

Making the Case for Enhanced School Leadership Capacity in a Networked Education System

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The aim of the LeLeNeT project is to develop school leadership capacity to ensure that teachers are facilitated to maximise the potential of their professional learning networks (PLN). The design of the educational modules for leadership development focuses on the knowledge and skills required to establish professional learning networks and to understand how leaders can support staff in achieving shared goals in an ever-changing environment. Networking can support collective professional learning in schools related to a changing and increasingly diverse communities. The paper offers the theoretical, framework, research basis and underpinning design principles for a leadership programme informing this complex agenda.

Keywords: networks, leadership capacity, programme design

Introduction and Theoretical Framework

The Leading Learning by Networking, ERASMUS+ project (LeLe-Net) has been funded to develop a development programme to enhance leadership capacity to maximise the potential of networks. The overall aim of the project is to build and sustain school leadership of professional learning networks (PLN) for teachers. The aim of the paper is to explore the nature of the capacity required of leadership when their education institutions are working in networks, internal or external to the institution. In order for this aim to be achieved the working premise, adopted by the project team, of the concept of networks in the education is elaborated. Through the development of a theoretical framework and extensive evidence collection, across the six European partner countries, the following conceptualisation has been adopted as the working definition for the project (OECD 2003, 154):

Networks are purposeful social entities characterised by a commitment to quality, rigour, and a focus on outcomes. They are also an effective means of supporting innovation in times of change. In education, networks promote the dissemination of good practice, enhance the professional development of teachers, support capacity building in schools, mediate between centralised and decentralised structures, and assist in the process of re-structuring and re-culturing educational organisations and systems.

The recognition of networking as a benefit to those individuals directly involved in the collaborations and to the institutions as a

whole is a persuasive argument for establishing networking practice. What is less well recognised is that to achieve positive outcomes a network must be led by those that accept responsibilities beyond the immediate school environment.

The project intentions are based on the idea that the educational context is constantly evolving, and this requires teachers to adapt aspects of their professional practice. Professional Learning Networks can provide conditions to foster the inclusive learning and development of teachers. Sachs (2001) indicates that collaboration and collegiality are cornerstones of democratic discourses. Consequently, one principle of the programme design is that networks can help teachers overcome individual difficulties together, when faced with new expectations. Networks can provide support for individuals in making sense of the changes that they face and in ensuring that their decisions are informed through critique of the change that they are facing and consideration of the possible responses. The project evidence indicates that school leaders play an essential role in the implementation and sustainability of networks within their schools and their wider communities. The extension of the leadership roles to address the complex matter of leading and managing network activity across a wide range of external networks is indicated as one potential area for development. Also, the capability of leaders to adapt their leadership portfolio to accommodate an inclusive approach to networking that benefits all learners is considered in the paper. The ongoing dialogue around the inclusive nature of networking and the needs of those that support this form of collaborative learning will inform the design of the educational modules for school leaders and the conceptualisation of future networking practice in educational settings.

The concern of the LeLeNet project was to firstly identify the nature of the leadership of networks and then to determine the needs of school leaders. As a basis for the gathering of evidence a theoretical framework was developed for the project (Vanlommel, Schelfhout, and Vanhoof 2018) and agreed as part of the leadership needs identification process. In all participating countries Belgium, Czech Republic, Sweden, Slovenia, Spain, and the United Kingdom headteachers have to take part in formal, pre- or in-service training. Consequently, evidence-based school leadership development is a valued feature of the professional environment. The target group for the needs identification interviews and the questionnaire were school leaders in the compulsory school sys-

TABLE 1 Cases

Country	Total cases	Valid and used cases	Unused cases
United Kingdom	40	40	0
Slovenia	67	50	17
Sweden	64	50	14
Spain	56	50	6
Belgium	64	50	14
Czech Republic	57	50	7
Total	348	290	58

tem. Five qualitative interviews with leaders were undertaken in each country participating in this aspect of the project. In addition to this case study evidence a questionnaire was developed and distributed to head teachers, with two purposes. Firstly, to get an overview of the extent of teachers' networking between schools, with a focus on the school leader view of these activities and secondly to identify development needs for school leaders.

The 25 interviews were based on pre-agreed interview schedule with seven areas of interest:

- linking networking with teaching and learning;
- topics for networking;
- teachers' motivation for networking;
- the role of head teacher in networking;
- the benefits of networking;
- head teachers' strategies for supporting and sustaining networks;
- limits, challenges and head teachers' needs.

The basis of the definitions adopted in the theoretical framework and indicated in the interviews informed the questionnaire design. The coding for the comments utilised in this paper are based on a system indicating country of origin and a number allocated to the respondent e.g. (CZ 1). The questionnaire targeted a wide group of school leaders across the six participant countries, 290 questionnaires form the basis of the findings (table 1).

The purpose of the questionnaire was to gain an insight from school leaders, engaged in compulsory schooling, into the current situation of networking between teachers and to identify the training needs of school leaders. The purpose of the research activity was to ensure that the needs of the participants were met by the programme design. The questionnaire also had some open ques-

tions where informants developed in depth answers to the questions. These responses and the interview evidence have illuminated the design features of the planned programme.

The Complexity of the School Leader Role in Networked Schools

A premise of the LeLeNet project was to demonstrate the need for capacity building of school leaders in the area of network leadership. The rationale being that if staff in schools are involved in networks then this involvement should be aligned with the strategic direction of the school. Ideally the outcomes of the network engagement should be recognised by the school leaders and utilised effectively for the benefit of staff and pupils. The evidence gathered indicated that school leaders and staff are engaging with a variety of networks for a range of purposes. There were a very small number of schools across the sample that reported no network activity of any kind. Respondents recognised the ‘very effective cooperation and mutual learning’ (S14). The formal and informal activity is very varied and involves individual staff or identified groups, often in planned curriculum projects or leadership development. Consequently, the need for leaders to be aware of the range of activity and to guide and support the practice of their colleagues is evident both from the literature and the evidence gathered by the project team. If the linkages between staff and other schools internally or externally is not known by school leaders it would not be possible to capture the impact on teaching and learning. This indicates that the monitoring of network links, by school leaders, is an important area of strategic knowledge. If the notion that networking is of value to staff and pupil learning, then engagement and impact needs to be monitored for the potential to be maximised within the school setting.

Participant responses indicated that all or almost all of their teachers are involved in informal collaboration and formal networks within their own school. Fewer, but still near to 75%, estimate that self-regulated networking is common in their schools. These organic groups of staff may be focused on informal development or sharing practice on aspects of schooling, such as working with parents or supporting new teachers that are involved in induction. The impact of this type of network could be high but if not recognised and nurtured by the leaders there will be no way of harnessing the benefits from these collaborations. Awareness of these groups and their activities is an essential part of a school

TABLE 2 To What Extent Are Teachers Involved in Different Kinds of Collaboration and Networks?

Answer	1	2	3	4
Informal collaboration within school	4	15	89	178
Informal collaboration between schools	18	119	119	29
Self-regulated networks within schools	20	52	129	77
Self-regulated networks between schools	59	125	73	13
Formal organised networks within school	16	29	77	159
Formal organised networks between schools	46	87	97	49
Other networks within and/or between schools	59	33	36	25

NOTES 1 – not at all, 4 – fully.

leadership role, even though the activities might be informal or operational. It may also be a way of motivating teachers and raising the awareness of staff ‘that they are not alone in the problems’ (s15) that they face. Self-regulated networks within schools are an area for school leaders to at least foster, if not lead, due to the potential contribution to the culture and practice within the school, as well as being a positive feature of shared learning.

The role of the school leader in the collaboration and networking between schools is considered to be an area for development for many of the respondents. It is difficult for school leadership to facilitate some of the activity beyond the school and to capture and acknowledge the benefits of the involvement of their staff engaging with informal collaboration. There are potential resourcing issues to overcome. The way forward for school leaders is first to acknowledge the nature of the networks and plan for staff engagement to enhance their learning experience and that of their pupils. Some of these are internal networks or Professional Learning Networks (PLN) operating under the routine practice of the school and the role of the school leadership. Other collaborative approaches are fostered through wider networks that undoubtedly promote the professional learning of staff but the impact on the learning of pupils is less clear. Given the complexity of activity and variety of individual involvement at the teacher level all stakeholders need to raise their awareness of the essential conditions in which teachers can share and construct knowledge with colleagues and reflect upon their practices. As Poortman and Brown (2018) assert, professional learning networks have the potential to promote inclusive practice and enable teachers to address challenges of a diverse student population.

The evidence generated through the work of the LeLeNet pro-

ject, over a period of two years, has indicated that, as in the work of Jackson and Timperley (2007), there are characteristics of networking that enhance collaborative learning. These key characteristics, shared values and vision, collective responsibility, reflective professional inquiry, collaboration and the promotion of group and individual learning, feature in the theoretical framework and are recognised in the evidence gathered. Networking involves complex and costly involvement of staff in a range of non-routine behaviours. The sharing of knowledge and practice across networks by teachers and leaders can impact on pupil learning. However, an essential feature of successful professional engagement is that the school leader recognises the benefits but guards against the potential difficulties that staff may face. The leadership of a networking school also determines how well new knowledge and practice inform staff and feed the learning into the school setting. The notion that in order to ensure positive outcomes from networking leadership capacity must be enhanced through specific guidance on the skills and knowledge of network leadership. On this basis and the evidence relating to the knowledge and understanding of participants there is a sound justification for the leadership programme to include as a core module the enhancement of theoretical knowledge related to networks.

The recognition that the headteacher should facilitate staff to engage with wider networks in the pursuit of professional learning and school improvement has emerged from both the literature, earlier studies and the evidence gathering undertaken by the project members. It appears that some teachers find great difficulty in the translation of their learning toward change in classroom practice or into new insights for colleagues. The identification of the need to further enhance the roles of school leadership to include support for the transformation of classroom practice based on the learning of teachers is one which requires specialist knowledge and supportive practice. Research undertaken by Ballet and Kelchtermans (2009) indicates that professional learning is clearly influenced by school culture and policy, but that the enhancement of staff knowledge and skills happens in a rather isolated, separate set of activities from the other school policy domains. In order to maximise the potential of teacher learning through the sharing of practice and the dialogue associated with the learning process these activities should be facilitated by school leadership.

Research has shown that professional learning communities (Stoll et al. 2006) and other forms of teacher teams (Vangrieken

et al. 2015) do not arise without leadership support. Successful development of different forms of learning networks will depend on the way head teachers embed collaborative practice in their school policy and school structures (Stoll et al. 2006). Hargreaves (2006) argued that the expected presence of collegiality fostered by networks specifically invokes an institutional base and structural conditions, which emphasizes the organizational context and the important role of the school leader in 'sense making and sense giving' (SEI). Shaping this kind of policy cannot be done within a traditional top-down hierarchical view of leadership. To be able to reach this goal an inclusive, cooperative leadership is crucial to improving the core educational processes which take place in schools as a basis for sustained school development (Hallinger 2005).

Networks can operate across traditional structures and beyond the school, especially as many teachers have access to digital networks as well as those that are in geographic proximity. Some schools reported working within nationwide networks and others with schools in other countries. In shared leadership models the school leader recognises activities in an interactive web of different leaders and followers in different situational circumstances (Hargreaves 2006). Marks and Printy (2003) integrated the different lines of research on school leadership into an overarching concept called 'shared instructional leadership.' Verbiest (2014) indicates that 'the school leader on the one hand works transformationally, stimulating the involvement and development of teachers. On the other hand, they co-operate with teachers to optimize the learning process. It is clear that the head teacher does not have to lead all networks in which the staff operate, but rather provide guidance to the teachers that lead the process' (p. 4). A strong indicator for the LeLeNet project is that school leaders indicate a need to be aware of the appropriate leadership models and determine appropriate leadership roles to ensure the success of the networks. Consequently, a programme design feature is that elements of the first module, addressing knowledge and understanding of network leadership, is recognized as a foundation for all modules to be developed for the project.

Successful network development will depend on institutional conditions at the school and classroom levels. The organization will need to ensure strategic alignment between the organisation and the network activity. This will involve (1) shared goals and visions (2) shared leadership values (3) a culture of inquiry and (4)

supportive relationships and trust (Vanlommel, Schelfhout, and Vanhoof 2018). Teachers need to be motivated and have a positive attitude to collaboration, internally and externally, given the need for membership of many networks to be voluntary and possibly accessed in the personal time of staff. Head teachers can have a positive impact on conditions for the success of an internal network, but it is more complex for leaders to address all the potential networking of teachers and associated outcomes. There is recognition that they and other school leaders may have to adopt flexible, composite and adaptive leadership models in which the need to serve multiple agendas and fulfil a range of leadership to facilitate successful networking. Furthermore, the respondents note the need to ‘foster a culture of mutual professional respect’ and a whole school approach to networking. On the basis of the evidence gathered by the project team leadership development in fulfilling the multiplicity of roles required to sustain networks and benefit from networked learning are essential features of the programme design.

School Leader Development Needs

Most of the school leaders responding to the questionnaire seemed to appreciate the multiplicity of leadership functions of the networking agenda in identifying their training requirements. They highlighted many of the areas suggested by the theoretical framework as areas of need, particularly building structures, capacity for networking and how to extend and distribute new knowledge within the organization. Given the range of experience of participants it is not surprising that confidence about their ability to build trust and positive working relationships was not as important as the other areas of development where they described their needs as essential. A particularly interesting aspect of this evidence was that further areas for development were not suggested by the majority of the respondents. This may suggest that through the scrutiny of the literature and the case study evidence the project team had captured an appropriate range of leadership capability required for networking. Consequently, the design of the questionnaire ‘saturated’ the response options for most school leaders. Suggestions for areas of further training in the open answers include how to intermix participation in networks and work with pupils, communication techniques for managers and how to deal with colleagues who ‘only do the minimum.’ However apart from

TABLE 3 I need additional training in ...

Answer	1	2	3	4
How to create and enhance a learning culture among staff	21	85	108	72
How to build trust and positive working relationships within school	38	90	92	65
How to build structures for sustainable, personal and interpersonal capacity development	16	76	113	82
How to stimulate and support the quality of individual and group learning processes	10	74	109	93
How to foster collective responsibility for student learning	19	68	99	96
How to develop a shared vision for working in networks	19	81	103	76
How to extend and distribute new knowledge within the organisation	22	68	119	77
How to work with teachers motivation and commitment towards professional learning networks	17	57	100	111
Other training needs? Please specify below	25	6	6	13

NOTES 1 – not at all, 4 – fully.

the first area the other aspects are not specifically tied to leadership of networking. One respondent suggested a forum where head teachers can share examples from their development work concerning stressful situations. The notion that a problem shared is one that can be lessened permeates the concept of networked learning.

Verbiest and Timmerman (2008, 21) argue that the roles of the school leader, in the development of professional learning networks, can be grouped into three aspects. The role of ‘culture developer’ disseminating and strengthening of values, views and standards in the service of a commonly supported professional learning culture. The role of ‘educator’ fostering the intensity and quality of the individual and collective learning processes of team members, so that profound learning takes place for all. The role of ‘architect’ involved in building structures, processes and systems in schools that enhance personal and interpersonal capacity development. This structure seemed to be supported by the evidence base of school leader needs and as a result three of the five modules designed for the LeLeNet project are based on these structures and features. It is intended that the modules will be of value to those responsible for networking activities, but they will also reinforce any collaborative, social construction of learning. The rationale for this decision is conceptual, evidence-based, experiential and, unavoidably based on the belief system of the project team.

The opportunity for school leaders to explore their approach

and commitment to the creation professional learning communities (Mulford and Silins 2003) is central to the module that addresses the role of the ‘culture developer.’ A school leader’s understanding of the elements of collaborative culture may vary significantly even though the evidence indicates that supportive relationships within the school teams is recognized as an essential condition for networks to flourish. The response to the questionnaire indicates a very high level of informal collaboration within schools. However, concerns arising in the open comments and some of the case studies refer to staff who are unwilling to involve themselves in networking within the school and who do not see external networking as a necessary part of their professional activity. This indicates that there will be variation in the extent of collaborative practices between colleagues and some leaders indicate a need to explore this aspect of staff commitment. In order to empower school leaders to evaluate existing collaborative culture in their schools the module will address the evolving nature of a learning culture (Fullan 1993) and the steps to be taken toward the inclusion of all staff.

An associated area of focus in this module will be the need to create a climate of trust and positive working relationships (Louis and Kruse 1995). Research has shown that learning at any level requires a culture of trust and support (Bryk and Schneider 2002). Leaders have a responsibility to create an environment in which teachers trust each other, are not afraid to admit mistakes and ask for help. These positive working relationships tend to exist (Louis and Kruse 1995) where collaborative learning is fostered. Fullan (1993) suggests that a learning culture recognizes different interests of all stakeholders, focuses on people rather than systems and encourages people believe they can change their environment. A culture that is based on these principles makes time for learning, adopts holistic approaches to problems, encourages open communication and is based on teamwork. The interview evidence gathered through the LeLeNet project supports this view and adds the need for a shared sense of purpose as an essential pre-condition of networks, particularly with those beyond the immediate school environment. In these settings expectations are agreed and monitored but not micro-managed. Colleagues are trusted to work together to achieve positive outcomes and share learning.

The module addressing the role of ‘educator’ in the context of Professional Learning Networks (PLN) fosters a paradigm for

school improvement in which the relationship between staff learning, teaching and student learning co-exist. The intensity and quality of the individual and collective learning processes of team members is harnessed to assure that profound learning takes place. Head teachers hold an important role as educator, since they will have to focus on learning at all levels (Leithwood and Jantzi 2006; Louis and Kruse 1995) and they will need to be a role model (Stoll et al. 2006) within this learning environment. The notion that teachers can learn together, build and exchange knowledge, have ideas and advise if there is a safe learning culture (Fullan 1992) is one supported by the project evidence base. All case studies reported strong relationships between networks and enhanced approaches to learning and teaching. ‘teachers share experience, they attend lessons of other teachers to find out how to work with materials’ (CZ 1). There was also representation about the validation of the work of teachers by their peers within the school setting and beyond. The opportunity for teachers to ‘get feedback about where they are but also approval of their practice. Critical judgement leads to improvement of their work’ (S11).

The encouragement of teachers by school leaders to share ideas and try new approaches was evident throughout the interview evidence provided by the twenty-five schools. The fundamental notion that ‘you can develop your practice most effectively if you can learn from each other’ (S14) is a central aspect of the learning together philosophy that underpins the programme. The questionnaire illustrated the range of potential learning areas that can benefit from inter or intra school networking. Topics typically indicated as a focus of networks related to developing curriculum content, pupil competence or supporting school specialisation (65–70%). Many organised networks focus on teaching method development (approximately 75%). In the open answers (6g) the respondents gave examples such as ‘common problems’ being shared, ‘cultural topics,’ ‘ICT as a tool for learning,’ ‘assessment’ but also lesson planning and addressing students with special educational needs. Networking encourages reflective professional inquiry and collaboration that are needed for learning and knowledge creation (Hall and Hord 2006; Louis et al. 2010). Across all areas indicated by school leaders the synergies of collaborative action were acknowledged and the notion that colleagues will achieve together a great deal more than each educator can do alone.

The role of ‘architect’ is possibly the least familiar to the project

TABLE 4 To What Extent Are the Organised Networks Involved with the Following Topics?

Answer	1	2	3	4
Curriculum content development	22	61	99	98
Teaching method development	7	55	119	105
Development of pupil competence	13	66	121	85
To support school specialisation/development/imp.	11	66	128	80
Development of inclusive education	23	101	102	56
Development of school leadership capacity	47	97	76	33
Other focus? Give example below	27	19	14	18

NOTES 1 – not at all, 4 – fully.

respondent groups, although many of them are aware of some of the activities that are involved in this role. The language of the architect role is also less familiar such as building structures, identifying and distributing knowledge and sustainable systems that enhance personal and interpersonal capacity development. The module content focuses on the facilitation of knowledge exchange, recognition of resource capacity and innovation between teachers. One key message for the architect is that the school needs to be organized to allow time for staff to meet, talk and share thoughts regularly (Louis and Kruse 1995; Stoll, Fink and Earl 2003). Dialogue is essential to the professional exchange needed for the process of shared learning (Dimmock and Walker 2004). A bottom-up approach to school development, focusing on educational processes for pupils and staff needs to take place to ensure that the needs of learners are addressed. Creating liminal spaces for dialogue, ownership of agreed agendas through delegation of tasks, sharing responsibility and more involvement of teachers in well-defined strategically aligned tasks is a required practice of successful networks. The creation of opportunity for physical proximity to allow exchange of ideas is important but in the digital age this can be achieved at distance, provided that the resources are there to facilitate online activity.

Resources such as time, space and opportunity to cooperate need to be used to create the pre-conditions for shared learning. School structures that encourage different forms of learning communities are fostered by appropriate development conditions that form an essential starting point for successful networks. To promote, sustain and extend PLN, schools need external support in the forms of partnerships and links into associations and other educational bodies that share the need for interaction. This might

be other schools, local administrative arrangements, leadership schools or government resourcing. The school leader not only needs to construct structures within the school, but actively build bridges with external partners (Leithwood, Jantzi, and Steinbach 1998; Rosenholtz 1989). Professional Learning Networks comprise links within schools and across schools, which are both important from a learning perspective. Head teachers cannot consider their schools as an island, they need to be responsive to external partners to jointly learn and develop. Consequently, the architect function of the leadership role requires further development for most headteachers and those responsible for inclusive engagement with the wider community

Teacher willingness to participate in networks and their motivation to cooperate with others from a development perspective is one area that needs to be carefully facilitated by school leaders. One starting point for PLN's is that they can emerge from identifying shared needs, without pressure or obligation from external policy (Hall and Hord 2006). In this case teachers can make choices about their areas of interest and focus for development, which facilitates a diverse group of teachers through inclusive learning. Networks consist of a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive way (Toole and Louis 2002). This approach encourages teachers to apply new ideas to the problems they share and generate creative responses that are a good match to the needs of the community that they serve. These development-oriented systems are heavily dependent on teachers being self-motivated in their engagement (Sutherland 2004). Consequently, a role of the school leaders is to facilitate inclusive practice where staff are encouraged to work together to achieve a well-defined goal and to gather evidence of the impact on practice.

Some teachers are intrinsically motivated to function collaboratively as part of their philosophy of education and others are less willing to do so. However, in the same way that the headteachers need to undertake different roles to lead networks staff can undertake different roles in networks. Not all staff involved have to make the same contribution. They can fulfil different functions in the shared learning process and have an asynchronous benefit to the network. It is as important for school leaders to recognize the diversity of their staff and the skills and experience they bring to a network as it is to recognize the diversity of their pupils and the community that they serve. Collaboration allows some staff in

complex and challenging circumstances to take the risk of investing in long-term improvements, rather than going for short-term gains Hadfield and Jopling (2006). Understanding how staff can hold different roles in networks can contribute to an inclusive culture, a feature of the final module that permeates the programme as a whole. The extent to which this approach works, for all levels of learning, is an important feature of the evaluation of networked learning.

Concluding Comments

The project, to date, indicates that there is a broad, international consensus, based on the literature and the evidence gathered by the partners that networks can promote an inclusive approach to the leadership of learning. The conceptual model proposed is learning-orientated, growth promoting and operates as a collective enterprise (Mitchell and Sackney 2000). The LeLeNet project team identified key characteristics that are essential for building and fostering the culture of networking. Factors such as formality of network structures, strength of connectivity, levels of learning and availability of network facilitation expertise impact on the focus, design and orientation of the planned learning activities. The need for school leaders to recognise the challenges of networking such as teacher motivation and attitudes toward this collaborative way of working were explored as a fundamental part of leadership of connected organisations. The need to develop the leadership capacity to adopt roles that support networking schools is a core purpose of the programme.

The evidence gathered on the basis of the theoretical framework was supportive of the view that the role of the school leader is a precondition for successful networking in schools. The creation of efficient teacher networks relies on the development of a variety of professional knowledge and skills from both teachers and school leaders and the development of a collaborative learning culture. There is a powerful and persuasive case demonstrated across the three forms of evidence brought together across six countries that appears to validate the programme design proposed for school leaders.

However, it is also evident that schools will vary in their enthusiasm and skepticism of the need for networks and the leadership readiness to adopt the concept. In a time when school networks have become 'ever more popular' (SI and UK) as the mode of ini-

tiating changes and large-scale reforms there is a strong case for the development of leadership roles that accommodate inclusivity in diverse settings. School leaders must be enabled to promote learning activities within an interactive web of leaders and followers in different situational constellations (Hargreaves 2006) if they are to effectively serve the needs of their learners and the wider community.

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