National College for School Leadership

Learning networks research legacy

How do school-to-school networks work?

Alison Stott, Michael Jopling & Ann Kilcher, NCSL

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Contents

1. Introduction

At the beginning of the 21st century, networks, networking and what Castells (2000) has referred to as the '*network society*' have become an increasingly dominant social and cultural paradigm. Friedman (2005), in his book *The World is Flat*, highlights the importance of networking as a result of advances in technology, and comments on the impact of networking via technology on our ways of working in the world and the global economy. However, networks and networking are not 'new' phenomena. As Church *et al* (2002) note: '*Informal networks have been the basis of family, community, and even politics for centuries*' although '*the formal network has become the modern organisational form*' (p 5).

In the field of education, a host of collaborative and essentially network-based initiatives have been established in the UK, including: Education Action Zones (Halpin *et al*, 2004); Excellence in Cities (Kendall *et al*, 2005); Leading Edge Partnerships (Reynolds, 2004); Creative Partnerships (NFER, 2005); Networked Learning Communities (NCSL, 2002); and more recently Primary National Strategy Learning Networks (DfES, undated). Similar efforts have occurred over the past three decades globally. Teacher networks in the US have been around since the mid-70s, one example being the National Writing Project (Lieberman & Wood, 2003) that links teachers across the country to focus on writing and partnerships with universities. More recently, networks of schools have been promoted in a range of countries, including the League of Professional Schools (Allen *et al*, 1999), Coalition of Essential Schools (Muncey & McQuillan, 1996), and National Network of Partnership Schools (Epstein, 2005) in the US; the Manitoba School Improvement Network (Earl et al, 2003) and Community Learning Network (Perry et al, 1999) in Canada; the Network of Innovative Schools in Germany and the Portuguese 'Good Hope' project (OECD, 2003); and the iEARN network of schools working together to improve classrooms and schools in 90 countries.

As a result, both academics and practitioners have become increasingly concerned with defining the inherent characteristics of networks, and understanding the metaphorical 'glue' which holds them together. **This paper seeks to contribute to the debate by addressing the central question: How do school-to-school networks work?** It explores how networks are formed, developed and sustained, based on evidence from the Networked Learning Communities (NLC) programme established in England by the National College for School Leadership (NCSL) in 2002.

1.1 Networks, networking and the NLC programme

The Networked Learning Communities programme represented '*a co-ordinated reform initiative*' and '*probably the largest school-to-school network programme in the world*' (NCSL, 2005b). It was deliberately established as a research and development programme in order to both build on and contribute to the body of knowledge and theoretical perspectives about networks and networking.

From the beginning, the Networked Learning Communities programme was '*like no other initiative*' (NCSL, 2002), in that it provided a relatively small amount of money (compared with total school budgets) to groups of at least six schools to enable them to establish a school-to-school learning network. A total of 109 networked learning communities (NLCs) in three cohorts (1a, 1b and 2a) were provided with up to £50,000 per year for three years, which was expected to be match-funded locally. A further 28 networks that were

unsuccessful in their bid to attract funding agreed to maintain a relationship with NCSL and the NLC programme and became cohort 2b associate NLCs.

While offering the resulting NLCs relative freedom and flexibility to choose their own local improvement or reform agenda, a set of general design principles was proposed, to which they were expected to adhere. The organisation and planning of the programme by the Networked Learning Group (NLG), and the principles espoused within it, were based on an appreciation of the literature at the time around effective networks and networking for school improvement and reform. For example, the programme was committed to four enduring, underpinning principles (NCSL, 2002; Jackson & Temperley, 2006):

- moral purpose – a commitment to the success of all children
- shared leadership – e.g. co-leadership and distributed leadership
- enquiry-based practice – evidence and data-driven learning
- use of a model of learning – systematic engagement with the three fields of knowledge

In 2001, the Government green paper *Schools: Building on Success* proposed that:

> *What matters is that all schools break out of isolation and introversion and constantly work with and* ***learn from*** *others, as many already do. This is a crucial part of the teaching profession taking control of the reform agenda.*
>
> DfEE, 2001 p 85

Fully in alignment with this perspective, the Networked Learning Communities programme advocated that those involved in NLCs should **learn** '*from, with and on behalf of*' each other. This approach was less concerned simply with the direct transfer of good practice from one site to another, than with a social learning theory involving *expansive* or *lateral* learning (Engeström, 2001). This enabled the non-hierarchical and collaborative development of 'collective intelligence', defined as '*a measure of our ability to face up to problems that confront us collectively and to develop collective solutions*' (Lacey, 1988 p 94) and also '*empowerment through the development and pooling of intelligence to attain common goals or resolve common problems*' (Brown & Lauder, 2000 p 234). Networked learning communities were groups of schools brought together deliberately and specifically for the purpose of collaborative learning, rather than by virtue of their adoption of a particular '*comprehensive school reform*' package or initiative which characterised some of the earlier cited school-to-school networks (Datnow, 2004). Jackson and Temperley (2006) also delineated 'networked learning' from simply 'networking', saying:

> *Adults are involved in multiple random 'networking' relationships … these connections offer rich opportunities for learning and make up an unpredictable tapestry of interpersonal connections. They are not, though, 'networked learning' – they are 'networking' … networked learning takes place when individuals from different schools in a network come together in groups to engage in* ***purposeful and sustained developmental activity informed by the public knowledge base, utilising their own know-how and co-constructing knowledge together****.*
>
> Jackson & Temperley, 2006 p 6

Acknowledging the considerable challenge that collaborative learning represented, the three fields of knowledge model was promulgated by the NLG to support the developing NLCs. It was suggested that to provide effective learning opportunities, sufficient attention should be paid to:

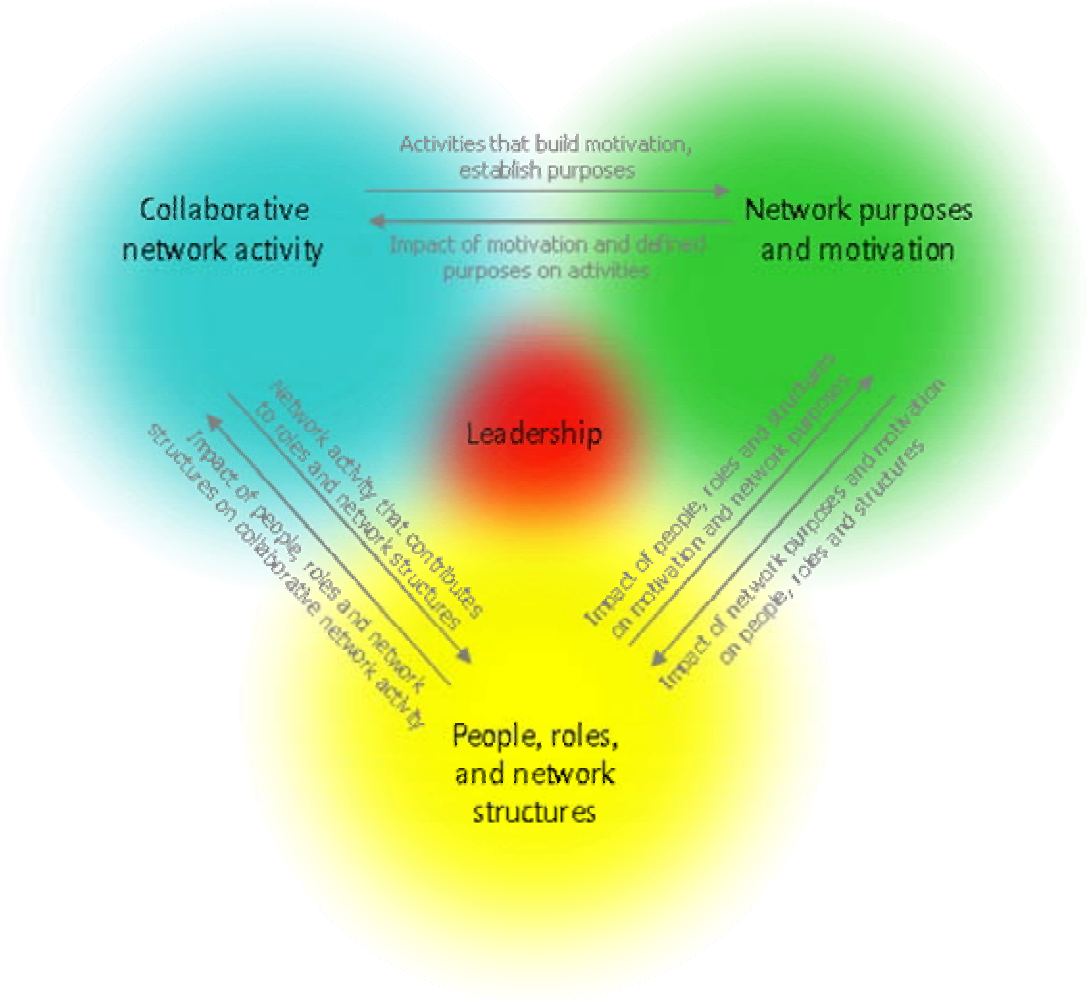
- what is already known – public knowledge from theory, research and best practice
- what participants already know – practitioner knowledge possessed by those involved
- the creation of new knowledge – discovered or developed through collaborative activity

2 Conceptual framework

2.1 Exploring how school-to-school networks work

In an attempt to simplify the considerable challenge of considering how an effective school-to-school network works, a basic framework was required, drawing out the key issues in relation to both establishing and then sustaining its work. Figure 1 outlines the proposed framework for this paper, based on existing literature and research undertaken within the NLC programme.

Figure 1: Key issues in establishing, developing and sustaining school-to-school learning networks



The framework in Figure 1 comprises four overlapping spotlights on key issues associated with establishing, developing and sustaining a learning network. The first three provide the overarching structure for the remainder of this paper:

- establishing **network purposes** and mobilising and increasing **motivation** for the network (green)
- the **people** in networks, their **roles** and **network structures** (yellow)
- **collaborative network activity** – developing social and professional relationships (and trust) between people in the network, ultimately enabling lateral learning from, with and on behalf of each other (blue)

Network leadership (red) forms the central spotlight and represents a considerable issue in its own right. It is discussed in more detail in relation to the NLC programme by Jopling & Crandall (2006). Clearly, those taking on network leadership roles have a key part to play in the active consideration of the other three spotlights. Therefore issues relating to network leadership are interwoven throughout this paper where relevant. By concentrating on the three outer spotlights, in effect this paper focuses on the question: ***What issues do network leaders need to pay attention to in order to establish and sustain an effective school-to-school network?***

Another dimension which is not represented in the proposed framework but which is implicit in any discussion of the development of learning networks is **time**. Networks are not static – they change and develop, ebb and flow. Fundamentally, networks are fluid and adaptable, potentially maverick entities that exist outside formally established structures and hierarchies. As a result, each of the spotlights may become more or less important at different times in a network's existence, and this may or may not follow a recognised

developmental pattern. As with leadership, any pervasive issues relating to differences and changes over time are interwoven with other sections where relevant.

2.2 Methodology

This paper incorporates and builds on the analyses and findings already available from research undertaken in and associated with the Networked Learning Communities programme. It also utilises a substantial secondary analysis of a wide range of data collected throughout the life of the programme. This mainly comprises qualitative analysis of 78 interview transcripts and summaries. It was decided to focus the analysis for this paper primarily on data from networks in cohorts 1a and 1b, pragmatically because of the availability of data from these cohorts, but also because they have existed formally as NLCs for the greatest length of time. The main dataset therefore includes:

- Eight verbatim transcripts of interviews with NLG network facilitators undertaken in March 2003. These interviews have only been used to substantiate data collected from NLC participants themselves.
- Ten verbatim transcripts from interviews with NLC co-leaders undertaken in March 2004 in connection with the Growth, Structure, Leadership research project, and four summaries of interviews with co-leaders produced during the pilot phase of this project in December 2003.
- Twenty verbatim transcripts of interviews with NLC co-leaders undertaken as part of the Leadership and Facilitation research project in April and May 2004.
- Seven verbatim transcripts of interviews with NLC co-leaders undertaken in December 2004 in relation to the Co-leadership research project.
- Twenty composite network case studies (cohort 1a only) from phase 2 of the external evaluation of the NLC programme undertaken in January and February 2005. Each includes sections of verbatim transcript from multiple interviews with staff from a single school in each NLC studied.
- Nine verbatim transcripts from interviews with NLC co-leaders perceived to be system leaders, undertaken in December 2005.

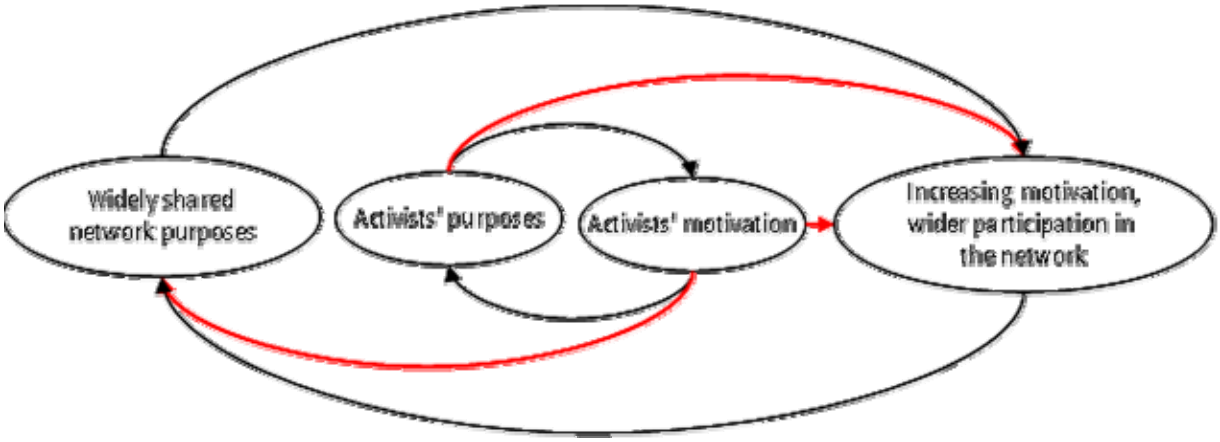
The interviews, summaries and case studies were analysed using both manual methods and the NVivo computer analysis software package. Issues which were explicitly described as having played a part in supporting the existence of the network, as well as those which were more implicitly implicated in interviewees' discourse were identified and classified with reference to the main themes of the conceptual framework described in the following section. Sub-themes were developed using a grounded-theory approach (Strauss & Corbin, 1998). Issues which contradicted or fell outside the framework were noted. Other records from the programme (for all NLC cohorts) were drawn on for additional exemplification as and when appropriate.

There are clearly particular challenges associated with undertaking a new analysis of data accumulated throughout the programme, not least the challenge of the different purposes of the interviews conducted and different questions asked. As a result, the available data is treated here as qualitative examples rather than necessarily providing a comprehensive and representative picture. The benefit of using the data in this way is that it is able to provide a more longitudinal perspective than individual analysis of each sub-set.

3 The importance of motivation and network purposes

It is clear that networks do not come into being without an initial impetus or reason. For a network to begin to exist, at some point one or more individuals (or activists) must establish some form of relationship or collaboration. However, a distinction must be made between the motivation and purpose of this group of early activists who could be considered an initial network 'seed' and the establishment of an overarching purpose for a larger network in order that it becomes a **network of schools** rather than simply a **group of individuals**. Figure 2 illustrates how the process of establishing such a network of schools involves two interactive cycles.

Figure 2: Moving from a group of individuals to a network of schools



- The initial group of activists identify their own motivating factors and increasingly define their shared purposes for the network (inner circle).
- There is a broadening process of mobilising and motivating others to become involved in the network and at the same time establishing more widely shared aims and purposes to be pursued within the network (represented by the red lines in Figure 2) that can in turn motivate others.

3.1 A network starting point or seed – a group of individuals

What, then, are the circumstances or reasons that motivated individuals come together as a group and begin the process of establishing a school-to-school network?

Funding opportunities

In the specific case of NLCs it is possible, and on the surface seems highly plausible, that the opportunity to bid for the funds made available through the programme (coupled with the relative absence of conditions attached to their use) acted as an important catalyst or factor motivating individuals or schools to begin to form networks.

However, more than two-thirds (68 per cent) of the submissions accepted to become a funded NLC (cohorts 1a, 1b and 2a) were received from networks that already existed in some form. One possible reason for this is that, as with many initiatives, the timescale for the submission of bids was tight and the requirements exacting. Existing networks were able to mobilise existing network structures and relationships quickly in order to complete the application process successfully.

Individual(s) promoting an idea

Whether formed specifically in response to the opportunity provided by the NLC programme, or prior to it, many examples were cited in which the initial impetus for the network came from one key activist. In one typical example, the network was described as '*the brainchild of one of the deputies at the time … He started it off, he was a real* ***prophet*** *and he saw the potential of the primary schools and harnessing them as the driver initially*' (Headteacher N248). Numerous other networks were described as having had similarly influential characters – variously described as '*enthusiasts*' and '*advocates*' – who had exerted significant influence on the

early development and often ongoing sustainability of the network. In the course of establishing the network, the motivation and enthusiasm of these individuals developed into a wider purpose for the network as a whole.

Previous good relationships or collaboration

Another main driver for establishing a new network which was apparent from the interviews was also based on the involvement of specific people. Several networks were formed in order to build on existing relationships or prior collaboration. Often, but not always, this involved those at headteacher or senior leadership level. For example, one headteacher recalled that '*we started off as a group of like-minded heads across the city*' (Headteacher N242). However, there was also evidence that previous relationships could hinder progress if networks failed to adapt existing processes and structures where necessary (Kubiak & Bertram, 2004 p 15).

Identifying common problems, or the need for collaborative solutions

Establishing a network on the basis of previous relationships or collaboration often overlapped with another of the main themes identified: the recognition of commonly held problems that could be addressed collaboratively, or the recognition of problems specifically requiring joined-up, collaborative solutions. For example, one NLC was established specifically to counter the challenge of school isolation that resulted from the limited role that the local authority was able to play:

> *We were both* [future NLC co-leaders] *struck by how isolated schools had become. We lamented the loss of the LEA bringing us together … We wanted our staff to meet other schools and have an academic input, an opportunity for research … We were talking about doing something before the NLC programme came along, and then we decided to apply for funding.*
>
> Co-leader N194

3.2 Progressing to become a network of schools

As has already been mentioned, an important role of the initial network activists was to marshal buy-in from other colleagues and schools. Nonetheless, their starting point was often for the group of activists themselves to become clearer about what they wished to establish or to consider how they could develop a shared purpose collaboratively with increasing numbers of other people in the network.

The specific process for making the transition to a school-to-school learning network varied considerably across NLCs, dependent on: their initial make up (for example, it was easier in many ways for a group of headteachers to take on the role of network activists); the reasons they came together in the first place (such as a lack of support or a shared problem); and what they wished to achieve collaboratively.

For one group of headteachers, the process of bidding to become an NLC provided a defined structure for progression from a relatively short-term collaborative activity to the creation of a more formal and ongoing network. They had:

> *… discussed issues as part of the headship induction course … examined problems in their own schools … discussed these quite openly in a secure environment … found* ***we had so many commonalities*** *… We became a group which set itself up with a little bit of support from the LEA … when the NLC initiative came along … we were merely presenting to the NCSL what we intended to do, as opposed to inventing ourselves to fit the NCSL agenda.*
>
> Headteacher N200

Some networks were established on the basis of school improvement or reform strategies that were already being promoted locally (e.g. accelerated learning in N226 and assessment for learning (AfL) in N196). However, there is rather more evidence to suggest that participants were motivated by the fact that networking permitted them to stretch their context and do things that existing local structures did not allow: '*There was a huge sort of frustration … people wanting to engage in educational discussion and debate, and having no avenue to do it*'. In the same network, this incipient hope for liberation was coupled with an increasing feeling of self-determination: '*Probably, also coupled with that, was the feeling if you didn't get up and do something yourself, then there's no point sitting there waiting for somebody else to do something for you. There was that element of realism about it too.*' (Co-leader N269)

Interviewees within other NLCs similarly claimed that enthusiasm for interaction among practitioners (around a variety of different issues) had occurred as a result of the absence of organisation or co-ordination at local authority level. It was suggested that networks may effectively even replace the middle tier: '*In a sense you're creating* [the equivalent of] *a local authority within the group of schools within the partnership.*' (Co-leader N262)

3.3 What factors motivated people to become involved in a network?

It was acknowledged that maintaining an ongoing commitment to the network was most successfully achieved when it was firmly anchored in a belief in its established purpose or focus:

> *The power of our network has been that people have always believed in what we were about and believed that* [emotional well-being – the focus of the network] *fundamentally is central to children's development … It's people who have – it's more than commitment, it's actually a real belief that what they're doing can make a difference.*
>
> Co-leader N258

Networks benefited greatly from having a widely held purpose or goal as a foundation for their existence and activity: '*We've got the common goal. We know that we're working as a community, not just working on our own*' (Teacher N283). Establishing a compelling, common purpose was also a short-cut to establishing trust between network members. It also provided an overall direction or vision for the network and guided the planning of a coherent and relevant programme of network activities. In the submission guidance notes, applicants were encouraged to specify a focus for their network, which would be:

> *The main theme which will unify all the schools and other partners and underpin the activity of the network. This theme will need to specify something that can 'add value' to the learning of all pupils in the network and be something that has the potential to raise levels of achievement.*

Evidence from NLCs suggests that people in effective networks were aware of the importance of connecting the network's purpose with school development plans and classroom practice. This was echoed by Lieberman & Grolnick (1996), who describe the tension between creating network activities that are attractive and rooted in the practices and problems of network participants, at the same time as keeping both network (and student) learning goals in mind.

Several teachers were specifically motivated to participate in network activities as a result of feeling an acute sense of responsibility for their pupils (Worrall & Noden, 2006). For example, one interviewee said: '*I feel very committed … I'm accountable to my pupils really … They're my first interest*' (Teacher N262). Sometimes this created a positive feedback loop where network activity produced benefits for children which in turn increased adults' motivation and contributed to developing further commitment and increasing participation:

> *What we're working on now is developing the pupil involvement more and more. Because as we've learnt more about learning and the children have learnt more about their own learning, it's having more and more feedback on the whole running of the school really and their experience of teaching and learning.*
>
> Co-leader N283

However, some networks found that selecting a broad focus such as 'teaching and learning' (to which all could easily commit) was actually counterproductive: while it allowed school leaders to begin to work together, it was not specific enough to create quick wins at classroom level. These quick wins were influential in determining future commitment to the network. In a network made up of 11 secondary schools, a co-leader commented that despite having a broad common purpose, practical necessity dictated that '*there's always going to be break-off smaller groups working on different things*' (Co-leader N196). The caution is that providing too many opportunities for innovation or addressing too many diverse purposes may restrict a network's progress:

> *We picked up together at the* [NLG annual conference] *particular networks where they were far more driven by one particular focus as a group. Ours is fairly broad and has changed, and therefore perhaps is why things haven't moved on as strongly as they could have done.*
>
> Co-leader N271

Some groups of activists adopted a consultative or collaborative approach to defining the overall purpose of the network, rather than establishing a purpose or focus themselves and then identifying potential partners. This was more often the case where relationships already existed that could be utilised and developed further. The experience of the NLCs revealed that active involvement in establishing the purpose and focus of the network was a useful strategy to increase individuals' ownership and investment in it. Taking time to establish commonalities and create wider buy-in seems to have been invaluable in securing voluntary commitment:

> *We spent a fair amount of time discussing our aims, objectives and what we'd like to achieve out of it, so we had a collective vision to actually start with. And again it was that elected partnership thing, that people would then elect to be a part of it.*
>
> Co-leader N247

Local ownership of the plans for change, coupled with a degree of autonomy and control over their implementation, were identified by Coburn (2003 p 4) as influential in effecting '*deep and consequential change in classroom practice*'. Through adopting an elective approach, the Networked Learning Communities programme attempted to short-cut the transition from '*an externally understood and supported theory to an internally understood and supported theory-based practice*' which Stokes *et al* (1997 p 21) have argued must occur for externally imposed improvement initiatives to become firmly embedded in practice. As Fullan (2006 p 3) notes, '*The need, then, is to seek new strategies which capture the hearts and minds of all participants: to seek, in other words, to galvanise the commitment and ingenuity of large swathes of the system*'. Suspicion between the schools and notably headteachers often seemed to result where only limited numbers of people were involved in defining the network's purpose. Subsequently, these networks often failed to realise their collaborative potential. Securing the ownership and active involvement of headteachers who were not network co-leaders was seen to be crucial, and evidence suggests that the sooner such ownership was achieved the better. It was much more difficult to build commitment retrospectively once focuses and activities had been decided. Limited early participation also sometimes served to restrict the wider ownership of the network, with damaging consequences: '*I think a lot of people felt a bit disgruntled to start with because you were asked to do something but you hadn't actually had any input on deciding what you were going to do'* (teacher researcher N271). Many networks held launch conferences and with hindsight, a headteacher in one network suggested:

> *It should have been set out at the beginning that we're going to start with some activity at the centre that's going to be about 'what's our vision for the network?'. What were we going to be trying to achieve, how we intend to bring schools on board … instead of just launching the network and hoping everybody would be at the same point at the same time. We should have realised that's impossible and put in place …* ***an engagement process instead of just a launch process****.*
>
> Headteacher N217

Hence, it is clearly important that the purpose of the network is both **locally relevant** and **agreed** – an issue to which all network members can fully commit, and around which they can unite. Having a shared perspective brought people in NLCs together and supported the development of a sense of network identity. Where a network did not place sufficient emphasis on developing a compelling and common purpose, its identity and the extent of active involvement among its member schools appear to have been compromised.

Nonetheless, the purpose of a network clearly does not need to be permanently set in stone. Networked learning communities were predominantly based on voluntarism and commitment and as such existed outside the formally established hierarchy of educational leadership. Coupled with their inherently fluid and flexible nature, this meant it was essential (and to some extent also relatively straightforward) for them to adapt their purpose and focus at different stages of network development. One co-leader alluded to the fact that in order to be sustainable in the long-term, and secure participants' ongoing commitment, networks needed to adapt to take into account changing contexts and needs:

> *… to be really effective,* [networks] *come together for quite short periods when they've got a particular drive or a particular shared vision. You can't necessarily sustain that in the long term in a shifting landscape. What they have in common when they're successful is that they share a common goal and* [everyone is] *very enthusiastic and they contribute. What they probably share in common when they're not going so well is that they drift off as people are consumed by their own agendas and their own constraints.*
>
> Co-leader N289

3.4 Maintaining ongoing commitment to the network – balancing costs and benefits

Watch any news broadcast or read any newspaper and it immediately becomes apparent that schools (and indeed all organisations working for the benefit of children and young people) operate in a highly pressurised environment, both locally and nationally. For some time now, the prevailing culture has been that of inspection, accountability and competition, rather than that of a shared responsibility for the universal improvement of education for all. In this climate, making a commitment to any specific initiative must be clearly justified and defensible:

> ***Unless there's some real tangible benefit that people can take away from the network meetings and from the product of the network, I don't see how you can keep the buy-in going*** *… I do believe, as I said, that the whole is greater than the sum of the parts.*
>
> Co-leader N289

If it is truly the case that the whole is greater than the sum of the parts, all of the schools in the network should be able to gain more from the network (benefit) than they contribute (cost). Their commitment to the network would therefore be financially viable and could be justified. Huxham & Vangen (2004) have termed this 'collaborative advantage', and argue that because of the challenges of collaboration, '*unless the potential for real collaborative advantage is clear, it is generally best, if there is a choice, to avoid collaboration*' (p 200). Interviewees were in accordance with this viewpoint, with one co-leader saying: '*Networking is hard work. If you're not determined, it just fizzles out … It requires effort to keep it moving. It's not something that happens by itself*' (Co-leader N296). However, meeting the moral purpose challenge means that benefits experienced by some schools in the network should not be to the detriment or at the expense of others. As Hargreaves & Fink (2003 p 694) have argued:

> *Sustainable improvement contributes to the growth and good of everyone, instead of fostering the fortunes of the few at the expense of the rest. It does not promote model schools, or magnet schools, that raid scarce resources from the rest.*

Interviewees in headteacher or senior leadership roles often described how their initial motivation to take part in a network stemmed from a pragmatic notion of what they – either individually or as a school – might stand to gain. One headteacher who assumed the role of network co-leader said: '*the reason I probably went into it in the first place was what I could get out of it for us* [as a school] *here*' (Headteacher N283). Yet several interviewees spoke of the importance of actively contributing to the network as well as expecting to receive from it: '*You get out what you put in. And if all these people aren't prepared to put anything in, they're not going to get anything out*' (Headteacher N263). What also emerges from much of the evidence is a conviction that all schools have both a contribution to make and an opportunity to learn from others, regardless of their situation or circumstances.

The cost of contributing to the network generally involved an investment in time, either releasing staff from their school responsibilities (with all the challenges that this brought), or participants' own time out of school hours. One headteacher suggested that potential network participants should '*clearly establish the time costs and if you're going to work within a network then you've got to realise that it needs time, commitment and energy*' (Headteacher N270). However, the mutual responsibility and reciprocal relationships developed in networks enabled participants to accept that sometimes, due to other prevailing circumstances, individuals and schools had a temporary need to gain support from the network, whilst their own ability to contribute was compromised. For example, one headteacher explained that: '… *we had* [an Ofsted inspection]*, and then after Ofsted,* [the school] *had staffing problems, so I kind of had a little lull for a bit*', but cautioned that it was important for networks to maintain their contact and association with schools in this situation: '*We* [need to] *make sure that when, for one reason or another people are in that quiet resting phase, that we do keep them involved … "in the know", and they don't become disassociated from us*' (Headteacher N270).

A wide range of different benefits of participation in networks have been articulated (Day & Hadfield, 2004; Kahne *et al*, 2001; Lieberman & McLaughlin, 1992; Lieberman & Wood, 2003). Interviewees described several key benefits provided by NLCs. A small number of networks chose to provide direct **incentives for participation** in the network. These included: devolving some of the network funds directly to participating schools; paying teacher researchers a management allowance; and providing laptops. Incentives served to increase buy-in and

conferred a degree of accountability in the early stages of network development, but at the same time invoked obvious problems in relation to longer term sustainability.

More commonly, networks provided **opportunities for adult learning and career progression** – an attractive proposition to potential participants. Previous research in the NLC programme (Hadfield *et al*, 2005) has suggested that activities related to adult learning were the most common focus of networks during their early stages:

> *You want to improve your own practice … if you think there's room for improvement, then you go and you want to find out what's going on in the wider world.*
>
> Teacher N192

The Networked Learning Communities programme also provided funds which could counter the challenge of providing effective professional development faced by schools at a time of significant pressure on budgets, and as a result of changes in funding arrangements. Financial support for professional development, previously ring-fenced as part of the Standards Fund, now forms part of the general school budget through the Education Standard Spending (ESS) arrangements[1], which has had important implications for continuing professional development (CPD): '*When the ESS is reduced or it has to cover a host of people's professional development, there are difficult decisions to be made'* (Bubb & Earley, 2006 p 7). Some interviewees described how being part of a larger network unit conferred increased buying power and status such that they '*had a lot of clout*' and as a result, '*people would want to come and talk to us, besides the fact that we can pay them*' (headteacher N296). However, when this authority was solely based on the additional funding, as opposed to increased status as a larger group or other economies or benefits of scale, it raised questions about long-term sustainability. Other networks focused on developing '*low cost, high impact CPD'* (Jopling & Cotgreave, 2006 p 12) based on the use of internal expertise.

Networks were also able to contribute to individuals' career development through distributed leadership. As well as being a guiding principle of the programme as a whole, distributing leadership in NLCs was a practical necessity – the job was simply too big to be successfully undertaken by a small number of people for any length of time. Opportunities were created for relatively inexperienced teachers to take on additional responsibility early in their careers:

> *I volunteered to be one of the theme leaders in the school … It was about my second or third year of teaching. It was really the first thing I had been responsible for in the school – really good for my professional development.*
>
> Teacher N307

Similarly, another benefit mentioned was **reducing isolation**. Jopling & Crandall (2006) have identified individual isolation as a common experience among school leaders, although this could also be extended to teachers and teaching assistants working with limited additional adult contact in individual classrooms. Organisationally, isolation was manifest within schools that were '*inward-facing'* and '*introspective*'. One headteacher of a school facing challenging circumstances acknowledged that they needed 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.*
>
> Headteacher N200

In a cross-phase network, one interviewee identified improved awareness of transition issues, saying: *'We get an earlier insight into the pupils that are coming to our school'* (teacher N248). Other networks provided opportunities for people undertaking similar roles in different schools to meet to develop the role together and support each other. Some networks had established shared posts (including ICT technicians and business managers), capacity that was not otherwise available to individual schools. Some NLCs were described as having broadened the vision and experience of the schools involved, thus extending and potentially transforming the context in which they operated. In particular, interviewees from small (mostly primary)

[1] The ESS (Education Standard Spending' is the level of spending that the Government considers appropriate for authorities collectively to spend on education in order to provide a standard level of service. See http://www.dfes.gov.uk/trends/index.cfm?fuseaction=home.showIndicator&cid=2&iid=5

schools emphasised the benefits they had gained from being exposed to a broader range of professional relationships:

> *Ours is a very small school … we've got a fairly happy staff who don't particularly want to move, they love being in my school, in our school. I think for me, the value* [of the network] *is that we can learn from other people.*
>
> Headteacher N270

In larger (generally secondary) schools, professionals' identities may relate more to their department than to the school as a whole, and there might already be sufficient opportunities for collaborative work. One teacher explained that: '*we are a large school, with a large staff, considered to be a successful school, so we have been a lead school* [in the network]*'* (teacher N248). However, where the relationship between one school and others in the network was a one-way, provider–recipient relationship, it is hard to understand what would sustain the schools' involvement in the longer term. Nevertheless, there were examples of even large schools being liberated as a result of their participation in a network.

NLCs also provided **safety in numbers** and **permission to do things differently**, encouraging a culture of risk-taking and experimentation. They were not generally subject to the same restrictions as individual schools. There is safety, as well as additional capacity, in numbers. Participants were '*able to try things out*' with the security of '*not being frightened if it doesn't work*' (headteacher N312).

Finally, by working collaboratively, networks were often able to **build on and share best practice** and **reduce duplicated effort**. There were several examples of collaboration to produce joint teaching and learning, behaviour and special needs policies, lesson plans, and to develop resources that all could benefit from. It was recognised that there was no need for each school continually to reinvent the wheel. In the early days of one network, one of the co-leaders explained:

> *It just amazes me now when I go into individual schools and they'll be struggling away with something like writing an assessment policy … Why haven't they phoned five schools around the city to say 'What's yours like?'*
>
> Co-leader N196

4 People, roles and network structures

The NLC programme involved more than 1,500 schools, almost 43,000 teachers, more than 10,000 teaching assistants, and more than 690,000 children (Crowe *et al*, 2006). A wide range of people participated at different levels, including: headteachers and senior school leaders; local authority and higher education institution (HEI) partners; teachers; teaching assistants; parents; governors; and students. In some networks, there were high levels of participation and engagement, while in others, active participation seemed to be limited to a core group of school people representing their schools.

At this point it is worth highlighting the particular role played by headteachers in the development of NLCs. Even when they were not co-leaders, headteachers were important participants in the networks (Jopling & Crandall, 2006). They often took responsibility for motivating people in their schools to become involved and were frequently seen as gatekeepers who made key decisions about the level and nature of their school's (and individuals') participation. Their permission and commitment was essential: '*without the headteacher saying, "Yeah, we can go ahead with this", you know, as a school we probably wouldn't have taken part in it*' (teacher N312).

Conversely, uncommitted headteachers sometimes acted as barriers to network participation in their schools. In more effective networks, headteachers identified and encouraged others in their schools to assume leadership roles in both the school and the network. They shared and distributed leadership and promoted continuing participation: '*It's very reliant on the headteacher to keep the momentum going*' (co-leader N296). They encouraged others to take responsibility and lead the learning both within the school and across the network: '*The headteacher is brilliant at getting people to work together and empowering them to do things outside the school*' (teacher N225). Headteachers were often responsible for connecting the school with the network and for ensuring that the network's focus was '*being resourced and being evaluated and being incorporated into the school's structure*' (headteacher N193).

Many networks had a headteachers' group that met on a regular basis to discuss ideas, activities, issues and strategies. In many cases, the headteachers' group represented a network within the network. The headteachers' group tended to start as a steering committee but members increasingly engaged in collegial sharing and learning as they developed as a team. Networks found moving from traditional business meetings to collaborative learning difficult, but those that succeeded (some did not) did so by thrashing out issues to make collective decisions about the direction and activities of the Networked Learning Community. Over time, the effective groups became more supportive and open: '*I really don't think there is anything any of our heads would be afraid of saying in front of those other heads*' (co-leader N296).

4.1 What do the people in networks do?

If collaborating within a school is challenging, collaborating across schools introduces another level of complexity. This section elaborates on what people in networks do to organise, orchestrate and support cross-school learning. A talented group of people is required to undertake the tasks of leading and co-ordinating network activities and collaboration across the schools, including:

Articulating the network's vision and values: *'I think my leadership role is to hold and capture a broad picture of possibilities and present them'* (co-leader N248).

Organising meetings and facilitating conversations: Bringing individuals together across schools to get to know one another and to find a common focus is a vital initial activity. Often it takes a number of meetings to allow people to arrive at a compelling idea. Organising and facilitating conversations are ongoing tasks.

Brokering and connecting people, ideas and practices in and across networks: '*It's just about making connections, it's just talking to people, having relationships and finding out what they need*' (co-leader N270).

Communicating across schools in the network: NLCs used several strategies including newsletters, email, key contact people in each school and websites.

Supporting and motivating individuals and groups to participate and to persist in the face of challenges.

Problem-solving, addressing tensions and mediating conflicts as differences arise and personalities and priorities clash; negotiating around intellectual, ideological and practical differences between people and schools.

Encouraging enquiry and collaboration in the construction of new knowledge as well as surfacing practical knowledge and translating theory and research to inform practice.

Building capacity in individuals and groups to learn from, with and on behalf of one another.

Co-ordinating joint in-service training (INSET) days, events and training sessions as well as **cross-school visits.**

Monitoring, measuring and evaluating the impact of network activities and learning at all levels.

The roles necessary to create and sustain a network operate as an interrelated set of responsibilities, which are assumed by a group of people. When this is effectively orchestrated, it is like a kaleidoscope where individuals work in concert with one another rather than any tasks being the sole responsibility of any one individual. Conversely, where individuals take sole responsibility for specific tasks, changing the leadership or membership of the network can hinder its progress.

However, networks are dynamic and membership of NLCs changed over time. People talked about the difficulty of losing key people and worried about the sustainability of the network if that person were to leave:

> *The concern is, obviously, I'm driving a lot of this, and what would happen if I go. The other co-leader's already been appointed to another job. Thankfully, it's in the same LEA and she's going to be working with us at the LEA full time.*
>
> Co-leader N196

The key roles in NLCs included the following.

Network co-leaders

Co-leaders played a central role in NLCs and, particularly in their early stages, were often relied upon to articulate the values that anchored network activities: '*I ended up being the person who set the values and expectations, and I think it only works like that, I think people have to have confidence in you having a very clear vision that you persistently go back to'* (co-leader N247). They were advocates for the network, its development and its continuing existence. Many network members spoke about the importance of having somebody '*at the front with the energy and the capacity*' to build and maintain the network's momentum:

> *You need a couple of people who are really going to drive it on, I mean myself and the other co-leader, we've been real champions of it. You need someone who really believes it and wants to make it work ... As it gets bigger and grows, you need somebody to be holding it all together ... I think really you need that common vision, common purpose of what it's all about.*
>
> Co-leader N236

Others recognised that co-leadership multiplied the network's capacity to energise and engage its members as well as providing different perspectives, skill sets and characteristics and allowing the division of responsibilities:

> *I think for me the biggest benefit has been having a co-leader, somebody who understands the network, to brainstorm ideas with, that you can work really well together, and just think what could we aim for, how could we get there. So you need two enthusiasts I think to drive it.*
>
> Co-leader N196

While co-leaders assumed a very visible role in the early stages of establishing the network, over time the complexity of networked learning means that leadership is increasingly distributed and enacted through influence and persuasion. One co-leader described the role thus:

> [It's] *an endless time-consuming role that you're never ever satisfied in doing … It's stirring people, it's promoting ideas, it's getting people together, and it's challenging and smiling happily when things go in the right direction.*
>
> Co-leader N302

The terms used to describe people in leading roles in networks included '*passionate*', '*energetic*', '*flexible*', '*dedicated*' and '*creative*'. Interviewees talked about co-leaders having good interpersonal skills: '*they have to be good at motivating other people and getting the best out of other people*' (co-leader N296). Being able to establish a rapport with a wide range of individuals and groups was fundamental, as networks dismantled existing power relations and hierarchies, which *'has to be achieved entirely through persuasion and negotiation*' (Huxham, 1996 p 246).

Network managers and administrators

A number of networks created a dedicated network manager or administrator position to support the network leadership. This role attracted a variety of titles, for example, network co-ordinator, business manager, network manager and network knowledge manager. Network managers and administrators ensured that all arrangements were made, minutes were taken, meetings were scheduled, visits were booked, supply cover was organised, phone calls were made, communication was ongoing and network money was managed. In doing so, they relieved network co-leaders of some of the administrative responsibility:

> *The business manager role has been crucial. I think everyone should have a business manager. He gets things done between meetings, and organises things for us. He's a good support for teachers and leaders. He submits the forms to NCSL and reports to the steering group.*
>
> Co-leader N194

Network managers also had a critical role to play in promoting knowledge and practice transfer between schools and adults (McGregor *et al*, 2006).The creation of this role helped to prevent the costs of network involvement for co-leaders with other school responsibilities becoming unacceptably high. As one headteacher said:

> *You have to have someone who is independent of all the schools to do the groundwork … Networking sucks talent out of the 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.*
>
> Headteacher N200

Critical friends and HEI partners

NLCs were expected to identify in their submission document a critical friend outside the network as a source of external support and challenge. Many networks worked with an HEI partner, while others identified a key person such as an independent consultant or local authority representative. One critical friend explained that:

> *As critical friend, I was constantly looking at* [the network]*, shaping it, asking questions, making them think hard – really hard – whether they really had got the essence of what it was that they are trying to do … My understanding of critical friend is somebody who's impartial and with some experience of whatever it is that you're offering … a sounding board for the people who are actually working on whatever it is they're working on, being able to give impartial and quite clear advice when asked.*
>
> Education consultant N263

Critical friends and HEI partners served as mentors, researchers, evaluators, advisers and mediators, particularly in relation to networks' enquiry activity. One headteacher described the network's university partner's centrally co-ordinating role as '*very influential … very important*' (headteacher N193). The analogy of a bicycle wheel was used to describe the relationship: '*the spokes were very strong, but the links around the rim less so*.' In another network, the HEI partner was pivotal to resolving tensions and helping the network to get established, mediating differences and effectively restarting the network when it stalled.

However, in practice, experiences were mixed and external partners needed to be selected with care, ensuring that they were sympathetic and committed to their work and purpose. Some networks found securing effective HEI involvement to be a challenge (Plummer & McLaughlin, 2006). In particular, it often proved difficult to establish a balanced, reciprocal relationship, for example when a university took a lead within the network and began teaching formal research skills and methods, there were examples of their *'failing to take account of classroom teachers' present needs and contexts'* (Campbell, 2005 p 76).

External facilitators

The Networked Learning Group created a number of external network facilitators, geographically dispersed throughout the country, whose role (similar to critical friends and HEI partners) was to stimulate networks' development and ongoing activity, as well as making connections beyond the network and identifying and developing useful tools and materials. Facilitators played a key role in helping networks to establish a clearly defined focus and supporting the development of systems within the network to encourage participation and collaboration.

Facilitators supported networked learning by: helping to organise professional development and learning at all levels; and optimising opportunities for learning from, with and on behalf of one another at the school, network and system levels. They steered networks by asking challenging questions about their aims, by keeping them moving in a particular direction, and offering constructive advice and encouragement. One facilitator explained:

> *It's getting closer and understanding, building credibility, offering advice to make their work better, to add value to their work. It is not about getting them to do certain things for us. Just about saying: "I believe in your work, I believe passionately in your style of engagement; I want to help you become more successful in both the way I believe is effective and the way you believe is effective. How do we get there?*
>
> Facilitator N217

Finally, facilitators helped network participants to interact with knowledge from theory and practice as well as to create and communicate new knowledge derived from their collaborative work. They contributed to many of the tasks identified earlier including: helping to create '*spaces for conversations*'; encouraging the creation of artefacts'; offering ideas and asking challenging questions in meetings and in online dialogue; support the development of communication strategies; and brokering knowledge exchange in and across NLCs. External facilitators also modelled a way of working for co-leaders and others adopting facilitative roles within NLCs.

Lead learners and teacher researchers

As has already been observed, distributing leadership was common practice within NLCs. These distributed leadership roles attracted titles such as teacher research co-ordinator, innovation co-ordinator and student voice co-ordinator, action learner, lead learner and learning mentor. Their work involved: attending meetings; sharing good practice; passing ideas on to one another that they could share within their own schools; talking about training needs and reporting back on courses; passing out handouts; and emailing and telephoning each other.

In one network, teacher research co-ordinators (TRCs) were appointed to co-ordinate and support research in their schools and network with each other and their HEI partner. They were expected to be released from their regular teaching timetable for the equivalent of one day per week to support teacher researchers and meet with TRCs in other schools. Student voice co-ordinators were also appointed to co-ordinate and support research in their schools around specific issues relating to student voice.

Another network established a system of collaborative school inquiry groups (SIGs) to develop action inquiry. Each school decided its own area for investigation and appointed a SIG co-ordinator to link their research activity with classroom practice:

> *People are the key because to a certain extent the network and the school-based inquiries are all extra additions to the day-to-day work of teaching. So people need to be self-motivated. My SIG meets after school and they are actually quite enthusiastic.*
>
> Crowe & Worrall, 2005 p 12

This demonstrates that people will use their own time to engage in collaborative activity if the value of it is clear to them.

4.2 How are people arranged in NLCs?

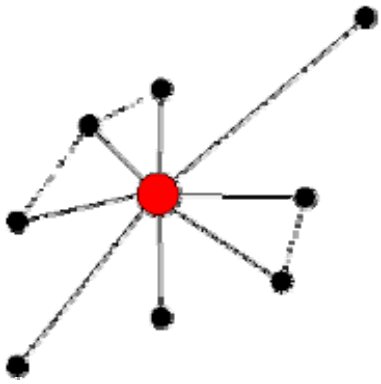
In order for the various tasks, roles and individuals within the network to be co-ordinated and managed, some overarching network structures need to be established. Watts (2003) suggests that '*although the structure of the relationship between a network's components is interesting, it is* ***important*** *principally because it affects either their individual behaviour or the behaviour of the system as a whole*' (Watts, 2003 p 28). Structures provide a mechanism for both organising and defining network roles and collaborative activities. It is important, therefore, briefly to examine some of the ways in which people arranged themselves within NLCs, and the implications of different types of structure.

Previous research undertaken within the NLC programme (Hadfield et al, 2005) proposed a broad typology of network structures, incorporating four holistic structural models (as well as four process or role-orientated configurations):

- wheel and hub
- network of sub-networks
- integrated themes
- concentric circles

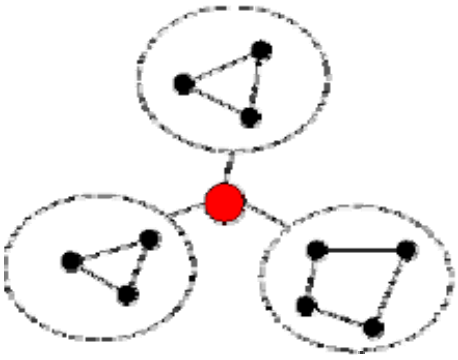
These different models provide a way of beginning to explore the nodes and connections that together make up the network. They are a means of moving from discussion of individuals and their individual roles to consideration of individuals' place within the wider network arrangement and the relationships between different people and network groups (nb the diagrams that follow are simplified illustrations, rather than representations of the specific examples described in the accompanying text.)

Wheel and hub



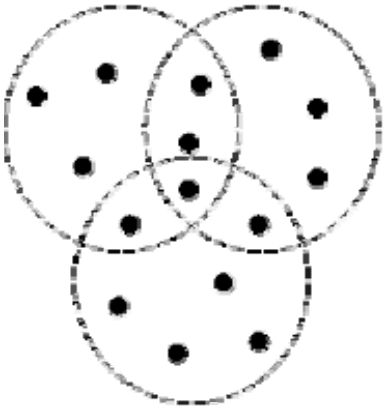
NLC N188 provides an example of a wheel and hub arrangement. Formally, the network has three co-leaders, but one (an assistant headteacher) has dedicated release time for network activities and (with administrative support) takes the central role. The network is heavily dependent on this individual. Whilst limited collaboration does occur **between** some of the schools, network relationships are predominantly **mediated** through the central co-leader and centrally delivered network activities. The network was often described as a distinct and separate entity providing a service to the schools, rather than incorporating them as active members. Participation in and ownership of the network varies considerably across the schools (unpublished NLC case study).

Network of sub-networks



NLC N283 is an example of a network consisting of several sub-networks or triads of schools. People were able to develop strong collaborative bonds with the other two schools in their triad, and found it easier to establish a clear focus for the sub-network. An arrangement of this type may be a good starting point, but this network's later movement to incorporate working across the triads suggests that it is potentially less effective or more challenging to maintain in the long term.

Integrated themes

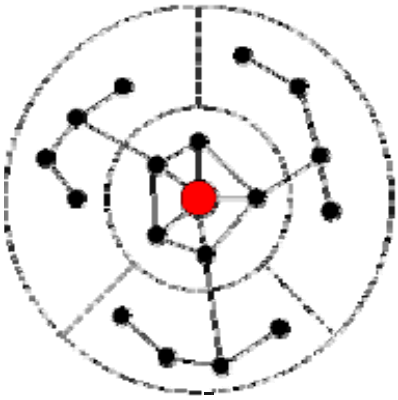


The structure of NLC N255 comprised five overlapping strands of activity in which some members of all of the schools were involved:

- teacher enquiry
- pupil enquiry
- adult co-coaching
- pupil co-coaching
- philosophy for children

The appointment of a lead learner for each strand in each school meant that initially the number of people directly involved in the network was limited. Attention was paid to sharing learning and ownership of the network within the schools and increasing participation over time (Stott & Woods, 2006).

Concentric circles



NLC N307 operates on a concentric circles model. Each school in the network has an appointed network co-leader, and the group of co-leaders meets regularly (the inner circle). The headteachers in the network have similar meetings (another inner circle).

In the outer circle, in the first year of the network, six key themes were identified, with a theme champion for each one in each school. Each theme group met regularly, although geographical distance meant this was challenging. Some individual theme champions also felt isolated when trying to implement change within their own school. There was little co-ordination between the different themes. A change in structure means that now each school leads the development of a theme. More people in the school are involved, and it is integrated with school activities. However, the potential of the network is limited by the limited opportunities for collaboration across the network, and sharing the learning from each theme remains a challenge.

The transition from networking to networked learning has been described as being characterised by the '*formalisation and structuring of often existing networking activity*' (Hadfield *et al*, 2005 p 28). As this change occurred, '*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*' (ibid p 29). Having

said this, effective network infrastructures existed independently of traditional school structures and hierarchies. As one co-leader explained:

> *Our understanding of networking, networking principles, and what we as a group of people are doing is so clearly shared between us all that we are more able to sort of interact with each other in a very equal way. That's not just the headteachers, that's all members of the network, whoever they may be.*
>
> Co-leader N283

These models depict at the network level the infrastructural arrangements required within networks to enable network activity and the development of network relationships. Section 5 goes on to explore collaborative network activity and the development of these network relationships, and the form and types of connection between individuals and groups of individuals that are the essential building blocks of any network.

5 Developing collaborative networked learning activity

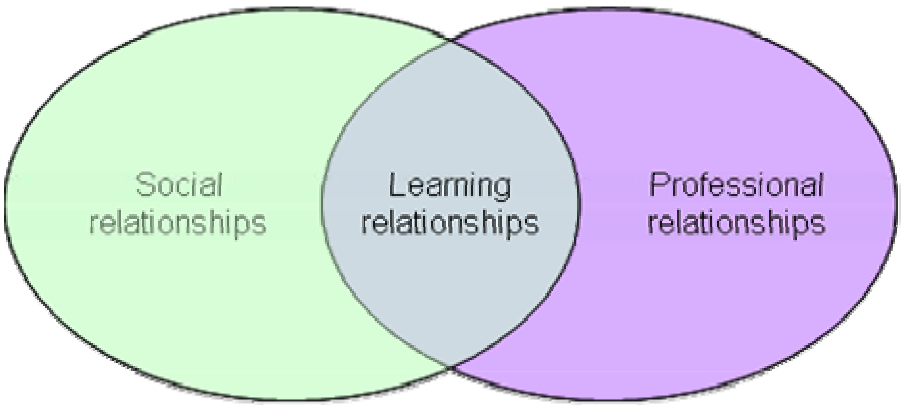
The definition of a network proposed by Church *et al* (2002) includes the prerequisite that participants engage in some form of '*mutual or joint activities*' (Church et al, 2002 p 12). From discussions within the Networked Learning Group and the programme's annual reviews, it appears that the vast majority of NLCs have achieved this. However, as an initiative, the Networked Learning Communities programme is distinct amongst Government-funded initiatives in both its emphasis on **learning** and participants' freedom to specify the nature or focus of the activities undertaken to support that learning.

Whatever the specific purpose of the networks established, they generally reflected the NLC programme's intention to create effective learning relationships between individuals and groups. Most network leaders and activists were aware of the components of effective learning relationships, but their difficulty was in strategically developing and linking such relationships across groups of schools. They faced a number of difficulties, from a lack of understanding of the situations in each other's schools through to the complexity and novelty of designing learning activities that would work across what were often very different contexts.

5.1 The strategic aim of developing learning relationships

The strategic aim of developing learning relationships between staff in different schools can be summed up as managing two parallel transitions. These are the transitions between professional and social contact and effective collaborative learning across the network. This is summarised in Figure 3, which illustrates how effective learning relationships require the interplay of both social and professional relationships within the network. This meant in some instances having to build the most basic of social contacts between participants – simply knowing teachers in the school down the road – to unpicking established professional relationships that were not specifically concerned with learning.

Figure 3: Developing learning relationships



5.2 The foundations of learning relationships

Evidence from the NLC programme suggests that networks in their early stages may have to focus on identifying collective needs and building network relationships (both professional and social) before being able to address the real learning focus of the network. What network leaders had to do was to lay foundations and balance social and professional interactions so that they would lead to collaborative learning:

> *You have that first year where it's a lot of discussion, finding out what the whole network community is about, then you've got to make your links, and of course that takes a while as well, and now I think we've seen products and we've seen what people have done.*
>
> Co-leader N296

Those responsible for the strategic development of lateral learning relationships can draw on previous research on networks that describe effective collaborative relationships. This research essentially emphasises the need to bring people together so that they develop social and professional connections on which

collaborative learning can be founded. For example, in Lieberman & Grolnick (1996), the characteristics of effective networks, which were evidenced within NLCs and elsewhere, included:

- An emphasis on informal personal connections in network activities, even at the expense of efficiency or uniformity:

  You need to see people … there is nothing like being face to face and sitting with somebody. You get much more, there's a livelier debate I think, and I think better interaction, because things are off the cuff.

  Teacher N296

  When asked, almost everyone prefers to network and work together through face-to-face meetings. Email is functional and practical, but face-to-face is what people want. Face-to-face makes greater trust possible.

  Church *et al,* 2002 p 26

- Building trusting relationships through enquiry and work initiated or chosen by members because of their own needs and carried out together over time.

  Trust also has to be revitalised and reinvented constantly: '*I don't know if I can say we have developed trust. Trust is an ongoing thing*' (teacher N200). Vangen & Huxham (2003 p 12) refer to this as the '*cyclical trust-building loop*', which is made up of three components: aiming for realistic outcomes; reinforcing trusting attitudes; and gaining underpinnings for more ambitious collaboration. They also emphasis the importance of nurturing trust, something that has been echoed in the words of one co-leader:

  I think that genuine respect, that professional respect, that is bordering really on the caring, and nurturing is a word that I use quite a lot. I think that has been critical to our success … People believe you're in it for the right reasons … You have to be able to demonstrate how much you do value people, and again that comes back to relationships. And I think I've learned that until the relationships are right, we're not going to be able to do the business.

  Co-leader N258

  In a network, trust, fostered through shared vision, values and activities, is the control.

  Church *et al,* 2002 p 24

- Establishing norms of reflective practice and shared decision-making that provide internal avenues by which to share information:

  Does trust need to come before challenge, do you need to have trust before you can challenge people? Sometimes you build trust by knowing it's safe to be challenged, you've got to know how the person works. So this guy later said to me: "Now we know how you work, we trust you more. We are more willing to let you in and we're willing to let you take a bigger role to challenge us more".

  Facilitator N217

  In the early stages of network development, network relationships may be too fragile to withstand such confrontation:

  … when you're building that up in the first instance, and you're trying to get other people on board, challenge is a bit more difficult.

  Co-leader N283

  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. It's part of the distributed leadership. There's been a change in the dialogue that's going on in the school and that's beginning to have an impact.

  Headteacher N257

  We've done a lot of talking about basic relationship building, so these ideas of openness, trust – reciprocity is a word that we've used, and laughed about it because it's quite an interesting word. But how I characterise it is around intimacy in a sense. Intricacy and intimacy, because some of these relationships are very intricate in that they're

very complex but it requires understanding that complexity and also getting into the level of being quite intimate in terms of "What does this feel like for you?" You know, "How is that looking from your perspective?"

Co-leader N258

I think it's this moral purpose thing. I think it's the thing that brought you together in the first place … I guess it's the commonality of experiences that we've had and the journey we've been on together that holds us together.

Co-leader N296

Fullan (2001) sees relationship-building as one of the five critical components in his framework for leading in a culture of change. Good relationships matter because they hold networks together, building the critical mass of multi-level participation without which their impact will be limited to a few enthusiasts. As relationships develop, people begin to share and learn with and from one another. Trust and common purpose encourage them to take the next step towards mutuality, working and learning on behalf of one another. Interdependence evolves as they begin to rely on one another. Good relationships also form a foundation from which responsibility can be shared and progress can be evaluated. There is considerable evidence of network members feeling that trust and mutual respect were built as they progressed. There is also evidence that less successful networks invested less time and fewer resources in building relationships at all levels.

5.3 Barriers to collaborative learning

Managing relationships so that they become orientated towards learning is highly dependent on the purpose, context and history of a network. In the research undertaken by the NLG research team, the following were common barriers that need to be planned for:

- Activists within networks were in qualitatively different relationships from those of the rest of their colleagues in the network. Although they wished to develop similar relationships amongst their colleagues, they were unclear on how to progress this for multiple groups in the network.

- They were often unaware of these groups' contexts or starting points with regard to such factors as their existing level of trust:

  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 … to get to know one another socially, because we found that worked.

  Headteacher N242

- They were sometimes uncertain about where they wished to end up in relation to collaborative learning activities. Network activists were faced with the issue of the extent to which they wanted to involve others in different sorts of relationships – the depth versus breadth argument. Coburn (2003 p 3) has identified the '*complex challenges of reaching out broadly while simultaneously cultivating the depth of change necessary to support and sustain consequential change*'. Were they simply trying to recruit other activists into the network and engage them in quite deep learning or should they aim for a lighter but broader touch, drawing more staff into less profound learning relationships that might not be truly collaborative? As one of the NCSL network facilitation team noted in connection with a very large network:

  The big danger … is that they could have a relatively small number of highly committed and enthusiastic learners sharing their learning with each other across the network without drilling down and spreading widely within their individual schools … It's easier to work in an innovative way with people who are as excited by it and enthusiastic about it as you are and you may be able to find two or three like that in every school.

  Facilitator N242

5.4 Compelling activities

One way of building the foundations and addressing the key barriers to learning was to establish what Lieberman & Grolnick (1996) have termed 'compelling activities'. These are activities that support the central

purpose of the network, allow for participants to share their own experience, and extend intermittent transformative experiences into actual daily work:

> *We evaluate what we are doing … how is it turning into practice in the classroom? The ultimate test of any school initiative is what is actually going on in the classroom and you need to have a mechanism for observing that and that's a difficult thing to observe and quantify.*
>
> Headteacher N196

These compelling activities increased motivation for the network, and enabled collaborative learning relationships to develop. Regular, planned, programme-wide reviews and enquiries identified four particularly successful compelling activities within the NLC programme:

- **Networked research lesson study**
  a process which helps groups of teachers from schools in a network to develop lessons and innovate new practices in order to solve classroom problems and raise standards of teaching, learning and achievement (NCSL, 2005a p 4).

- **Learning conversations**
  Modelled, and used to shape the NLC programme annual conferences: *A learning conversation is a planned and systematic approach to professional dialogue that supports teachers to reflect on their practice. As a result, the teacher gains new knowledge and uses it to improve his or her teaching* (GTCE, 2004 p 2).

- **Networked learning study visits**
  In learning networks, study-visits are a particularly effective form of enquiry because they meet networks' needs while simultaneously modelling the values of collaboration. Each [networked learning study visit] *is a living example of the values that underpin the creation of learning networks* (NCSL, 2006b p 3).

- **Networked collaborative enquiry**
  Collaborative enquiry is a particular example of school-based research. It involves individual practitioners in a school or group of schools choosing to come together to investigate and learn more about an aspect of their practice in order to enhance the learning of the children they teach, or to influence the development of their school or network as an educational community (NCSL, 2005a p 2).

Further information on these and other specific tools and processes of use to networks can be found at http://networkedlearning.ncsl.org.uk.

Having a well-developed and coherent plan for network activities also avoided the potential pitfalls of trying to do everything at once. There were several examples of individuals' commitment to the network being damaged when they tried to do too many things simultaneously and unsystematically: '*I just think because people had different ideas and different focuses that didn't really work together … we were thrown together rather than we chose each other*' (teacher N247). A co-leader cautioned that:

> *The network has potential to do all sorts of different things for schools. If you're not careful, you can sort of go off at all these different tangents and see the network as a vehicle for all sorts of different aspects of school support and collaboration and everything, and you lose sight of what the thing was you came to achieve.*
>
> Co-leader N296

5.5 Who should be involved in network activity?

Building on the earlier section considering the people involved in networks and their roles, interviewees referred in several different ways to the importance of **having the right people actively involved** in network activities. This was particularly important in cases where only limited numbers of participants were involved in a network sub-group or pilot activity.

In some cases it was crucial to the operation of a network sub-group that participants had '*sufficient clout*' in terms of their status, skills or roles and responsibilities. For example, the teaching and learning strategy managers group established in one NLC (N226) was recognised as requiring the participation of '*the senior*

person in [each] *school, apart from the head, who was leading on teaching and learning*'. This was important both in terms of participants being knowledgeable and able to report on current teaching and learning issues and strategies in their school, but also that they were able to implement ideas or strategies resulting from the operation of the group. Another example was the choice of individuals to undergo training who would then be able to cascade the training they had received to others, and act as advocates for change in this area. Early participants had to be able to maximise the potential of the training they received in order to demonstrate actively the benefits, but they also had to be in positions that enabled them to encourage others to become involved.

Equality of opportunity and participation, and any resulting power or leadership issues were patently an important consideration for those establishing collaborative learning. There were identifiable risks associated with relying on a small number of active participants in the network, primarily: staff turnover resulting in network connections being severed; and individual over-commitment or burn-out. One NCSL network facilitator posed the question: '*If they, as the driving force, the champions of the network, were to suddenly disappear, what would happen?*' (facilitator N263). Similarly, there were recognisable benefits to having more than one person from a network school represented. This enabled participants to discuss and develop the work collaboratively between meetings of the whole group, and also reportedly made it easier for them to implement developments within their own school. One co-leader suggested that where there was only one representative from each school involved in a particular group, '*sometimes it was quite difficult to spread that practice because they felt they were just a teacher and it was difficult for them to go much further afield perhaps than their own department*' (co-leader N307).

Another co-leader felt that some headteachers had identified individuals to take part in network action research in order '*to improve a teacher who perhaps wasn't as effective as they might be*' (co-leader N289) but that this was ultimately to the detriment of the research completed which '*would be perhaps less powerful*'. In this case, the needs of the individual clearly took precedence over the potential benefits of the activity for the network as a whole. Similarly, a Year 1 teacher summarised a potential criticism of networks involving limited participation:

> *People who haven't been involved in the action for learning group and haven't gone to any of the functions … probably haven't benefited or can't see the benefits of being in it. I don't think it's really filtering down through the school*.
>
> Teacher N271

Two complementary approaches to addressing this issue were described. The first involved putting systems and structures in place through which those who were involved in a network sub-group or project could share their learning and any resulting outcomes. This was often supported by other methods of disseminating and sharing learning which involved making use of communication systems and structures that were already in place within network schools, such as staff meetings and newsletters. This relied on the involvement and support of headteachers and other senior school leaders to adapt school systems and structures to promoting network purposes. The second, as described in section 4 (and also in McGregor et al, 2006) required networks to adopt a strategic, coherent and comprehensive approach to network activity, ensuring that all staff participated to some degree, and that sufficient opportunities were provided during whole-network events to enable learning that emerged from smaller network sub-groups, activities and projects to be shared more widely.

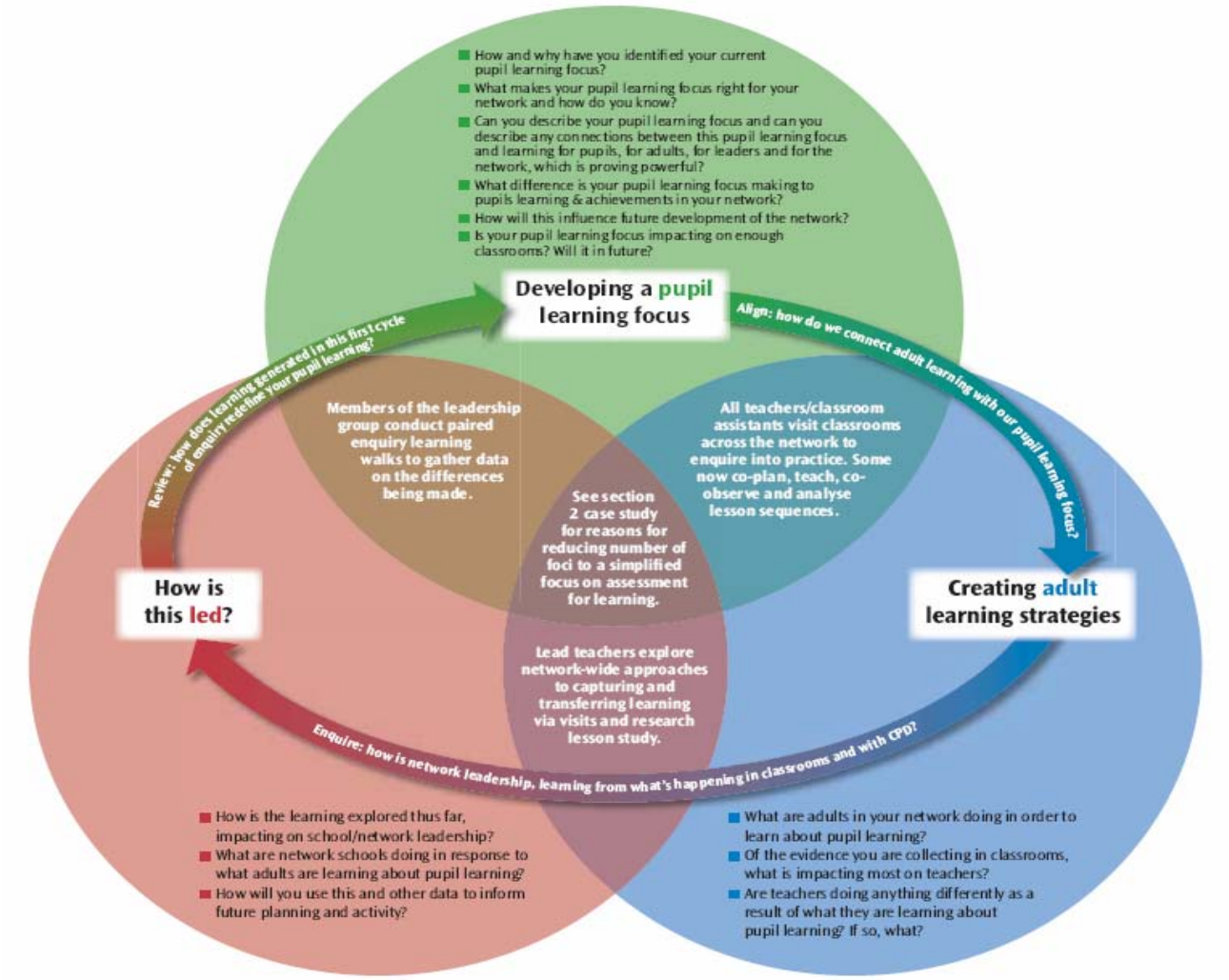
6 Conclusion

This paper set out to answer the linked questions: ***How do school-to-school networks work?*** and: ***What issues do network leaders need to pay attention to in order to establish and sustain an effective school-to-school network?*** While it has not attempted to provide a definitive answer to either of these questions, it has argued that it requires three interlinked aspects to be strategically led and managed. These aspects are: establishing **network purposes** so as to mobilise and increase **motivation**; managing the **people** in networks so that their **roles** and **network structures** effectively mesh; and building network relationships in order to translate collaborative network activity into **lateral and expansive learning** that makes an impact in classrooms.

The diversity of practices and experiences in the Networked Learning Communities programme has demonstrated that there may be no specific best way in which school-to-school networks can be made to work, and by which each of the three key areas can be effectively addressed. Therefore, the overriding conclusion is that network co-leaders and participants need thoughtfully, and where possible collaboratively, to develop the strategies and solutions that are most appropriate to their circumstances and contexts. These strategies and solutions should also be a point of reflection, evaluation, and redevelopment over time, as networks' contexts change.

In the Networked Learning Communities programme, it was recognised early on that many co-leaders struggled with developing a strategic approach to network activity. In the early stages of their development, the main issue was establishing a pupil learning focus that was sufficiently engaging and relevant to draw in all the schools in a network. This was addressed in *What are we learning about…? Sharpening your network's pupil learning focus* (NCSL, 2003). A key diagram from this publication, reproduced in Figure 4, highlights the cyclical nature of network development and its reliance on ongoing cycles of review and reflection. For many networks, a co-ordinated and strategic plan of network activity only developed after considerable reconfiguration and realignment. As one headteacher stated: '*it's something we've always done: reviewed where we are, evaluated what we've been doing*', while another said: '*it's only with time that we've been able to find a common purpose that fits the needs of all our schools*' (Stott & Woods, 2006 p 10). Such review and evaluation were common factors amongst networks deemed successful and effective.

Figure 4: Developing a strategic approach to network activity



The significance of Figure 4 is that, as with all things networked, it emphasises the interconnected nature of the activities and decisions made in networks. Those charged with the significant challenge of making school-to-school networks work could do worse than return to this diagram, and the key themes described within this paper, as they try to manage simultaneously the development of shared purpose, network structures and roles, and collaborative learning that transforms the expectations and achievements of pupils.

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