National College for School Leadership

Network building

A review of the formation stage of networks in the Networked Learning Communities programme

Full report

"Before you begin your journey just remember – you may have a map and a little extra money but destinations change, some guides are better than others and sometimes it takes longer to get there. Give yourself time!"
(Co-leader, September 2003)

Hadfield, M, Kubiak, C, Noden, C & O'Leary, D, 2005, *The Networked Learning Communities: Year One Review*, National College for School Leadership (NCSL), Networked Learning Group.

Contents

Executive Summary

Background

Between October 2003 and May 2004, 76 of the first 84 networks on the Networked Learning Communities programme reviewed their first year of operation as NLCs. Primarily designed as a learning exercise for the networks, this review consisted of the following activities:

- a review of progress made compared to the plans in the original submission to become an NLC, including identifying those activities which have gone ahead, been postponed or stopped.
- identification of major achievements and obstacles.
- drawing a chart of the network (a 'network-o-gramme').
- a review of the pupil learning focus identified by each network.

(A description of the method and the review tool are contained in appendices one and two respectively).

This report draws mostly from the reported year one achievements and from the learning focus data. It is divided into two sections. In the first section, three areas of network achievements are discussed, covering pupil, adult and leadership levels of learning. In the second section the key issues facing the networks at the end of year one and their plans for year two are described.

Main findings

Progress in the three main areas of learning

Pupil learning

At the end of year one there was, unsurprisingly, limited systematic reporting of evidence of network-wide impact on pupil learning. This reflects the relative youth of the networks and also the fact that in their first year they tended to place emphasis on building capacity and cohesion at school and network level. There was far greater reported impact on adult learning (see below). The most widespread areas of activity under pupil learning were:

- A re-negotiation of the pupil learning focuses to create unity, direction and momentum within a network. To a major degree this was a result of the work of the team of network facilitators. This re-negotiation of pupil learning focus resulted in more focused enquiry processes and improved the connections between different strands of activity in each network.
- Pupil participation and pupil voice activities. These activities centred largely around including young people in their own learning, providing them with opportunities to feed back to teachers and giving pupils opportunities to be activists in the network (for example as pupil researchers and members of network and school councils). Networks facilitated this by creating a range of different activities (e.g. pupil voice conferences and inter-visitations) and reported the breaking down of school-to-school boundaries as a benefit of these pupil interactions.

Adult learning

Adult learning activities were the predominant network activity in year one and often defined the structure and shape of NLCs. NLCs generally invested a high level of resources into bringing practitioners together.

- NLCs generally acknowledged the need to lay foundations for networking CPD, especially by establishing trusting relationships and a shared vision for the network.
- The commonest processes and structures used to establish adult learning were conferences (and other one-off events), communication & knowledge sharing, and enquiry & research.
- One-off launch events and conferences were very effective if they were appropriately focused and followed up afterwards; otherwise, they had little impact beyond the short-term.
- Early reports of collaboration showed that there was a higher level of satisfaction and impact when events had high participation by local teachers from across the network and were subject or theme specific.
- The requirement for NLCs to undertake enquiry resulted in a high level of activity in this area, most commonly at school-to-school or network level. The data however, indicated limited dissemination of learning or transfer of practice and some difficulty in establishing meaningful and fruitful partnerships with Higher Education Institutions.

Leadership learning

- NLCs in their early stages encourage the distribution of leadership via an expansion of teachers' roles. In particular this was often reported as giving some responsibility for leading school improvement to teacher-researchers.
- Understandings of leadership are often built through leadership learning groups, training opportunities and coaching or mentoring structures.
- Distributed leadership needs the support of network structures, leadership groups and supportive school conditions. NLCs may need to invest in the development of leadership skills to ensure that the early momentum of the networks is maintained and capitalised on in future years. Investing energy and skill in a small number of leaders is a risky strategy, as leadership change or burn-out will then have huge impact.

The main issues facing leaders in the development of networks

- Networks need nurturing and developing in different ways, some of which can appear contradictory or in tension with each other. For example, NLC growth needs centralised support from headteachers but also a de-centralised layer of empowered teachers to take the work forward.
- NLCs often exist at the intersection of multiple networks. The role of the leader is often to thread and weave these networks into a cohesive plan that maintains its focus on improving pupil learning.
- Without structure teachers will tend not to learn together. This structure will often include facilitated, formally supported and resourced space for teachers to regularly meet together.
- Growth of NLCs in year one is often described as a move from often previously existing 'networking' into 'networked learning' – ie the formalisation and structuring of often pre-existing networking activity.

The key areas of planned development in year two

NLCs reported their plans for year 2, most of which centred around growing and formalising the structures for school-to-school activity, including:

- a rapid expansion of school-to-school and network-to-network activity.
- increased development of learning infrastructures (release time, opportunities for collaboration) to bring teachers together at the school-to-school and network-wide level.
- improved internal facilitation, particularly the leadership of enquiry and enhanced network strategic development by greater inclusion of headteachers.
- enhanced resourcing of network activity (particularly around administration and supply cover).
- greater emphasis on network-to-network activity, particularly inter-visitations between networks and joint enquiry with other networks.

Pupil learning

Main Findings

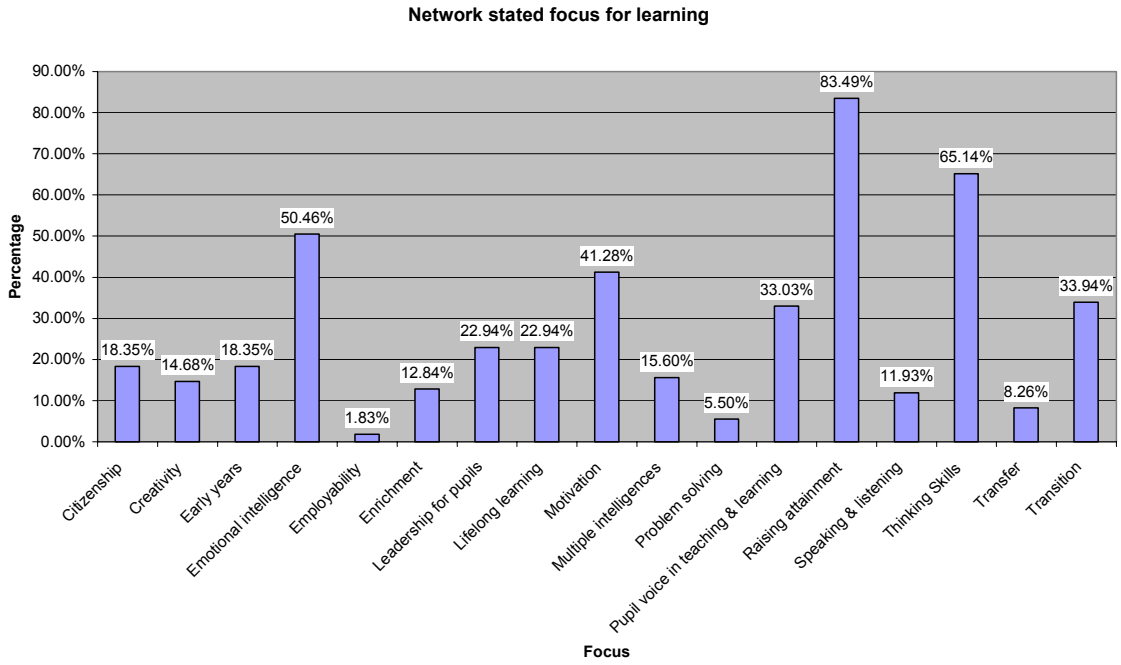
At the end of year one there was little systematic reporting of evidence of network-wide pupil impact. This was partially due to the immaturity of many of the networks. It also reflected the initial emphasis that many networks placed on building capacity and cohesion at school and network level. There was far greater reported impact on adult learning (see section 3). The most widespread areas of activity under pupil learning were:

- Re-negotiation of the pupil learning foci to create unity, direction and momentum within a network. To a major degree this was in response to the work of the team of network facilitators. This re-negotiation resulted in more focused enquiry processes and improved the connections between different strands of activity.

- Pupil participation and pupil voice activities focused on including young people in their own learning, providing them with opportunities to feed back to teachers and giving them the opportunity to be activists in the network, for example as pupil researchers and members of network and school councils. Networks facilitated this by creating a range of different activities (e.g. pupil voice conferences and inter-visitations) and reported benefits as pupil interactions helped to break down school-to-school boundaries.

Pupil learning foci

Figure 1. network pupil learning foci identified in submissions



The graph indicates that the top three original pupil learning foci for networks were raising attainment, thinking skills and emotional intelligence.

Several pupil learning foci in the original submission documents were criticised by moderators for being too vague (e.g. *What helps us learn better*?), not being based on a rigorous analysis of current issues, or for failing to draw sufficiently upon current research and expert knowledge.

Such pupil learning foci could have resulted in a lack of coherence between different learning processes, potentially leaving teachers feeling disempowered or uninvolved. To try and rectify this problem the Network Learning Group (NLG) launched a Development and Enquiry Group whose objective was to help networks to improve the quality of their pupil learning foci.

Re-negotiating the pupil learning focus

The impact of external NLG facilitation, supported by the internal facilitation of co-leaders and others, was to change the aspirations contained within the original proposals into workable targets for schools within networks. This involved networks in drilling down into pupil foci in more depth so that schools and groups within the network could make sense of the foci in their own contexts.

The kinds of activities NLCs undertook included:

- audits of pupil or adult learning needs across the network
- implementation review
- a collective re-write of pupil learning foci to make them more specific, concrete or measurable undertaken by strategic leadership groups
- changes to their enquiry methods to unearth perceived needs and issues at a network level
- use of consultants or critical friends to provide an external perspective

While a steering group may have agreed on a broad focus for its network at the submission stage, this needed to be re-negotiated at a variety of levels and points within a network. This was an integral part of forming an NLC, even for pre-existing groupings. The more skilful network leaders described their negotiations as being open and within broad constraints, helping to ensure both buy-in and consensus building.

> *"And I said to [the teachers at the meeting] this is a blank sheet of paper here. This is where we go. The consultant went through the headlines and very quickly people started to chip in, with most of them saying 'well that's actually it', "that's exactly what we're seeing' ,'that's exactly what we've been thinking about'. All of a sudden staff from a variety of schools were realising that we all had a common theme. And from that, by the end of the meeting we had our focal points."*
>
> Deputy headteacher

Networks which created cohesive pupil learning foci appear to have cascaded the negotiations of the focus throughout their networks. These negotiations at the network, school and group level increased motivation and gave the foci a personal meaning for

practitioners' work. However, the negotiations appear to have been less successful in aligning the network activities vertically between leadership, adult and pupil learning.

Key outcomes of the pupil learning foci re-negotiations

Some networks, particularly new ones, spent a considerable amount of time re-defining their pupil learning foci. In some cases this reflected a lack of engagement by some schools with the initial submission. The time spent in re-focusing was a source of anxiety in some networks which thought that they were not moving forward quickly enough, particularly in primary networks. For others it was viewed as an essential foundation and an important part of network building. Although the nature and length of these re-negotiations varied, they seemed to serve a number of purposes in the early stages of network development.

Table 1. Key outcomes of re-negotiating network pupil learning foci

Outcome of re-negotiation	Example
Adult learning now linked to powerful pupil learning	Knowing that peer assessment and questioning can improve learning, how can we use our coaching expertise to enable pupils to understand and articulate their own learning and assess their learning?
Attention drawn to the existing knowledge-base and criteria for measuring impact	Does collaborative work around Transforming Learning data improve class climate and thus pupil performance? The question above is based on the assumption that climate is a surrogate for pupil progress. This is also based on the hypothesis that collaboration will encourage a sharper, clearer, stronger focus on classroom practice. It will also be evidenced by a greater understanding by participants of classroom climate.
Looking to provide a means for integrating existing work into a cohesive approach to improving pupil learning	How can we develop a concept of personal growth through education by integrating the following programmes: STEPS, Go For It, Breakthrough, GISA, IIE and L2L, and bring about increased aspiration within our communities?
Problematising the nature of pupil learning so that it could be the focus of different inquiry activities	What are the barriers to pupil learning?

Changes in pupil learning foci in year one

There were three broad shifts in the nature of the learning foci that networks reached after the process of negotiation.

First there was a move away from the narrow language of pupil attainment and school effectiveness towards more of an emphasis on the learning outcomes for pupils.

Table 2. Towards learning outcomes

Submission examples	Year 1 review examples
Raising standards of attainment is a main focus for all schools, particularly in the areas of literacy and numeracy. All the schools have set aspirational targets with the LEA for KS2, KS3 and GCSE outcomes for pupils. Over the three years of the Networked Community bid the schools will work to improve these targets in line with their national and similar schools benchmarking tables. This will provide significant value added for individual schools.	The key assumption is that more explicit involvement in the process of learning, including being able to articulate how they feel about it will lead to improved student learning. Our thinking about how we might best capture this methodologically is still evolving.
In three years' time, we aim to achieve: • attainment levels in English and in maths above those of similar schools • attainment in writing in line with national averages • no underachieving groups in terms of ethnicity and gender – all will make good progress in terms of attainment level.	How can we ensure Assessment for Learning is effective and considers • embedding good practice • other linked developments?

The second shift was a move away from broad statements about pupil learning to more contextualised aspirations, often integrating several existing initiatives and issues within a network.

Table 3. Towards integrating initiatives

Submission examples	Year 1 review examples
Teachers and pupils have shared knowledge of different intelligences and their impact on learning. • Whole brain learning is central to the pedagogy. • Creativity and problem solving are common threads in all subject areas. • The high self-esteem of pupils is set as a fundamental pre-requisite for progress and achievement across the curriculum. • Knowing how to learn is as high on the agenda as knowing what to learn. • Coverage, continuity and progression in the national curriculum are addressed through enriched and meaningful contexts.	We know that children learn best through interaction, collaboration and by making connections. How can we build on this to enhance networked learning, through our six key areas (Assessment for Learning, Thinking for Learning, Integrated Learning, Emotional Learning, Skills for Learning, Community Learning) to develop a 'Connected Curriculum for Learning' that will impact upon and significantly improve learning and teaching across the network and in all our schools?

The third shift was a move away from foci as a statement of an issue or problem towards a series of questions or hypotheses which could be tested or linked to actions within the network. This should make the evaluation of the impact of network activities easier.

Table 4. Towards testable hypotheses

Submission examples	Year 1 review examples
All the schools have identified the transition from Foundation to Year 1 as an area for concern.	Does pedagogical documentation add to our assessment and reporting procedure? Does connecting the curriculum make learning more meaningful and impact on standards?

In re-defining their pupil learning foci, NLCs improved the coherence of network activity in the crucial early stages of the development of the network. Examples included:

- a movement from an improvement framework to a learning agenda
- a shift from wide and diffuse CPD targets to an increased concentration on pupil learning
- an emphasis on bringing together existing teaching and learning strategies around pupil learning
- improved alignment of pupil, adult and leadership learning

When schools form into networks, it appears to support them to maintain a focus on pupil learning in their development activities. The year one review data included teachers and headteachers describing themselves as developing a deeper understanding of pupil learning through networked learning activities. This occurred, for example, through cross-school teacher groups looking at thinking skills or assessment for learning and pupil achievement. These meetings and groups appeared in many cases to provide an opportunity for professional dialogues around teaching and learning to take place outside the constraints of individual schools which are often concerned to deal with short-term pressures or centrally driven initiatives.

Pupil participation and pupil voice activities

The year one achievements sheets showed that 31 out of 76 networks have undertaken or were planning to undertake a range of pupil participation and voice activities. The popularity of engaging pupils in network activity resulted from a mixture of influences.

- The nature of the networks' pupil learning foci encouraged greater pupil feedback to teachers.
- It was recognised that pupils could provide extra capacity in building the network, drawing from the *untapped resource of pupil voice*.
- There already existed a commitment to this area of work within many network schools.

The wide range of activities in the area of pupil participation and voice fell into the three broad types described below.

Pupil feedback on teaching and the learning environment

Many networks used existing data sources, such as pupil attainment data, to baseline and track project impact from year one. Many networks also sought additional information from pupils (e.g. through surveys) on their preferred teaching approaches and their views on the learning environment. This has involved networks in a wide range of feedback processes with students, from online diagnoses of ICT skills to interviews and surveys of student opinion on the learning environment, priorities for school improvement or barriers to learning. The use of the Hay-McBer Transforming Learning surveys has been supported by the NLG programme and was relatively widespread.

> *"Pupil perceptions are gathered using Transforming Learning software, co-ordinated by student leaders and the results are interpreted in partnership with pupils.[1] It is the ensuing dialogue, making meaning from the data together, that is likely to change relationships and improve the conditions for learning."*

Pupil reflection on their learning

There is a range of pupil learning foci which have a built-in requirement for greater pupil reflection on and sharing of the experience of learning, such as Assessment for Learning programmes. Pupils in networks with such pupil learning foci have undertaken self-audits of learning styles or emotional health, completed learning logs and worked in a variety of different ways with other pupils and teachers. Such activities integrate well with many pupil learning foci and emphasise pupils as interdependent and self-responsible learners.

[1] McGrane, J, 2003, *Pupil voice and the Transforming Learning development and enquiry project*, Nexus, National College for School Leadership.

Pupils as network activists

Some networks gave pupils an active role in the development of the network. Pupils were given leadership roles such as pupil voice co-ordinators, researchers or journalists. Some networks have also encouraged the development of links between school councils, while others have developed network-wide councils. One cross-school student council has been formed to:

- research pupil opinions within individual schools and report back to the network school council forum
- take part in planning creative learning opportunities for all children across the network
- share common experiences outside the school setting, as members of the network school council
- take back ideas and developments into each network school and share this with other children and adults
- visit other schools within the network and carry out learning walks

The second form of activism was pupil engagement in inquiry.[2] Several networks were involved in training and supporting pupils to carry out inquiries into classroom practice and their school environment.

> *"Pupil VAK (Visual, Auditory and Kinaesthetic) detectives do a learning walk. Through lesson observation they identify teaching practice that addresses different pupil learning styles. Findings are shared with teachers in their home school.[3]"*

> *"The network organised for six pupils from different schools to become pupil ambassadors and provided training in research skills. Focusing on making teaching across the network more adaptive to individual learners' needs, these students work with teachers to discover what forms of teaching and learning students receive in their school and which are most powerful for them.[4]"*

The third and final form of activism was for pupils to become actively involved in teaching, either co-teaching with staff or taking small groups of pupils themselves.

> *"One network has organised master classes for numeracy in which pupils co-teach. By showing fellow pupils how they use and apply numeracy skills, students' self-esteem and confidence grow. Also, by operating as role models, these students now want to share their strategies whereas before they would just complete tasks and not reflect on how they learned.[5]"*

---

[2] McGregor &Tyrer, 2004, *Recognising student leadership in NLCs*, paper presented at the British Educational Leadership, Management and Administration Society, Oxford.

[3] Kubiak &Bertram, *Interview from the Growth, structure and leadership project*, NCSL unpublished, 2004

[4] Page, J, 2003, *Tower NLC … branching out to give pupils a voice in the network*, Nexus, National College for School Leadership.

[5] NCSL, *From, with and behalf of…* Nexus, Summer 2004, National College for School Leadership.

These pupil participation activities were generally supported by a range of network structures including student collaborative working groups, cross-school placements, cross-school events and conferences, leadership courses and opportunities for pupils to give presentations to staff or network councils.

Table 5. Impact of pupil voice activity

Benefit	Example
Pupils	Pupils become more equipped to talk about their learning and their learning needs.[6] They have a greater sense of ownership over their learning activities, and when they do not understand the lesson, feel more confident about telling their teacher. Indeed, a significant theme running through the network achievements data is of improved classroom climate, with students having a raised sense of aspiration and achievement and higher levels of self-esteem and motivation.
Teachers	Teachers are drawn closer to pupils' learning experience at the chalk-face and have access to additional resources to understand the impact of changes in practice, for example through activities such as pupils-as-researchers.
Schools	Information-rich schools have been created. Teachers can draw from student data to inform and evaluate changes in practice.
Networks	Widened participation has enhanced community. Pupil involvement in the more challenging aspects of networked learning can offset some of the potential strain on teacher-to-teacher relationships.

[6] MacBeath, Demetriou, Rudduck & Myers, *Consulting pupils - a toolkit for teachers*, Teaching and Learning Research Programme, July 2003

Adult Learning

Main findings
Adult learning activities were the predominant network activity in year one and often defined the structure and shape of NLCs. NLCs generally invested a good number of resources into bringing practitioners together.

- NLCs generally acknowledged the need to lay foundations for networking CPD, especially by establishing trusting relationships and a shared vision for the network.
- The commonest processes and structures used to establish adult learning were conferences (and other one-off events), communication and knowledge sharing, enquiry and research.
- One-off launch events and conferences were very effective if focused and followed up; otherwise, they had little impact beyond the short-term.
- Early reports of collaboration showed that there was a higher level of satisfaction and impact when events had high participation by local teachers and were subject or theme specific.
- The requirement for NLCs to undertake enquiry resulted in a high level of activity in this area, most commonly at school-to-school or network level. The data, however, indicated limited dissemination of learning or transfer of practice and some difficulty in establishing meaningful and fruitful partnerships with HEI.

Laying the foundations for networked adult learning

In the first year of the programme, developing effective adult learning required more than simply providing a range of training events or workshops. Networks set about putting in place foundations which would allow such learning to become effectively networked. In order to do this they needed to:

- build a stronger mutual understanding of *our network, our schools and our learning needs* amongst network members, particularly leaders

- identify and share good practice from within the network and elsewhere across the whole network

This required a range of structures to be put in place in the first year.

Table 6. Most frequent structures used in year one

Structure for learning	Example
Providing opportunities for teachers to understand each other's schools by carrying out audits using common frameworks and sharing the results	Headteachers audited their departments to produce position statements about strengths and areas for development across their schools. This has resulted in stronger departments working with departments that wish to develop.
Shared training for enquiry, encouraging collaboration between schools	Key Teachers have been trained as a group (two Key Teachers from each school) and have benefited from focused training from the consultants, collaborative planning, and peer and cross-school observations.
Carefully planned early inter-visitations between schools with a shared focus	Learning how to set up the protocols about learning walks and how this will impact on schools: headteachers or lead learners take the first learning walk and report back at a conference or staff meeting. This models learning values and attitudes.[7]
Specific network events aimed at identifying and sharing good practice	All schools in the network (which now includes all secondary schools in the LA) identified ways of offering and receiving support in pairs and trios of schools. These initiatives are evidenced in the position statement analysis and the action plans produced by each school. Such networked collaboration is a strong feature of this community where the sharing of expertise is actively sought by the headteachers. Good practice is shared in dissemination events and networking opportunities provided for key departments.

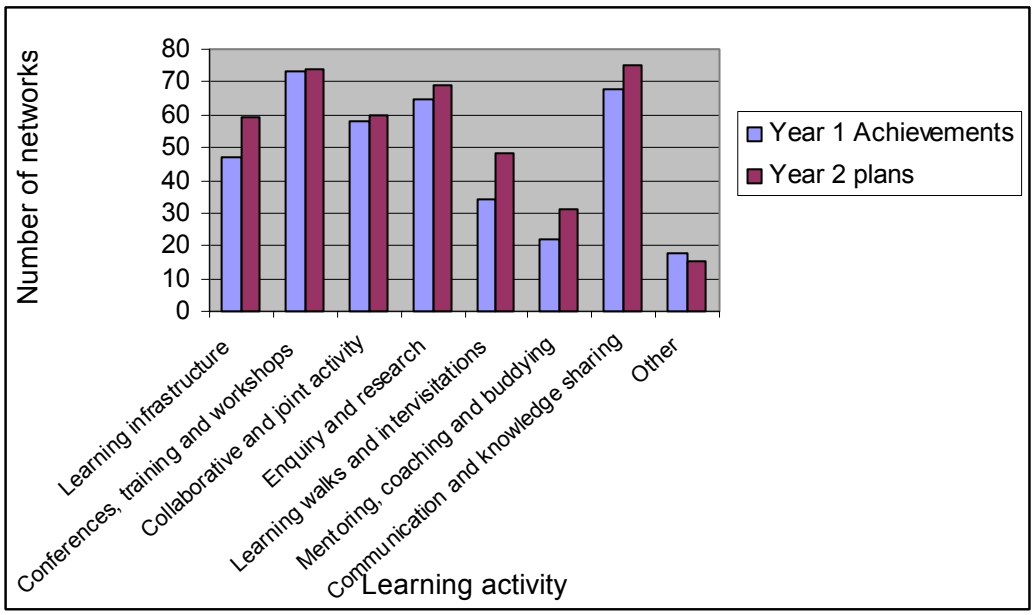
Underpinning this set of activities was a general focus on building relationships, trust and common ground between schools.

[7] National College for School Leadership, 2005, *Getting started with Networked Learning Walks*, NCSL, Nottingham.

Key adult learning structures and processes

The wide range of adult learning processes and structures reported in the year one review were classified under eight headings summarised below.

Figure 2. Adult learning structures and processes: NLC year one achievements and year two plans.



Structures

- Learning infrastructure – this is about creating the time and space for practitioners to meet up. This included scheduling time for colleagues across or within schools to work together and providing paid or negotiated non-contact time.

- Events – network conferences, training days and workshops to allow practitioners to come together (see below).

Processes

- Collaborative and joint activity – included team teaching and joint planning, use of same CPD processes, e.g. working from same CPD plan.

- Enquiry and research – included all research-based learning activity (see below).

- Learning Walks and inter-visitations – included all formal or informal visits by staff from one school to another school.

- Mentoring and coaching – included all processes aimed at pairing adult learners with a colleague with the aim of shared learning.

- Communication and knowledge sharing – included processes for the dissemination of knowledge and information either face-to-face or mediated (e.g. print, video, audio, displays). Also included making packs of resources available to others.

The most common and significant of the structures utilised was the running of events. The most common of the processes was enquiry and research, which was a requirement of each of the NLCs. These two areas of activity are therefore discussed in more detail below.

Events

Unsurprisingly network events were dominated in the first year by those aimed at practitioners. They represented a significant peak of activity and consumed a considerable amount of network energy and focus. For many NLCs, their partnership enabled schools to pool resources and access external experts who would otherwise be beyond an individual school's financial means. These resource pools may be particularly significant for primary schools. However, network events also do double-duty. They are learning activities but are also 'knot-work' – i.e. they are network-building activities. As such, the purpose and nature of network events reflect the maturity, resources and needs of the NLC at a particular point in time. The varying purposes of network events highlighted particular distinctions between them;

- **To launch the network**

  In the first year the most widespread event was some form of conference or launch event. Proportionally, more brand-new networks held network-wide conferences than pre-existing networks (66 per cent compared to 43 per cent respectively). Networks in the early stages of collaboration used a conference to signal the arrival of *something different from anything that has gone before*. The conference provided a rare glimpse of the network in its entirety with the potential to create a sense of a community extending beyond the individual school and establishing the symbolic difference of becoming an NLC. The choice of venue and standard of catering communicated strong messages as to the value and professionalism being placed on the NLC being launched.

- **To re-focus and re-establish momentum**

  Established networks which reconfigured themselves into an NLC found conferences a useful opportunity to discard existing baggage and focus on renewal and a fresh start. It was an opportunity to consolidate their work and take it further: *The network wanted to re-engage schools within the NLC and to re-focus the work according to new priorities. Co-leaders of the network felt that more staff needed to be aware of the NLC. They felt for the network to be successful, others needed to feel ownership of the work and to contribute to its development.*

  In the first year, established networks placed more energy and resources into developing regular smaller events and meetings for teachers to work together. For example, over three times as many existing networks scheduled opportunities for school-to-school and network-wide meetings for teachers. A co-leader explained:

"I didn't do a launch with the staff or with the children…that isn't real. What is real is putting the structures and systems in place so they can go and do it. That is real – they can go and have that impact, you know."

- **To provide forums for the sharing of good practice**
  For established networks, peer-driven or 'co-constructed' events were more common. Network events involved, for example, classroom teachers making presentations, or opportunities for a greater degree of dialogue and engagement in each other's learning than in formalised training. These activities were important as they allowed practitioners to benefit from each others' knowledge and to recognise what had been achieved to-date. For some networks, an impending event also provided a useful deadline for existing work to come to some form of completion.

  One network offered a maths day in which four schools with identified good practice volunteered their maths teachers to run a day of workshops. Maths teachers from all eleven schools attended. Evaluations were positive and teachers requested a repeat day. Reflecting on it later, the co-leader explained that*: What made it real was this wasn't somebody from the school down in the Southeast or in Manchester or wherever, whose context you don't know. These were actually colleagues working in similar schools in the same area, but who were actually performing minor miracles because they were using this learning style or they had this practice…it was actually very, very real, very powerful. There was actually a demand to repeat it.*

- **To increase reach**
  The events in the first year were also an attempt to spread the networking beyond a core of activists. The review data showed that established networks were more likely than new networks to involve a broader range of participants in their events, for example, more involvement of pupils, parents or governors. Where NLCs achieve greater reach beyond natural enthusiasts, it seems to have been achieved partly through launch conferences and high profile events. (Dudley et al, 2003)

Limitations of events

The danger in network conferences and events is that they can consume considerable energy and network focus, but have limited long-term network impact.

"There was some confusion about the overarching aim of the conferences and whether this was to develop a greater understanding of learning styles or to promote networking. The general view was that if the conferences were primarily to achieve the former, they achieved their aim. If, on the other hand, they were intended to achieve the latter, they did not."

The impact of an event is likely to be limited if there is insufficient follow-up. For example, while a conference on thinking skills may impact on the individual teacher, groups of teachers need to be brought together to plan how to embed practices in their schools.

Enquiry and research

The emphasis upon enquiry and research results partly from it being a specific requirement of the NLC programme. Networks recognised the need to lay the foundations for future work, so joint planning was likely to occur within many networks in the first year. As many networks were new, they spent much of year one establishing groups of practitioners that could lead to mentoring and coaching relationships in future years. In discussing adult learning processes, this section will focus in more detail upon enquiry, not only because of its prevalence but also because of its links with other learning processes.

By the end of year one 92 per cent of networks reported being involved in enquiry. Enquiry activities ranged from classroom observation and study groups to developing research-based seminars and the base-lining of pupil achievement data. Many networks drew in external consultants from universities and elsewhere to help them develop their enquiry and research skills.

The overall impression was that research was focused on developing new approaches to teaching, generated both from internal practice and from outside experts. To support the development of research skills and to help implement new practices in the classroom, enquiry activity was linked to several other learning processes. The table below summarises the intersection of teacher-enquiry with other learning strategies.

Table 7. Activities carried out as part of teacher enquiry

Activity	Percentage of networks reporting involvement	Example
Training and workshops	34%	Training sessions to launch enquiry or present outcomes, workshops and learning days to disseminate or embed findings, presentations on enquiry outcomes
Mentoring and support	7%	Research mentors, shadowing, observation and coaching partnerships
Communication and knowledge sharing	30%	Sharing findings, ideas and practices, summarised literature reviews, production of toolkits
Inter-visitations and observation	11%	Observations of practice in other schools
Collaborative and joint activity	28%	Joint CPD, collaborative groups, collaborative planning, research lesson study, collaborative joint review

Taken together, this range of processes around enquiry currently represents the most widely spread strategic approach to adult learning within the NLC programme.

The Leadership of enquiry

A great deal of the leadership of enquiry falls on the shoulders of a group of network members, often described as *lead learners* by networks. These lead learners are generally experienced teachers, some of whom have prior experience in enquiry or research, and who often hold some form of leadership position in their school.

Table 8. An analysis of what roles different network members take in the enquiry

Role	% of networks using HEIs in the leadership of enquiry	Typical activities[8]
headteachers	13%	• creating conditions for enquiry such as time and space for enquiry, opportunities to embed learning, formalisation of teacher-enquirer role • planning and evaluation • mostly involved at the network level
lead learners	43%	• teachers leading and co-ordinating enquiry projects (for example, creating expertise diaries) • lead learners using enquiry as a tool for school improvement • classroom observation and feedback
teachers	36%	• engaged in training in enquiry process or foci (e.g. thinking skills) • sharing learning in cross-school enquiry groups – e.g. providing feedback on enquiry, giving presentations or peer review • collaborative enquiry groups including paired research, groups studying enquiry data • classroom observation and coaching process

The Role of higher education institutions (HEIs)

It was a requirement of the NLC programme that networks should have a named external partner (including HEI, business or LEA). Twenty per cent of networks referred to the role of an HEI partner in their enquiry work. They were mainly used to provide training on research skills or to launch enquiry topics through network conferences. There appeared to be an under-reporting of HEI involvement compared with previous research (Dudley et al, 2003) which suggested that 25 per cent of networks had extensive involvement with HEIs.

[8] The largest category was "Adult-unspecified"

Issues were raised by a number of NLCs about finding suitable HEI partners. These included questions about their credibility, the over-academic nature of their inputs and a lack of local knowledge. Some networks complained that academics adopted a delivery approach rather than a partnership or co-constructed orientation more suitable for networked learning.

The NLCs themselves varied considerably in their ability to utilise academic input from HEIs. Utilisation was limited if the NLC had little experience of prior contact. This might explain why 10 per cent of large networks drew in external input compared with only five per cent of small networks. It might also be a reflection of the cost of HEI involvement. Large networks are more likely to host more initiatives and are therefore able to divert funds from other areas to serve NLC purposes. For example, academic input can be supported by LEA funding for M.Eds.

Limitations of current approaches to enquiry

Enquiry has previously been described as difficult to establish in NLCs without significant support.[9] The current low levels of direct headteacher involvement are of concern, particularly within secondary schools and larger networks. Although it may be impossible for headteachers to be involved directly in enquiry, their input is important in terms of creating opportunities for other leaders to take the work forward, establishing the credibility of enquiry and ensuring it is sufficiently well resourced.

Teacher enquiry for school improvement can take a long time to have a significant impact on a school. Moreover, it is time-consuming and demanding on the individual teacher. Some NLCs (approximately eight per cent) have chosen to draw in extra capacity from outside the network to establish momentum and avoid overloading teachers. For example, buying in an external researcher to do the leg-work for enquiry may quickly move the network forward in audit and data gathering but at the cost of the more sustainable strategy of developing teacher enquiry skills. This may have a long term cost, that of reducing the development of internal capacity, as will an over-reliance on continuing input from HEIs on training.

There are two noticeable absences in the enquiry processes undertaken by NLCs in year one. First, the dissemination of enquiry findings and transfer of knowledge, and second, the transfer and embedding of practice. The archiving of enquiry findings was rarely mentioned in year one activities. ICT was rarely reported as being used for dissemination or collaborative work and represented the least common learning activity in NLCs. Large networks and secondary networks reported an above average level of ICT activity, but it is likely that the critical mass needed to establish a working, online community is likely to be out of the reach of many small networks and schools.

While sharing and dissemination were often described as achievements, systematic embedding of practices and procedures was reported less frequently. Embedding of new practices in the classroom appeared to be more along the lines of in-school groups delivering presentations in staff meetings or enthusiastic chats in the staffroom. There was

[9] O'Leary and Kubiak, 2004, *Enquiry and research project,* NCSL unpublished.

little reference to headteachers or middle leaders driving the adoption of enquiry-based innovation across schools. Without a concerted focus on embedding enquiry findings within individual schools, the enquiry agenda may be reduced to expensive CPD for a small group of teachers. This is also a concern held by networks themselves, as demonstrated in their year two plans, which are discussed later.

Leadership Learning

Main findings:

- NLCs encourage more distributed leadership by the expansion of teachers' roles and in particular by responsibility for leading school improvement as teacher-researchers.
- Understandings of leadership are built through leadership learning groups, training opportunities and coaching or mentoring structures.
- Distributed leadership needs the support of network structures – leadership groups and supportive school conditions. NLCs may need to invest in the development of leadership skills to ensure that the early momentum of the networks is maintained and capitalised on in future years. Investing energy and skill in a small number of leaders is a risky strategy, as leadership change or burn-out will then have huge impact.

An analysis of changes made to the network's leadership learning foci which was requested in the original submission revealed four shifts in emphasis in NLCs' thinking about the kinds of leadership development they were focusing on.

Table 9. Leadership development themes

Theme	Examples of questions
Increasing reach and building leadership capacity	•How can we increase the numbers and learning of more people in the network to sustain network activity and distribute leadership opportunities? •How will we ensure the engagement and understanding of all leaders? •Does the development of lead learners challenge our current structures and styles?
Integrating leadership development into current network activities	•How can we develop our partnership meetings with opportunities for learning as leaders? •How will the network maximise opportunities for staff at every level to learn collaboratively about leadership? •What is the process for developing leaders in schools in NLCs?
Leading learning	•How do we facilitate seamless learning, where learning from seminars translates into practice in schools? •What can schools do to help students become better learners?
Assessing leadership learning and the impact of leaders	•How do the skills of facilitation contribute to developing a true community of mature learning groups? •How do you measure or provide evidence of leadership learning?

Increasing reach and building leadership capacity

NLC stated their intention to develop further leadership capacity, and references to distributed leadership seemed to reflect a desire to empower more staff to lead in network decision making. This was in part a pragmatic response to the increasing workload of existing leaders as network activity increased in the first year. Nonetheless it was also one of the principles to which the NLC programme aspired and one which resonated strongly with many co-leaders.

> *"I think that broader definition of leadership is important. And seeing ourselves as developing leaders across the network... I think the thing is to have made some of the invisible processes visible, and some of the leaders that were invisible more visible, and to raise the profile of different sorts of leaders has been important. Not only did the network leaders not know that the others were network leaders, the management team didn't know that they had someone in their school that was a network leader. And now the management teams do...But I think use of language is so important, and to be using that, even to talk about the idea of a learning leader, and say this is what we're trying to do – develop you as a learning leader, it just gets people thinking differently about their role.*[10]"
>
> Co-leader

Integrating leadership development into network activities

This was in part a recognition of the need to support network leaders to develop their understanding of how to run a network and the need to provide leadership development at different points within the network if sufficient capacity was to be achieved.

Leadership groups offer those in formal leadership positions the opportunity to meet regularly to share, reflect upon and challenge practices within network schools. The work is sensitive and demands attention to confidentiality and readiness to be open with colleagues, especially around the discussion of school performance data. NLC facilitators have helped to put issues of leadership development on the agenda of such meetings by encouraging them to ring-fence time to discuss think-pieces or run action learning sets. Headteachers have also attended retreats with self-determined agendas or invited external experts to run workshops. Formal coaching or shadowing relationships have also been established. As one headteacher explained:

> *"In some ways I think there was less on the social informal side but much more of a sense of purpose. And I think that sense of purpose was validated by officially becoming a Networked Learning Community and having national recognition from the Network Learning Group ... it was almost subversive before and doing things that maybe we shouldn't. There is that, when you're first a head, every time you're outside the building you feel guilty."*

[10]Kubiak & Bertram, 2004, taken from *Growth, Structure and Leadership project*, NCSL unpublished.

Co-leader reflecting on his headteacher learning group

These formal leadership learning groups predominantly involve headteachers and their deputies. The year one review data also refers to groups for SENCOs, teaching assistants and maths co-ordinators. NLCs have therefore set out to try to build in an aspect of leadership development in other areas beyond these groups, for example, coaching or mentoring by fellow teachers or headteachers, often as part of embedding new pedagogies in schools. Some NLCs have offered training in peer coaching. Mentoring not only appears as a leadership activity in itself, for example, as a form of leading learning, but also as a way of developing emergent leaders.

Leading learning

This has been an area of considerable activity for many NLCs, as they have established a number of 'internal network facilitators'. They are described by networks as knowledge managers, lead learners and SIG (special interest group) co-ordinators. It is their responsibility to ensure that new developments in teaching and learning are well led and result in changes within classrooms and schools. Their roles involve them in coaching, leading meetings of researchers or disseminating learning (see description below). Some internal facilitators assume the network role as an extension of their existing role. For example, they may also be Gifted and Talented Co-ordinators or Advanced Skills Teachers. The table below suggests that lead learners (or equivalents) are more likely to be recognised as formal positions in:

- large networks and secondary school networks which, possibly because of their greater size or resourcing, may have a greater need and the means to support this role
- established networks rather than new networks, which may have a better established infrastructure to support networked learning

Table 10. Comparison of network type and occurrence of internal facilitators

Network type	Use of internal facilitators reported
New networks	3%
Established networks	13%
Large networks	19%
Small networks	9%

The work of these internal facilitators varied considerably and few reviews presented well-defined role descriptions. The following description of an innovation co-ordinator is fairly typical of those which were reported:

"The Innovations Co-ordinator
Each school employs an innovations co-ordinator who organises teacher enquiry groups and network-wide learning days – e.g. a super learning day on accelerated learning motivation. She also circulates resources around schools and roving displays.

The innovations co-ordinator focuses on translating ideas into nitty-gritty action points for teachers. She admits that this does involve spoon-feeding staff but feels that her work ensures the material is accessible to staff. Staff friendliness is important to ensure that not all activities are seen as add-ons for staff overloaded with work.

The power of this approach is that it puts time and energy below the headteacher level. The headteachers have the vision and are excited about NLC but don't have time to turn it into meaningful projects. These knowledge brokers are not paid out of NLC money. The broker is awarded using management points and given time out of class."

Assessing leadership learning and the impact of leaders
There was little direct discussion of how NLCs intended to evaluate the impact of leadership, although a number of networks had invested in on-going leadership development programmes with HEI and other partners. These included programmes and seminars on leadership, distributed leadership, middle leadership, and network leadership.

Specific NLG programmes, such as Collaborative Leadership Learning were also cited as supporting NLCs to consider the nature of the leadership required to make networks successful and how they should be evaluated.

Limitations of current approaches to leadership learning

The year one review and other research by the NLG[11] suggests that the ability to lead a network by exerting influence and negotiating across several schools requires huge degrees of enthusiasm, a network of strong personal relationships and considerable communication skills. As one co-leader reflects: "*There is much more to it than just convening a group".* Moreover, the review suggests that network growth in the first year is often driven by a central group of energetic school leaders, which ultimately leaves it vulnerable to leadership changes and burn-out. "*It was like blind leading the blind … I was like a rabbit caught in headlights"* (co-leader reflecting on the first year of NLC leadership).[12]

The issue facing many networks in the next twelve months is whether they have placed sufficient emphasis on leadership development, both at a strategic and operational level, within their networks in their first year of operation.

[11] Kubiak & Bertram, 2004, taken from *Growth, Structure and Leadership project*, NCSL unpublished
[12] Ibid.

Network Building: strategic and structural development

Main findings:

- Networks need nurturing and developing in different ways, some of which are contradictory or in tension with each other. For example, their growth needs centralised support from headteachers but also a de-centralised layer of empowered teachers taking the work forward.
- NLCs exist at the intersection of multiple networks. Participants often work to thread and weave these networks into a cohesive plan that is focused on improving pupil learning.
- Without structure, which includes facilitated, formally supported and resourced space for teachers to regularly meet together, teachers will not learn together.
- Growth of NLCs is often described as a move from often previously existing networking into networked learning, ie a formalisation and structuring of often existing networking activity.

Strategic and structural development was the third highest occurring activity across the networks in year one (89 per cent of networks). The main strategic development was bringing together headteachers and other school leaders into various forms of leadership teams in order to give shape and coherence to network activity. The main structural development in the first year was to build mechanisms for linking together the strategic and operational leadership of the network with the existing leadership of schools and the school-based activities that network membership generated.

Strategic development of networks

The data suggest that headteachers need to be actively involved in a network to align their individual schools with the NLC. This alignment involves co-constructing its visions and plans, establishing learning foci and establishing shared working protocols that can have long-reaching implications for network success. For example, do all teachers receive release time? What funding is made available for networked learning?

Some headteachers were reported as visibly modelling learning for leadership through their involvement on learning walks, discussion of think-pieces in staff meetings, training courses and leadership learning groups. However, some networks seem to have promoted teacher leadership without the complementary headteacher leadership in place. This can have the effect of limiting the network's progress, as described below:

> *Leadership of network has been restructured to meet identified need rather than that originally perceived. Recognised that co-ordinators are not always drivers of change, hence headteachers required in a strategic group. Co-leader group therefore enlarged to produce a steering group, which includes two headteachers. Steering group provides vision and direction for networked learning."* Network co-leader

An analysis of year one review returns and additional research showed that network leaders were involved in the following range of activities during this time.

Table 11. Reported achievements of network leaders, year one

	Network leadership activity	Example from review
Courting	• approaching potential partners • developing proposals for new networked activity	• collecting contacts and courting possible networked partnerships. • building links with networks with similar foci or those which offer learning opportunities (e.g. learn about learning walks)
Aligning	• winning leadership buy-in through individual or group negotiation • preparing plans for the network	• developing mission statements, network-wide focus or specific enquiry foci • whole-school target setting and strategy building • establishing steering groups
Connecting	• creating structured opportunities for teachers to work together	• establishing and allocating network-based roles and responsibilities • skill development to lead, facilitate or participate in networks such as leadership training or presentation skills • creation of lead learner forums, cadre groups, leadership learning groups, learning partnerships, school improvement groups
Embedding	• institutionalising the network through its formal links within and between schools and growth of informal relationships	

Interviews with co-leaders showed that the growth of NLCs involves a thickening of existing formal and informal networks in the following ways:

- **A movement from networking to networked learning**
  Growth was often described as a movement from pre-existing 'networking' to 'networked learning'. Informal and as-needed contact became formalised and strategic with resourced release time, formal recognition of teachers' networked work,

appointment of facilitators and project managers. Network groups increasingly formalised over the first year as they developed protocols and two-year plans and requested budgets.

- **A movement towards readiness to network learning**
  Networks take time to grow and co-leaders must remain sensitive to the individual school's sense of readiness. Partnership activities were sometimes aborted because the network or individual schools were not ready. For example, some schools did not feel comfortable hosting a learning walk in the first year, or a planned conference was postponed because teacher-research was not sufficiently advanced to warrant presentation at a conference. A school might not be in a position to network at a particular time – for example it might withdraw to deal with an Ofsted inspection.
- **Threading and weaving networks**
  NLCs intersect with many other network initiatives. These complex structures are highly pragmatic in networks. With the ubiquitous lack of teacher time, other funding streams were worked creatively to resource the network e.g. Best Practice Research Scholarships to fund teacher research. These activities were drawn into the NLC plan, often strategically to build momentum and focus. As networks grew, participants seemed to become more skilled in, and aware of, the benefits of networked learning and could then create more formal and informal links.

Current challenges in the strategic development of networks

Networks as an innovative organisational form are challenging to lead. The following are the key challenges reported in the year one data:

- Network leaders may be divided over the most relevant priorities
  "Here there are seven different schools with seven different sets of priorities, seven different development plans, and what you're trying to do in one network is prioritise one thing that goes across the whole system."
  Co-leader
- Building enough of a shared understanding and working relationships takes time to develop. Sometimes it does not emerge and schools may leave the network.
- Delays may occur at other levels in the network, as NLC teacher groups are endowed with the authority to generate their own agenda for change.
- New headteachers may be peripheral to the network as they come to understand networked learning.
- The co-leaders are frustrated by a lack of buy-in to the vision of what the network could be.
- Too much talk without action can frustrate or bog the network down. Networks need to balance talking it through with small, low-risk wins to build momentum and trust.

Limitations of current strategic development

The main strategic issue reported as facing NLCs in their second year of operation was headteacher buy-in to the network. Networked learning does have resource implications for individual schools, and when headteachers disconnect from the network their staff can disconnect as well.[13] While the year one review was designed to reinforce the achievements

[13] Ibid.

of the networks and the headteachers' own learning made possible through active involvement, there were also regular references to the need to win headteachers over, and to establish buy-in to the networked learning for themselves or their teachers. Headteachers suffer from centrally-initiated administrative and management overload or simply do not stand aside and allow others to lead. Thus network growth may stall and the leadership, drowning in management demands, becomes frustrated and disillusioned. Headteacher groups which remain the sole operational force could stall network development and reach. Networks have demonstrably tried to grow a second strata of network leadership. For instance, year two budgets have increased administration time by 3.6 per cent and teacher supply costs have risen by 4.7 per cent. There is a caveat that although project managers and administrators can pick up the hands-on administrative work, this may allow certain headteachers to take too much of a backseat in their networks.

Structural development of networks

One of the most common visible achievements of networks in the first year was the establishment of a structure to foster developments beyond the individual school level. Interviews with 19 co-leaders about their network structures[14] identified a number of common structures. A typology of these structures is presented in the following table with examples from network-o-grammes created as part of the year one review. Potential advantages and disadvantages of each structure are listed.

Network structures can be described and analysed in different ways, depending on the organising principle behind their development. Some networks' structures have been driven by the need to co-ordinate and manage a single dominant innovation, others to accommodate a range of different innovation themes Some have been driven forward by a strong existing structure.

Table 12. Typology of network structures

Network driver	Code	Types of network strcutures arising
single dominating innovation	1	wheel and hub
	2	network of subnetworks
accommodating multiple themes	3	integrated themes
	4	concentric circles
strong emphasis on structure or process	5	role based
	6	process based
externally facilitated	7	external partner driven
Information Communication Technology	8	virtual network

Single Dominating Innovation

[14] Ibid.

1. *'Wheel and hub'*

Description

- Strong co-ordination through co-leaders or strategy groups.
- Different groups or organisations in the network arranged as rings coming from central hub.
- Those groups nearest the hub dominate development unless directly linked to strategy group conferences.

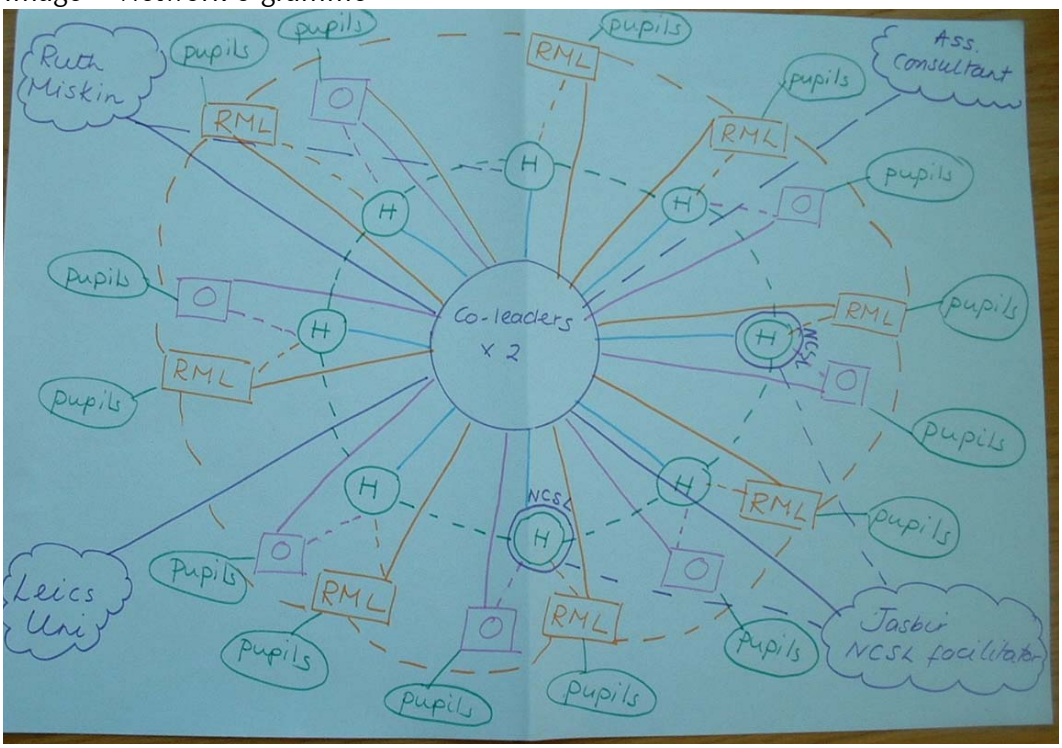
Advantages

- Centre can provide clear strategic leadership and allocation of resources.
- Simplified networking for individual organisations, as generally only in contact with one or two other groups or schools means not costly for individual schools.

Disadvantages

- Often little internal school capacity to network is developed because of central organisation.
- Can be disabled as a network if co-leaders or strategy group start to fail.
- Strategic leadership may become disconnected from developments in certain schools.
- Weak lateral links between schools and groups mean networking opportunities can be limited.

Image – 'Network-o-gramme'

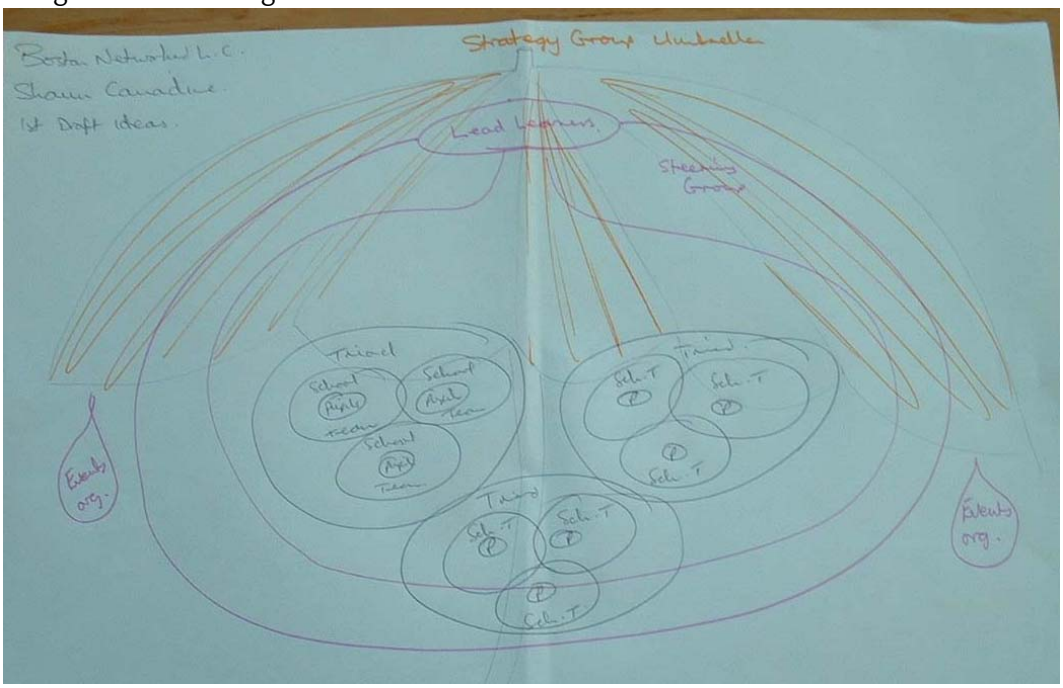


2. *'Network of sub-networks'*

Description, advantages and disadvantages

- Similarities to 'wheel and hub' above, but characterised by a series of 'mini networks' making up the whole, rather than a series of individual groups.

Image – 'Network-o-gramme'



Accommodating multiple themes

3. ***'Integrated themes'***

Description

- Network groups involve high degrees of overlapping membership eg steering group is comprised of enquiry group leaders.

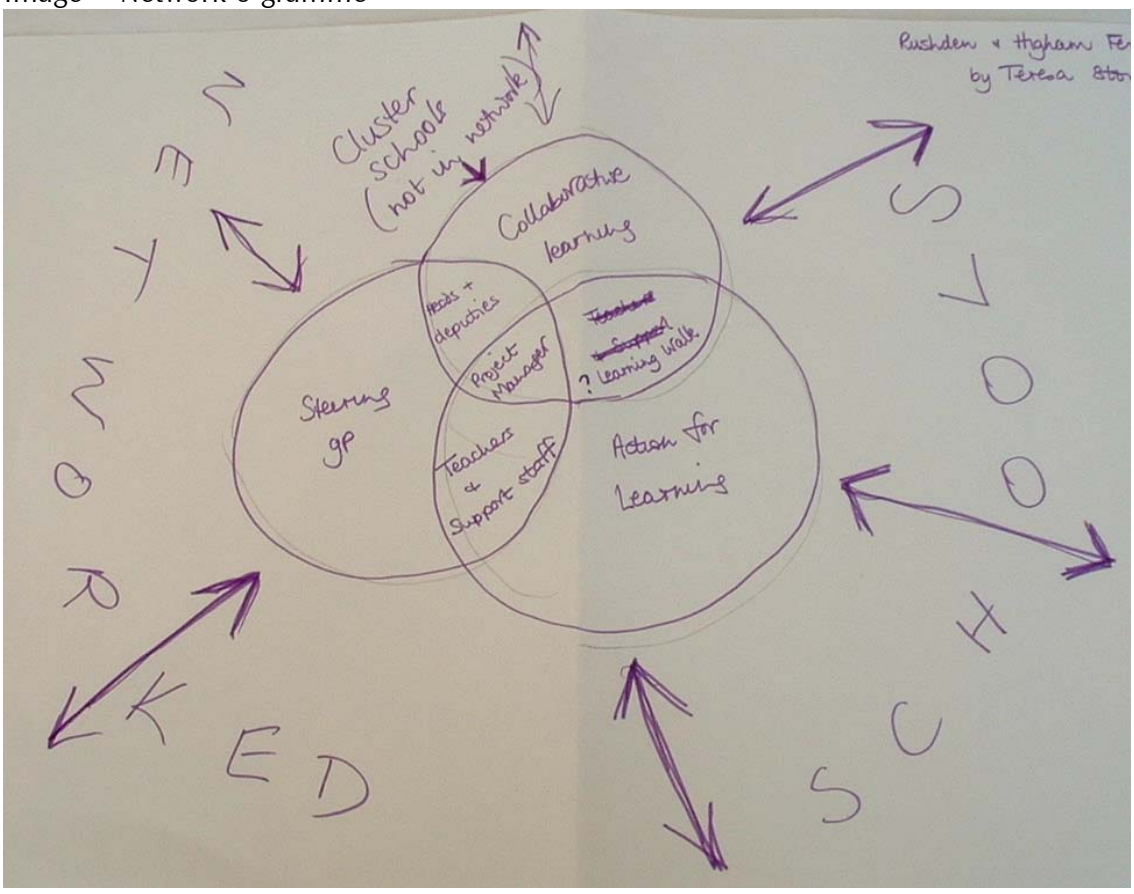
Advantages

- Tight interface between the network's strategic and operational functions

Disadvantages

- The highly overlapping network groups may limit the overall reach of the network

Image – 'Network-o-gramme'



4. *'Concentric circles'*

Description

- Project groups convened to address particular cross-curriculart issues – eg thinking skilla, AFL or pupil voice.
- Theme groups may organise workshops or conferences.
- In large networks, particular themes may have their own steering groups.

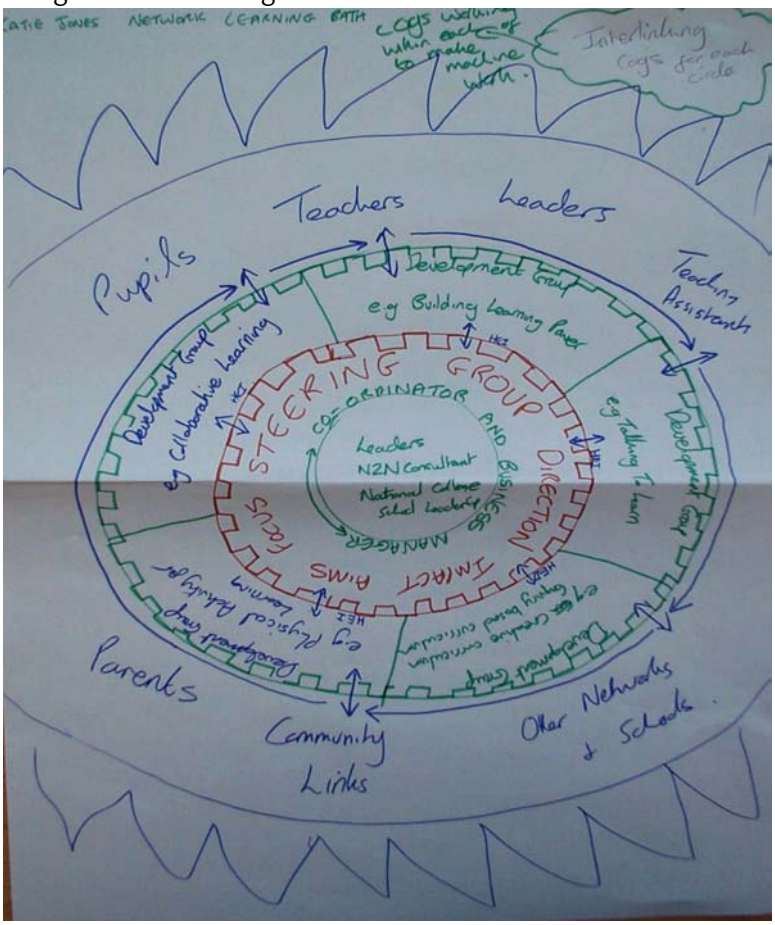
Advantages

- String synergies can be built from a tight learning focus
- Can draw in highly subject-specific expertise.
- May provide room for specialised areas of personal appeal and personally relevant work that would be unavailable within a school
- shared foci or experience from a critical mass of people unavailable within a school can create strong communities of practice.

Disadvantage

- Where the network is based on particular roles, it may seem somewhat exclusive.

Image – 'Network-o-gramme'



Strong emphasis on structure or process

5. *'Role-based network'*

Description

- Network configures around practitioners with similar roles such as Newly Qualified Teachers or Advanced Skills Teahcers. These groups may be more focused on coaching, support or knowledge-sharing around a shared experience.

6. *'Process-based networs'*

Description

- Members work on 'getting the process right'.
- Focus on activities that can be used across the network for a range of ends e.g. a learning walks group which develop protocols that others can use for learning walks or an ICT group which establishes video conferencing.

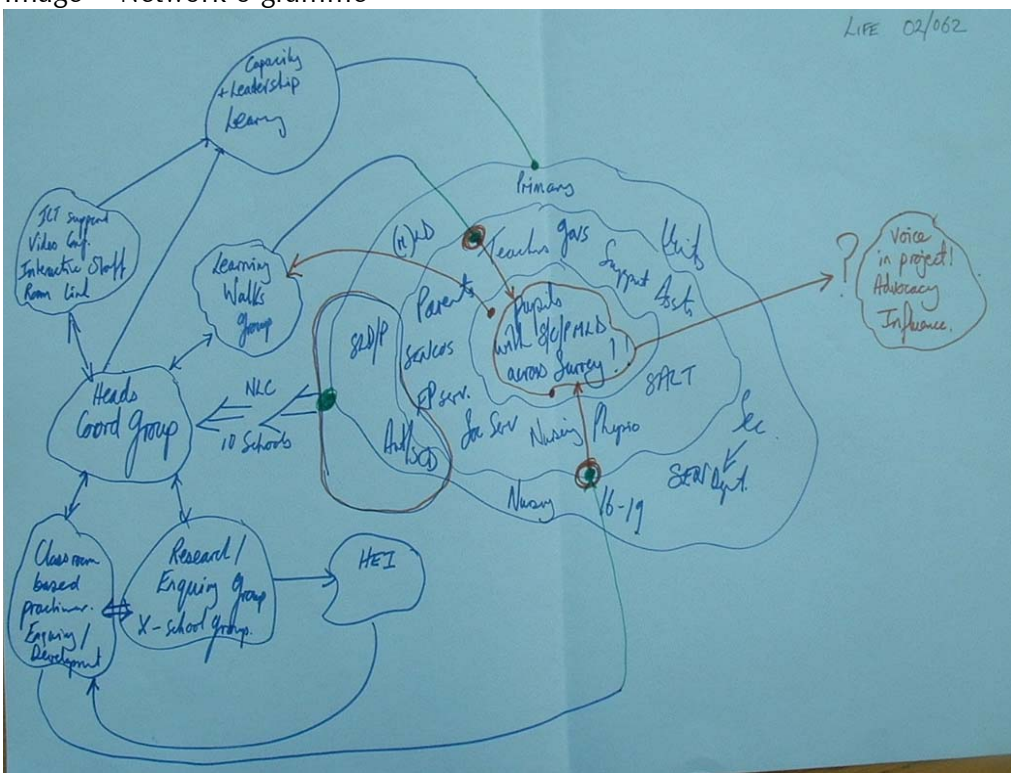
Advantages

- By establishing good process the network facilitates effective outcomes

Disadvantage

- Processes that are cascaded down may become diluted.

Image – 'Network-o-gramme'



7. *'Externally-facilitated networks'*

Description

- Network operates largely detached from any headteacher involvement but rather is facilitated by an external group such as a university or the LEA.

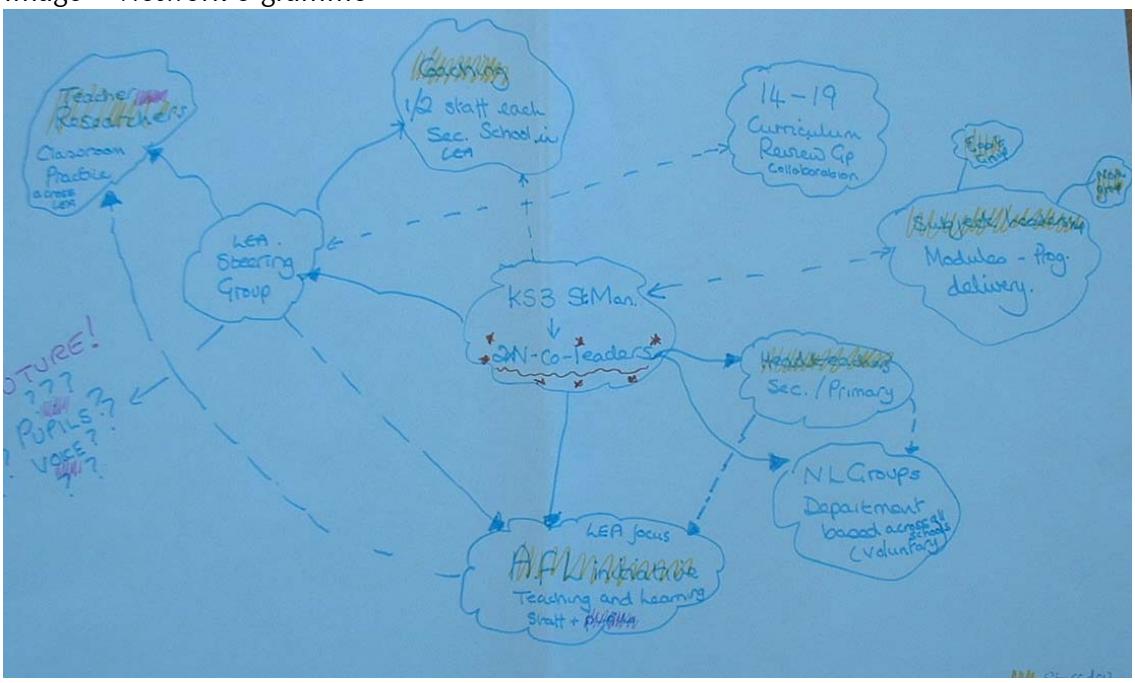
Advantges

- The co-leader is likely to have dedicated time to facilitate the network, lending it considerable capacity

Disadvantages

- Without headteacher engagement long-term sustainability may be limited.
- The network itself may be detached from the whole-school perspective.

Image – 'Network-o-gramme'



8. *'Virtual networks'*

Description

- Network members communicate through or draw resources and reports from website or bulletin board

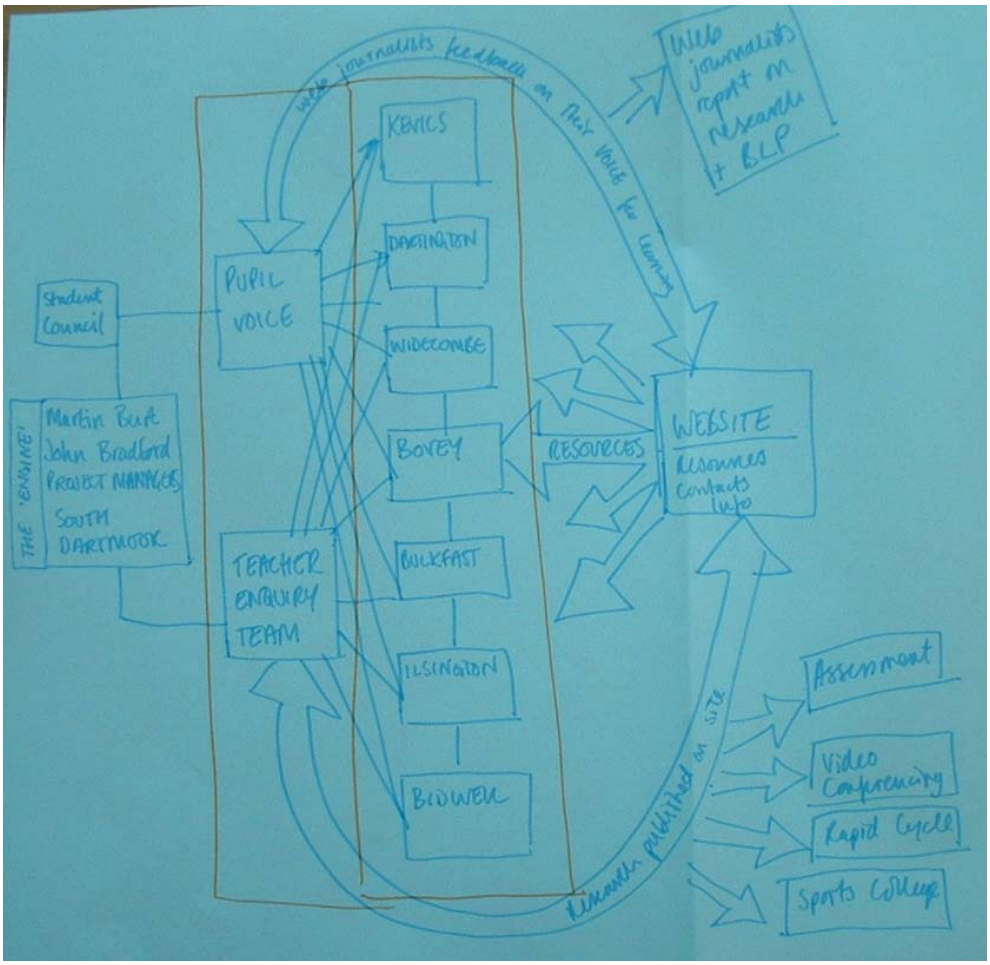
Advantages

- This has the opportunity to allow teachers at the periphery of the network to become intimately invovled in enquiry-based debates and discussion.

Disadvantages

- Without well-established local community, considerable facilitation and large numbers of motivated teachers, the infrastructure costs may not warrant the low levels of participation.

Image – 'Network-o-gramme'



A further category of network was identified which might be termed 'structure light'. In these cases there tends to be one central co-ordinating group or committee which responds to individual school or network issues by bringing teachers together in short-lived projects.

Overall, most NLCs are relatively simple structures with approximately 5–10 'working parts'. Analysis[15] of these structures suggests that more groups (eg steering groups, enquiry groups) reflect more strands of discrete activity rather than a reflection of the size of the network.

The network-o-grammes were typically vague on connections to internal school structures – for example, how the learnings from enquiry groups are embedded within an individual school, though there is often some connection with the network steering group which may harvest from the network. Headteachers identify successes at network level and possibly direct their implementation with the individual schools. Alternatively, there is the 'buffet approach' where teachers or individual schools choose to implement some activity from a range of possibilities presented by network members.

The processes for network building differed depending on the conditions of the network:

New networks were more likely to use NCSL facilitation
Network building is skilled work that demands capacity building within the NLC. New networks were more likely to draw on NCSL facilitation in their network-building efforts.

Large networks were more likely to resource internal facilitation
Size matters. Larger networks were more likely to have internal facilitators and resource teachers to assume these types of roles. It is likely that the larger the network the more likely a distinct facilitator role will need to be allocated. Also, large networks which pool resources are more likely to have funds to employ a teacher in this role.

New networks were more likely to attend to NLC social conditions
New networks were more likely to report activity or outcomes relating to the creation of positive social conditions in their first year than established networks. For example, 'establish protocols that promote shared values and trust within the community', hold launch conferences to explain the philosophy of NLCs, establish climates of openness.

[15] Thanks to James Page of DEMOS for this element of the work.

Year two plans: embedding network infrastructure

This section provides a brief overview of the planned changes in NLCs in year two before focusing on two significant areas of planned activity. The overall pattern of development was that network infrastructure would receive more attention in the second year, suggesting an increasing formalisation of the network. A comparison of year one achievements with year two plans shows that networks intended to increase reach and build network architecture. In particular, year two plans made increased reference to:

- twice as much school-to-school and N2N infrastructure
- development of learning infrastructures (release time, opportunities for collaboration) to bring teachers together at the school-to-school and network-wide level
- internal facilitation, enquiry leadership and network strategic development
- strategic and structural development
- resourcing of network activity (particularly around administration and supply cover)
- network-to-network activity, particularly around inter-visitations and joint enquiry

Two possible explanations are proposed.

1. NLCs are clearly planning to increase networked activity at the school-to-school and network-wide level. Networks are focusing on finding ways for more teachers to work together across networks and therefore need to build structures to facilitate this. The practicalities of teacher time and release from classrooms are fraught with difficulties, not all of which can be solved by either personal determination or even additional funding.[16] The nature of school structures as embodied in teachers' timetables is inimical to teacher-to-teacher communication within one department or school, let alone across schools. A concerted effort needs to be made to overcome these barriers to teacher-to-teacher communication.

2. NLCs are formalising the structures and approaches to networked learning that emerged in year one. Kubiak and Bertram (2004) in their interviews with co-leaders found that networks would wrap formal structure around provisional and emergent network practices by:

- establishing formal communication protocols between network groups that have developed some permanence and profile
- officially recognising expanding and emerging teacher roles through management points for their work, status by management, budgetary control or increased training
- providing entitlements to represent the network to external bodies or at events

[16] Worrall, 2003, *Oiling the wheels and cleaning the plates*, paper presented to the British Education Research Association conference, Edinburgh.

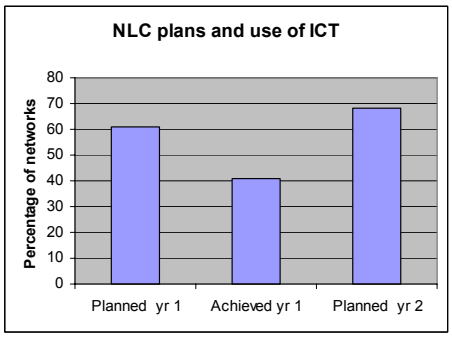
- requiring the development of 2–3 year plans so emerging groups become institutionalised

The following two sections describe in more detail the most notable peaks in planned activity for year two.

Use of information technology in year two plans

A strong theme in the year one review was that the adoption of ICT as a network building tool was a long-term plan for NLCs. Figure 2 shows that ICT-based activity planned for year one stalled in 20 per cent of the networks. Compared to other categories of network-building activity (e.g. meetings or training and inset) use of ICT occurs relatively infrequently across NLCs (40 per cent of networks) but is planned for year two in nearly 70 per cent of networks.

Figure 2. NLC plans and use of ICT



ICT use is emerging as problematic for networks but also highly desirable. Online activity and NLCs seem axiomatic in that the combination:

- enables teachers to overcome geographic constraints
- maintains relationships developed at face-to-face sessions
- provides opportunities for extended session debriefs and peer-to-peer reflection
- maximises participation beyond the central core and increases motivation to participate
- enables teachers to share resources across the network and network-to-network

The table below identifies the basic spread of ICT use in year one among the 30 networks which list ICT-related activity as an achievement.

Table 13. ICT use in year one

Type of ICT use	% of networks reporting use	Examples of activity
Online network building	**73%**	• websites of resource banks • database of effective practice • collaborative (online) learning activities for pupils and teachers • a dedicated website to facilitate collaboration amongst networked schools • provision of laptops for headteachers to commence engagement with all leaders
ICT as network focus	**43%**	• teachers across the network enquire into effective use of interactive whiteboards • ICT Innovators observe best practice in schools within the network and beyond and share their observations with colleagues in their own schools • all staff have complete ICT training tasks on email and PowerPoint
Offline ICT use	**26%**	• video equipment purchased for each school for self-evaluation and sharing of practice • videos of workshops and conferences

A long-term view of ICT use

While ICT use has strong potential for networks, the table above shows that only 22 of 76 networks used ICT for network building in the first year. Interestingly, established networks (which are more likely to have a more highly developed infrastructure) did not report greater ICT use. However, larger networks did report greater actual use and planned use of ICT in year two. This finding may have a number of interpretations – larger networks may in fact be more established networks, may have more resources at their disposal or feel more acutely the challenges of increased reach.

Reasons for relatively slow uptake of ICT use are hinted at by two patterns in the data.

ICT-smart networks

A lot of ICT activity clusters on a small number of networks. Some networks appear ICT-smart or ICT-enabled. They may already have an ICT infrastructure in place before commencing as an NLC or have the resources to buy in specialised ICT expertise. It may be

that simply with the range of ICT activity in place, these networks have a skilled and receptive group of teachers who are able to engage with technology.

Increased concern for use of ICT in network building

More networks plan to use ICT as a network building tool. Planned ICT use in year two for network building overshadows references to developments in teaching and learning. Plans centre around infrastructures for online communication and sharing – websites, video-conferencing and webcams. The planned adoption of ICT in year two may reflect trends towards building infrastructure in year two.

Online activity takes time to develop. It is not sufficient simply to make online spaces available and tell participants they can use it for questions and discussion.[17] Online communities need organisation, frameworks[18], scaffolds and support.[19] In particular, networks need a facilitator to encourage participants to work online as well as to facilitate discussion, draw discussion together and maintain the spaces.

The culture and skills to support online working take time to develop. There is evidence for example[20] that we do not become full participants in an online community until we first master the technology, the content area we are learning and then the skills of communication and community-building skills. When online communities exist as part of a local geographical community, negotiating such a hierarchy becomes all the more complex, as face-to-face ties may become more compelling and relevant than an online discussion. For schools that may not have worked together before, online communities take time to develop.

[17] Hiltz, S & Wellman B,1997, *Asynchronous learning networks as a virtual classroom*, Communications of ACM, 40(9), pp44-49.
[18] Mason R, 1998, *Models of online courses*, Asynchronous Learning Networks Magazine 2(2).
[19] Harasim, 1989, *Online education: A new Domain*, In Mason & Kaye (Eds.) Mindweave (pp50-62), Oxford: Pergamon Press.
[20] Brown, 2001, *The process of community-building in distance learning classes*, Journal of Asynchronous Learning Networks 5(2) pp18-35.

Appendices

Methodology and Analysis

The data for the year one review consisted of:

- Traffic lights exercise – Each network revisited their original submission form or proposal to the NLC programme, highlighting in red those elements that had never been initiated or had been abandoned, marking elements that had yet to start but would in amber and noting proposed activities that had been successfully implemented in green.

- Achievements template – Networks were asked to identify their key achievements from year one and their main plans for year two in relation to the levels of learning framework that underpin the NLC programme (i.e. pupil, adult, leadership, school-wide, school-to-school, network-wide, network–to- network).

- Red lights and new starts templates – Networks were provided with separate sheets with more space to elaborate upon the activities highlighted as 'never started' (red lights), 'not started but about to be or implemented as per the original proposal' (amber lights).

Secondary data sources

The following network data were also used to make distinctions between the content in the network reviews:

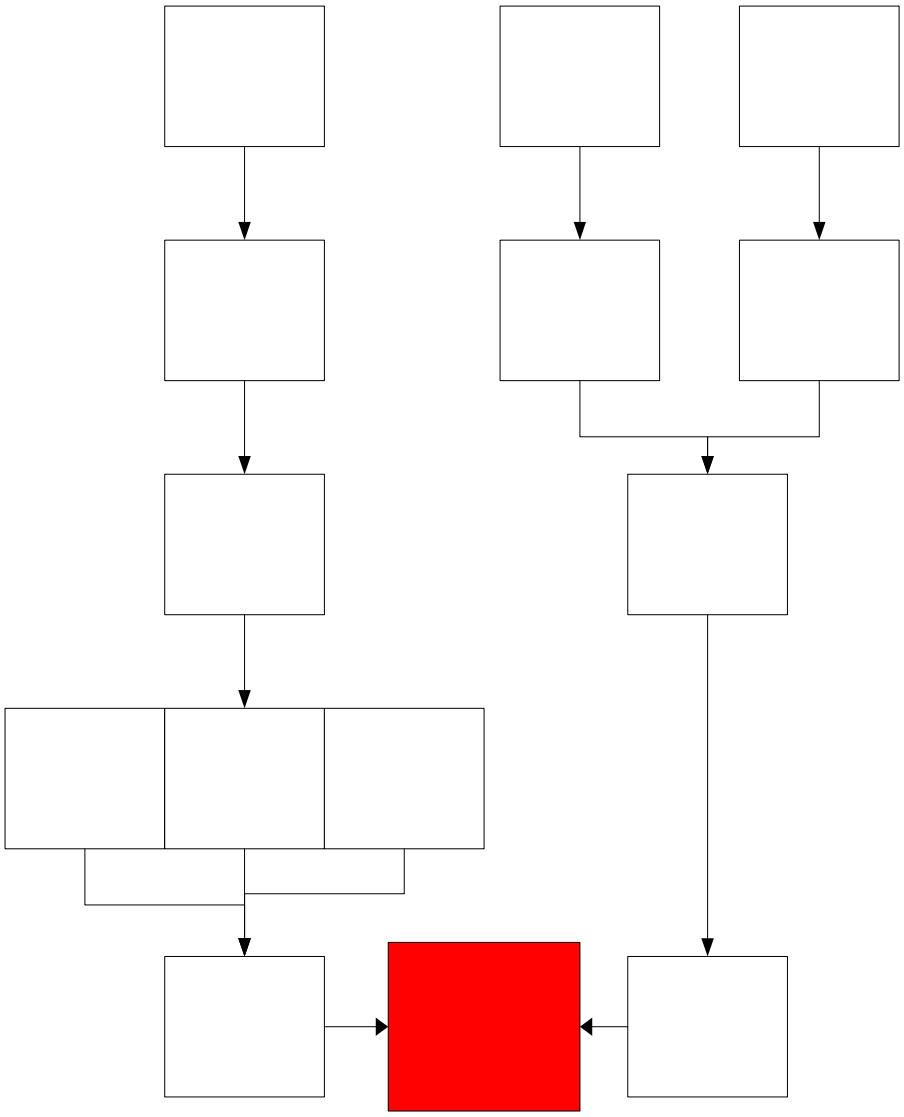
- pre-existing status – established or new partnerships (source: network submission)
- phase of education – all infant/primary schools, all secondary schools, 'cross-phase' mix of infant/primary and secondary schools (source: DfES database)
- network size – split into quartiles in order to distinguish between 'small' and 'large' networks (source: DfES database)

Coding

Using NVivo, a qualitative data analysis package, two researchers coded the achievement templates using the following codes:

Level of programme	**Learning activities**	**Network building**	**Who**	**ICT and multi-media activity**	**Phase**
• Within School • School-to-school • Network-to-network	• research & enquiry • inter-visitation • learning infrastructure • training, INSET, speakers • mentoring and coaching • communication & knowledge sharing • collaborative and joint activity	• strategic and structural development • social conditions • meetings and intersection points • resourcing	• pupils • teaching assistants • teachers • governors • headteachers • internal facilitators • NCSL • external educational agencies • family • community • adult (unspecified) • leaders		• Year 1 achievements • Year 2 plans

The contents of the year one review dataset can be summarised as follows:



Networks' year 1
self review

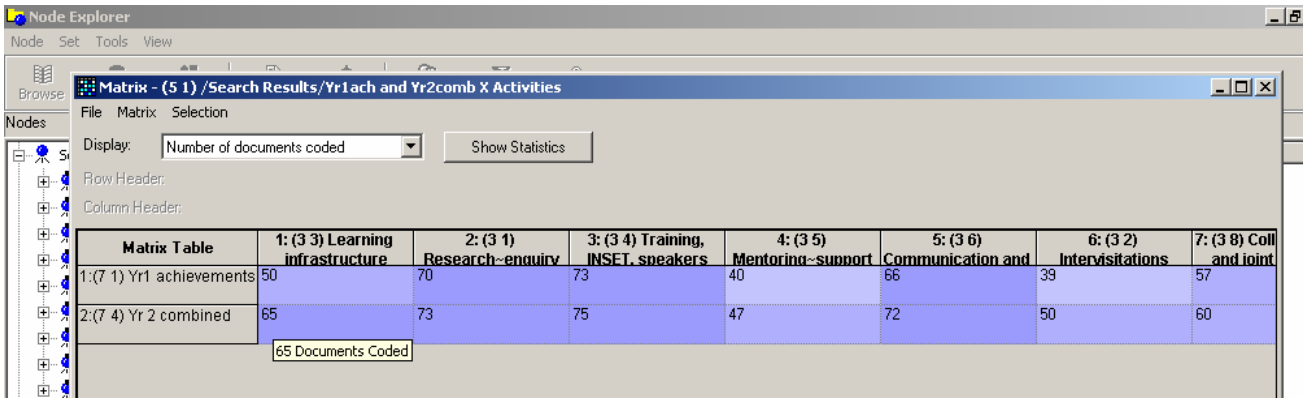
Analysis

Quantitative
Quantitative counts of the main categories of activity were produced. Typically, relationships between activities were identified, for example, number of networks engaged in enquiry at the network-to-network level. Also, distinctions between types of network could be made by running cross-tabulations, for example, does the number of networks using ICT differ between new and established networks?

Implementation information submitted in reporting templat

Qualitative
Data was coded under specific nodes of activity and further thematic analysis conducted. Some fine-grain work such as intersections of types of activity was also conducted, for example data was retrieved that lists all the activity coded as 'enquiry-

research' at the 'school-to-school level'. However, as the data itself was quite thin, caution was exercised about over-stating claims made from such close analysis.



Matrix Table	1: (3 3) Learning infrastructure	2: (3 1) Research~enquiry	3: (3 4) Training, INSET, speakers	4: (3 5) Mentoring~support	5: (3 6) Communication and	6: (3 2) Intervisitations	7: (3 8) Coll and joint
1:(7 1) Yr1 achievements	50	70	73	40	66	39	57
2:(7 4) Yr 2 combined	65	73	75	47	72	50	60

NVivo matrix intersection table, example