National College for School Leadership

# Middle Leaders and the Nature of Distributed Leadership in Networks

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**Abstract**

This paper looks at the growth of 'middle leaders' within networks of schools. It describes how the demands of leading a network have created the need to grow leadership capacity and led to the adoption of a variety of models of distributed leadership. This has drawn in both practitioners who previously had little leadership experience and those who would not normally be considered as leaders. These 'middle leaders' are involved in leading enquiry, as well as curriculum and professional development initiatives within networks. The paper argues that this growth in network leadership capacity is best understood as an adaptive response to the inherent challenges of sustaining networks. If this is the case, then could Fullan's concept of 'system thinkers in action' be a better theoretical framework for explaining the changes that are being observed in the nature of middle leadership in networks? The paper draws on two large-scale pieces of research within one national network initiative in the UK, carried out some twelve months apart, to discuss the work of these middle leaders in sustaining networks.

## Introduction

The basic argument in this paper is that the growth in new 'middle' leadership roles and opportunities which has been widely observed within school networks is best understood as an adaptive response by the strategic leadership of networks to the demands of placed on them. Such sudden growths in the number of leadership roles within school networks has been a widely reported phenomenon in the National College for School Leadership's Networked Learning Communities (NLC) programme, and it is these networks which will be the main focus of this paper. This phenomenon, though, is not restricted to that particular network initiative and has been reported in others, both within the U.K. (Shaw et al 2003, Noaks et al 2004) and internationally (Lieberman and Grolnick 1996, Wohlstetter et al 2003, Kaser and Halbert 2005).

Previously, three general explanations for this phenomenon have been offered. First, that it results from pragmatic acts of delegation by school leaders who see networking as peripheral to the focus of the schools' work. They give responsibility for it to less experienced staff rather than taking up the time of more senior staff, thus treating it as a leadership development opportunity. Second, it results because of the interventions of an external partner, such as a University, who have a particular approach to networking and change management which requires the creation of new leadership capacity. In the UK school improvement networks based on the IQEA model ((Hopkins 2001) would fall into this category, as would the BASRC in the US (Richert et al 2001). Finally, and more recently, the phenomenon has been described as evidence that network leaders are adopting more distributed forms of leadership, and that the growth of middle leadership

roles is an expression of their commitment to such a leadership style (Anderson et al 2004).

While the growth of middle leaders in many of the networks across the NLC programme can be accounted for by one or other of these explanations I want to explore an alternative. First, because empirically we are seeing the roles of these middle leaders changing from their original conception of being leaders of specific innovations within networks to increasingly being more about developing the networks themselves. This is a shift which is hard to explain on the scale we are observing using any of the three previous explanations. Second, because these middle leaders are increasingly becoming responsible for the sustainability of the networks within which they operate, irrespective of the reasons for their coming into existence in the first place. We need a robust framework to analyse their work, one which puts sustainability at its core. The framework I want to use is Fullan's (2004) concept of 'system thinkers in action' and the nature of 'adaptive leadership'. It is a framework which addresses the relationship between system and individual change at multiple levels, which makes it a suitable starting point for examining the work of middle leaders in networks and their role in sustaining them.

Before developing this argument it is necessary to define a few of the main constructs and issues in a little more detail. In this paper this group of individuals who are being brought into leadership roles in networks are termed 'middle leaders'. This denotes the position they are most commonly found within networks, somewhere between the overall strategic leaders of the network, its co-leaders and headteachers, and those whose leadership responsibilities lie within a school but who have no direct responsibility for work across the network.

The leadership demands of running a network which have prompted their co-leaders to see distributed leadership as a sensible adaptive response include :

- The nature of networks themselves - which share many of the characteristics of what has been termed 'complex adaptive systems' (Minas 2005) in that they have multiple levels of organization, have open or fuzzy boundaries, their behaviour emerges from complex sets of interactions over time and they are characterised by non-linear causality due to the interaction of feedback loops, external constraints and the nature of initial conditions from which they emerge.

- The types of educational problems the networks have set out to deal with - many have focussed on educational problems, such as *What are the key barriers to learning for our children?'* which are often complex and interdependent 'messes'. These are problems which are 'unbounded in scope, time and resources, and enjoy no clear agreement about what a solution would look like' (Chapman 2004).

- The desire to create an approach to leadership which is congruent with the moral basis upon which the networks were founded, such as a commitment to equality.

- The pragmatic difficulty of providing leadership at multiple levels and in a variety of contexts within a network when relying upon the limited resources of a small number of co-leaders, who in the main already have extensive leadership responsibilities in their own schools.

Adaptive leadership, and leadership adaptability, within the public sector is marked by:

- An ability to take advantage of the opportunities provided within the local environment (Woods and Woods 2004)
- Attempts to go beyond personal and organisational interests in search of broader goals of learning and social welfare (Woods and Woods 2004)
- Artful pragmatism which recognises the need to protect the organisation from the broader cultures and system which threaten its purpose or existence (Gleeson and Shain 1999)
- A sensitivity to, and ability to deal with, the paradoxes and complexities of their work in a way which retains the leaders' integrity (Woods and Woods 2004)
- A form of leadership which sustains the leadership of others (Hargreaves and Fink 2000)
- The ability to diagnose, mediate and co-ordinate the needs of different groups (Barge 1996, Hersey et al 1996, Day et al 200).

Similar to distributive leadership, it is not possible to define adaptive leadership as a style or specific model. Rather, it is best thought of as a way of thinking about leadership, and particularly how new forms of leadership might better cope with the demands within complex systems. Seeing networks leaders' decision to move towards distributive leadership approaches as an 'adaptive decision' is a means of highlighting the complex influences on their decision making.

Adaptive leadership is both pragmatic and moral. It is opportunistic but also concerns itself with sustaining improvements and change. It is marked by an ability to mediate the needs of different groups while maintaining the integrity of the leadership. In many ways it closely mirrors the skills and dispositions required of network leaders dealing with the complexity of leading a network of several schools. Adaptive leadership provides us with a different lens through which to understand the complex influences on leaders' decisions, rather than seeing the rise of distributed leadership as being a pragmatic, moral or ideological 'decision'.

As an adaptive response there is a fair degree of fluidity as to how in each network distributed leadership has been enacted in practice. It has encompassed established school leaders taking on new leadership roles within networks, but also those who have held no previous formal leadership responsibility, not only teachers, but also classroom assistants, support staff and pupils. It has been planned strategically in some networks from their very beginning and they have sent multiple cohorts on 'middle leadership' courses. In other cases it represents an about face by the initial leaders of networks as they began to realise the nature and complexity of the task they had taken on.

Distributed leadership is characterised by:
- its emergent property within a group or network of interacting individuals
- an openness of the boundaries of leadership
- a belief that expertise is distributed across the many not the few.

(Bennett et al 2003)

Finally, sustainability is defined in this paper as the ability to develop the necessary capacities to engage in ongoing change and improvement, including the abilities to problem solve and collaborate, within a given agenda or moral purpose over time.

## The shifting nature of middle leadership in networks

Why not explain the growth of middle leaders in networks as simply an indication that network leaders are taking the idea of distributed leadership to their heart - particularly as the NLC programme itself has promoted this idea as a basic design principle of effective networks? The answer is because this fails adequately to explain the continuing adaptation of the role of middle leaders in these networks. Their role initially was to lead specific innovations in networks. Latterly, though, this has changed as they have taken on more of the responsibility for building the network itself. In this paper I want to explore why and how this change in the nature of middle leaders has come about by reference to Fullan's idea of 'system thinkers in action'.

System thinkers are practitioners who:

*'work intensely in their own schools … and at the same time connect with and participate in the bigger picture. To change organisations and systems will require leaders to get experience in linking to other parts of the system. These leaders in turn must help develop other leaders with similar characteristics.'* (Fullan 2004)

Fullan argues that the importance of such individuals in sustaining change within any system is that they have the ability to affect not only practices and beliefs across a system but recognise that to do so they also need to change the system itself. To achieve this they also need to develop other system thinkers elsewhere in the system. It would seem from enquiry evidence from the Networked Learning Communities programme that this is a probable explanation of the changing relationship between co-leaders and middle leaders of networks.

In reviewing the research already carried out on co-leaders and middle leaders within the NLC programme there appear to be sufficiently strong parallels between their actions and the descriptions of system thinkers in action to warrant close investigation. The theoretical question which underpins the paper therefore is: 'How useful is the construct of 'system thinkers in action' in explaining what is being observed within the leadership of networks in the NLC programme?'

**The need for network leaders who are system thinkers**

Currently in the UK schools are working in a variety of networks to try to deal with endemic problems within the education system, whether it be the challenges of working in urban contexts, providing long-term and high quality professional development for their staff, or trying to sustain school improvement. It has been these sorts of challenges within the UK education system that have led the government to introduce a raft of national school-to-school network policies. These sorts of challenges have been described as 'adaptive challenges' (Heifits and Luistay 2002). Problems which require emergent solutions, usually best achieved through enquiry and collaborative problem-solving and require responses that lie outside a system's current way of operating, such as those currently being modelled within the Networked Learning Communities programme (NLCs). The networks within this programme have at their heart a commitment to local collaborative learning and problem-solving and are seen as one potential solution to these challenges.

Fullan argues that adaptive challenges require adaptive leaders who are 'system thinkers' adept at dealing with the complexity of both the problems they face and the nature of school networks. Research carried out within the NLC programme has already explored the work of leaders of networks using the framework of system thinkers (see Carter and Franey, 2005). It has revealed network leadership which is multi-directional and that forges relationships between the wider system and participants in networks:

*"What we wanted to have was this, you know those rotating discs things where you can turn them around and match things up? Well I wanted to be able to turn this bit round so Martin and John* [the co-leaders] *would be communicating with the Head, so turn it around and they'd be communicating with Guy, or turn that circle around so the co-leaders are communicating with me and then turn it around again and they're communicating with someone else. And really to be able to turn the whole thing round so that person's communicating with that one, that one with that one."*
(Headteacher describing a co-leader)

Adaptive leadership, though, is not just about making connections and developing collaborative arrangements with others. It also requires leaders to become system thinkers so such connections are carried out with a strategic intent informed by an in-depth understanding of the nature of the system that surrounds them, a pre-requisite to changing that system

*First, if a system is to be mobilized in the direction of sustainability, leadership at all levels must be the primary engine…….To do this we need a system laced with leaders who are trained to think in bigger terms and to act in ways that affect larger parts of the system as a whole.* (Fullan, 2004)

Adaptive leadership is not just about being responsive to local challenges and working collaboratively with others, it is also about changing the thinking of others by, in part,

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changing the system that surrounds them. It would involve building leadership capacity within their own schools and networks that shares their views of the possibility of adapting the local education system so that together they can deal with complexity - the 'messes'. In practice this would mean co-leaders not only creating a group of middle leaders within their networks who would take on the responsibility for leading collaboration and joint problem solving, but in turn getting these middle leaders to take on aspects of system thinking themselves. If evidence can be found of this occurring then the idea of system thinkers can be used as a possible explanation for the changing remit of middle leaders being observed in the NLC programme.

In summary, from the perspective of Fullan's notions of adaptive leadership and system thinkers, network leaders have to do more than adopt one or other forms of distributive leadership (Bennett *et al*, 2003; Gronn, 2000, 2002, 2003; Harris, 2004), although many of these can be seen within the NLC programme. It also requires that the additional leadership capacity they create also involves those leaders taking on key aspects of system thinking for themselves. This paper sets out to explore this idea – or grounded theory - by drawing upon interviews with leaders of networks and 'middle leaders' carried out as part of the NLC Year One Review (Hadfield et al 2004) and its programme wide inquiry in the second year of the programme (NLC Programme 2004).

**The changing nature of the leadership challenges in networks**

After their first year of operating, each NLC underwent a review process in 2003 (Hadfield et al 2004) in which they were asked to identify how they had changed their leadership development focus from the previous year. An analysis of their responses revealed three key leadership challenges, all of which were underpinned by issues around:
- trying to increase connectivity between schools within networks and
- coping with the demands this would lead to - in other words sustainability.

Over their first year of operating the networks had become more demanding on current leadership and increasingly delivery focussed as they sought to connect larger numbers of people in ways which produced not just activity, but tangible benefits for learners. The three themes reflected these increased demands were expressed as questions within the review documentation:

**Leadership Challenges          Year One Review Questions**

| | |
|---|---|
| Increasing leadership capacity and involvement in network activity | • How can we increase the numbers and learning of more people in the network to sustain network activity and distribute leadership opportunities?<br>• How will we ensure the engagement and understanding of all leaders?<br>• Does the development of 'lead learners'[1] challenge our current structures and styles? |
| Developing new models and approaches to leadership development | • How can we develop our partnership meetings with opportunities for 'learning as leaders'?<br>• How will the network maximise opportunities for staff at every level to learn collaboratively about leadership?<br>• What is the process for developing leaders in schools in NLCs? |
| Understanding the effectiveness and impact of leadership development | • How do we facilitate seamless learning, where learning from seminars translates into practice in schools?<br>• How do you measure or provide evidence of leadership learning?<br>• How do the skills of facilitation contribute to developing a true community of mature learning groups? |

These themes reflected the pragmatic concerns of co-leaders, generally two senior leaders from schools within each network, as network activity grew over the first years of operation. In their first year as NLCs many networks had launched a series of groups to take forward their development activities. The co-leaders were now having to adapt to the increased leadership demands being placed on them, both by these groups and as a result of their own emerging clarity about what 'leading' a network involved.

*"I think we did make the mistake early on of trying to keep everything within eight Head teachers, keep it all neat and tidy..." (Co-leader)*

At the time of the Year One review a number of headteachers reported suffering from network-initiated administrative and management overload. Network growth could have stalled and their leadership, drowning in management demands, could have become frustrated and disillusioned. It was not unsurprising, then, that the year 2 budgets showed increased expenditure on administration and leadership time.

In the first instance the move to more distributed forms of leadership appeared to come about more because of the 'logic' of networking and to deal with pragmatic pressures than any strong ideological commitment to distributed leadership. Networking requires the making and unmaking of multiple relationships, the exchange of knowledge and practice at multiple levels and points and the development of processes and structures to support all of this. It requires leadership and risk-taking at various levels and in

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[1] Lead learners is a term frequently used to describe middle leaders

numerous places. This does not logically predicate a distributed form of leadership; delegation could work. But the added complexity of working across multiple school contexts, where traditional forms of authority and power are not directly available to co-leaders, appeared to be pushing co-leaders towards the notion of giving up the idea of more direct forms of leadership. In practice the growing complexity of the interactions stimulated by networks created a tipping point at which fears of giving up control and the lack of a complete understand of what was occurring were outweighed by the pragmatic challenge of running one's own school and also a network.

At this point adopting distributed forms of leadership appeared to be an adaptive choice by the co-leaders. There was evidence in their accounts of their maintaining a commitment to wider interests than just their own school's agenda and an increased ability to meet the different needs of different schools within their network. Also they appeared to be increasingly comfortable with the paradoxes involved in 'leading' a network and were more able to 'let go'.

*"I think I had a very fixed idea. Once I got through that initial phase of thinking, wow this is different from what I thought I then had a fixed idea of what I wanted to do, which actually was quite important and meant that I could get structures in place and that was important. But I think once things are in place, you can let them go and grow on their own a little bit so, so now, I've really got no idea and I'm not that bothered, I'm more bothered about the fact that it comes from schools and it's doing what they want, it's doing what's important. It's not me thinking this is where it should go."* (Co-leader)

Although at this point one could observe aspects of adaptive leadership, there was little evidence of co-leaders acting as 'system thinkers in action', never mind middle leaders. By the time of the programme-wide inquiry in the second year of the programme a limited number of the networks had decided to go beyond simply distributing the leadership of network-based initiatives to other staff. They had also started to recognise the role that these middle leaders could play in supporting the development of the network itself. Co-leaders had begun to understand that they needed to change the thinking of these middle leaders from seeing themselves as 'just' leading inquiries, curriculum innovations and professional development activities and towards considering how these processes could also build and develop their network. In the terminology used within the NLC programme, the co-leaders were turning their middle leaders into 'internal network facilitators'. In systems theory terms, the co-leaders were demonstrating characteristics of being 'system thinkers in action' as they set about involving others in making the kinds of connections and collaborations they had been involved in at the beginning of their networks. They were encouraging the middle leaders to act as system thinkers at a different level of the system/network, mainly within their own projects and the group of schools they were working with.

**Internal network facilitators – system thinkers in action?**

At the time of the review in the first year of the programme internal network facilitators were emergent roles in networks. They were more likely to be associated with:

- Larger networks and secondary school networks who, possibly because of their greater size or resourcing, may have had greater needs and the means to extend these roles

- Established networks, those existing prior to the NLC programme, rather than new networks, indicating that to an extent moving to internal facilitation was part of a broader developmental sequence for networks.

**Table 1. Comparison of network type and occurrence of internal facilitators.**

| Type of network | % with internal facilitators |
|---|---|
| New networks | 3% |
| Established networks | 13% |
| Large networks | 19% |
| Small networks | 9% |

At this time the majority still maintained their original 'middle leader' titles, which varied considerably depending on the nature of the network's purpose. 'Lead learners' were common in networks involved in curriculum development, 'School Improvement Group coordinators', in school improvement networks, as well as more generic terms indicating their overall involvement in leading change such as "theme champions". Often these roles had grown out of existing school roles which already had a degree of outreach work, such as Advanced Skills Teachers, or, where the NLCs were already networks such as EAZs and EiCs, they were adaptations of established network roles, such as "Gifted and Talented Coordinators".

The distinction between those taking on 'traditional' middle leadership roles within networks and those involved in the new emergent role of network facilitation was summed up in the Year One review report as a distinction between the:

- Leadership *of* enquiry: for example, coordinating projects (such as the development of a professional directory, setting up and leading research projects or co-ordinating other teachers)
- Leadership *through* enquiry (teachers leading changes within the school and the network as a whole on the basis of their or other's enquiry outcomes and processes) (Hadfield et al 2004).

Enquiry of some form was a stipulation of networks' proposals to become NLCs, so not only was it one of the commonest forms of adult learning but often also the most developed. It was therefore not surprising that it was within the leadership of enquiry that the first signs of a shift to different forms of middle leadership, and their role as network facilitators, was recognised. This distinction between the leadership 'of' and 'through' enquiry can best be described by reference to the work of two types of middle leaders in two very different networks. The first of these is the 'Knowledge Broker'.

**The 'Knowledge broker'**

*Each school employs an Innovations Coordinator 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 Knowledge Broker 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.*

The broker here is creating leadership capacity 'below the Headteacher level' within a secondary school, and acts mainly within that school, by organising school based enquiry groups. Their main role is to move inquiry outcomes from their research group into classrooms. Contrast this with the following description of 'Lead Innovators' within a primary school network.

**The Lead Innovator**

*"We have made a conscious decision to focus early on (in the life of the network) upon adult learning as the route into the other levels of learning. An important part of this has been to adopt an 'invitational' approach to leadership at all levels. The Lead Innovators were identified as key participants in moving the work of the NLC across schools and in developing 'expertise in their chosen field of school-to-school learning'. By breaking down the 12 schools into smaller groups with focused objectives and specific projects it has been possible to distribute the leadership of network activity through the Lead Innovators. There has been an element of risk taking for headteachers here, in handing over the project to staff. The role of the Lead Innovators has been central in building excitement for the work amongst teachers in the network schools and in moving things forward at the school level... the intended role of the Lead Innovators within the network is to lead development within the school and to coach colleagues in other networked schools. In this way, Lead Innovators have a role to play in supporting network activity and adult learning across the network, at the school level, the project group level and at the school-to-school level. In formalising the role of the Lead Innovators as part of the process of defining roles and responsibilities within the network, it was recognised that they had a key part to play in facilitating progress with the stated outcomes of the NLC'.*

The primary distinction between the two roles is the emphasis placed upon 'within school' delivery of classroom change in the role of the knowledge broker, '*the Knowledge Broker focuses on translating ideas into nitty-gritty action points for teachers,* and the emphasis upon 'between school' learning '*expertise in their chosen field of school-to-school learning'* for Lead Innovators. The development of this role of

the Lead Innovator is worth further exploration because it shares a number of similarities with other middle leaders taking increasing responsibility for network development.

In common with other internal facilitators, their role becomes more broadly recognised within the network and more formalised. In the case of the Lead Innovators, the network's strategic leadership team agreed a basic job description:

*Lead Innovators will:*
- *Develop an action plan for the group* (three smaller subsets of schools were formed, each with a different enquiry focus)
- *Feed into planning of group/school conferences*
- *Attend appropriate training*
- *Inform appropriate Strategic Working Group agent for communication, marketing, monitoring and training.*
- *Facilitate appropriate training with schools*
- *Implement group action plan*
- *Act as a role model for the initiative*
- *Share best practice*
- *Consult children about the success of their learning.*

<div align="right">(SWG Roles & Responsibilities Document, 2003).</div>

This job description reveals another common feature of the work of internal facilitators in that they extend the reach of network activity both vertically and horizontally within the network. Increasing the reach vertically means not only communicating upwards to the strategic leadership group, but also increasingly drawing in pupils to participate in the activities of the network. Working horizontally was facilitated by breaking down the network into small sub-networks based on shared developmental foci. Working vertically involved opening up spaces for closer professional dialogues between middle leaders and headteachers.

*The network has created an environment in which innovation can take place as a result of the relationships, trust and open dialogue which has been built up. There is a strong focus on professional practice best illustrated in the work of the Lead Innovators. Teachers are now excited and moving things forward in schools and this has presented Headteachers with great opportunities to hear the grass roots perspective on practice. This feels like creating a forum for quality professional dialogue …a time to delve into high level professional dialogue.*" (Second Visit Report)

The final element of this shift was that the Lead Learners, as with most internal facilitators, had to be supported to cope with the pressure of working across very different contexts; '*training and support for innovative leaders*' was provided and groups were supported to develop their '*capacity to generate needs-led INSET*'. They had to learn how to mediate between the network's focus and the developmental needs of individual schools.

*"We recognised that the learning and change that would take place might be different for each school depending on their context and the development of creativity within the curriculum at that time. We believed that it was important that the aims of the project and the nature of change could be facilitated within each of the existing school improvement programmes."* (Creative Learning Group).

In the case of the Lead Learners, they were able to do this in part because of the emphasis placed early on in the network on agreeing common ways of working and developing a shared philosophy about networking.

*"Our early meetings were concerned with establishing shared values and principles, we were looking for ways of working so that leadership was distributed in the network and establishing a clear sense of how we would work. The establishment of clear roles and responsibilities here has been key…It is a diverse group of schools and because we wanted a shared, non-hierarchical approach there has been lots of talking to come up with a shared philosophy."* (Second Visit Report)

The way in which this one network has gone about setting up their Lead Learners, and how they themselves are being asked to work, and are working, can be fitted within Fullan's (2004) broad theoretical frames for describing thinking systems in action:

- Public service within a moral purpose
- Commitment to change at all levels
- Lateral capacity building through networks
- New vertical co-dependent relationships
- Deep learning
- Dual commitment to short-term and long-term results
- Cyclical energizing
- The long lever of leadership.

By the time of the programme-wide inquiry in the second year, similar moves towards formalising these middle leadership roles - emphasising their role in making lateral and vertical connections within networks, and giving them the responsibility to create further capacity within networks - had become increasingly common within the NLC programme. It was an adaptive shift brought about by co-leaders recognising the potential of these middle leaders and the increasing pressures upon co-leaders, particularly their worries over the issue of sustainability. Middle leaders themselves also played their part. As they grew in confidence and understanding of networks, they not only became committed to the network but were also willing to contribute leadership to sustain it.

The key shift in middle leaders' perceptions was from seeing themselves as leading an innovation in a network to leading network development via these innovations. It is at this point where 'system thinkers in action' becomes a more useful analytical framework for explaining what these co-leaders are attempting to do than any conventional model of distributed leadership. Particularly Fullan's (2004) notion of a 'tri-level reform perspective'. In his model, which focuses on headteacher leadership, this encompasses

school and community, district or local education authority, and state or national policy. In the case of middle leaders 'their' tri-level reform perspective is focussed on somewhat 'lower' levels than headteachers, such as their classroom, the school and community, and their network.

Systems thinking in action is a framework for understanding leadership behaviour and thinking in relation to sustainable systems change. It does not live as an ideology within the minds of network leaders. It would be possible to 'fit' their behaviours into Fullan's framework, partially because of its generality. Rather than do this, though, I want to explore whether they are beginning to think, and more importantly act, as systems thinkers because of the nature of the changes to the local education system brought about by the creation of school networks. In a broad sense this means how they are adapting their leadership approaches to the new 'network system' which surrounds them, and how they set out to change the network to ensure it is sustainable and effective. One of the key characteristics of system thinkers is their ability to recognise the paradoxes and challenges created by a changing environment. So how are co-leaders and middle leaders reacting within their networks? What do they see as the keys to sustained system level change, or in the case of the NLC programme sustaining network systems?

**Leadership tensions inherent in a networked system**

Throughout the length of the programme co-leaders have identified numerous leadership tensions within networks, but in this paper I want to look at three in detail. This is because they operate on different aspects of networking, they work at a general and particular level within a network and therefore are relevant to both the work of co-leaders and middle leaders. They also all touch upon the issue of sustainability, which is the key challenge facing all those currently involved in these networks as they come towards the end of their funding from the NLC programme. The three tensions are;

- Processes v Structures – this is concerned with the design of the network and creating an on-going sustainable format .

- Volunteerism v Interdependence – this touches upon the motivations behind networking and the issue of how to spread the reach of networking and build a critical mass of involvement

- Common v Mutual knowledge – this addresses the forms of knowledge network participants need of each other in order to construct and implement meaningful innovations.

**Processes v Structures**

This tension could have a number of different names as it appears throughout the reviews; one could also describe it as the tension between spontaneity and strategy, creativity and discipline, focus and inclusion. I want to discuss it in terms of structures
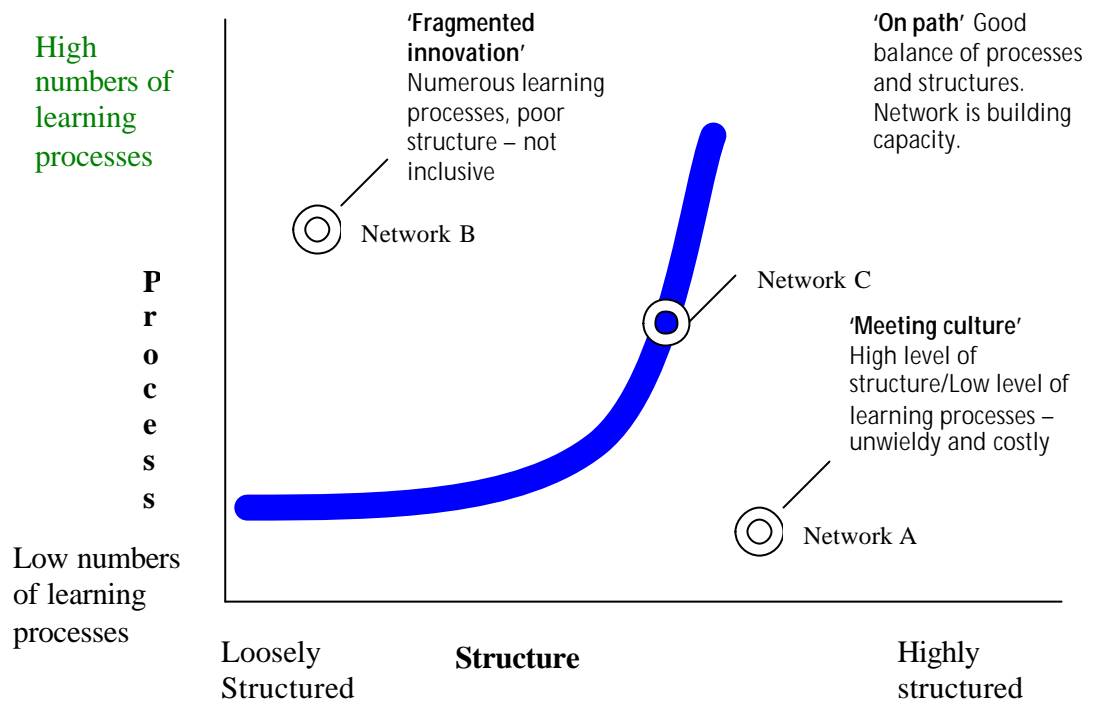
versus process because this is the format in which it is most commonly expressed within the reviews and inquiries.

At their simplest, structures can be categorised as either formal or informal and within networks they can be defined as the mechanisms that bring people together. Many networks grew out of informal social structures such as friendships between groups of headteachers. As the networks have grown they have developed more formal structures, such as meetings, teams, project groups, conferences, and workshops etc to bring people together. On the other hand processes are what occur when people are brought together. In NLCs the majority of these processes tend to be learning processes focussed on professional development. These two imperatives within networks, the need to bring people together and the need for them to learn from each other, are mutually interdependent. Some form of structure is needed to bring people together to allow them to learn collaboratively. High quality learning processes are essential if the structures are to maintain their meaning in networks that are aimed at professional development and improvement. How, then, do they become oppositional and create a tension for network leaders? They become so over time. As a network develops there is a tension between encouraging creativity and inclusion in the learning opportunities provided within the network and disciplining these innovations so that impact occurs within sufficient classrooms in a network to have been worth the expenditure (opportunity and transaction cost) of resources and time.

The co-leaders and middle leaders' roles are to manage this 'dynamic' between structures and processes. The tension for them is between how much structure they put on network learning processes so that they are additive and build on each other, and to what extent they liberate teachers and staff to be creative and provide rich experiences which change classroom practices and the quality of learning for their pupils. If middle leaders can handle this dynamic well, then they can develop their networks. If they do not, then it will fall apart as it slowly becomes bogged down in either too many meetings or fragments into too many disconnected pieces of work. One way of thinking about this is that for each network there is an ideal 'flight path' along which it can take off.

In the diagram below three networks lie at different points on this path between the 'right' balance between processes and structures.

# A network fight path

'High
numbers of
learning
processes'

**'Fragmented innovation'** Numerous learning processes, poor structure – not inclusive

**'On path'** Good balance of processes and structures. Network is building capacity.

Network B

**P
r
o
c
e
s
s**

Network C

**'Meeting culture'** High level of structure/Low level of learning processes – unwieldy and costly

Low numbers of learning processes

Network A

Loosely Structured

**Structure**

Highly structured

Network A has fallen into the problem of over-emphasising structures rather then learning processes. This means that network members meet frequently but insufficient thought has been given to the learning that goes on. Groups can quickly descend into administration and 'business' meeting with little personal learning. The meetings lack a variety of learning approaches and staff attendance falls off. This network has developed a 'meeting' rather than a 'learning' culture. In contrast, network B has multiple learning processes going on which are highly engaging for a small number of enthusiastic staff. Unfortunately, there is insufficient co-ordination to allow learning to be shared between the different groups or in a concerted manner back in school.

*'There are little bombs going off every day. The task in the next 18 months is to embed it and widen it, and it's got to be co-ordinated. It's made a difference to us and its made a difference to our children but it's got to make a difference everywhere.'* (Lead learner C1-106)

In contrast, network C has got the balance right between the amount of structure built around the networking processes and the number of these processes. They have managed to get the dynamic right so that they can co-ordinate an increasing number of learning processes without increasing greatly the amount of structures in place. At this point the network is starting to generate additional capacity, which will sustain it. For example, teachers involved in action inquiry in each school are now able to teach and mentor new

staff about inquiry without having to use external expertise or create a whole new structure. The middle leaders who supported the initial inquiry groups in their schools are passing on this expertise. The network and the school structures are starting to become integrated.

Keeping on the correct 'path' and getting the balance right is particularly important for school networks. They cannot afford the luxury of too much individual learning which doesn't make an impact back in the school, nor can they waste time and energy in too many meetings. The external accountability systems which surround them will need to be convinced of the worth of any activity which is not directed inside the school. Because of this, and other pressures, schools have little room for error in how they engage in networking. Networks in general are always open to the criticism of either being 'the mediocre teaching the mediocre', or lacking in powerful learning processes, or being only for the committed few, or that they fail to put in structures capable of drawing in others in the network. There is probably no ideal mix, but co-leaders and middle leaders have to be careful about creating too restrictive or expensive a structure while avoiding the situation where a great deal of unconnected activity is taking place.

What evidence was there of co-leaders and middle leaders managing this particular tension between innovation and inclusion and creating disciplined innovations which are sufficiently sustained to impact on classrooms across a network? They have been provided with some general design principles by the NLC programme. In this case the advice has been that structures should follow processes. The NLC has argued that the correct design flow for a network is to move outwards from the focus of the network, particularly its learning foci, to determining the learning processes that are required. Once these leaning processes have been identified, the structure of the network takes shape to ensure that the right people are brought together to learn, that the learning processes are evaluated and re-designed and that the outcomes from the learning are embedded within schools.

*There is a strong feeling that the leaders of the network should not just pursue a lot of separate things and had the responsibility to find the linkages between aspects for learning and ensure that they made sense as a whole provision within a learning framework – not as a new "fashionable" initiative.* (C1-034)

There is evidence that middle leaders were aware of the need to manage this dynamic. One of the more common responses has been to limit the number of learning processes being used and ensure they interconnect, thus providing discipline through the processes being adopted rather than through structures.

*"We had people with the classroom skills but this was uneven. There was a gap and we wanted to transfer the best practice to fill this gap. We hit on the three key activities that are intertwined and we were clear that these should impact on every colleague, in every class, every day."* (Deputy headteachers c-1062)

There is limited evidence that the leaders of networks are starting to recognise and deal with this tension but, as the report on the inquiry during year two of the programme warned, many networks are still finding the strategic planning of multiple adult learning processes over time a challenging task.

*Key finding 3*
*The 'compelling idea' around which NLCs were formed often provided strategic direction to the delivery of adult learning opportunities which were more sustained than the traditional 'one-day course'. However, many networks were clearly still in developmental stages, with more limited attention being paid to the embedding and sustainability of the opportunities, particularly beyond the period of funding and support from the networked learning communities programme.* (NLC 2004)

**Voluntarism v Interdependence**

This tension could also be described as being between passion and necessity. It touches on the motivation for why practitioners have become involved in networks. What characterises the NLCs, and separates them from many other professional structures, is that they originated from the voluntary actions of individuals, initially mainly school leaders. They were started by people who were interested in actively collaborating. Their commitment to collaboration was generally based on a value position they held, rather than any impinging necessity or external coercion. Although opportunistic, instrumental and resistant forms of collaboration - to secure funding, resources or fight off local policy changes - were present within the range of submissions received by the NLC programme.

In the networks voluntarism is still seen as an important force in gaining acceptance of new ways of working. Partially because of widespread negative reactions to previously imposed change within the U.K., it is seen as key in liberating the agency of teachers so that they contribute to the network. One major problem in terms of sustainability is that voluntarism may not create a sufficiently large critical mass of collaborative relationships to establish networking as a norm. Without establishing the need to collaborate, its necessity to solve problems, networks may only draw in relatively few active members who can quickly become either a clique or burn out as the enthusiasts lose energy. The tension facing the leadership of networks is how to combine their encouragement of volunteerism and the manufacturing of interdependence, based on recognition of the worth of networking. Critically, this involves moving networks on from early adopters to those who are more sceptical of its worth.

Voluntarism is a good starting point from which to build networking and introduce certain people to its potential. On its own, though, it is not sufficient to maintain and spread networking amongst staff. Many staff will only engage with network activity if they see it as meeting their specific needs. It has to become a necessity rather than a luxury if it to engage those who are less enthusiastic or convinced of its worth. If those who volunteer cannot persuade others of the necessity of networking then it will not be sustainable. This is why these two sets of motivations are interdependent. How then do

they become oppositional and create a tension? They become so if early adopters, driven by their own enthusiasm, fail to establish sufficiently early the idea that networking is a necessary response to the problems faced by individual professionals. If they fail to do this their 'encouragement' of volunteers can be seen as coercive as others fail to see the need to network. At this point new structures and processes become impositions, because they have failed to engage others either as volunteers or convince them of the need to collaborate.

Middle leaders, who are in the main volunteers, need to be able to identify the 'necessities', both benign and corrosive, which influence people's decisions to take part in a network. Are they worried that their school will be left behind in the latest wave of change? Is it out of desperation to try to acquire new funding or to recruit new staff? To what extent do they need to consciously 'manufacture' interdependence? To what extent do they exhibit 'artful pragmatism' in using a mixture of rewards and their authority and power to influence others into more interdependent relationships.

How have middle leaders managed this shift from working with volunteers to establishing interdependent relationships which meet the needs of less enthusiastic staff? The most common approach has been to combine two forms of interactions between volunteers and 'sceptics'. The first of these has been the use of inter-visitations between schools to expose staff to very different approaches to teaching and learning in schools serving similar communities. These inter-visitations provided very concrete examples to staff of the possibility of working very differently with similar pupils to those that they teach.

*"The visit to the school … really made us stop and think about what we were doing. It was walking around the school and seeing things done in a different way. It broke us out of the box we were all in. It gave us a fresh approach, you can do it another way. The first challenge was the curriculum was really child centred. You hear about child centred curriculum all the time, but what does it mean. We actually saw it happen…This was a school in a more deprived area than ours, there were some very difficult kids and they will take anybodies difficult kids. They are so inclusive it was stunning really. It made us think about getting the children involved more in their own learning, rather than it being so teacher directed which it is at the moment. We saw it in action, we saw the kids planning their own ideas, going into groups." (lead learner Toolkits)*

On their own such visits do not create any necessity to work together. What they do is raise the possibilities of collaboration, and present a challenge to how practitioners view their work. They are moments within a network, not processes. Creating a sense of interdependence requires a greater sense of mutuality of learning, an on-going process. This requires the middle leaders to set about creating multiple contexts for professional dialogue, both across schools and within them, and to do so in a way which builds interest rather than imposes change.

*"The majority of teachers have been affected by out work. Through dialogue, it's not been planned dialogue in staff meetings but incidental dialogue between members of staff. Getting people genuinely interested and people saying, 'I'd like to get involved in that'. One perfect way of getting it across, a simple thing, was using the children in assembly to present a lesson that we had done, using the Thinking Hats to parents and to teachers. The feedback was that that was a really good idea, 'I like that', 'I'd really like to have a go'. Teachers are pragmatic soles, they want to see it in action , they want to know it works and they want to have a go. You got to have that sharing , that community in the school."* (C1-102)

It is these dialogues based around areas of mutual concern and interest that draw in a wider range of professionals than those who would volunteer for networking.

Beyond professional dialogue lead learners have set about creating a range of different interdependent relationships between staff, from peer coaching to research lesson studies. They have become skilled at creating other 'moments' which challenge staff expectations of what is possible, such as working directly with other teachers' classes:

*'It was interesting to see your own class being taught by another teacher. She did several activities that I'd never seen before & would never have thought to use with my class such as circle time..as well as several problem solving co-operation and team work activities'*
1-046b

Of the three tensions discussed in this section this is one where there is least evidence of network leaders being effective in balancing volunteerism with interdependence. Partially, this appears due to historically weak links between schools, caused by a system which has tended to be competitive rather than collaborative. There is relatively little evidence of strategies such as specialisation within networks which might increase the chance of creating greater interdependence. Some schools within networks still seem in many instances to be stuck within a 'sender to receiver' model where certain schools see themselves as experts who wish to transfer their knowledge to others.

**Mutual v Common knowledge**

The final tension is that between common and mutual knowledge. This addresses the issue of what forms of knowledge network participants need of each other in order to construct and implement meaningful innovations within a network. Common knowledge is the shared knowledge that teachers have about their work and the contexts they operate in. Common knowledge is structured by the social and professional discourses that surround teachers. It shapes what teachers see as their shared understanding about the curriculum, what is possible with their children in their schools, what teaching is 'about'. It underpins their social norms for what is acceptable and what is possible, and what counts as worthwhile knowledge. In the U.K. context a great deal of emphasis has been placed on creating common knowledge of the curriculum through the National Curriculum and the National Literacy and Numeracy Strategies. Similarly national

inspection frameworks have created a common knowledge about what is seen, at least 'officially', as good teaching. Add to these national policies the fact that networks themselves often focus on establishing a common understanding about ideas such as accelerated learning, assessment for learning and thinking skills, and what results is a system that places a great deal of emphasis on common knowledge. Teachers require a degree of common knowledge to make sense of what they see in their schools and others. It is the basis of their 'sympathetic' understanding of other teachers.

In contrast, mutual knowledge develops from collaborative working; it is shared personal knowledge of others' work, motivations and contexts. Mutual knowledge is based on a reciprocal understanding of others' weaknesses, gaps and areas of expertise. It is a very specific form of knowledge and is the basis of being able to work effectively together. It is not the sort of knowledge which can be easily generated or passed around a network of schools, but is vital if they are going to be able to develop network activities that are meaningful and appropriate to a wide range of practitioners in often very different schools. Mutual knowledge also needs to be re-enforced by joint activity and shared experience, because of the changing natures of people's work and contexts. Professionals require a degree of mutual knowledge to add colour to their observations and to give them their 'empathetic understanding of others' which underpins effective collaboration.

The two forms of knowledge are interdependent because common knowledge is the basis for the construction of shared problems and possible solutions, which are the momentum for most collaborative working. Mutual knowledge then arises from this collaborative working, and allows for the refining of assumptions, unravelling of differences in expertise, and the proper identification of needs and capabilities. If those working in a network, and those leading a network, do not have a strong mutual knowledge of each other's work and contexts then they will face huge difficulties in sustaining their collaborations.

These two forms of knowledge can become oppositional when one is reified over the other. For example, when the common knowledge of an external expert about what can be achieved is seen as more important than learning how their work needs to be adapted for a variety of contexts. Conversely, when mutual knowledge of each other's work leads to too much 'comfortable collaboration' it can result in knowledge of what can occur elsewhere being disregarded in terms of 'not in our school, not with my pupils'.

*'It is so easy when you are a classroom teacher to become focussed just on your own school, in fact just on your own class. You can become blasé about your teaching. You know, everything is fine.'* (C1-057)

It can also become a problem when leaders in networks mistake common knowledge for mutual knowledge.

The movement between common and mutual knowledge is the movement from sympathy to empathy, from a sense of familiarity about what others are doing to feeling a sense of alienation when one discovers the differences in each other's ways of working and

thinking. There is as much a danger of professionals becoming distanced by their excessive common knowledge of others as there is by their lack of mutual knowledge.

How then have leaders in networks managed this tension? How have they ensured that the common knowledge that provides the basis for their collaborative working leads to the generation of mutual knowledge which can ensure that such work is effective and sustained?

One of the starting points in many networks has been to make some form of overall assessment of the different needs and issues within a network. Often this would be done around a particular aspect of their work rather than generally, and so would fall to the middle leaders.

*'The Strand Leader identified the individual "differences" in the 20 schools across the network which made it hard to gel their differing expectations and needs into any one programme.'* C1-034

Activities would then be designed around sub-networks of schools based around either areas of interest or the schools perceived developmental point. This sort of strategy dealt with the issues thrown up by very general mutual understanding. But effective collaborative working requires more fine grained mutual knowledge, and this required more substantive joint working.

A common strategy was for the co-leaders to encourage middle leaders to start collaborative enquiries together into their own practice. The tension for the co-leaders and headteachers was often not to try and rush them into a set area of work before they had started to work together and understand more of each other's contexts.

*When the lead learners group first came together there was a real sense of thrashing about looking for a purpose. They had the opportunity to read the submission made by the headteacher group and they also had a sense that their work should be centred on some form of enquiry into teaching and learning. As they wrestled with how they might take this forward they began by initiating small scale enquiries into their own practice. Some of these were individual, others involved teachers visiting one another's classrooms. Their anxiety at this stage was reflected in the headteacher group, who were treading the line between giving guidance and controlling the agenda.* C1-016

A more robust, but far less common, strategy was for co-leaders and middle leaders to set up a series of teacher exchanges between schools, so that they could work alongside colleagues within different network schools.

*'The initial stages involved visits by the Lead Learners and Head teachers of each school, looking at the provision of the whole school, and looking at the key aspects of developing learning in the Foundation Stage., Lead learners then negotiated a structure for the teacher placement of staff at Greenbank and Mill Lane schools. Over a period of four weeks, four staff spent a full week working and learning alongside colleagues, and*

*learning in terms of planning, teacher intervention, use of resources etc and the structure and development procedures that have been developed in Mill Lane School.*

*It was structured around four weeks to allow staff to spend a full week in their own school, reflecting on their experiences and developing their learning and then responding back in school with staff, who may not have been part of the experience by those undertaking placements later on in the four week process.'*
C1-072)

Of the three tensions this is the one which seems to be being dealt with most effectively within networks. This is in part due to the initial design of the NLC programme, which made a requirement that some form of enquiry was undertaken in networks, which in turn generates mutual knowledge. In addition, many of the networks are attempting to deal with the limitations of certain national strategies, and some of their negative impacts on certain pupils, by adapting and refining them. This has provided them with a basis of common knowledge with they recognise has to be refined by greater mutual knowledge. There are still problems, though, in how to communicate their mutual knowledge of each other in ways which can also help those with whom they have not worked directly..

**Conclusion**

Systems theory is predicated on a particular form of relationship between individuals and the systems that surround the m.

'A system is therefore an interaction between what is 'out there' and how we organize it 'in here'. 'System' denotes an interaction between the objective world and how it is looked at or thought about; it denotes a mode of perceptuo-cognito organization. (Jordan 1981)

This mode of 'perceptuo-cognito organisation' I would describe as a particular form of dialectical thinking, especially when applied to leaders who intend to both change the system and people's perception of it. It is a form of thinking based on exploring and reflecting on the 'opposing forces that come into play in (leadership) relationships (Galanes, 2003). These are forces which are 'interdependent with one another at the same time that they function to negate or oppose one another' (Baxter and Erbert, 1999). Why I believe this form of thinking is particularly relevant to system thinkers is that in their desire to work across multiple levels of a system they face a number of opposing and interdependent forces, many of which are both interdependent and oppositional, a key aspect of adaptive thinking. This increases the frequency with which they are placed in situations where they are faced with competing but interdependent forces. For example, in the NLC programme the tension between school and network development would be such a potential conflict. Headteachers can recognise that their school's development can be positively affected by the work of the network, and that their schools needs to contribute to the network for it to grow, but at the same time be aware that taking internal capacity from their school and directing it to the network reduces their school's ability to benefit from the external capacity provided by the network.

Just such a dialectic is implied in Fullan's (2004b) observation that:

*'Researchers are fond of observing that "context is everything", usually in reference to why a particular innovation succeeded in one situation but not another. System thinkers in action basically say, if a context is everything let's change it for the better.'* (Fullan, 2004b)

If system thinkers cannot recognise these tensions, manage them, and understand which are the keys to developing their network, then their lateral agency will become lost within as they become frozen into inaction by the opposing forces at work.

If the 'middle leaders' within the NLC programme are becoming 'system-thinkers in action' it will require them to become engaged with the dialectic between what is 'out there' and 'in here'. This will involve them in re-thinking their role and position within what they recognise as 'their' system and also what they see as 'the system' that surrounds and influences them. The leaders of networks have already set up the first part of this general dialectic as they have affected the systems which surround middle leaders,

and so have started to re-shape their view of what is 'out there'. The middle leaders set up the second part of this dialectic as they take on new leadership roles, changing their views of what can be done 'in here'.

The sustainability of networks of schools will eventually be decided by whether all the system thinkers at each level of the education system are sufficiently aware of how their actions affects those at different levels. It is of no use if only one group of leaders recognise the need to work at multiple levels simultaneously, or develop the ability to deal with new tensions or contradictions. The key message from systems theory is that is not just that system thinkers needs to affect and develop other system thinkers, but they also need to develop systems which shape what is 'out their' in such a way that it raises new possibilities for individuals 'in here'.

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