating competing elements, and creating contexts that can mobilise and retain desirable qualities on both sides while minimising the negative dimensions (Morgan, 1997). The tensions are presented as a series of questions that require ongoing attention and balance to capitalise on the positive elements of both sides, without succumbing to the negative.

Preserving local flexibility within system coherence

This is the tension identified by Levin. The notion of networked learning communities is premised on unique local solutions determined by educational professionals who have flexibility and opportunities for self-determination. At the same time, governments are unlikely to give up their responsibility for establishing educational directions and ensuring that the work of schools is consistent with these directions and achieving policy goals.

The NLC programme has intentionally given the NLCs free rein to establish their learning focus and pursue it. Their experience has shown the wide range of initiatives that emerge and provided considerable insight about the way networked learning communities work. In many cases, the innovations have been closely tied to national priorities. Others have been specific to local interests.

It is possible for central authorities to set NLCs into government initiatives without reducing the flexibility to operate in ways that make sense within the local context. As Fullan (2005) says:

"The role of the centre is to set up the conditions for cultivating and supporting the wisdom of the system … by inviting the system as a whole to engage in the specific adaptive challenge of reaching levels never before achieved."

Fullan suggests that the goal is to engage the ingenuity at the local level in the service of changing things that are simultaneously important to local communities and to the system as a whole. The introduction of networked learning communities within the Primary Strategy is an example of this kind of marriage, in which the idea of NLCs is embedded in a structure that gives guidance about the parameters and purposes of the work, without mandating a particular focus or stifling local initiative.

The question: How will the national agenda be balanced with stimulating the flexibility required for local innovation in networked learning communities?

Defining adults in schools as teachers and as learners

The focus on learning for adults (teachers and leaders), is a fundamental change from a long-standing image of the adults in schools as teachers, not as learners. Networks need to be sophisticated learning systems that are organised and structured to encourage professional learning that honours both explicit and tacit knowledge. As McLaughlin and Talbert (2001) express it:

"Linking school knowledge and university knowledge, [networks] … find ways for 'inside knowledge' (the knowledge that teachers create on the job) to inform 'outside knowledge' (the knowledge of reformers, researchers and policy-makers), and vice versa."

Engaging in new and challenging learning can be risky, especially when working with colleagues. Teachers are unlikely to open themselves up to learning and participating in activities such as mutual enquiry, classroom observation and feedback, mentoring partnerships, and discussion about pedagogical issues and innovation, unless they are confident it is safe. Networks need to be places where the adults are comfortable with challenge, with diverse perspectives, with the exploration of new ideas, with ambiguity, and with frustration. Collaborative work that pushes beyond people's comfort zones into new territory is inherently challenging.

At the same time, it is clear from the literature on knowledge creation and sharing, that when new ideas move too far beyond people's existing conceptions, they work hard to conserve their existing schemata and change the innovation to fit what they know about schools and bolt networks onto the existing structure as opportunities to share and affirm what they already know, without engaging in the deeper thinking and struggle that are the core of networked learning. Without ongoing dynamic interactions and new learning, networks run the risk of superficial engagement with ideas that perpetuate the existing image of schools, rather than extending it.

The question: How will networked learning communities combine a safe environment for experimentation with a culture of enquiry, collaboration and struggle that pushes the adults in schools to be daring learners?

Focusing on compelling ideas with high leverage

A clear vision and focus on learning is one of the key features of networked learning communities. Not all focuses are equally worthwhile, however, and some are relevant in some contexts but not in others. It is important that networks focus on compelling ideas that stretch their capacity and ratchet up the effects of schooling. High-leverage innovations are ones where

there is evidence that they can make a difference for pupils and that they are consistent with the needs of the particular context. Focusing a network on an interesting idea or someone's pet project that is not compelling in this context or lacks evidence of value, can divert precious time and energy from productive activities.

The question: How will networked learning communities ensure that they have a focus that is right for their context, and that has been demonstrated to make a difference for pupils?

Using evidence in an era of rapid reform

Most current educational reforms rely heavily on collecting, analysing, using and communicating with data. This is a new area of expertise for most school and network leaders, who need support not only to gather data and conduct analyses but also to display the data, interpret it, think about it, use it for making decisions and communicate it to various stakeholder groups.

At the same time as enquiry and appealing to evidence has risen to the foreground as a requirement for educational decision-making, and practitioners are beginning to see the value in standing back, assessing the situation and reflecting on their progress as routine activities, changes in policy and in expectations for practice are moving faster than ever before. The evidence is not always available when it is needed and decisions are often made on the basis of incomplete or ambiguous evidence.

The question: How will members of networked learning communities develop the skills and dispositions to become adept at using data to support wise decisions in uncertain circumstances that are routinely changing?

Ensuring quality control

Networks provide structural and relational opportunities for sharing knowledge and practice among schools. The value of this sharing, however, emerges from the quality of the material that the participants choose to share. The danger is that they will choose new ideas without coherence and quality control.

The question: How will networked learning communities monitor and evaluate the quality of what gets shared?

Going to scale with networked learning communities

Voluntary participation is at the core of what makes a network different from other organisational or process forms. People engage in activities when they feel commitment to, and

ownership of, the agenda. The tension arises because going to scale with any reform agenda by definition requires the active involvement and commitment of a critical mass of people and there is rarely broad-based support for any educational reforms.

Datnow at al (2002) stress that 'reform sustainability requires building ideological commitment and ownership among teachers'. The challenge is to make the principles and key features of NLCs pervasive and accepted widely as the norm in education.

The question: How will the key features of networked learning communities become widespread practice for all teachers in all schools?

Blending formal leadership and distributed leadership

Headteachers continue to be key players in networked learning communities, with many others taking on a whole range of leadership roles and activities. Leadership does not take on a new meaning when qualified by the term 'distributed'. It still means the exercise of influence over the beliefs, actions and values of others. What may be different is how that influence is exercised and to what end.

Establishing patterns of distributed leadership is a subtle dance of power and authority. Sharing leadership within schools and across the network can cause confusion, resentment and protection of position and power, especially if the expectations for the differentiation of roles are not clearly specified.

The question: What form(s) of distributed leadership are consistent with the principles of networked learning communities?

Broadening diversity

Diversity is a powerful component of networks, bringing flexibility, resilience and the need for tolerance of new ideas and new people into routine interactions. The richness of diversity expands the collective intelligence of the group and strengthens innovation. This diversity pushes the boundaries of thinking among network members, although there is a risk that networks will initially develop a broader scope but will become stale and entrenched over time. Because there are limits on the diversity that exists within education as a profession, networked learning communities need to expand their horizons and ensure that diverse perspectives and new knowledge are embedded in their work.

The question: How will networked learning communities capitalise on the diversity that exists within and outside schools to challenge their ideas and encourage innovation?

Keeping and growing the vision of networked learning communities

Our final tension is somewhat different from the others. It addresses issues of the overall definition and vision of networked learning communities. The language of networks and networking provides many new images of possible structures, relationships and activities in education. Within this melange, networks can take many different forms and fulfil many different purposes. The leaders of the NLC programme are very aware that networking and networked learning are different from one another:

"A network implies a more formal organisational structure within which collaboration and working together takes place. Furthermore, a network can exist between schools or institutions … Networking describes an activity, rather than a structure. It takes place between people. So, it could be used to describe the activity within a network; equally it could be used to describe two or more teachers meeting to exchange ideas or thoughts before going their separate ways. This is an important difference. The existence of more formal structures via a network offers a means of the whole system learning from what is going on in that network. The content is almost like a public good and the formal structures offer a way in which to understand that content. Networking, on the other hand, will inevitably remain more tacit, as there are not the structures to amplify or make explicit what is being discussed. Arguably, you cannot have networks without networking, but networking does not require networks."

Our investigation of the key features of networked learning communities makes it obvious that there are many differences among networks. People whom we interviewed in the schools gave a broad range of images of different networks – differences in underlying principles, in intents and in configurations.

The question: How will the vision of networked learning communities be maintained and evolve, while guarding against proliferating networks based on the superficial aspects of the structure, without attention to substance and vision?

References

Allen, K & Cherrey, C, 2000, *Systemic leadership: Enriching the meaning of our work*., Boston, University Press of America

Anderson, M, 2005, System Thinkers in Action? The leadership of networks of schools. Presentation at annual meeting of AERA, Montreal

Borko, H, 2004, Professional development and teacher learning: Mapping the terrain, *Educational Researcher,* **33(8)**, 3–15

Bransford, J, Brown, A & Cocking, R, 1999, *How people learn: Brain, mind, experience, and school,* Washington DC, National Academy of Sciences, National Research Council

Bryk, A, Camburn, E & Seashore Louis, K, 1999, Professional community in Chicago elementary schools: Facilitating factors and organizational consequences, *Educational Administration Quarterly,* **35**, 751–81

Chapman, J & Aspin, D, 2003, Networks of learning: A new construct for educational provision and a new strategy for reform. In B. Davies and J. West-Burnham (eds), *Handbook of Educational Leadership and Management*, London, Pearson

Church, M, Bitel, M, Armstrong, K, Fernando, P, Gould, H, Joss, S, Marwaha-Diedrich, M, de la Torre, A & Vouhé, C, 2002, *Participation, Relationships and Dynamic Change: New thinking on evaluating the work of international networks*, London, University College

Collinson, V & Sherrill, J, 1997, Changing contexts for changing roles: Teachers as learners and leaders, *Teaching Education,* **8(2)**, 55–63

Costa, A & Kallick, B (eds), 1995, *Assessment in the Learning Organization: Shifting the paradigm*, Alexandria VA, Assocation for Supervision and Curriculum Development

Cousins, B & Earl, L, 1992, The case for participatory evaluation, *Educational Evaluation and Policy Analysis*, **14(4)**, 397–418

Crandall, D et al, 1986, Strategic planning issues that bear on the success of school improvement efforts, *Educational Administration Quarterly*, **22(3)**, 21–53

Crowther, F, Kagan, S, Ferguson, M & Hann, L, 2002, *Developing teacher leaders: How teacher leadership enhances school success*, Thousand Oaks, Corwin Press

Cuban, L, 1988, A fundamental puzzle of school reform*, Phi Delta Kappan*, **69(5)**, 341–4.

Datnow, A, Hubbard, L & Mehan, H, 2003, *Extending Educational Reform*, London, Routledge

Dudley, P & Horne, M, 2004, *What does 'networked learning' look like and how is it developing? Results from the first programme level inquiry*. Paper presented at American Educational Research Association, San Diego CA

Earl, L & Katz, S, 2002, Leading schools in a data rich world. In K Leithwood, P Hallinger, G C Furman, P Gronn, J MacBeath, B Mulford & K Riley (eds), *The Second International Handbook of Educational Leadership and Administration*, Dordrecht, The Netherlands, Kluwer

Earl, L & Katz, S, 2005, *From Accounting to Accountability: Harnessing data for school Improvement*, Thousand Oaks, Corwin Press

Elmore, R, 2002, The limits of 'change', Harvard Education Letter Research Online. [Online]. www.edletter.org/past/issues/2002-jf/limitsofchange.shtml [Accessed 22 November 2004]

Engestrom, Y, 1999, From iron cages to webs on wind: Three theses on themes and learning at work, *Lifelong Learning in Europe*, **4(2)**, 101–10

Firestone, W & Pennell, J, 1997, State-initiated teacher networks: A comparison of two cases, *American Educational Research Journal*, **34(2)**, 237–68

Fullan, M, 2005, Resiliency and sustainability, *The School Administrator*, February

Fullan, M, 2004, *Systems Thinking in Action,* London, DfES and NCSL

Fullan, M, 2001, *Leading in a Culture of Change*, San Francisco, Jossey-Bass

Fullan, M, 1999, *Change Forces: The sequel*, London, Falmer Press

Hadfield, 2005, The relationship between adaptive leaders and the purposes of distributed leadership in networks. Paper presented at American Educational Research Association, Montreal

Hadfield, M., Chapman, C., Curryer, I & Barrett, P. Building Capacity: Developing Your School, (2002) NCSL.

Hadfield, Spender, Holmes, & Bavington, 2004, Leading networks: The dynamic between processes and structures. What works? Paper presented at American Educational Research Association, San Diego CA

Hakkarainen, T, Paavola, S & Lehtinen, E, 2004, *Communites of Networked Expertise: Professional and educational perspectives*, Amsterdam, Elsevier

Halverson, R, 2003, Systems of practice: How leaders use artifacts to create professional community in schools, *Educational Policy Analysis Archives,* **11(37)**

Hargreaves, A, 2003, *Teaching in the Knowledge Society: Education in the age of Insecurity*, New York, Teachers' College Press and Buckingham, Open University Press

Hargreaves, D, 2003, *Working laterally: How innovative networks make an education epidemic,* London, Demos and NCSL

Hargreaves, D, 1998, *Creative Professionalism: The role of teachers in a knowledge society*, London, Demos

Harris, A. (2002) Building capacity for school improvement, paper presented at the American Education Research Association Conference, New Orleans.

Heller, M & Firestone, W, 1995, Who's in charge here? Sources of leadership for change in eight schools, *Elementary School Journal,* **96(1**), 65–86

Herman, J & Gribbons, B, 2001, *Lessons Learned In Using Data to Support School Inquiry and Continuous Improvement*, *Final report to the Stuart Foundation*, Los Angeles Ca, Centre for the Study of Evaluation, UCLA

Hoban, G, 2002, T*eacher Learning for Educational Change*, Buckingham, Open University Press

Hopkins, D & Levin, B, 2000, Government policy and school improvement, *School Leadership and Management*, **20(1)**, 15–30

Hopkins, D, Ainscow, M & West, M, 1994,*School Improvement in an Era of Change,* London, Cassell

Hudson-Ross, S, 2001, Intertwining opportunities: Participants' perceptions of professional growth within multiple-site teachers education network at the secondary level, *Teaching and Teacher Education*, **17(4)**, 433–54

Jackson, D, 2004, *Networked Learning Communities: Characteristics of 'networked learning' – what are we learning*? Paper presented at the International Congress for School Effectiveness and Improvement, Rotterdam

Jackson, D, Hannon, V & Cordingley, P, 2004, *Networked Learning Communities: Programme, policy environment and the potential of participatory evaluation*. Paper prepared for AERA, San Diego

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

Jackson, D & Burns, M, 2005, *Two System-wide Network Reforms in the UK: Learning themes from the Networked Learning Communities and Leading Edge Partnership Programmes*. Paper presented at the International Congress for School Effectiveness and Improvement, Barcelona

Katz, S, Sutherland, S & Earl, L, 2002, Developing an evaluation habit of mind, *Canadian Journal for Program Evaluation*, **17(2)**, 103–19

Katz, S, Sutherland, S & Earl, L (in press) Towards an evaluation habit of mind: Plotting the trajectory*, Teachers College Record*

Levin, B, 2004, Connecting central policy and Networked Learning Communities. Paper commissioned by Aporia Consulting Ltd

Lieberman, A, 2004, On network learning and organizing. Paper commissioned by Aporia Consulting Ltd

Lieberman, A, 1995, Practices that support teacher development, *Phi Delta Kappan,* **76(8)**, 591–6

Lieberman, A, & Grolnick, M, 1996, Networks and reform in American education, *Teachers College Record*, **98(1)**, 7–45

Little, J W, 2005, Nodes and nets: Investigating resources for professional learning in schools and networks. Unpublished paper for NCSL

Little, J W, 1990, The persistence of privacy: Autonomy and initiative in teachers' professional relations, *Teachers College Record* **91(4)**, 509–36

Louis, K & Miles, M, 1990, *Improving the urban high school*, New York: Teachers College Press

Marzano, R, Pickering, D & Pollock, J, 2001, *Classroom Instruction that Works: Research-based strategies for increasing student achievement*, Alexandria VA, Association for Supervision and Curriculum Development

McLaughlin, M. and Talbert, J. (1993) *Contexts That Matter for Teaching and Learning*. Palo Alto, CA: Center for Research on the Context of Secondary School Teaching.

Morgan, G, 1997, *Imagination: New mindset for seeing, organizing and managing*, San Francisco, Berrett-Koehler

NCSL, 2002, *Like No Other Initiative*, Nottingham, NCSL

Nonaka, I & Takeuchi, H, 1995, *The Knowledge-creating Company*, Oxford, Oxford University Press

OECD, 1997, *Sustainable Flexibility: A prospective study on work, family and society in the information age*, Paris, OECD

Ogawa, R T & Bossert, S T, 1995, Leadership as an organizational quality, *Educational Administration Quarterly*, **31(2)**, 224–43

Otero, G, Chambers-Otero, S, Sparks, M & Sparks, R, 2001, *Relational Learning: Education for Mind, Body and Spirit*, Melbourne, Hawker Brownlow Education

Patton, M, 1997, *Utilization-focused Evaluation*, Thousand Oaks, Sage

Peterson, P, McCarthy, S & Elmore, R, 1996, Learning from school restructuring, *American Educational Research Journal*, **33(1)**, 119–53

Rosenholtz, S, 1989, Workplace conditions that affect teacher quality and commitment: Implications for teacher induction programs, *Elementary School Journal*, **89(4)**, 421–89

Rowan, B, 1990, Commitment and control: Alternative strategies for the organizational design of schools, *Review of Research in Education,* **16,** 353–92

Senge, P, 1990, *The Fifth Discipline: The art and practice of the learning organization*, New York, Doubleday

Smith, A. & Wohlstetter, P. (2001). Reform through school networks: A new kind of authority and accountability. *Educational Policy, 15*(4), 499-519.

Smylie, M A & Denny, J W, 1990, Teacher leadership: Tensions and ambiguities in organizational perspective, *Educational Administration Quarterly*, **26(3)**, 235–39

Spillane, J. P., Halverson, R., & Diamond, J. B. (2001). Investigating school leadership practice: A distributed perspective. Educational Researcher(April), 23-28.

Stoll, L, 2004, Networked Learning Communities as professional learning communities. Paper commissioned by Aporia Consulting Ltd

Stoll, L, Fink, D & Earl, L, 2003, *It's About Learning and It's About Time*, London, Routledge Falmer

Stoll, L & Fink, D, 1996, *Changing our schools: Linking school effectiveness and school improvement*, Buckingham, Open University Press

Timperley, H, 2004, Coherence and Networked Learning Communities: A distributed leadership perspective. Brief to NCSL following international seminar

Timperley, H & Robinson, V, 2003, Workload and the professional culture of teachers. In L Kydd, L Anderson & W Newton (eds), *Leading People and Teams in Education*, London, Sage

Von Krogh, G, Ichijo, K & Nonaka, I, 2000, *Enabling Knowledge Creation*, New York, Oxford University Press

West-Burnham, J & Otero, G, 2004, Educational leadership and social capital. Incorporated Association of Registered Teachers of Victoria Seminar Series, August Volume 136.

Wohlstetter, P & Smith, A, 2000, A different approach to systemic reform: Network structures in Los Angeles, *Phi Delta Kappan,* **81** (March), 508–15

Appendices

Appendix A:

Participants at expert seminar in San Diego, April 2004

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Appendix B:

San Diego expert seminar: commissioned papers, additional documentation and expert briefs

Commissioned papers for San Diego expert seminar, April 2004

The following background papers were commissioned to provide both information and stimulation as participants prepared for the seminar.

- Caldwell, Brian, Leadership for self-managing networks of schools
- Crandall, David P, Simulations for building network capacity
- Levin, Ben, Connecting central policy and networked learning communities
- Robertson, Jan, Coaching in networks of schools
- Stoll, Louise, Networked learning communities as professional learning communities

Additional documentation for San Diego expert seminar, April 2004

Participants also received additional background material several weeks prior to the meeting on 14 April 2004. Several NCSL documents were distributed – the NCSL prospectus for 2003-04 as well as three papers describing NLCs and elaborating the principles underlying the NLC initiative (*Like No Other Initiative*, *Why Networked Learning Communities*? And *What is Networked Learning?)*. Finally, four additional papers relevant to networks and networked learning were sent to participants. These papers are listed below.

- Chapman, Judith & Aspin, David, 2002, Networks of learning: A new construct for educational provision and a new strategy for reform, *Handbook of Educational Leadership and Management*
- Desforges, Charles, no date, *On Learning and Teaching*, Nottingham, NCSL
- Hargreaves, David, 2003 *Working Laterally: How innovation networks make an education epidemic*, London, Demos
- Lieberman, Ann, 1999, *Networks*, *Journal of Staff Development*, 20(3)

Expert briefs

The following briefs were prepared following the San Diego seminar and submitted to NCSL's NLG for their use in knowledge building and sharing.

- Chapman, J & Aspin, D, 2004, Why networks and why now?
- Crandall, D, 2004, The support necessary to meet participant needs
- Datnow, A, 2004, Networks and comprehensive school reform
- Levin, B, 2004, Connecting central policy and Networked Learning Communities
- Lieberman, A, 2004, On network learning and organizing
- Murphy, J, 2004, Some insights on shared leadership and communities of practice
- Robertson, J, 2004, Coaching in networks of schools
- Spillane, J, 2004, Distributed leadership and Networked Learning Communities: The subject matters
- Stoll, L, 2004, Developing professional learning communities: Messages for Networked Learning Communities
- Supovitz, J, 2004, How Networked Learning Communities can use student performance date to inquire into their strategies and effectiveness
- Timperley, H, 2004, Coherence and Networked Learning Communities: A distributed leadership perspective
- Wohlstetter, P, 2004, Networks: What we've learned

Appendix C:

NLC: invitational seminar of international experts: summary report

Rationale for the seminar

The Networked Learning Communities programme is an initiative of England's National College for School Leadership (NCSL), with support from the Department for Education and Skills (DfES). With close to 140 networks, involving over 1,500 schools, the Networked Learning Communities programme is a rapidly growing initiative with great potential for influencing both policy and practice in England. The Networked Learning Group (NLG) at NCSL provides support and facilitation for the growing number of networked learning communities (NLCs).

The aspirations and goals of the NLC initiative go well beyond what is usually meant by a network. In NLCs, schools and teachers are expected to create and exchange knowledge collaboratively, continuously and systematically. Children are helped to become powerful learners by ensuring that adults learn and that schools learn from one another. NLC participants are expected to reflect deeply on teaching and learning as they address difficult challenges in their schools and come together with a strong sense of moral purpose. Ultimately the aim is to change not only schools, but also the system in which they operate.

The initiative is aimed at developing networked learning communities and at learning about networked learning. A research or enquiry focus is embedded in all aspects of the work. For instance, development and enquiry groups throughout NLCs pursue networked learning walks, engage in teacher research and use research lesson study. In addition, NLCs are engaging in a range of other evaluation and data collection processes in their own sites and for their own learning. Year-end self-reviews are yet another way of collecting and using data about progress and challenges in becoming a networked learning community.

In addition to such ongoing enquiry, research and review activities, DfES and NCSL commissioned Aporia Consulting Ltd to plan an external evaluation of the Networked Learning Communities programme designed to be responsive to the dynamic nature of the NLCs, to build organisational capacity within the Networked Learning Group and to draw on the advice of researchers from around the world.

Engaging international scholars with expertise relevant to networking was seen as a critical early step in planning the external evaluation. The symposium that is described in this report was designed to bring together international experts with varied perspectives and experience to discuss issues related to the NLC programme and its evaluation.

In advance of the symposium, a number of papers on specific aspects or issues relevant to NLCs were commissioned. Each author was asked to prepare a paper of 5,000–8,000 words that considered their area of expertise in relation to issues around networks and networking. The intent was that the papers would serve as background inputs for the discussion at the meeting. Participants also received, several weeks prior to the meeting on 14 April 2004, additional background material. Several NCSL documents were distributed – the NCSL prospectus for 2003-04 as well as three papers describing NLCs and elaborating the principles underlying the NLC initiative (*Like No Other Initiative*, *Why Networked Learning Communities?* and *What is Networked Learning?).* Finally, four additional papers relevant to networks and networked learning were sent to participants. These papers are listed below:

- Chapman, Judith & Aspin, David, 2002, Networks of learning: A new construct for educational provision and a new strategy for reform, *Handbook of Educational Leadership and Management*
- Desforges, Charles, (no date)*On Learning and Teaching*, Nottingham, NCSL
- Hargreaves, David, 2003, *Working Laterally: How innovation networks make an education epidemic*, London, Demos
- Lieberman, Ann, 1999, Networks, *Journal of Staff Development*, 20(3)

Chapman and Aspin (2002) highlight how networks can be applied in the operationalisation of life-long learning and the creation of schools of the future. They set out a progressive programme of research designed to enhance our understanding of this important concept in the administration of education, with a focus on its value as a strategy for reform.

Desforges argues that schools would be even more successful at promoting success if there were sharing of knowledge about learning. Although there is vast knowledge about learning evident in practice, it is difficult to access and to share. Knowledge from research is easy to access but difficult to apply. The challenge is to bring practical and theoretical knowledge together to promote advanced teaching practices.

Hargreaves, in arguing for the importance of innovation, stresses that teachers must have a passion for developing new practice and sharing the results freely with colleagues. The transformation of schools will take place through such innovation networks, creating an 'education epidemic'.

Lieberman identifies and explains five characteristics of successful networks: purpose and direction; collaboration and commitment; relationships and activities; leadership and funding. The challenges, as she sees them, are establishing meaningful purposes; negotiating the transition between inside and outside knowledge; balancing centralisation and decentralisation and determining inclusivity or exclusivity of membership.

Commissioned papers

The following background papers were commissioned to provide both information and stimulation as participants prepared for the seminar.

- Caldwell, Brian, Leadership for self-managing networks of schools
- Crandall, David P, Simulations for building network capacity
- Levin, Ben, Connecting central policy and Networked Learning Communities
- Robertson, Jan, Coaching in networks of schools
- Stoll, Louise, Networked Learning Communities as professional learning communities

Outlined below, in very brief form, is how each paper addresses a key theme or issue related to designing and carrying out an evaluation of networked learning communities.

Caldwell, in pointing out that British schools have a greater degree of self-management than schools in most other jurisdictions, focuses on understanding leadership for self-managing schools. He sets out the requirements for school leaders in a set of 12 propositions with associated leadership corollaries. The issue for networked learning communities is the extent to which they help build capacity for leadership and learning in self-managed schools.

Crandall provides a basic orientation to the potential of simulations in education to help inform a conceptual framework to guide monitoring and evaluation of networked learning communities. He shows how simulations can be used as capacity-building resources in developing networked learning communities, promoting deep learning and helping participants determine effective strategies for knowledge transfer and management.

Levin addresses the relationship between central policy and the strategy of networks, particularly in the British context. Networked learning communities are based on ideas of capacity

building as a key to reform. The idea, however, fits uneasily alongside a recent history of education reform through central policy mandates. Beyond the tensions, he proposes that the two approaches can be mutually supportive, suggesting that NLCs must demonstrate publicly that their work is connected to key priorities.

Robertson describes a coaching model relating to networked learning communities, arguing that coaching practices can provide a lever for the desired transformation in schools. She argues that coaching can help shift theories about practice to theories-in-action. Coaching, with associated action research, assists in the co-construction of knowledge and thus the institutionalisation of change in classrooms and schools.

Stoll explores how networked learning communities can be viewed as professional learning communities operating across a broader landscape. NLCs are also intended to enlarge the repertoire of choices available to schools and to move ideas and good practice around the system. If NLCs can help transform not only schools, but also the whole system, they will have a significant impact on policy as well as practice.

The seminar

Each of the invited experts has an impressive combination of research expertise and specialised knowledge in areas relevant to the evaluation of NLCs. This outstanding group of scholars, most of whom have also been involved in educational policy issues, spent the day engaged in spirited dialogue around themes and issues related to networked learning communities.

To provide a common and more concrete picture of NLCs, the participants watched a brief video produced by NCSL that provided information about the principles that guide NLCs, as well as examples of the concrete learning activities seen in various networks. Following this introduction, the day was organised around three successive tasks tackled by participants working in four small groups. Membership in each of the groups changed for each task, allowing for cross-fertilisation of ideas and interactions. The tasks were as follows.

- *Task 1: Networks as a strategy for educational reform or improvement*. What are your thoughts and impressions surrounding the notion of networked learning communities as a strategy for educational improvement?
- *Task 2: Core attributes and themes*. What do you see as the core themes (and related issues) associated with networked learning communities in education?

- *Task 3: Evaluation questions.* Building on the identified core themes of networked learning communities, identify no more than five overarching questions that could be used to guide the evaluation of the Networked Learning Communities initiative.

Emerging themes

The guiding questions posed in tasks 1 and 2 stimulated rich discussion about networking as a strategy for educational improvement and about the core issues and attributes that need to be considered in relation to the NLC programme and, ultimately, its evaluation.

Taking the two tasks together, the substance of the discussion amongst the participants can be summarised according to the following four conceptual categories:

- understanding the NLC initiative
- promise of NLC
- challenges and cautions
- broader connections

Understanding the NLC initiative

The participants asked many questions in an attempt to understand both the NLC initiative and the English context. There was rich discussion about the concept of networks, with many questions and clarifications about the specific design characteristics of the NLC approach to networking. The participants suggested that a taxonomy of networks might be useful for situating the work of the NLC initiative both within the English national agenda as well as the international context. The primary question was how NLCs are different from other forms of collaborative sharing (such as networks or professional learning communities).

More specifically, discussion focused on the content, process, and context of NLCs. Participants raised questions about the content that was being developed and shared and about the forms of knowledge found in NLCs. They also wondered about whether the activities of NLCs were of a sufficiently high quality and influence to improve student learning. Process issues included comments about leadership (centralised, decentralised, distributed), power (hierarchical versus shared), reach (who is involved and who is not), structure and organisation (forms and levels of interaction), and representation. A theory to action 'logic map' that describes what is done and what outcomes are expected from the activities was suggested as a necessary explanatory mechanism for representing the intended path of influence by which NLCs are to have an effect, as well as for defining what counts as success. In addition, many comments concerned the context. People wondered about the interaction and relationship between schools and LEAs and the history

of reform in England, particularly in relation to motivation, commitment and conditions for success.

Promise of NLC

The promise of the NLC initiative was acknowledged in a variety of ways. Participants talked about the importance of protected time for innovation and risk-taking, the emergence of new power relationships, the potential of NLCs to increase morale among teachers (following a period of prescribed reform) and the enthusiasm and positive energy that has been generated. With respect to the latter, they underscored the importance of determining what drives the commitment and intense engagement that seems evident and that is required for NLCs to be sustained. The experts also lauded the strategy as having the potential for incremental rather than revolutionary change, which they considered a necessary precondition for a chance at sustainability. Finally, promise was also considered in a relational sense as the participants noted that NLCs provide the opportunity for multi-agency collaboration for learning.

Challenges and cautions

The participants raised a number of questions and identified challenges that need to be considered as the initiative proceeds. Within networks, the need for converting good ideas into focused implementation was stressed. People wondered if NLCs as a strategy was powerful enough to overcome the dominant structures (regularities) of schooling that have traditionally been characterised by isolation and autonomy. Extending the argument, they also mused about whether NLCs might, in fact, ultimately be undermined by the wider accountability system. The existence of top-down and bottom-up agendas, often competing, was seen as a major challenge. Inclusivity versus exclusivity within and across schools was flagged as an issue to address, with the question being about whether the initiative results only in the already successful becoming more so. In addition, the challenge of scaling up beyond the five per cent of involved schools and of the impacts (if any) on change in government policy were discussed.

In addition to the above, the experts went further and identified a set of challenges that are intimately connected to determinations of programme efficacy and thus have a direct bearing on the development of the evaluation. As alluded to earlier, the participants underscored the need to determine what counts as success or – to put it slightly differently – who is learning what? This latter question was discussed in terms of identifying the 'unit of effect', with students, teachers and organisations all emerging as candidates. Unintended effects were flagged as important to highlight along with the intended outcomes. Finally, the experts talked about determining the

value added by collaborative learning such that identified intended and unintended outcomes and effects could be attributed to the network.

Broader connections

There was also considerable conversation about other research and work that may be relevant to the NLC initiative, suggesting that strong connections might be made to the international knowledge base. The content of the commissioned papers was held out as one set of examples of such an effort. Also, related work could be considered, acknowledging the broader context of networks internationally (eg, OECD has identified a range of examples of networks in other countries). Several of the US experts made reference to the nature and scope networks in the US, noting the similarities and differences to the NLC programme. Participants stressed the need to think about NLCs in relation to other reform strategies such as professional learning communities (PLCs), strategic leadership endeavours and other highly collaborative cultures. Finally, it was suggested that the organisational literature be consulted to provide a framework for this evaluation specifically related to levels of learning (first order, second order and third order), a model that holds the potential to interface with NLCs' own learning levels.

Research questions

Following the reporting of themes and issues, each of the four groups was asked to reach consensus on a set of research questions that might serve as the first step to guide the development of the evaluation of the networked learning communities. A rich and lively discussion, building on the earlier consideration of themes and issues, led to sets of questions with much commonality but also slight variation across the groups.

The following framework represents one alternative for bringing together the suggested research questions. More detailed development of the research questions needs to address the issues raised in the earlier discussions.

1. What are networked learning communities?
    - design principles
    - principles as implemented
    - forms or types of networks – is there a taxonomy?
    - how NLCs compare with other networks
    - stages of development for NLCs (life-cycles)
    - influence of the local context in the origins of NLCs
2. What are the focuses of networked learning communities?
    - content, activities

- learning and capacity building (pupil, adult, school, broader system)
- creating, using and transferring knowledge
- innovation versus status quo
- variation across NLCs: related to what factors?

3. How are networked learning communities supported?
   - resources
   - facilitation and leadership: local and beyond
   - role and influence of networked Learning Group
   - accountability
   - barriers and challenges
4. What is the nature and depth of impact of networked learning communities?
   - reach (extent of engagement in NLC schools)
   - capacity building
   - levels of learning
   - unintended outcomes
5. What does it take to sustain networked learning communities?
   - tensions and challenges
   - relationship between networks and the national reform agenda
   - local and national social and political context
6. What are the policy implications of networked learning communities?
   - a new reform strategy
   - system change
   - approaches to accountability
   - micro and macro levels

Recommendations

Aporia Consulting Ltd met with NCSL representatives following the seminar to distil the major ideas and develop a set of recommendations for action. Four next steps recommendations emerged.

- The expert seminar participants receive a copy of this report and a request to write a short (two- or three-page) summary for practitioners of elements of their own work that are relevant to NLCs, with concrete examples of connections and/or applications. These summaries will form an edited collection to be published by NCSL in order to share expert commentary on the programme with the local audience.

- Given the variability of understanding of the term 'networked learning community' that was apparent at the seminar, NCSL produce a plain-language descriptive document for broad dissemination.
- The wealth of extant data sources (and access procedures) within and around the NLC programme be consolidated and mapped to form a comprehensive guide for ensuring the full use of available data in planning the evaluation.
- A long-range evaluation plan be developed.

Appendix D:

Key features expert advice

- Amanda Datnow — University of Southern California
- Lynne Hannay — OISE, University of Toronto
- Ann Lieberman — Carnegie Foundation, Stanford University
- Jon Supovitz — University of Pennsylvania
- Jim Spillane — Northwestern University
- Helen Timperley — University of Auckland
- Penny Wohlstetter — University of Southern California

Key features template

Recognising the value of your time, we have identified (by shading) a subset of 'key features' in the following table for which we would most appreciate your particular expert input. That said, please feel free to provide input on any of the unshaded key features as well.

The task

1. For each of the shaded key features:
   A. Given the noted description and rationale synopses, what are the things we should ask about or look for in networks or schools that would allow us to describe this feature? (Please insert in the 'Questions to ask' column for each of the shaded features).
   B. Is there any pertinent literature related to the key feature that you feel we should know about? (Please insert in the 'Pertinent literature' column for each of the shaded features).
2. Are there any other features that you feel we should add to the list? (Please insert in the open rows at the bottom of the table).

Key features	Description	Rationale	Questions to ask ('look fors')	Pertinent literature

Enquiry	The systematic and intentional exploration of information, oftentimes through a process of reflection in support of decision-making and problem-solving. Combines individual and collective experiences, and ideally leads to a deepened understanding of beliefs and practices.	Enquiry helps members develop a common language and shared vision. It supports and guides network members through the change process, and assists in the translation of common goals and curricular objectives into daily practice. Enquiry can provide members with a sense of personal involvement in the change process, thereby engendering higher levels of individual and group commitment.		
Collaboration	A purposive opening up of practice across grades and disciplines, resulting in a dynamic process of interpretation and evaluation of practice between colleagues. This broad and active engagement between practising professionals occurs within and across sites, and in a variety of ways (eg, workshops, one-to-one meetings, virtual networking, etc).	Allows for the transmission of social norms, best practice and shared beliefs within schools and across systems. Spreads innovations beyond discrete sites, and fosters teachers' identification with the larger group, thereby extending teacher commitment beyond the single classroom or school. Provides teachers with opportunities to participate actively in the growth and development of their own practice and that of the profession.		

Relationships	The ongoing and dynamic interactions between members of a group or network that contribute to the establishment, development and maintenance of a professional culture with shared goals and social norms. Requires trust, mutual accountability and agreed power-sharing.	Group members generate a process of socialisation that serves to initiate newcomers, protect existing practice and enhance the coherence of the group. Strong group cohesion is based on and engenders trust, which in turn strengthens relationships and group membership. Strong relationships and group coherence can help but also hinder change initiatives depending upon how change is viewed by the members of the group.		
Leadership	The articulation of a unified vision or set or beliefs and practices across a network or larger environment that acts to spread authority across a network through formal and informal mechanisms. Leadership takes place at both the ideological and pragmatic or organisational levels, and its practices emerge as networks form and evolve.	Individualised agency of teachers can work against the development of healthy networks and is best balanced by mechanisms that promote and support network connections. Leadership is required to provide support, monitor development, disseminate information and buffer networks from challenges posed by the larger environment.		
Focus – purpose, intent	Explicit articulation of commonalities in purpose and intent as they are related to practice, school improvement and student learning. Often appear as calls to challenge, reconceptualise and make changes to existing practice and structures.	Helps move the network beyond the decision to tackle change and shifts the focus on strategies for success. Acts as a nucleus for change, thereby legitimating the change process and making the status quo more difficult to protect.		

Accountability	The collective vision, beliefs, goals or expectations established within and across networks through an open process of sharing, analysing and distributing information.	The process of active self-monitoring and internal control leads to increased professionalism and individual accountability. Requires the involvement and co-operation of all participant groups, including parents and students. Information on individual participants must be readily accessible and utilised.		
Motivation and commitment	Motivation and beliefs of an individual or collective that they can undertake and execute a shared vision or goal with competence and capability.	A robust belief of group capability or achievement creates expectations for future success that strengthens members' motivation and commitment to collective or shared goals.		
Professional development and support	Strategies for building capacity for change and improvement within schools and between schools.	Differentiated attention and support are required in ways that are calibrated to stages of individual and institutional development.		
Knowledge creation, management and transfer	Innovation is not simply a thing to be transferred from place to place, but a complex, time-phased, politically charged design and decision process, often involving multiple social groups within organisations. Knowledge creation and transfer is the acquisition, adoption and dissemination of new understanding and expertise at either the procedural or conceptual level across and within sites.	Individuals acquire knowledge and information and they must share it with colleagues if it is to have institutional influence. Knowledge creation and transfer are required for individuals to convince others within their organisation of the potential advantages of the ideas and bring together the necessary skills and knowledge needed to implement and appropriate it.		
Additional features				

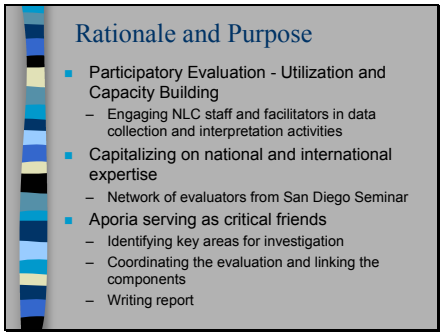
Appendix E:

Training materials, interview protocol and case summary template

Key features investigation: overview slides

Slide 1

Slide 2



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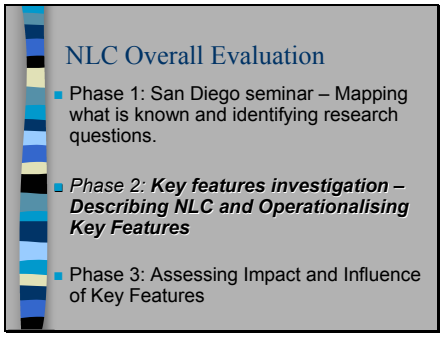

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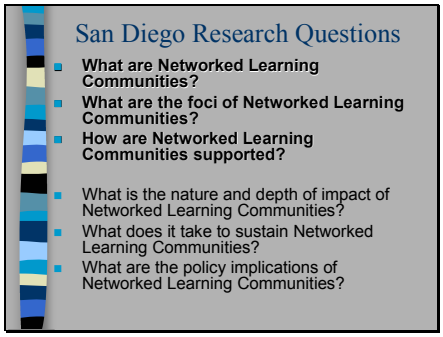
Slide 5



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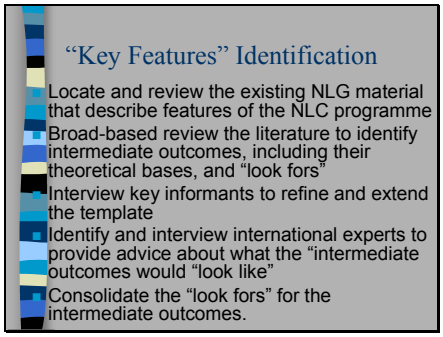

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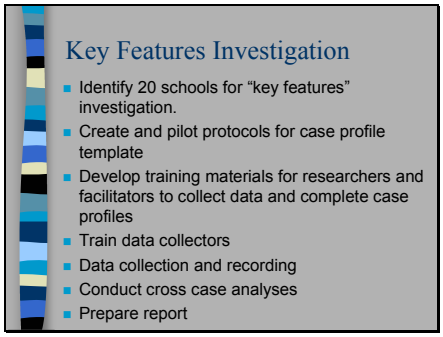

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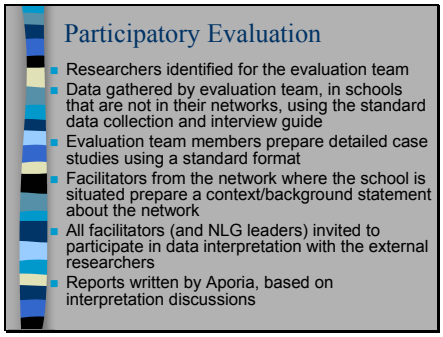


Slide 9

Key Dates

October 2004	Key informant interviews Informal school visits Facilitator orientation Identify evaluation team Select 20 schools (from 20 NLCs)
January 19 - 20 (2 half days)	Evaluation team training
January 15 – March 1	Data collection and preparation of case profiles
????	Review of case summaries with Julie and revisions
March 3 – March 4	Interpretation meetings
Feb 25 ---	Verification and Report writing

Slide 10

Interview Process

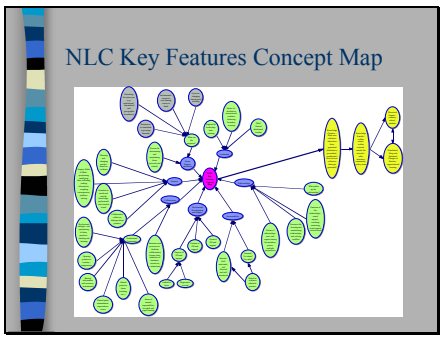
- Each interviewer does 4 sites (with a facilitator partner)
- Julie will make original contact and the interviewers call the schools to arrange a time for the interviews
- At each site interview the head teacher and either
  - Up to 5 other individuals who lead or participate in related projects in the school, or
  - One or two others based in the school and who lead or participate in related projects with colleagues from other schools, or
  - A team of up to 5 others who lead or participate in a single project in the school

Slide 11

Complete Case Summary Template

- Transcribe and/or consolidate notes from all of the interviews to capture the essence of responses in examples, not as your interpretations
- Copy, sort and transfer notes to the case summary template
- Review your case summaries with Julie
- Edit and revise, as required

Slide 12



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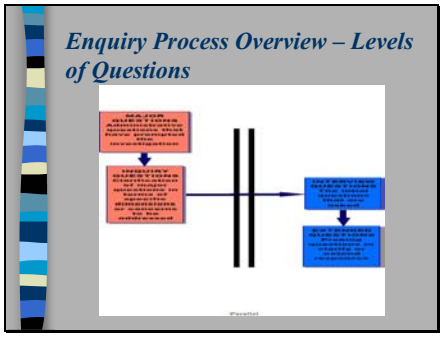

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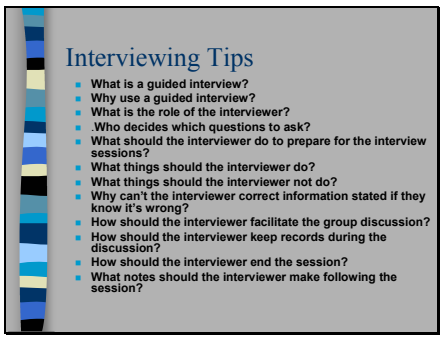
Slide 15



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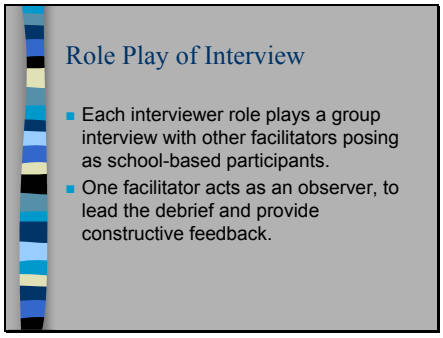

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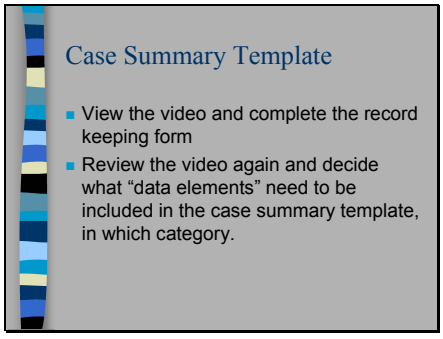

Areas for discussion

- Your involvement in a Networked Learning Community project
- Connections with the networked learning community
- Supports and impediments
- Sharing learning
- Perceived impact

Interview preamble

Before we start into the interview questions, I'm going to take a few minutes to provide some background so that you all have a sense of what this interview is for. Over a year ago, the Networked Learning Group began a process to investigate the work of NLCs as they evolve. We have been working with a number of international experts and one of their suggestions was that we needed to have good descriptions of what the work of the NLCs looked like in schools; what it is really like for you in your routine practice. So, we have selected 20 schools from across the country that are part of different networks, just to give us a variety of images of NLCs in action, from a school's perspective. So that is why we're here. This is not an evaluation of your activities. Instead, it is a chance to talk about what you are doing and provide the Networked Learning Group with an insight into the way NLCs operate in schools, so that they do their planning better and prepare for a more formal evaluation of the overall programme in the future. We are talking to several people in your school and because we are only visiting one school in the network, you will sometimes be speaking on behalf of the colleagues in other schools with whom you work.

Now let me tell you a little about our agenda and the process that we're using. Facilitators like us, from the Networked Learning Group, have been trained by the external researchers who are conducting the investigation to interview individuals [or teams, if this is a team] about the way that you are involved in the NLC. We are meeting with the people in the school who are most involved. I will be asking some questions to direct the conversation. We will be taping the conversations and _____ will be taking notes. [Complete the top section of the record sheet].

You might be wondering what we are going to do with all the information that we collect from all the schools. First off, we want to assure you that all of the specific information that you provide will be kept confidential. Obviously, everyone here will know what has been said but no one will be identified in any reports. We will use the material from our interviews at [this school] to create summaries of ideas and activities from our discussions with you. Once we have made the summaries, we'll remove all identifying information and the summary will be considered with summaries from all of the other schools to look for recurring themes. We will not identify which school information came from.

So, unless you have questions, we're ready to start. We sent a list of areas for discussion out to you several weeks ago and that's what will guide our questioning. We have extra copies, if anyone needs it. The topics are:

- your involvement in a networked learning community project
- connections with the networked learning community
- supports and impediments
- sharing learning
- perceived impact

Interview protocol

Your involvement with a networked learning community project

We want to start the conversation very close to home by talking about the networked learning project(s) or initiative(s) that you personally are involved in at this school. As you can see, we get to the larger NLC later.

Describe your **NLC project(s)** to us.

Focus: What is the focus of the project(s)? How did you arrive at this focus? What have you been doing? Has the focus changed over time? If yes, how and why?

Structures and processes: What brought you together as a group? What process do you use to interact as a network? If meetings, how often do you meet? When do you meet? What do you do when you meet together? (give examples, eg, professional dialogue, questioning, transparency, sharing information and resources, shared work (team teaching), mutual responsibility for learning (adult and pupil)). Do you keep in touch in other ways (eg, electronic communication, conferences, telephone)? What do you use these other mechanisms for?

People: Who is involved? How did you decide who would work together? How do you interact with one another? How would you describe your relationships? What do you do with and for each other? How do you feel about one another (give an example)? How do you resolve conflicts (give an example)?

Roles: What roles do each of you play in relation to your project?

Enquiry: Did you use any data or research when you were planning your project? If yes, what? Tell us how you used it (analysis, reflection, interpreting, seeking alternatives, weighing consequences). What about along the way? Have you engaged in any enquiry activities (eg, collaborative enquiry groups, action research, data collection, analysis) within your project or used data or research to change your plan or your practices? Describe what you did. How did you use the enquiry? How useful was it?

Accountability: How are you accountable for the work in your project? To whom? For what (both external and internal (self-directed, self-monitoring)?

Professional development and support: Have you participated in any CPD related to your project? What CPD (content, form)? Why? How did it influence you? Did it change how you work in any way? Have you worked with any external experts to support your project? If yes, who? For what?

Leadership: Who provides what kinds of leadership in your project? Describe what this person (these people) has (have) done as leaders? Do you play any leadership role in the project? If yes, what?

The networked learning community

Now we'd like to move to the larger NLC and your connection to it. What is the broader focus of your NLC? How is your work on the project related to the NLC?

How do you connect with the NLC?

People: Tell us about the other people in the network that you have contact with. Describe these interactions. How would you describe these relationships (give an example)?

Structures and processes: Are there opportunities within the NLC to work together? Describe how you have been involved.

Enquiry: Are you part of any NLC enquiry activities? If yes, what? Does the NLC use data or research in its planning or work? If yes, what? How has the NLC used data or research?

Accountability: How is the network accountable? To whom? For what (both external and internal (self-directed, self-monitoring)? How are you accountable within the NLC?

Professional development and support: Have you participated in any CPD within your NLC? What CPD (content, form)? How did it influence you? Have you had any CPD that is specifically related to being part of a networked learning community? What CPD (content, form)? How did it influence you? Have you led any CPD within your network? If yes, what? For whom?

Leadership: Do you play any leadership role, either formal or informal, in relation to the NLC? If yes, tell us what you do (facilitating, managing, instructing, brokering, crossing boundaries). What has been your experience in this role? How has it affected you?

Supports and impediments

This next set of questions is about things that have helped you and problems or challenges that you have had. Let's start with challenges, problems or impediments. What problems, if any, have you encountered? And how did you respond to them? What was the outcome?

Now we'd like to switch to things that you have found supportive or helpful (people, resources, strategies, professional development).

Sharing learning

One of the goals of networked learning communities is sharing knowledge. We want to move away from the activities that you have been part of to thinking about what you are learning from them. We'd like to hear about your experience of both receiving new knowledge and sharing your knowledge with others.

First, tell us about something new that you have learned from being in the networked learning community. We're interested in personal examples of areas where you feel you have learned from others. What was the process of new learning for you?

How did this new learning affect you or your work?

Have you had any occasion where your involvement in the network has challenged any of your beliefs about education or teaching? If yes, describe what happened.

Describe situations when you have shared your knowledge with others. What did you do? Who was if for? What were you trying to accomplish?

- in the school
- in the NLC
- outside the NLC with other educators, the broader community, policy-makers, others

Perceived impact

The final set of questions is about the impact of the networked learning community and your involvement in it on you, your school and the pupils in the school.

Do you work differently as a result of the network? If yes, how? Give us examples.

Does your school function differently as a result of the network? If yes, how? Give us examples.

Is anything different for your pupils as a result of the network? If yes, what? Give us examples.

Thanks you so much for your time, your stories and your insights. This will be extremely useful to us as we try to describe the work of NLCs on the ground.

If you would like to see the results of our investigation, we will send you a copy once it is released by DfES.

Thanks again.

Guided interviewing

What is a guided interview?

A guided interview can take many forms. Most often it is a structured discussion around a specific set of questions that are explored with a small group of participants.

Why use a guided interview?

Guided interviews are often used when in-depth information is required on a broad topic that lends itself well to discussion. This type of data collection often results in richer and more elaborate insights into the topic than could have been gained from a simple survey or questionnaire.

What is the role of the interviewer?

The interviewer is there to guide the group discussion through a series of predetermined questions. You also facilitate the discussion so that all voices may be heard and a respectful tone is maintained by all participants.

Who decides which questions to ask?

The series of questions, also known as the interview protocol, is developed well in advance of the interview sessions. Usually it is developed by the researchers in conjunction with a group of experts or professionals in the field. The questions developed are designed to help answer the overall major research question that is being considered. Time and consideration are given to ensure that the questions are understood and received by participants in the way the researchers intend, and the questions are generally piloted or given a test run beforehand to determine their appropriateness and effectiveness.

What should the interviewer do to prepare for the interview sessions?

You should always arrive early in order to ensure that the room is set up in a way that facilitates conversation. Placing chairs in a circle can be useful in this regard. (If a tape recorder is being used, you should also try to situate yourself near it so that you can turn the tape if necessary.) Keep a notepad and pen handy, and consider using name tags if participants don't know each other. Finally, you should be relaxed and ready to welcome participants upon their arrival. It is generally best to begin sessions on time, but it can be disruptive to have participants arrive late. Use your best judgement to determine when the meeting beings. Welcome latecomers discretely and bring them into the discussion with as little disruption as possible.

What things should the interviewer do?

You should always begin by welcoming the participants, reviewing the purpose of the meeting and establishing the guidelines for participation. It is important that you help to set a relaxed, positive and open atmosphere where participants feel that their opinions are valued and respected. In this regard, it is important to explain at the outset that confidentiality will be strictly maintained throughout the research process. (If taping, tell them that sessions are tape-recorded only for the purpose of ensuring that information is accurately represented.)

During the session, you should direct the group discussion while allowing for an open and conversational feel to the meeting. Sometimes a participant will make an interesting point that leads the group off on a tangent. If this happens, you can gently redirect the group back to the interview questions. On the other hand, participants sometimes make brief but interesting or important points that you believe should be expanded upon. If this happens, you can ask a follow-up question such as, "Would you talk a bit more about that?" or "Can you explain that thought further?"

What things should the interviewer not do?

You are an impartial moderator and not a participant in the discussion. This means being an interested and active listener. Making copious notes or looking at the next question while a participant is talking can be distracting. The interviewer should, in fact, make themselves familiar with the interview questions beforehand so that they can focus on the discussion and guide the conversation with an easy flow.

When asking interview questions, be careful to present them as intended. Although you may rephrase to clarify, you should not be leading the discussion or presenting your own ideas. Participants may ask you questions. If this happens, remember that you are not there as a subject expert and should not correct anything said by the participants, nor attempt to settle debates. You are there to get their opinion, not to provide answers.

Why can't the interviewer correct information stated if they know it's wrong?

You are a neutral party in this discussion. Group discussions can sometimes evoke strong opinions and emotions amongst participants, and the temptation to wade into the debate or correct erroneous statements can oftentimes be powerful. You must never put your own opinions forward, nor correct the opinions of others. You are there simply to listen, record and guide the discussion.

How should the interviewer facilitate the group discussion?

Facilitated group discussion is very much like facilitating a classroom. The relational style and patterns of communication amongst participants become apparent very early on, and you will quickly be able to identify who are the more prolific speakers and who may require more support. Monitor group dynamics to prevent one or two speakers from monopolising the discussion. Establishing the rules of discussion from the outset can prevent difficulties arising and make the act of facilitation easier.

How should the interviewer keep records during the discussion?

Record-keeping is a critical dimension of interviewing. Because the notes will be analysed later, it is important to capture as much as possible of what is said, without interpretation by the interviewers. When two interviewers are working together, one of them can be taking notes while the other is interacting with the group. The records should be as descriptive as possible, often including verbatim quotes from the participants. (When a tape recorder is used, check to see that it is turned on and running properly each time you use it.) Even with tape recorders, it is valuable to have notes of the conversation, as a backup. You should transcribe and edit the notes as soon as possible after the interview to ensure accuracy and completeness.

How should the interviewer end the session?

When the session is over you should thank the participants for their assistance and reiterate how the information they have shared will be used. Don't get drawn into conversations off the record after the interview is over. Instead, make a graceful exit and take some time to organise your notes.

It is not uncommon for participants to approach the interviewer privately afterwards to ask follow-up questions or seek feedback on the conversation. This is the time to be very discrete. You must not engage in any subsequent conversation with participants about the interview. Remember, you assured them that all the information would be protected with a high degree of confidentiality. It is also inappropriate to discuss individual interviews or the people who attended with other colleagues, friends or family.

What notes should the interviewer make following the session?

Follow-up notes are meant to provide relevant information that was not captured on the tape recording of the session. They should always include the date, time and location of the interview session. Sometimes these notes expand on the interviewer's observations of the group dynamic, the seating pattern chosen by the participants or particular thoughts and impressions that came to mind during the session.

Key features interview recording sheet

School name:_____

Date:_____

Interviewer:_____

Facilitator partner: _____

Tape record #:_____

Interviewee	Position

Notes to locate key issues on the tape (eg, who speaking (if group); key images that will make it stand out; summary of idea, tape counter, etc)

Your involvement in a networked learning community project

- Focus
- Structures and processes
- People
- Roles
- Enquiry
- Accountability
- Professional development and support

- Leadership

Connections with the networked learning community

- Focus
- People
- Structures and processes
- Roles
- Enquiry
- Accountability
- Professional development and support
- Leadership

Supports and impediments

- Challenges, problems or impediments
- Supports

Sharing learning

- Contributed to learning for others
- Learned from others

- Shared learning
    - in the school
    - in the NLC
    - beyond the NLC

Perceived impact

- You and your practices
- Your school
- Pupils in the school

Interviewer comments:

Case summary completion process

This electronic template contains selections from the interviews for a single school, transcribed and categorised by the interviewer and the facilitator partner to provide a descriptive data set for interpretation by the research team.

Once the interviews are completed, the interviewer and the facilitator meet to review the facilitator's notes and listen to the tape, in order to locate all of the areas that need to be transcribed and categorised.

When the selections are located, the team transcribes each one of them as a data element. The data elements are selections of text and can be long or short, depending on the conversation that occurs. It is better to include more contextual information, rather than less.

The data elements can then be cut into the template, in the location that the team believes each one of them fits, based on the protocol.

In the end, there will be 20 different case summaries, made up of textual data elements organised this way. These case summaries will be the starting point for the interpretation meetings.

Case study template

School number (assigned by Julie):_____ **Interviewer:**_____ **Facilitator partner:** _____ **Tape record #:**_____ **Reviewed and accepted by Julie (signature and date)**_____
Involvement in a networked learning community project • Focus • Structures and processes • People • Roles • Enquiry • Accountability • Professional development and support • Leadership
Connections with the networked learning community • Focus • People • Structures and processes • Roles • Enquiry • Accountability • Professional development and support • Leadership
Supports and impediments • Challenges, problems or impediments

- Supports

Sharing learning

- Contributed to learning for others
- Learned from others
- Shared learning
    - in the school
    - in the NLC
    - beyond the NLC

Perceived impact

- You and your practices
- Your school
- Pupils in the school

Key dates

October 2004	Key informant interviews Informal school visits Facilitator orientation Identify evaluation team Select 20 schools (from 20 NLCs)
19 January – 20 January (two half days)	Evaluation team training
15 January – 1 March	Data collection and preparation of case summary templates
15 January– 1 March	Review of case summaries with Julie and revisions
3 March – 4 March	Interpretation meetings
25 February	Verification and report writing

Appendix F:

List of interviewers and participants in the interpretation seminar

Interviewers

Alison Stott	NCSL Networked Learning Group
Julie McGrane	NCSL Networked Learning Group
Non Worrall	NCSL Networked Learning Group
Roland Absalom	Consultant
Victoria West	NCSL Networked Learning Group

Interpretation panel[11]

Alison Stott	NCSL Networked Learning Group
Angela Walsh	Training and Development Agency for Schools
David Jackson	NCSL Networked Learning Group
Duncan O'Leary	Demos
Elizabeth Gowing	General Teaching Council for England (GTCE)
Gene Payne	NCSL Networked Learning Group
Jane Creasy*	NCSL Research
Janet Waters*	Specialist Schools Trust
Jasbir Mann	NCSL Networked Learning Group
Julie McGrane	NCSL Networked Learning Group
Julie Temperley	Aporia Consulting Ltd
Lesley Saunders*	GTCE
Lorna Earl	Aporia Consulting Ltd
Louise Stoll	Consultant
Mark Hadfield	NCSL Networked Learning Group
Martin Coles*	NCSL Research
Non Worrall	NCSL Networked Learning Group
Pete Dudley	NCSL Networked Learning Group
Philippa Cordingley*	Centre for the Use of Research and Evidence in Education (CUREE)

[11] The policy participants who attended the second day are indicated with an asterisk.