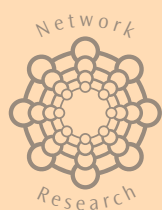


[www.ncsl.org.uk](http://www.ncsl.org.uk)



# The impact of networks on pupils, practitioners, organisations and the communities they serve



# The impact of networks on pupils practitioners, organisations and the communities they serve

A summary of the systematic review of literature

Miranda Bell, Philippa Cordingley and Holly Mitchell

Edited by Kirsten Hill

## Introduction

### The purpose of the review

For a number of years government policy initiatives have been supporting networking *between* schools: TVEI, Beacon schools, Specialist schools, and also networks *of* schools: Education Action Zones, Leading Edge Partnerships, LIG Collaboratives and Networked Learning Communities. Despite all this activity there remains ambiguity and uncertainty about the effect of networks, the knowledge base surrounding them and their merit as an improvement strategy at scale. What, for example, makes a good network? How do we avoid networks becoming more social than rigorous? What is the cost benefit of network activity? What additional benefits are there for practitioners, organisations and the communities they serve? If these questions are not challenging enough in themselves, the dominant concern surrounds the most vexing issue of all. *What is the evidence that networks make a difference to pupil achievement?*

These questions were explored by means of a systematic review of the evidence, conducted between April and December 2005. The review report is available on the NCSL website [www.ncsl.org.uk](http://www.ncsl.org.uk) and includes key messages, a summary and the full technical report. To help find answers to these questions, the Networked Learning Group (NLG) teamed up with the Centre for the Use of Research and Evidence in Education (CUREE). Both organisations brought different qualities to the partnership. CUREE brought expertise in systematic reviewing and the NLG brought knowledge and practice in supporting networked learning communities.

### The review focus and format

The review involved the systematic filtering of over 4,500 titles and abstracts and 383 full studies, through three stages of inclusion criteria. Articles were selected on the basis of the quality of evidence they contained in response to the following key question:

- What is the impact on pupils of networks that include at least three schools?

At the end of the process, data was systematically extracted and synthesised from the remaining 14 studies. This summary presents the key findings and messages from the systematic review, illustrated by examples from the studies in the review.

## How to use this summary

### Key themes

Data analysis identified five key themes around which this review summary is organised.

#### Key themes

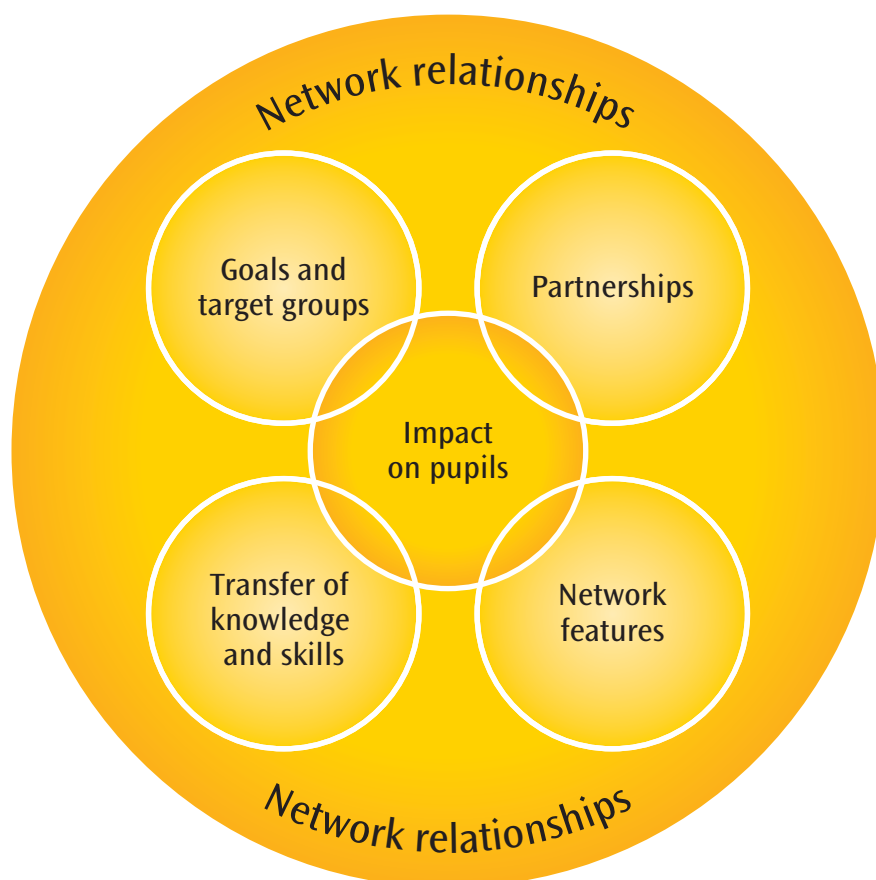
- 1 Impact: where and how networks were effective
- 2 Transfer of knowledge and skills: professional development at the heart of effective networking
- 3 Goals and target groups: networks tackling difficult issues which schools could not attempt or achieve on their own
- 4 Partners: networks involved a range of partners to fulfil their goals
- 5 Network features: how much do features such as size, spread and duration matter?

### Using this summary

In each section you will find:

- a description and discussion of a key finding
- an example from the networks in the review which illustrates the key finding
- a thinking space in which to consider some of the questions and challenges which emerge from the review findings

## What are the key themes?



The review found that networks by themselves don't do anything. It was the people in networks and the relationships between them which made things happen. The model presented above represents the findings of the review: where there is **impact** on pupils, it is possible to see a number of components interacting dynamically. For example, the study found that networks can be highly effective vehicles for improving teaching, learning and attainment. Where the life chances of pupils were measurably enhanced, the networks had focused on specific aims, particularly on enhancing the experience of young people. The study considers impact in relation to children's attainment, achievement, and well-being.

Developing a strong adult learning culture within and between schools in a network was found to be one of the key ways of improving learning opportunities for pupils. **Transfer of knowledge and skills** looks at how CPD, matched to network goals, was found to be the principal means of effective transfer of knowledge and practice within networks.

Some of the most powerful research reviewed focused on how the identification of **goals and target groups** impacted on pupil learning. Highly effective networks had a clear focus linked to identifiable groups. The summary shows how some specific target groups benefited from involvement in network activity.

The review found that the formulation of **partnerships** and use of external expertise, matched to network needs, directly supports the achievement of network goals, and thus impacts on pupil learning. This summary examines the positive impact of key partners working collaboratively to achieve network aims.

The final theme of the review looks at how collaboration, ownership of network goals and specific focuses were found to be key **network features** which linked to positive impact on pupils' learning. Highly effective networks attended more to the quality of the collaboration than to the size of the network, and were organised and structured to include everyone who had a contribution to make to reach the network's goals.

## Key theme 1: Impact

The review found that networks can be effective vehicles for improving teaching, learning and attainment for specific target groups. In particular, networks were effective in tackling social inclusion. The review reported evidence of the impact of networks on both teachers and pupils. Many studies also reported impact on other participants, such as parents, HEI staff, leaders and community workers.

**Pupil impact** included improved attainment, engagement, motivation, self-confidence and increased independence as learners. Pupils gained new skills, such as problem solving, leadership, social and higher order thinking skills. In some cases, a greater number of pupils were found to be completing their schooling, attending college and progressing into employment.

**Teacher impact** included gains in knowledge, understanding and skills, leading to more inclusive practice, better classroom level skills, new communication and networking skills and greater understanding of the learning process.

**School impact** included increased community liaison, development of professional learning communities and skills in importing new ideas. There were also changes in school and classroom organisation and management structures.

**Other impacts** included increased parental involvement in goal setting, assessment and support, school decision-making and parental mentoring programmes.

### *Pause for thought...?*

The life chances of the at-risk pupils in this network were measurably improved by the collaboration. Teachers, businesses, parents and higher education practitioners all worked together. If your school is trying to tackle these problems on its own, are there existing networks you could exploit?

If your school is already working with a college on extending vocational opportunities at 14+ are there other potential partners who could strengthen the collaboration?

R

### Where and how networks were effective

*The Los Angeles Area Business/Education Partnership* involved partnerships between business, industry, universities, high schools and parents. The network targeted at-risk, underachieving students with hands-on approaches to vocational and academic learning. This was a publicly funded vocational training network consisting of seven school districts in Los Angeles County. The targeted students were unlikely to graduate from high school or go to university and had trouble gaining employment. The network ran for five years and aimed to provide students with skills and attitudes needed for successful entry into the workforce.

Intervention and control group data plus other qualitative and quantitative data from 550 students showed a significantly higher proportion of participating students graduated from high school than did control group students; more than two-thirds of intervention group attended college (less than half of control group) and 87 per cent of intervention group found fulltime employment (64 per cent of control group).

*The Los Angeles Area Business/Education Partnership is an example of successful multi-agency collaboration improving the academic opportunities and achievement of at-risk students.*

Adler, 1995

## Key theme 2: Transfer of knowledge and skills

Of the 14 networks in the review, 12 involved structured programmes of CPD. Involving a range of people in network activities was important in achieving a spread of participation, and for the most part this took the form of collaborative CPD. It was built into the networks as the principal means by which depth was achieved, through the effective take-up of new knowledge and skills.

### This is what the review found out about the CPD in these networks:

- Peer-to-peer collaboration was widely used to support the transfer of knowledge and practice.
- 'Expert' input was a factor in nearly all of the studies. Experts' contributions ranged from training to strategic advice and facilitation, while the experts themselves ranged from teacher mentors to career specialists and parents.
- Face-to-face contact was more widely reported than ICT or printed communications. This ranged from collaborative on-site planning and reflection to coaching and mentoring.
- Half of the networks made use of events which included conferences, symposia and other formal

meetings. 'Training' events acted as vehicles for increasing the number of colleagues able to describe and use new knowledge. In many cases these, too, were built in to the design of the CPD interventions.

### Pause for thought...?

Although CPD can happily take place within individual schools, the review suggests that a network can expand access to new ideas and external expertise and support.

If you are already part of a network, consider how this could support and enhance teacher CPD opportunities through cross-organisation collaboration. What other networking opportunities are available to your school?

### Professional development at the heart of effective networking

The *Quest* network ran a range of network initiatives within and across states in the USA. The network was based on the principles of enquiry, collaboration and action research with the aim of supporting ongoing school improvement.

The study reports on the four-year SMART Learners initiative, which involved collaboration between three West Virginia school districts, teachers, pupils, parents, administrators and community members. CPD was a major component of this network and was designed around areas of need identified by student data. Collaboration and CPD involved conferences and rallies, summer symposia, a Scholars programme and visits to participating schools.

The CPD was found to have had an impact on teachers' attitudes, knowledge and practices as illustrated by the following quote: "[The *Quest* network has] helped me to understand the importance of professional growth, not just for myself, but for the faculty... my teachers and the parents that have been involved in *Quest* are different people as a result, and I think *Quest* has given them the courage and the knowledge to do things differently."

*Teacher involved in Quest*

*This network created a strong learning culture in which ideas were shared and implemented through regular meetings.*  
Howley Rowe, 2000



## Key theme 3: Goals and target groups

It was clear from the evidence in this review that more effective networks had more specific goals than less effective networks. They also tended to target specific groups of pupils such as socially excluded, minority or underachieving pupils. It is difficult to see how some of these goals could have been achieved without networks.

In turn, the schools and other partners involved in the most effective networks reported an increased sense of inclusiveness and empowerment amongst themselves. They also experienced a reduction in isolation as a result of working collaboratively. The shared moral purpose and values in the network focus helped to build a sense of ownership.

### *Pause for thought...?*

The most effective networks in this review had a very clear focus, often related to the needs of a specific sector of the community.

If you are involved in or are establishing a network, is there a clearly agreed focus? Who is intended to benefit from the network and how? Do all the partners agree to this?

### **Networks tackle difficult issues which schools could not attempt or achieve on their own**

This network addressed the under-representation of minority students such as Native Americans on programmes for gifted and talented students. This was predominantly due to cultural and language differences which were compounded by the remote rural geographical locations of Native American populations.

*Project LEAP* aimed to address these issues by forging rural networks, which worked to identify and nurture talent and high potential in Native American students. The network involved collaboration between 12 small rural schools, resource specialists and educational assistants. The network programme gave 120 pupils individualised instruction in a range of subjects with the aim of raising their achievement.

As a result of taking part in the network, pupil academic performance scores increased and the number of pupils applying for college also increased. A strong relationship between schools, parents and the community was fostered.

*The network promoted links between schools, teachers and students to provide academic opportunities for Native American students. Project LEAP was found to have a significant impact on the proportion of Native American students on gifted and talented programmes.*

Montgomery, 2001

## Key theme 4: Partners

All the networks involved school-to-school partnerships and most featured school-HEI partnerships. Networks also involved schools working with families and external organisations such as businesses, museums, and libraries.

Parents emerged as key network partners. A number of the networks reported increased parental involvement. This ranged from becoming involved in goal setting, assessment and support, to greater involvement by parents in school decision-making and more participation in a parent mentoring programme.

The range of partners involved in the networks highlighted the effectiveness of working collaboratively across agencies and sectors to tackle intractable issues such as inclusion. For example, where the goal was to raise progression, retention and employment rates for at-risk students, the close involvement of businesses in the training programmes clearly played a considerable part in the project's success. Where the goal was to raise attainment for minority students, district staff played a key role in school-community liaison.

### Pause for thought...?

Working collaboratively with other agencies and organisations is more easily said than done. Yet it was an effective way of tackling social inclusion for the schools in the networks in this review and it is an important part of the *Every Child Matters* agenda. Professional development activities were clearly key to effective collaboration in this network. Collaboration doesn't just happen because organisations are networked.

How could CPD encourage colleagues in your school to work more collaboratively with partner organisations?

### Networks involved a range of partners to fulfil their goals

*The Cognitive Enrichment Network Education Model (COGNET)* targeted high-risk and underachieving pupils and aimed to improve achievement through school-community partnerships.

Network collaboration involved establishing business-school partnerships and regular meetings of parent advisory boards. Where the goal was to raise attainment for minority students, district staff played a key role in school-community liaison, conferences, ongoing teacher and parent CPD. There were marked improvements in student achievement and enjoyment in reading, language and maths. COGNET's mediated learning classroom approach was founded on the belief that educational reform is determined by the effectiveness of professional development. It combined best practices in education with a unique approach to teaching children how to learn, supported by an implementation network that connected participants with COGNET implementers in a wide variety of settings. The use of the Building Blocks of Thinking, Tools of Independent Learning, and mediated learning experiences assured teachers that each child would make significant improvement in subject matter skills as well as gains in cognitive ability and in assuming personal responsibility.

*This network involved a multi-level community partnership which helped parents and schools to work together more closely in ways that met specific community needs and ensured educational success for at-risk students.*

Greenberg, 1996



## Key theme 5: Network features

The review found that structural features and processes were important in a variety of ways, some of which were not obvious. Common network features that were identified by the systematic review included:

- **Specific focuses** – the majority of the networks were structured around a set of clearly defined aims.
- **Size, scale and geographical spread** – appeared to bear little relation to their effectiveness, suggesting that it is the quality of the collaboration between local clusters within networks upon which effectiveness may turn.
- **Duration** – the review found that the majority of the networks had been running for two years or more, reinforcing the common sense link between duration and network effectiveness.

### *Pause for thought...?*

Although very different in size and scale, all the three networks featured achieved their aims. This underlines the review finding about the importance of the collaborative activities and the predominance of face-to-face communications.

How much opportunity is there for joint working at your school? Would staff benefit from cross-school coaching or collaborative enquiry around jointly identified issues and goals?

### The importance of size, spread and duration

*The Los Angeles Area Business/Education Partnership* is an example of a more sustained multi-partner network. It ran for 5 years and involved collaboration between 4 community colleges, 3 state universities, 200 businesses, 40 community organisations in 7 school districts. The project targeted at-risk, underachieving students with the aim of improving their academic achievement and subsequent progression through vocational programmes.

Adler, 1995

*The Preschool Action Research and Development Initiative (PARDI)* network is an example of a small-scale teacher-researcher network involving collaboration between the University of Wisconsin and 38 teachers in nine early years programmes in one US state. The network aimed to advance teachers' knowledge and understandings of inclusive classroom environments for both pupils with and without disabilities.

Gettinger, 2002

The four-year *Together We're Better (TWB)* network is an example of collaborative networking across education authorities. The network focused specifically on inclusion and worked towards creating a more positive and supportive educational system across four districts for special schools and children with disabilities. The network involved collaboration between university staff, parents, teachers and four school districts from within Minnesota.

Thurlow, 1999

*The networks included in the review differed in focuses, size and scale as shown in the examples above.*

## Conclusions

### Areas identified for further research

The systematic review intended to investigate the role of leadership in networking, but the studies included rarely focused directly on the leadership of networks. One pattern that does emerge is that where there is evidence about how networks are led, the trend seems to be that schools dominate the agenda with parents and communities.

Another area that requires further investigation is the role of ICT in networks. It is worth noting that none of the networks identified the use of ICT as an effective networking process, although the use of email and websites to facilitate knowledge transfer was referred to in passing in a small number of studies. This does not mean that it was not used; merely that it was not particularly remarked.

## References

- Adler, L, 1995, *The Los Angeles Area Business/Education Partnership. A study of the impact of a community based school to work program for high risk youth*, Educational Resources Information Center (ERIC)
- Bielefeldt, T, et al, 1999, *Connected learning communities: Findings from the Road Ahead Program, 1995–1997*. Paper presented at the American Educational Research Association Annual Conference. Montreal, Quebec, Canada, April 19–23, 1999. Adapted from a report to the National Foundation for the Improvement of Education
- Gettinger, M, Stoiber, K C & Lange, J, 1999, Collaborative investigation of inclusive early education practices: A blueprint for teacher-researcher partnership, *Journal of Early Intervention*, 22(3), pp 257–265
- Greenberg, K H, 1996, *The cognitive enrichment network education model (COGNET)*. Paper presented at the 3rd Head Start National Research Conference, Washington DC, June 20–23, 1996
- Howley-Rowe, C, 2000, *Tinder Elementary: A case study of the Quest network*, Washington, DC / Charleston, WV: Office of Educational Research and Improvement/AEL Inc
- Kahne, J, et al, 2001, Leveraging social capital and school improvement: The case of a school network and a comprehensive community initiative in Chicago, *Educational Administration Quarterly*, 37(4), pp 429–461
- Montgomery, D., 2001, Increasing Native American Indian involvement in gifted programs in rural schools, *Psychology in the Schools*, 38(5), pp467–475
- Peters, J., 2002, Expecting too much from School/University Collaboration: Identifying Faulty Assumptions, *Asia Pacific Journal of Teacher Education*, 30(3), pp29–242
- Pinon, D, Samii-Shore, K, & Batchelder, M, 2002, *Principles of Learning: 2001–2002 Evaluation Report*, Austin, TX: The University of Texas
- Reyes, P, & Phillips, J C, 2002, *The Houston Annenberg Challenge Research and Evaluation Study. Year Two Evaluation Report*. Transforming Public Schools, Austin, Texas: The University of Texas
- Riley, K & Jordan, J, 2004, "It makes sense to me": Reforming classrooms from the bottom up: a case study in change. *Improving Schools*, 7(3), pp.227–242
- Sanders, M G, 1999, Schools' programs and progress in the national network of partnership schools, *Journal of Educational Research*, 92(4), pp 220–229
- Thurlow, M, et al, 1999, *District partnership approach to inclusion: A qualitative evaluation of impact*, Minneapolis, MN: Institute on Community Integration, University of Minnesota
- Zetlin, A G, MacLeod, E, & Michener, D, 1998, Professional development of teachers of language minority students through University-School Partnership, *Teacher Education and Special Education*, 21(2), pp109–120

To order a copy of this publication please email [nlc@ncsl.org.uk](mailto:nlc@ncsl.org.uk)  
quoting the reference NR/pupils, or download directly from  
[www.ncsl.org.uk/nlc](http://www.ncsl.org.uk/nlc)

**National College for  
School Leadership**  
Triumph Road  
Nottingham NG8 1DH

T: 0870 001 1155  
F: 0115 872 2001  
E: [nlc@ncsl.org.uk](mailto:nlc@ncsl.org.uk)  
W: [www.ncsl.org.uk](http://www.ncsl.org.uk)

Networked Learning Communities

learning from each other   learning with each other   learning on behalf of each other