How networked learning communities work

(Executive summary)

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Executive summary

This report describes the learning about the nature and impact of networked learning communities from a three-phase study undertaken by Aporia Consulting Ltd of Toronto, Canada. The work has drawn on the experiences of the Networked Learning Communities programme, with a view to informing the work of other groups and agencies in England and beyond who are incorporating networking into their educational change efforts.

The study involved creating and testing a model for the theory of action for networked learning communities – to explicate how networked learning communities are expected to work and then to test the strength of the effects within the model.

The theory of action

Very simply, the theory of action says that there is a logical relationship between what happens in networked learning communities and their ultimate goal of enhanced learning for pupils. The theory is that changes in pupil learning depend on major changes in the practices and the structures of schools and these changes will emerge from the professional learning and conceptual change that occurs through interaction within and across schools in networks. A number of features of networks and the schools within them were identified as potential enablers that are expected to create the conditions for this knowledge creation and sharing to occur in ways that are sufficiently powerful to result in significant changes in practice. Within the theory of action, these key features, which operate in both schools and networks, were focus and purpose, relationships, collaboration, enquiry, leadership, accountability and capacity-building.

Initial analyses of the data resulted in the refined theory of action portrayed in figure 1, with the following school enablers:

- school focus
- school formal leadership
- distributed leadership in the school
- enquiry in the school
- relationships and collaboration in the school
- rigorous and challenging joint work in the school
- developing capacity for collaborative enquiry

and the following network enablers:

- network focus
- engagement of school formal leaders in network activities
- distributed leadership in the network
- network enquiry
- network relationships
- network collaboration
- rigorous and challenging joint work in the network

Figure 1: Refined theory of action for networked learning communities

Context

Impact on pupil learning engagement and success in a knowledge society

Distributed deep and sustained changes in practices and structures in schools

Professional knowledge creation and sharing

School
- focus
- formal leadership
- distributed leadership
- enquiry
- relationships and collaboration
- rigorous and challenging joint work
- building capacity for collaborative enquiry

Network
- focus
- formal leadership
- distributed leadership
- enquiry
- relationships
- collaboration
- rigorous and challenging joint work

Learning from the Aporia investigation

The research trilogy has produced a massive amount of data that offers considerable fodder for reflection. This section provides a summary statement about each of the key learnings from our analysis.

Networked learning communities are complex

Networked learning communities are complicated and differentiated entities. The theory of action suggests that individuals are the connectors of schools to networks (and networks to schools) and that these relationships provide the link for uploading and downloading ideas, activities and interactions that can influence the way people think and act in schools. The responses to the survey questions gave a very rich picture of how the schools were operating, individually and within their networks.

The data from the survey confirmed the complexity of the way that networked learning communities work. The key features were all related to one another in a range of ways, and their relationships with changes in thinking and practice and pupil outcomes were also interconnected. Nevertheless, there were some distinct patterns that have helped to refine the theory and suggest ways to make networks of schools more effective and more efficient in changing member schools so that they serve pupils better.

Networked learning communities can influence pupil learning

The current study provides evidence that when networks of schools work together, there is an impact on pupil learning. The number of people in the school who are active in the network was positively correlated with pupil outcomes in English, maths and science at Key Stage 2 (KS2) and value-added scores at Key Stage 3 (KS3). The factor 'overall network influence' was positively correlated with GCSE change scores and the level of network attachment was related to changes in pupil outcomes in maths and science at KS3. Network attachment was also correlated with the intermediate outcome of changes in thinking and practice in schools. Although these associations are fairly erratic, they do suggest that there is a connection between participation in a network and improvements in pupil attainment.

These relationships provide encouraging evidence for claims about the power of networking schools, and pave the way for deeper discussions about what these associations might mean, in terms of the rest of the theory of action.

Strength of engagement in the network is important

Although networking schools can create the conditions for influencing how teachers and leaders think and act, it is not guaranteed. Is it quite clear from this data that connection to the network needs to be strong and pervasive. Our evidence suggests that it is important to have extensive and strong links in order to influence changes in schools and in pupil learning. In this study, the number of colleagues involved in network activities was significantly related to pupil outcomes and to changes in thinking and practice. In addition, the strength of the association between the scale of a network and changes in thinking and practice for the subgroup of teachers who were involved in network activities suggests that having more staff engaged in network activities results in more changes in how they think and act.

Even though all of the schools were members of a networked learning community, it seems that many of the schools were not sufficiently engaged in the network for it to influence their daily routines or practices in ways that would make a difference for pupils. This is supported by the fact that many schools indicated that their involvement in the network did not have significant influence on the focus, leadership, collaboration, enquiry, accountability or relationships in their school and that they felt the influence of the network on pupils lay largely in improving engagement and motivation but not attainment or behaviour.

Changing thinking and practice is the key

In the final analysis, nothing really changes for pupils unless there are changes in the hearts and minds of the adults in schools who work with them. Even though there is considerable evidence in this study of activity and commitment in the schools and the networks, we were surprised that fewer than half of the schools indicated that there had been changes in the areas that were included in the scale 'changes in thinking and practice'. These are the kinds of changes that are essential for knowledge creation and transformation of practice in schools. Although networking has the potential to create the conditions for these changes to occur, their absence suggests that the schools are not yet engaging in the kind of conceptual change, reflection and challenging of tacit knowledge that will make them knowledge-creating institutions.

Schools are the locus of changes in thinking and practice

Schools indicated considerable activity in all of the enabling activities, and all of the enablers for schools were significantly related to changes in thinking and practice. This level of activity lends support to the notion that schools are the place where the daily work of change happens. Although the level of activity for each of the enablers in networks was lower than in schools, the correlations with thinking and practice were actually higher for the subgroup of colleagues who were actively engaged in network activities, supporting the conviction that there is value added for schools from being connected to the network, as these 'boundary spanners' connect the work of the school to the ideas that emerge from the network.

Changes in pupil learning related to network involvement depend upon ideas and processes promoted by the network penetrating into the working lives of teachers. Networked learning communities that work are likely to be the ones that also link and support professional learning communities in schools so that there is a strong local locus of change for teachers, enhanced by the strength of ideas and support from the network of schools.

Relationships and collaboration are the beginning … not ends in themselves

The findings suggest that relationships and collaboration may operate differently within schools as opposed to across schools within the network. Relationships that embody trust, shared understanding and collective responsibility appear to be more important dimensions of interaction in the network than doing things together. In the schools, comfortable relationships and working together are important for changes to happen within the school, but they are all connected to one another and are likely to reflect comfortable daily working relationships that do not test the status quo. These activities in schools are a necessary but not sufficient requirement for change.

At the level of the network, however, relationships were more strongly related to changes in thinking and practice in the schools than doing things together. As will become evident in the next section, trusting relationships with shared understanding and knowledge of one another may be necessary for working and reflecting together, especially when the participants have different orientations and views, and they are facing challenging issues.

Rigorous and challenging joint work is the critical core of collaboration

An important and interesting finding in this study was the emergence of a new factor for both schools and networks that we have called 'rigorous and challenging joint work'. This factor is a qualitatively different type of collaboration to that mentioned in the previous section. It requires participants to suspend judgement, challenge their assumptions and intentionally seek out new information, in the quest for ideas and practices that work. The items that made up this scale were focused on the kinds of interaction that are a necessary part of conceptual change and knowledge–creation, for example being receptive to feedback on their teaching from others, working together, talking openly with colleagues about differing views, opinions and values and dealing openly with conflicts.

We believe that rigorous and challenging joint work may be at the heart of the power of networks. Networks can provide the forum for colleagues to address genuinely new, and often difficult, ideas in a safe environment, away from the risk of retribution or censure in their daily place of work. Once the ideas are more fully developed and stabilised, these colleagues can stimulate and lead the same discussions in schools with confidence and make the ideas practical and personal so that they are more likely to be considered for action in the school.

Collaborative enquiry is an important new skill

Another new factor that we have entitled 'developing capacity for collaborative enquiry' also emerged from the analysis. In this factor, the items are all connected to professional learning about relationships, collaboration, and enquiry and to collectively challenging each other's assumptions.

This factor merges deep collaboration in the form of rigorous and challenging joint work with enquiry, and is consistent with Little's (2005) reference to a large body of research suggesting that conditions for improving learning and teaching are strengthened when teachers collectively:

- question ineffective teaching routines

- examine new conceptions of teaching and learning

- find generative means to acknowledge and respond to difference and conflict

- engage actively in supporting one another's professional growth

In our view, collaborative enquiry is likely to be a high-leverage practice but it involves a set of skills and dispositions that are new to many schools. This new factor indicates that some participants in these networked learning communities realise that they need to acquire a critical new set of skills in order to work together on serious issues that require investigation, reflection and the challenging of ideas.

The school and network focuses need to be right, shared and understood

Schools are constantly being inundated with ideas and mandates, all purporting to offer more integrated and differentiated ways to serve pupils. A clear, high-leverage and challenging focus is an important feature of networked learning communities for bringing people together to reflect on and rethink their beliefs and their practices and to minimise the clutter of activity in the school or network. The compelling question is 'Does this focus provide a space for drawing on new explicit knowledge and research as well as exposing the tacit knowledge of the group for deeper consideration?' When the focus is vague or not visible, it is possible for everyone to relate to it but for no-one to use it to explore what it means for changes in their thinking or their practices.

Formal leadership matters

Although there has been considerable attention to the role of distributed leadership in networks – a topic that we address in the next section – there is also a continuing role for formal leaders in stimulating vision and focus, providing support (intellectual and instrumental), monitoring development, disseminating information and buffering schools and networks from challenges posed by the larger environment.

The majority of schools indicated high involvement of formal leaders in all of the supporting activities in the school, but formal school leaders were involved in activities in relation to the network in about half of the schools. It is likely that the impact of the network could be more intense if formal leaders in schools were more involved in creating the conditions for staff to be active in using the network to challenge their own thinking and practices.

Leadership is distributed across schools and networks

Spillane (2006) makes the case that leadership in schools is not connected to role or position but to activities and practices that are stretched over many people in a system of interactions that is more than the sum of the actions of individuals. Informal or distributed leadership in the schools was an important feature in this study. In a majority of the schools, colleagues were involved in the kinds of activities that Katzenmeyer and Moller (2001) describe as leading within and beyond the classroom, contributing to a community of teachers, learners and leaders, and influencing others towards improved educational practice.

Although distributed leadership has the potential to change thinking, practices and pupil learning in schools, not all schools – and certainly not all networks – were utilising this resource, nor was everyone in the schools engaged in leadership activities. Distributed leadership may be a powerful lever for spreading the work of networks, but it requires the development of an understanding of how distributed leadership can work within a model of rigorous and challenging joint work and collaborative enquiry to focus and deepen how teachers think about and engage in their daily work to enhance pupil learning.

Pupils and families are absent

Although pupils and families were not a central part of this study, the results are striking. Pupils were one of the most involved groups in the networked learning communities, with 93 per cent of schools indicating that they were involved. However, there is little indication that this involvement was more than superficial. In fact, very few schools said that there had been changes in either the way that they thought about pupils or their families, or changes in their relationships with pupils and families. It appears that pupils are attending network functions and showcase their work but there is little evidence of a fundamental shift in the nature of the relationship of schools with pupils or families.

It is likely that fundamental shifts in the way schools operate to serve all pupils well and in the way they think about the place of pupils and families in school reform will involve thinking about the kinds of changes that must occur in relationships and interactions with pupils and their families to support and extend the work of schools.

It is hard to see the influence of networks

Networks of schools are amorphous: they have many different forms and structures; they engage different people in different ways at different times; and they do not result in many direct products that can be attributed to their work, except the artefacts that move back and forth between the networks and the schools. This means that the work of networks of schools is almost always indirect, evidenced in changes that occur in schools and classrooms removed from the network by time and space. This makes it very hard to establish any direct links.

Even the people who are most knowledgeable about the networks don't always see its influence. This was particularly noticeable in the pattern of 'don't know' responses, where respondents were uncertain about many of the items, especially in relation to the network and the limited attribution of changes to the networks. At the same time, there is evidence from this study that attachment to the network and widespread involvement in it are related to changes in thinking and practice and to pupil learning. This paradox may arise because the respondents were a number of steps removed from the work and did not understand all parts of the web of influence, so their attribution was made to their closest connection.

Networked learning communities are made up of complex interactions between structures and activities. Each of the features has a role to play, and like any complex system, the ways in which they combine and interact are innumerable and cannot be predicted in any particular context. A change in any one invites changes in the others.

Summary

Our interpretation of the results of this study are that networks of schools are likely to be most effective if enhancing pupil learning is the unwavering goal, and the work of networks and the schools within them is creating the conditions for educators to engage in the kind of rigorous and challenging joint work and collaborative enquiry that constantly pushes them to examine routinely and alter what they do in a spiral of continuous rethinking, refinement and transformation that results in fundamental changes in the way that they think and act in schools in order to provide the best for the pupils that they serve. Relationships of trust and mutual challenge are the links; tapping explicit knowledge and exposing tacit knowledge provide the process; and leadership, both formal and distributed, can create the forums and provide the necessary support and capacity-building opportunities to move the processes forward.