Create learning for all

– what matters?

CIDREE

Consortium of Institutions
for Development and Research
in Education in Europe

CIDREE
yearbook
2012

Create learning for all

– what matters?

Consortium of Institutions
for Development and Research
in Education in Europe

CIDREE
yearbook
2012

CIDREE is a network of educational organisations involved in curriculum development and/or educational research, set up in 1990 to establish closer working relationships at a European level. CIDREE is run by the members, for the members and collaboration largely takes the form of reciprocal study visits and the development of joint projects and publications.

Authors:

Ulla Lindqvist
Kay Livingston
Tanja Rupnik Vec
Zora Rutar Ilc
Jos Bertemes
Gene Bindels
Manuel Bissen
Liana Kang Schmitz
Anne Meyer
Annette Thijs
Wilmad Kuiper
Nienke Nieveen
Lena M Olsson
Per Kornhall
Pille Kõiv
Katri Lamesoo
Tidita Abdurrahmani
Elona Boce
Marita Hamza
Irida Sina
Nazmi Xhomara
Mónika Réti
Edit Lippai
Romuald Normand

Editors: Ulla Lindqvist, Sten Pettersson

Production: www.ordforradet.se

Cover picture: Corbis/Johnér

Published in 2012 by:
National Agency for Education/Skolverket
106 20 Stockholm
Sweden

Order address:
Fritzes kundservice
106 47 Stockholm
Telefon: 08-690 95 76
Telefax: 08-690 95 50
E-post: skolverket@fritzes.se
Best.nr.: 12:1304
ISBN 978-91-637-1707-9

How to cite this publication:
Lindqvist, U. (Ed.) (2012). *Create learning for all – what matters?*
– CIDREE Yearbook 2012.
Stockholm, Sweden, Skolverket: Fritzes [distributor]

Contents

Foreword

Welcome to the CIDREE Yearbook 2012, *Create learning for all – what matters?*

In times of crises, education has more than ever become the hope for a better future for individuals and collectively for societies. While the economic crisis hits the most vulnerable members of a society first and most, it becomes painfully apparent that the distribution of educational resources and chances in the past lacked inclusiveness in too many cases. Therefore, and in the light of omnipresent international rankings of school systems and countries, the distribution of school results across the population of learners within a country and not only the average achievement has to become the primary focus of educational policy and practice again.

Raising standards and educational results *for all* is a non-trivial challenge, which has to be tackled at all levels of the educational system, from the ministerial office down to the classroom with coherent and consistent actions. The wide range and the multitude of levels of actions are adequately, although surely not exhaustively, reflected in the richness of the examples and cases portrayed in the nine contributions to this Yearbook.

I would like to express our thanks to our Swedish colleagues, especially Ulla Lindqvist, for their initiative for this Yearbook and their fine editorial work. These thanks, of course, also go to all contributing authors who made it possible to assemble a representative picture of the similarities and differences of approaches to the same challenge in different European countries.

During the CIDREE conference in Stockholm, hosted by Skolverket, this book will be launched and discussed and our wish is that this book is the start of an enriching and lively discussion and reflection on these issues beyond this conference.

Learning for all is what matters – the present Yearbook sheds light on what matters to achieve this noble goal!

Stefan C. Wolter
President CIDREE 2011–2012
Director, Swiss Coordination Centre for Research in Education (SKBF)

Introduction

ULLA LINDQVIST

Schools and their possibilities to support all pupils in their efforts to learn and achieve the targets and expected outcomes is the starting point in this CIDREE yearbook 2012. The pupils´ learning is its focus. The question about how to "Create learning for all – what matters?" is a core issue for education in every country, an exciting and challenging question that constantly needs new answers. This is the overall topic of the CIDREE yearbook 2012. The articles from nine European countries mirror current challenges, discussions and tendencies in their different contexts. Several are common, but others are specific. However, one book can not cover them all. So, with this contribution we are pleased to invite you to a further discussion on how to develop learning for all pupils and how to implement new thinking and big changes into every day teaching and learning processes.

The emphasis on the key role of education has grown in intensity. Focus, demands and expectations on single schools and education systems are very high indeed. The need for curriculum reviews, improvement of teaching and learning as well as in many cases system changes are in focus in most countries in order to provide excellence, enabling personal development and social and civic cohesion. The principals of learning in the 21st century and the emphasis on a wide range of knowledge, competencies and attitudes are strongly stressed and innovation, creativity and flexibility have become key words within education in the time.

However, too many pupils are dropping out or leaving school without a complete education. These are challenges that can not be ignored. At the same time there are high expectations from European policy makers and educational stakeholders on education outcomes and increasing number of students in higher education and higher vocational training.

Who are going to make all this happen? Although the responsibility is shared among many actors within the area of education, the core actors are – the schools. Teachers and principals are the ones who are expected to take the lead in creating room for learning, to develop and implement every day education for new generations of young people who need to be well prepared for their present and future lives, and who are motivated and skilled enough to keep on learning.

What kind of support, conditions and insights are needed for the professionals in the schools to be able to fulfil their tasks in times of big changes and huge expectations? To create learning environments where all pupils are supported in their efforts to learn and achieve the targets and expected outcomes? – What matters?

We have chosen to examine the question mainly from three starting points: leadership in schools and classrooms, curriculum changes, and current research about knowledge development, and what it means for learning and teaching processes. However, schools and classrooms as mirrors of policy decisions and system changes can not be disregarded. As an underlying red thread throughout the chapters you will also find the core issue of how to implement curriculum changes and new thinking to have an impact on the everyday work in the classroom. These issues are discussed from different perspectives and with different focus.

But before you go deeper into each chapter you will get an overview and some short glimpses of each contribution. So, please, enjoy your reading!

A glimpse into the yearbook

The principles of learning in the 21st century and teachers engaging in peer-mentoring to improve pupil learning is the starting point of the contribution from ***Scotland***. The background is increased demands for new curriculum content and pedagogical approaches in order to support learners to be more adaptive, flexible, independent and self-regulated and to "enable them to live and work in a fast-changing globalised world". Those are principles that apply to both teacher and pupil learning. The chapter describes a programme with the aim to support teachers as "active agents" of their own development and reflective practitioners coming to new understanding about learning, teaching and improving pupil outcomes. A consequent need for ongoing professional development is strongly emphasized.

The article from ***Slovenia*** describes a project with the aim to support schools in creating conditions for learning communities and to contribute to new teachers´ professionalism. The background was high expectations and requirements on a changed role for teachers in a situation where an academic approach in new complex circumstances was not sufficient. To manage new teaching requirements the teachers themselves needed new skills, knowledge and competences. The top down activities at the beginning of the project lead however to resistance, lower motivation and weaker commitment. A bottom-across approach, meaning mutual creation of the process where teachers themselves were actively involved proved to be more successful.

To provide pupils with high and homogeneous quality of teaching and evaluation and promote sustainable learning was the aim of a school project in ***Luxembourg***. To reach that goal the implementation of a professional learning community was needed that calls for teacher collaboration and exchange, as well as discussions also on a meta-level besides subject matters. A school´s internal capacity to become a learning community, and new understanding of responsibilities of school leadership are regarded as key factors for a successful implementation of the recent reform. The self-evidence of team work has, as a result of the project, created an atmosphere of mutual trust and safety. Questions and requests for advice are now regarded as proof of professionalism, instead of weakness or inability.

A substantial policy shift towards outcome-based education and input- and output regulations for primary and lower secondary school is discussed in the contribution from ***The Netherlands***. For the first time in Dutch history mandatory achievement tests in core subjects are required at the end of primary and lower secondary education. The complicated balancing act between curriculum freedom and regulation is further described, as well as big concerns and challenges for schools and teacher teams. Professional development and support of schools and teachers is regarded as crucial for success, as well as high degrees of interaction amongst the different groups involved. Moreover, there is a need of a broad debate on what kind of knowledge that is of most worth in the light of "learning for all".

Since the middle of 1990s international studies have indicated a decline in performance and equity in compulsory schools in ***Sweden***. A systematic review has shown the impact of various factors on pupils´ attainments at different levels, at systemic as well as classroom level. Four broad themes tie together key findings and central arguments such as segregation, decentralization, streaming and individualization demonstrate that the classroom and the teachers are part of a broader context. All the factors combined have been judged to affect pupils´ results, especially for pupils whose parents have a lower degree of education. A rising level of ability grouping and individualization of the teaching were two main factors at school level, reflecting on how this trend could be broken with the aid of effective in-service training of teachers.

The contribution from ***Estonia*** describes the different roles of school leaders and the consequences if curriculum change and innovation are approached as a one-off activity or a long-term plan. While the principals in the referred research study tended to regard the development of school based curriculum (SBC) as an opportunity for designing school activities from a holistic view and during a long process, the assistant principals tended to take a more formal approach defining the new National Curriculum as a regular document that has to be completed on time and strictly followed. The differences in understanding, implementing and putting the SBC into practice, have a great impact on pupil learning.

The role of school leadership in improving education quality for all pupils is increasingly becoming a researched topic in ***Albania***. Also, use of interactive teaching methods and information and communication technology in the classroom has gained greater emphasis in the last decades. The article describes the aim of the research which has been two-fold: to create a descriptive view of school leadership styles and teaching methods in Albania classrooms, and to investigate the impact of school leadership on improving use of developed methods and information and communication technology (ICT) in the classrooms. The article discusses the findings in terms of the different perceptions of the school leadership among principals themselves, teachers and students, and of the use of ICT and most common teaching methods in the classrooms.

"Educating Spaces" focusing on quality learning environments in educational facilities is a research project presented in the chapter from ***Hungary***. The article discusses how physical spaces provide more than sceneries for pedagogical processes. However, to describe what makes a school building or a school yard "good" in terms of pedagogy is regarded as an extremely complex issue. A dialogue was therefore initiated between experts representing different areas such as architects, interior designers, landscape architects, psychologists, as well as teachers, educational managers and policy makers. A set of quality criteria was established, presented in the chapter, by which users and designers could create quality learning environments in public educational buildings and for future schools.

French education system recently modernized and French school system as an institution "in crisis" is discussed in the contribution from ***France***. Although changes are "timid" hopes remain high among French educators and parents. A number of actions already undertaken and challenges still remaining are described. References are made to declining PISA scores in the mastery of basic skills, to high and "elitist" requirements undermining the achievements of pupils with immigrant background and to pupils dropping out of schools without necessary qualifications. Increasing unemployment among young people with lack of relevant knowledge and skills is regarded as one of the consequences. In order to promote school achievement for all pupils a "big plan" for cohesive action on the basis of a national strategy is discussed.

About CIDREE

CIDREE, Consortium of Institutions for Development and Research in Education in Europe, is a network of educational organisations involved in curriculum development and educational research, set up in 1990 to establish closer working relationships at a European level. CIDREE is run by the members, for the members and collaboration largely takes the form of reciprocal study visits and the development of joint projects and publications.

ABOUT THE AUTHOR

Ulla Lindqvist

Director of Education at The National Agency for Education (Skolverket) in Stockholm, Sweden. She is the project manager and main editor of this Cidree yearbook 2012 and responsible for the Stockholm conference November 2012 on the same topic. Cidree contact person. Focus areas: work within an extensive reform program, specifically 2011 Upper Secondary School reform process (Gy 2011) from preparation to implementation. Issues pertaining to knowledge and competences in the 21st century, and assessment and grading are within her field, and development of learning and teaching processes of her current interest. International cooperation in different fora, eg. a Chinese-European network of educators´. Has been project manager of thematic national quality reviews, such as The desire to learn with a focus on mathematics and within the Schools Inspectorate.

ulla.lindqvist@skolverket.se; ulla.e.lindqvist@gmail.com

Teachers Engaging in Peer-mentoring to Improve Pupil Learning

Kay Livingston

Teachers Engaging in Peer-mentoring to Improve Pupil Learning

KAY LIVINGSTON

Abstract

The principles of learning in the 21st century point to the importance of active engagement in the learning process including self regulation and reflection, learning in context and learning in collaboration with others. This paper is based on the premise that these principles apply to teacher as well as pupil learning. Teachers' professional development should enable them to engage actively in the development of their own learning and continually reflect on ways to improve their pupils' learning outcomes along with other teachers. This notion of teachers as active agents in their own development is in line with research suggesting the importance of enabling teachers to become more reflective and enquiring practitioners. Professional development should enable teachers to come to new understandings about learning and teaching for themselves in a supportive environment. It is proposed in this paper that peer-mentoring enables teachers to support and challenge each other's learning through professional dialogue. This dialogue enables teachers to engage in ongoing enquiry about how to improve their own pupils' learning. The focus of the paper is the impact that peer-mentoring has on teachers' professional learning at class and school level. In Scotland a pilot study was undertaken to explore the impact of peer-mentoring within the context of the implementation of a new curriculum for pupils aged 3–18 years (Curriculum for Excellence). The approach being taken in the implementation of peer-mentoring in a pilot project will be outlined. The impact that it is having on teachers' professional learning, their teaching and their development as leaders will be discussed. The potential that effective peer-mentoring has to improve pupil learning will also be explored.

Introduction

Many countries and education systems are engaged in reviewing their curriculum and teaching processes (OECD, 2010) to address the need to develop pupils' confidence and abilities in wide range of skills, knowledge creation and sense-making in different contexts. Cidree has enabled researchers, policy makers and practitioners from across Europe to share ideas and challenges of curriculum and teacher development. The focus of many of these discussions has involved developing a curriculum and a teaching profession that is relevant for 21st century learners. The need to support the development of more adaptive, flexible, independent and self-regulating learners to enable them to live and work in a fast-changing globalised world has increased the demand for new curriculum content and pedagogical approaches and the consequent need for ongoing professional development of teachers (Livingston, 2012a). In this chapter curriculum reforms and new learning and teaching approaches in Scotland provide the frame for consideration of teacher education approaches to improve pupil learning outcomes. The first and second sections of the chapter set out the context of educational change in Scotland – the new curriculum framework and the proposals for career-long teacher education. The second section discusses the application of principles of 21st century learning to teachers' learning, focusing on encouraging and enabling teachers as learners. The importance of the provision of supportive learning environments in school particularly through the development of peer-mentoring is discussed in the third section. The impact of these mentoring processes on improving learning outcomes will be considered drawing on evidence from a research and development pilot project implemented with teachers in Scotland. This approach to teachers' learning is relevant to the development of every teacher no matter which country they teach in.

Curriculum Change in the Scottish Context

A new single unified framework for learning throughout the early years, primary and secondary school was implemented in Scottish schools, in full in 2010–2011, in order to improve the learning, attainment and achievement of 3–18 year olds. Fundamental to the new curriculum is a philosophy of active learning, self-evaluation and reflection for all teachers and pupils. Underpinning this philosophy is the notion of career-long teacher professional learning embedded in schools as a key component of ongoing school improvement (Livingston, 2012b).

Curriculum for Excellence is outcome-focused, aiming to enable all children and young people in Scotland to develop their capacities as successful learners, confident individuals, responsible citizens and effective contributors to society. The curriculum framework is not prescriptive and it gives teachers freedom to make decisions about how curriculum outcomes are met according to the needs of their pupils. A framework of guidance (see Curriculum for Excellence, www.educationscotland.gov.uk) outlines the learning experiences and outcomes in 8 curriculum areas and encourages learning through cross-curriculum themes. Within the guidelines teachers are able to make decisions about appropriate learning activities for their pupils in order to achieve the outcomes identified in the curriculum framework. The curriculum reform means teachers have to understand new content, assessment processes and new learning and teaching approaches. For example, all teachers in Scotland now have responsibility for developing pupils' learning outcomes in literacy, numeracy and health and well-being. Teachers are also encouraged to engage in collaborative teaching with colleagues linking subject areas around learning themes to enable pupils to develop higher order skills and achieve broader outcomes. The new curriculum framework was first published in draft form and released in a phased process from November 2007 – May 2008. The curriculum documents (Scottish Government 'Building the Curriculum', 2006, 2007, 2008, 2009, 2010) leading up to full implementation of Curriculum for Excellence signalled the desire for an ongoing collaborative approach to curriculum reform. The documents set out a vision to encourage teachers to act as active agents in curriculum review and development in order to improve learners' progress, achievement and life chances. Engagement in curriculum development through dialogue and reflection with peers was encouraged with schools across Scotland being invited to trial the new curriculum experiences and outcomes and provide feedback. This process itself offered powerful opportunities for professional learning for teachers as they were active in their own professional development by testing new ways of working with their pupils in their own classrooms.

> *This review of the curriculum is a continuous process of professional learning and development, not a one-off change. In the past, national curriculum developments have often been supported by central guidelines, cascade models of staff development and the provision of resources to support the implementation of guidance by teachers. Our approach to change is different. It aims to engage teachers in thinking from first principles about their educational aims and values and their classroom practice. The process is based upon evidence of how change can be brought about successfully – through a climate in which reflective practitioners share and develop ideas* (Scottish Government, 2006:4).

The successful realisation of any curriculum reform is dependent on what teachers do in the classroom and how they encourage and facilitate their pupils in developing their own learning. It also depends on the knowledge, skills, understanding, values, commitment and confidence that the teachers bring to learning and teaching. The curriculum reforms in Scotland, as in other countries, play a key part in the change process but they will not be successful if teachers do not feel ready and able to put them into action in their own classrooms. Putting any curriculum reforms into action in teachers' own classrooms means different things to different teachers. Individual learning histories, expertise and beliefs about learning and teaching are different and the cultural environments that teachers work in also differ. Constructivist theories point to the importance of taking account of prior knowledge – connecting new knowledge to it and building on it (Vygotsky, 1978, Bransford et al, 2000). This relates to teachers' learning just as much as pupils' learning. Differences in prior knowledge, in values and beliefs about learning and in teaching circumstances mean that teachers have different professional learning needs in the reform process. Therefore, uncovering what each teacher brings to their professional learning and what challenges they have in implementing new content or learning and teaching approaches is necessary in order to be able to facilitate them in developing their learning according to their own and their pupils' needs.

The University of Glasgow (2009) was commissioned by Learning and Teaching Scotland[1] to collect and analyse feedback about the draft curriculum experiences and outcomes received from teachers, local authority officers and other key education stakeholders in Scotland. The analysis of the data collected showed that the teachers generally welcomed the greater flexibility in decision making in curriculum design and implementation. However, the feedback also suggested that there were uncertainties about the new ways of working and specific concerns about feelings of readiness to implement the new curriculum. Many teachers expressed a desire for further opportunities for professional learning. What was evident from the feedback was a continuum of professional development needs. Teachers at one end of the continuum felt ready to develop their own ideas and resources along with colleagues and their pupils and at the other end teachers felt they needed more national guidance and resources. These findings indicate that teachers cannot be treated as a homogeneous group in relation to their professional development needs. Different confidence levels and differences in feelings of readiness require differentiation in the amount and type of professional development for individual teachers.

[1] Learning and Teaching Scotland was a Non-Departmental Government Body that had responsibility for the development and review of curriculum, assessment and technology. On 1 July 2011, it became part of Education Scotland – a new Scottish Government Agency (see www.educationscotland.gov.uk).

Review of Teacher Education in Scotland

In November 2009, a broad ranging review of teacher education was undertaken in Scotland which covered the entirety of teacher education for primary and secondary schooling. The report of the review entitled, *Teaching Scotland's Future* (Donaldson, 2011) concluded with 50 recommendations which were designed to help build the professional capacity of teachers and improve the learning of the young people of Scotland. Donaldson indicated that Scottish education has many strengths, not least the quality of its teachers and that there are numerous professional development opportunities for teachers provided by national organisations, local authorities and a range of other providers. However, he said that many of these professional development opportunities are not designed in a way that provides a coherent approach to teachers' professional learning nor are they being tailored to the individual needs of teachers and their pupils. This provides further evidence of the need for more specific and contextualised professional development opportunities for teachers. Donaldson also said that there is increasingly strong evidence that set-piece events and conferences, however good, have limited lasting impact. He said,

> *… tailored CPD which meets individual needs in-house, is peer-led and sustained through professional dialogue, with some specialist input to provide an external perspective where appropriate, seems an effective and efficient way to continue to support teachers, particularly when they are engaged in the implementation of major changes in education.* (Donaldson, 2011:69).

Donaldson's views supports the findings of the *'Teaching and Learning International Survey'* (TALIS, OECD, 2010) which indicated that the types of professional development activity that were most valued by teachers across the OECD countries involved in the survey are individual and collaborative research and informal dialogue to improve learning and teaching (Sheerens, 2010). Individualised and collaborative approaches to teachers' professional development draws from the principles of learning in the twenty-first century (Bransford et al, 2000, De Corte, 2010, Greeno, 1991, Resnick, 1987, Resnick & Nelson-LeGall, 1997). De Corte (2010) suggested that current understanding of learning can be characterised in the following way, 'constructive as learners actively construct their knowledge and skills, 'self-regulated with people actively using strategies to learn', 'situated' and best understood in context rather than abstracted from environment and 'collaborative' not a solo activity (De Corte, 2010, p35). However, these principles of learning do not appear to have been consistently adopted in supporting teacher learning.

Much of what constitutes the typical approach to formal teacher professional development is antithetical to what promotes teacher learning. (Bransford et al, 2000:17).

What is known about how people learn should not only be applied to pupil learning it should also be applied more regularly to teachers' learning (e.g. active engagement in the learning process including self regulation and reflection, learning in context and learning in collaboration with others through co-construction, peer-mentoring and professional learning communities).

Donaldson (2011) said in his report that a frequent complaint about professional development is that teachers do not see a sufficiently close relationship to their personal learning needs or to the development priorities of the school. Teachers' and school leaders' understanding of professional development needs to extend beyond courses, seminars, workshops and events that are planned *for* and delivered *to* teachers. A shift in thinking is needed so teachers' professional development is recognised as enabling teachers to come to new understandings about learning and teaching for themselves. It is necessary to instil in teachers a desire to own, lead and be responsible for professional development, rather than having it 'done to you' (Donaldson, 2011). However, this implies that teachers recognise themselves as learners and are willing and able to take responsibility for their own professional learning. It cannot be assumed that all teachers recognise the opportunities they have to learn in their own school context.

Creating a culture that enables teachers to take responsibility for their learning in their own schools and classrooms is important to support and enable teachers to take greater responsibility for their professional development and link it more clearly to the needs of their own pupils. The classroom offers potential as a laboratory for teachers to engage in relevant enquiry into learning and is more likely to develop their sense of ownership of professional learning and enable active engagement than attending events and activities delivered to them that are initiated and planned by others. Schön's (1987) research pointed to the importance of reflection *on* and *in* practice. Ongoing enquiry and reflection in teachers' own classrooms and schools offers potential for a process of connected and continuous professional learning. In addition, professional learning within the school and classroom context is more likely to support the development of autonomous teachers who are able to self-regulate and reflect on what can be changed to improve their own learning and teaching in order to improve their pupils' learning. However, to be effective this learning needs to be facilitated and supported. The aspiration for teachers to take responsibility for their own professional development and enrich and extend their

learning and teaching in an ongoing way is unlikely to be realised without a supportive infrastructure that enables teachers to connect to a variety of support and supporters. It is not enough to simply expect that teachers will work together in a meaningful and productive way. There has to be a reason for teachers to collaborate and the interaction between their professional learning and the goal of improving their pupils' learning needs to be made much more explicit.

Wenger (1998) identified three key dimensions which he believed provide the drivers and levers for authentic community engagement, namely: mutual engagement; shared repertoire; and joint enterprise. Similarly, Glazer and Hannafin's (2006) work on situated professional development within school settings provides examples where teachers work together to support each other in their professional learning. Their work was based on the three constructs identified by Wenger and they suggested they are central to effective professional development. These three dimensions suggest the importance of collegiality, reciprocity and development of shared meaning and action. However, identifying approaches to support teachers in the development of collaborative enquiry and reflective skills remains a challenge in many countries (Asia Society, 2011).

Systematic peer-mentoring processes

A culture of teachers working together in enquiry, reflection, evaluation and improvement needs to be nurtured and supported by building trusting relationships between peers, who feel able to share opportunities and challenges in learning and teaching. Peer-mentoring has been identified as an effective way to promote teacher learning in and across schools (Bloom, Castagna, Moir and Warren, 2005). According to Wang and Odell cited in Achinstein, & Athanases (2006) mentoring can promote a 'critical constuctivist perspective' helping teachers to pose problems of learning and teaching, uncover assumptions, create new knowledge and reconstruct practice. Moir (2009), Founder and Chief Executive of the New Teacher Center (NTC), Santa Cruz, suggests that well trained mentors enable teachers to reflect on their teaching, self-evaluate their development needs and improve the impact of their teaching. Moir and her colleagues at NTC have developed systematic mentoring processes which focus on developing trusting relationships between peers, enabling meaningful learning conversations supporting the development of communicative skills and identifying next steps in learning in relation to the needs of teachers'

own pupils. Underpinning this mentoring model is the belief that the quality of professional learning can only be measured by teachers themselves as they are able to identify if their professional learning enabled them to support the learning outcomes of their pupils more effectively.

Moir emphasizes the need for well-trained mentors and systematic mentoring processes that lead to improvement. Mentoring is not developed in an abstract way rather it is very focused on supporting teachers to come to their own understanding of the ways in which their teaching can influence their pupils learning. The mentor supports and enables the teacher's learning through encouraging deep-level reflection on learning and teaching. Too often mentoring programmes are not founded on a depth of understanding of the meaning or the processes of effective mentoring. Undoubtedly, the concept of mentoring is understood in many different ways as there is no universal definition of mentoring that is easily agreed. Research by Feiman-Nemser (2001), Little (1990) and Wang and Odell (2002) cited by Achinstein and Athanases (2006) suggests that mentoring is often focused on situational adjustment, technical advice, emotional support and local guidance. This superficial model of mentoring which is more akin to a 'buddy system' is unlikely to provide the depth of support required to challenge the status quo or focus the dialogue between peers on learning and teaching sufficiently to have an impact on improving outcomes for learners. Limited understanding of what mentoring is about and poor mentor training is often exacerbated by the fact that some mentors are selected because they have time available in their timetable. This means they often do not have an understanding of, or a belief in, the value of mentoring. This leads to a lack of consistency in mentoring processes and misses opportunities available in school for teachers to engage in powerful collaborative professional learning. This highlights the pressing need for a better understanding of mentoring including the clarification of what it means to be a mentor, what systematic mentoring processes entail and how mentors should be prepared.

To address these questions and develop a better understanding of mentoring and its impact on teachers and pupils, working in partnership with Ellen Moir and colleagues at the New Teacher Center (NTC) a research and development project was set up in 2010–2011 with a selection of local authorities in Scotland. The pilot project aimed to evaluate the introduction of mentoring processes to support professional dialogue and the impact of mentoring on practice. The majority of the NTC's work is with new teachers, however, the pilot in Scotland extended beyond investigating the impact of mentoring on new teachers to include investigation of the impact on teachers' professional practice within

the context of Curriculum for Excellence. The premise was that systematic mentoring processes taking place in school could contribute to the effective implementation of Curriculum for Excellence and focus teachers' professional development on improving pupils' learning. The development and research project involved training the mentors and collecting and analysing evidence to evaluate the impact of the training and the application of the mentoring processes with teachers. Fifty-eight participants from different areas of Scotland were selected to be involved in the pilot project, including teachers, head teachers and local authority education officers.

The mentoring training

Three days of training tailored for the Scottish context aimed to develop knowledge and skills in mentoring processes. The 3 days of training were implemented as single days over a 6 month period at approximately 2 monthly intervals. Each day built on the previous day and we spiralled back and forward in the content and the processes to enable the participants to practise, refine, deepen, reflect and extend their learning of the mentoring processes. During each of the 3 days, explicit connections were made between the formative learning and assessment approaches used with pupils' in Curriculum for Excellence and the mentoring processes. The overarching message was that the starting point for the mentoring process is the analysis of pupil learning in order to identify what is going well and what the challenges in learning are. Using the evidence from the analysis of pupils' work the next steps in teaching are identified and planned for systematically through a learning conversation guided and supported by the mentor.

The training was organised to enable the participants to develop as mentors in a collaborative learning environment. It was recognised that the participants brought a wealth of experience of learning and teaching in different contexts to the training as they came from different schools (primary and secondary), had differing amounts of teaching experience, had different subject expertise and held different posts of responsibility. From Day 1 of the training the participants were encouraged to share their prior learning and experiences. The research-informed methodology for adult learning in professional development (Joyce and Showers 2002) which suggests a balance of presentation, modelling, practise of the mentoring processes, reflection and self-evaluation was applied throughout the 3 days of training. The participants worked in pairs, triads or fours and continually changed the person they worked in an attempt to built trust and a sense of collegiality. After each training day the participants were

encouraged to apply their learning in practice with specific tasks set to practise the mentoring processes with their peers in schools, reflect on them and record them for discussion at the start of the following training day. This approach aimed to enable them to build on their prior learning, made the learning and practice relevant to their own individual contexts and enabled the next steps in learning to be tailored to their own learning needs. Thereby, modelling the mentoring processes they were being trained in and focusing their learning on active co-construction and collaborative enquiry approaches.

The NTC have developed a series of carefully designed protocols that are central to supporting the systematic nature of the mentoring processes. They provide a structure for the learning conversations, record key points of the learning conversations, provide evidence of learning and the commitment to next steps. The protocols also provide a framework to organise, guide and tailor support and challenge to meet the individual needs of the teachers who are being mentored. Although, the protocols provide the structure for the mentoring processes what is central is the way the mentor connects to the mentee using language that facilitates and enables learning. All 3 training days provided opportunities for the mentors to practise mentoring conversations using language stems designed to support and guide dialogue. Davis (cited in Achinstein and Athanases, 2006) emphasised that it is critical that the mentors learn to use language and behaviours that can inform their selection of appropriate mentoring approaches. Throughout the training participants practised learning how to 'read' the mentoring situation and how to respond to the specific needs of the teachers they were mentoring. As Davis suggested mentors need to be able to identify clues, cues and circumstances that help them to make decisions about the mentoring processes and guide mentees. The training days were designed to support the participants in understanding and practising the differing roles of a mentor. They had opportunities to understand the importance of switching between roles according to the specific needs of the mentee. The process is characterised as a carefully choreographed 'dance' using and blending different strategies and approaches as appropriate – sometimes instructive (identifying teachable moments), sometimes collaborative (analysing pupils' work with the mentee and identifying next steps in teaching and learning together) or sometimes facilitative (supporting the mentee to come to her own decisions about what is working or not in approaches to pupil learning). The mentors required significant practice in these mentoring approaches and the use of the protocols to help strengthen their ability to know when to use which approach. In particular they needed to learn and practise the language used in mentoring conversations to keep the focus on building the teachers' own capacity and on improving pupil learning.

Collection and analysis of evidence and findings

A range of qualitative research methods were used for the evaluation of impact to enable in-depth data to be gathered. Evaluations from the 3 training days were gathered at the end of each day. The participants also completed mentor reflection logs following the 3 training days: these were completed and submitted between 1 week and 1 month later. Interviews were also conducted with headteachers, mentors and mentees. Content analysis was used to identify themes in the data and where appropriate, sub themes were identified. This chapter draws mainly from the training day evaluations and the mentors' reflective logs and focuses on the impact on teachers' professional learning; their teaching; and their development as leaders.

The findings suggested that the mentoring processes have enabled the mentors and the teachers who were mentored to discuss and reflect on learning and teaching within Curriculum for Excellence and learn from each other. Some mentors worked with new teachers (probationers) in relation to specific classes of pupils and others engaged in peer mentoring with colleagues across the school. The mentors and the teachers indicated that as a result of participating in mentoring processes they had gained a greater understanding of the new curriculum and their own teaching practice had benefited from developing new ideas and approaches with colleagues. The findings also indicated that following the mentor training the mentors were able to engage in more reflective learning conversations and deeper thinking about learning and teaching. This included an increased understanding of the value of learning in collaboration.

> *I always try to listen actively to mentees and respond positively and constructively to support their needs. Agreed targets / focus for formal mentoring sessions promote thoughtful decision making to inform learning and teaching. Planned and structured meetings help focus on taking forward learning and teaching within Curriculum for Excellence whilst supporting professional development. During meetings clear roles and responsibilities are agreed to facilitate appropriate follow up and to promote a collaborative approach to taking forward learning and teaching to promote pupil achievement.* (M1)

The mentors indicated that, the systematic mentoring approach enabled them to offer specific support that was more closely aligned with the individual needs of the mentees and their pupils. This they said was achieved because the learning conversations are carefully structured and begin with the analysis of

the needs of the mentee's pupils. In particular the mentors said that they were making regular use of the language prompts practised during the training to guide the discussions.

> *My support will now be even more geared significantly to the needs of the probationer and will be more specific. I am also gaining further, deeper insight into my probationers, their strengths, and their areas for development, through discussion which is more structured and tailored to get the real picture. The Curriculum for Excellence developments sometimes mean that schools are at different stages, experiences have been interpreted by schools in different ways and this more focused approach and the prompting / questioning guide is proving to be a great help. It has meant the focus is more on initiative and personal development. I have greatly benefited from becoming more aware of the purpose of, and different ways to analyse pupil learning.* (M2)

The evidence suggested that the mentors have reflected on new ways of working that had an impact on their own practice as a teacher. For example,

> *Professionally, this course made me reflect on my own practice and consider other ways I could do things. It gave me clear and concrete ways to further develop my skills as a mentor and as a communicator. I feel more confident in my discussions with head teachers and in-school supporters as I feel this course has helped me to further develop in this meaningful and worthwhile role.* (M11)

The impact of the training on the development of communication skills appears to have been sustained and reinforced. There is some indication that the more structured use of language is becoming 'a way of being' for some mentors. The quote from the mentor's reflective log below indicates that she uses the language structure developed in the training with mentees without thinking about it.

> *The most important insight I have gained from this training session is the reinforced importance of communication skills in this job, and using them to the best of my ability. I use these skills, which have significantly improved over the last year, without sometimes thinking about their importance. My communication skills have been improved and as such enable me to question, discuss, respond, suggest and help implement all areas of Curriculum for Excellence. (…) My careful consideration of what I am saying, and the use of the phrases and style of talking to others as discussed in this and the previous unit, has helped me to guide conversations carefully'.* (M13)

The analysis of the reflective logs suggested that the training has caused the mentors to think about the way they communicate and think about relationships and learning not only with the mentees but with other colleagues in school. The mentor training appears to have given the mentors more confidence as mentors and more confidence about engaging in learning conversations with colleagues.

> *Personally, it has given me some clear ways to 'solve' problems and has made me look at the way I converse with all colleagues and friends. I feel these skills are for life and will continue to have an impact once I am back in class.* (M11)

> *My improved communication skills will be an asset, I am looking forward to taking them with me wherever I go in the future. I am more aware of what I say to all people, both personally and professionally, and I feel more in control, able to guide a conversation ... I feel that colleagues are eager to discuss educational issues with me, listen to me and respond to what I am saying. I feel I am more confident and willing to participate in conversations where I may have just listened. I think my questioning skills are improving and I am more organised in thought. When I return to school, I believe I will have enhanced not only my skills with other colleagues but also with the children.* (M13)

The findings suggest that the mentors did become more confident in the different mentoring approaches (instructive, collaborative and facilitative) and were clear that the learning conversations are about enabling the teacher to come to their own understanding of how to improve their pupils' learning. However, this was challenging for many of the mentors. In their desire to be the best mentor they could be some mentors began by providing resources for their mentees and were too quick to offer solutions. The training helped them to realise that this approach would neither help the mentee to become more autonomous nor support them in solving problems for themselves.

The mentors also indicated that through the training and the application of mentoring processes they felt they had not only improved their role as mentors but gained important leadership skills. The opportunities to engage in deep reflection about learning and teaching with other colleagues demonstrated different ways of approaching challenges. They realised the importance of relationship building in the school context and the power of communication to support and facilitate learning with teachers and pupils. This involved not only better use of questioning skills but better listening skills. More importantly they understood the need to build trust and openness to enable collaborative approaches to learning and develop enthusiasm for collegiality within and

across schools. The mentors' heightened awareness of the importance of communication made them realise it was necessary to be sensitive to the differing needs of teachers and the differing contexts of each classroom and school. The mentors understood the importance of involving others in decision-making so the way forward could be co-constructed to provide a strong sense of ownership and commitment to agreed next steps.

The mentors were particularly positive about the systematic approaches and protocols they used and felt they had provided structure to the planning and evidence gathering processes which are required within Curriculum for Excellence. The mentors emphasised the value of the increased awareness of how analysis of pupils' learning is used to identify next steps for teaching and for improving learning. Once the co-analysis had indicated where the pupils were at in their learning, decisions could be made about the challenges and how the teacher could identify specific approaches to move the pupils' learning forward. The mentor and the mentee agreed on the goals for pupils' learning. The teacher's professional learning was meaningful and relevant and they were able to see the impact on their own pupils learning because the next steps in teaching were specifically tailored to their needs.

> *Pupils are now experiencing much more focused learning where their needs are met by the resources used and assessments made.* (M2)

Conclusion

The findings of the pilot mentor project provided valuable insights into key areas for development in teachers' professional learning in order to have a positive impact on pupils' learning. A culture shift is required in order to place greater emphasis on facilitating teachers to continually develop their own professional learning in relation to their classroom context. To achieve this shift all those involved in teacher education need to support teachers more in the development of confidence and skills in self-evaluation and reflection and enable the creation of trusting peer relationships that engage teachers in joint enquiry and professional learning about improving their own pupils' learning. Teachers themselves need to take ownership and commit to their own ongoing professional development. The pilot project demonstrated the value of peer-mentoring approaches and highlighted the importance, benefit and challenges of ongoing training for mentors. Peer-mentoring not only connects people to each other but to new and diverse sources of knowledge and skills,

and impacts on the learning of everyone involved. The collaborative approach changes the nature of the processes and the people involved through challenge and dialogue that extends and enhances everyone's learning (Livingston and Shiach, 2010). Systematic peer-mentoring approaches guided and facilitated by well trained mentors assists teachers in coming to know who they are and what they are capable of as learners and as teachers. The struggle for sense-making of the pupils' work, challenges the mentor and the mentees' thinking and puts the focus firmly on searching for understanding of the learning and teaching processes in relation to a mentees own pupils, class and school.

REFERENCES

Achinstein, B. & Athanases, S. (2006) eds. *Mentors in the Making* New York: Teachers College Press

Asia Society (2011) *Improving Teacher Quality around the World: the international summit on the teaching profession,* New York: Asia Society

Bloom, G,. Castagna, C., Moir E. & Warren, B. (2005) *Blended Coaching* California: Corwin Press

Bransford, J., Brown, A., & Cocking, R. (2000) eds. *How People Learn: Brain, Mind, Experience, and School,* Washington, D.C.: National Academy Press

De Corte, Erik, (2010) 'Historical developments in understanding learning' in Dumont, H., Istance, D., & Benavides, F. (2010) *The Nature of Learning: using research to inspire practice.* Paris: OECD

Donaldson, G. (2011) *Teaching Scotland's Future: Report of a review of teacher education in Scotland,* Edinburgh: Scottish Government.

Glazer, E. & Hannafin, M.J. (2006) The Collaborative Apprenticeship Model: Situated professional development within school settings, *Teaching and Teacher Education* 22 (2) 179–193

Greeno, J. (1991) Number sense as situated knowing in a conceptual domain. *Journal for Research in Mathematics Education* 22(3):170–218.

Joyce, B. & Showers, B. (2002) *Student Achievement through Staff Development* Alexandria, VA: Association for Supervision and Curriculum Development

Livingston, K. & Shiach, L. (2010) 'A new model of teacher education' in A. Campbell & S. Groundwater-Smith (eds.) *Connecting Inquiry and Professional Learning,* London: Routledge

Livingston, K. (2012 a) Quality in teachers' professional career long development in J. Harford, B. Hudson, & H. Niemi, (eds.) *Quality Assurance and Teacher Education,* Switzerland: Peter Lang

Livingston, K (2012b) Approaches to professional development of teachers in Scotland: pedagogical innovation or financial necessity? *Educational Research,* 54:2, 161–172

Moir, E. (2009) Keynote speech, Scottish Learning Festival, September 2009. Transcript available from www.educationscotland.gov.uk

OECD (2010) *Teaching and Learning International Survey* (TALIS) Technical Report Creating Effective Teaching and Learning Environments, Paris: OECD

Resnick, L.B. (1987) *Education and learning to think* Washington D.C.: National Academic Press

Resnick, L.B. & Nelson-LeGall, S. (1997) Socialising Intelligence in L. Smith, J. Dockerell & P. Tomlinson (eds.) *Piaget, Vygotsky and beyond,* p145–158, London: Routledge

Scheerens, J. (ed.) (2010) *Teachers' Professional Development: Europe in International Comparison,* Luxembourg: European Union

Schön, D. (1991) *The Reflective Practitioner: how professionals think in action,* Aldershot: Arena

Scottish Government (2006) *Building the Curriculum 1.* Edinburgh: Scottish Executive

Scottish Government (2007) *Building the Curriculum 2,* Edinburgh: Scottish Government

Scottish Government (2008) *Building the Curriculum 3,* Edinburgh: Scottish Government

Scottish Government (2009) *Building the Curriculum 4,* Edinburgh: Scottish Government

Scottish Government (2010) *Building the Curriculum 5,* Edinburgh: Scottish Government

University of Glasgow (2009) *Collection, analysis and reporting of data on Curriculum for Excellence draft experiences and outcomes: Final Report,* Available from: http://www.ltscotland.org.uk/Images/GUfinalreport_tcm4-539659.pdf

Vygotsky, L.S. (1978) *Mind in Society: the development of higher psychological processes* Cambridge, MA: Harvard University Press

Wenger, E. (1998) *Communities of practice: meaning and identity,* Cambridge: Cambridge University Press

For further information on Curriculum for Excellence see:
http://www.educationscotland.gov.uk/understandingthecurriculum/whatiscurriculumforexcellence/index.asp

ABOUT THE AUTHOR

Kay Livingston

Kay Livingston is a Professor in Educational Research, Policy and Practice in the University of Glasgow, Scotland and works closely with policy-makers, teachers and key educational stakeholders at international, national and local levels. She has recently completed a five year secondment as Director of International Research and Innovation in Learning and Teaching Scotland (LTS) which was a public body responsible for the review and development of curriculum, assessment and technology in Scottish schools. During her secondment LTS became part of Education Scotland – a Scottish Government Agency with responsibility for supporting and improving education. As Director she was responsible for research and innovation projects in a wide range of areas but she had a particular focus on teacher professional development, leadership and mentoring, educational change and school improvement, global citizenship and intercultural education. Kay is editor of the European Journal of Teacher Education, a member of the Scottish National UNESCO Committee and Chair of the Association of Teacher Education in Europe's (ATEE) Research and Development Centre 'Professional Development of Teachers'.

The role of the school development team in creating conditions for learning community

Tanja Rupnik Vec, Zora Rutar Ilc

The role of the school development team in creating conditions for learning community

The case of the project transformation

TANJA RUPNIK VEC, ZORA RUTAR ILC

The basic aim of the Slovenian National Education Institute is to support schools in their efforts to achieve higher quality on the level of processes and results. The experience from our past projects was that the top down activities with schools lead to resistance, low motivation and weaker dedication.

We realized that only the co-creation of the process make the teachers feel the changes as their own. We stimulated schools therefor to establish the school development teams as change agents, which should facilitate the change processes and manage it.

School development teams received the responsibility to support teachers at action research, peer learning, critical friendship … what all contribute to professional development and consequently to new teachers' professionalism. All these lead to changing schools into learning communities.

In this article we discuss some basic theoretical assumptions and principles of our work with schools and describe the transformation of the concept of implementing changes into schools with the support of school development teams.

The general aim of this article is therefore:

- to discuss the changing role of the school development team in concepts of learning community, empowerment and distributed leadership
- and to illustrate this with our experiences from top down to bottom across approach.

Introduction

The new social circumstances (at the global as well as at the national and even on a personal level) have posed teachers in a new role, a role they can manage only with many new skills, knowledge and competences. Let us have a closer look at the changes to which teachers have to react:

- Increase of diversity and heterogeneity in the classes (on the national, language, cultural, religious basis …) and at the same time more inclusive nature of schooling at the same time.
- Teachers have more and more become organisers of an adequate educational environment, learning facilitators: with new teaching methods they support learning process, they stimulate more cooperation and active forms of work, such as learning by discovery, project work, performance based assessment …
- The presumptions about teaching and learning have been importantly changed: teachers are no longer the only source of knowledge.
- The increase of the importance of information and communication technology (ICT) and its increased implementation in the lessons.
- Their job is not only in the class/students, but is extended to the entire curriculum (called "opened curriculum"); that means that they take new roles, such as the role of researcher, the role or peer coach and critical friend, the role of project or team leader, the role of facilitator and evaluator – reflective practitioner.
- Schools function more and more as an open learning environment, they build connections with parents, with the local community and other institutions and become more autonomous but also adaptive at the same time.

The changed role of teachers calls for urgent changes in their education and in the way projects and other activities with schools are lead. The academic tradition still has a great influence on the education of the secondary school teachers, which means that it above all emphasises the transmission of academic knowledge, whereas the practice of teaching, researching and managing different kind of complex relations and development is weaker.

Therefore such an academic approach in new complex circumstances is not enough. Schools and teachers (and parents) are in front of new challenge and

have the responsibility to support children in learning and developing a wide range of knowledge and skills, sometimes called the 21st century skills, such as problem solving and decision making, critical thinking, self-regulating, creativity, cooperation etc. (Buckley, 2010)

The shift from a "top down" to a "bottom up" approach – the new role of the school development team

Ten years ago, a so called "inner" reform of gymnasium was launched in Slovenia and was led from National Education Institute staff (NEI). The main didactic principles to be put into practice ranged from developing different thinking strategies, taking a problem approach, (inter-)active teaching and learning methods, to knowledge integration and learning how to learn. 10 schools were included (first year 4, another two years 3) to develop and test the innovative models from above mentioned fields. The schools were chosen as a kind of "sample" by number of students, by location and by different experiences.

The goals were quite ambitious and well sounding, such as:

- to encourage the use of process and problem approaches,
- to encourage a wider repertoire of teaching and assessment methods and strategies,
- to establish inter-disciplinary and cross-disciplinary connections and promote, to some extent, an integrated curriculum,
- to enhance the authenticity of learning situations,
- to find appropriate solutions to organisational issues that will support renewed ways of teaching and learning ...

The project was designed to have two aspects:

1. initiating and introducing changes in schools (for example: support for schools in planning and implementing innovations, action research, evaluation, etc.),
2. stimulating didactic innovations by individual teachers (for example: implementing more (inter-)active methods, a more interdisciplinary approach and introducing the new assessment and grading culture).

At the beginning, the main aims of the project were more didactically oriented and less on the strategy of introducing changes and implementing innovations on the school level. Our support given to teachers to perform all these activities was therefore proceeded mostly through:

- seminars and workshops for teachers' team on actual topics (planning for active learning, new culture of assessment, cross-curriculum approach, motivation, communication …)
- mentoring, consultations and observations with subject counselors followed
- a common process of cross-curriculum planning.

The work in the project also included regular subject teachers' meetings: teachers of each subject from all the included schools had their meetings orderly; these meetings were purposed for the exchange of experiences, results and materials.

We also decided to stimulate the establishing school development team, who should take care for executing activities that were suggested from us, the NEI staff.

So at first, the main didactic aims of the project, mentioned above, were mostly decided on a top-down basis, although discussed with all the teachers and adjusted to their expectations and needs. That means that we (the National Education Institute) suggested the aims, we presented the concepts and we offered the strategies for reaching the goals. We were also the ones, who held all the seminars for the teachers.

A project team from our institution came to the school and had a presentation of the project's aims and activities there. This was possible, because only ten schools were included and this enabled such an intensive approach to each of them. All this with the final aim to deepen learners' knowledge and to support them to a more active role, to stimulate their complex, problem oriented and critical thinking, to enlarge their study competences and to add to their lifelong learning.

But the deficiency we were not aware of at the start was that all these goals and activities were defined by our team and were somehow imposed (together with the belonging activities) on the teachers. Although we discussed them with all the teachers and adjusted them to their expectations and needs, there was – at the beginning – constant problem with understanding the project's

goals and aims. And when goals and aims are not clear, or when no ownership over them is guaranteed, motivation and dedication are weakened.

It was obvious that the aims and goals, however convincing, were not being taken on board by the teachers, i.e. the teachers felt no ownership of them because they were to some extent imposed on them and not defined through a shared process of cooperation. We obviously overlooked their needs and expectations, their priorities and preferences, their real feelings, values, beliefs and fears.

The lesson learnt from this was integrated into the design of the new project approach. Our project strategy has gradually transformed from top down to the so called "bottom across" – a combination of some initiatives and frames from outside with much more elements of school autonomy and empowerment. Our general aim became more and more oriented towards supporting schools in development planning and action research held by themselves with a view to changing schools into genuine learning communities with their own developmental strategy instead of feeding them with final "ready-made" solutions. Our support became more and more strategic (which steps are necessary), methodological (how to state goals and activities and how to make reflections and evaluations), conceptual (theoretical frame of new teaching and learning practice) and less on the content oriented (what becomes a content of their research and development was the decisions of the schools themselves).

In this project we included schools that were not exposed to different innovations in such amount as the previous mentioned schools. We presented the achievements of the previous mentioned project, the "lessons" we got from them (our learning) and the model we built afterwards and were more bottom across oriented than before. Then we invited the representatives of schools that were present and the reaction was over all our expectations. Almost all of the present schools (33 from 39) had decided on collaboration and partnership. So we were forced to adapt our design in such a way that all those 33 schools would be successfully covered. We had to foster our team, so we established a group of consultants that was regionally based. In the following year almost all other schools wanted to join to our project because they recognised that after the primary school reform they should change too. So in the second year we suddenly worked with 42 schools and in the third year also the schools that were included in the first project and also in another project, called European classes, joined us. That happened when our priority became an interdisciplinary approach at teaching which was one of the biggest attractors for most of the gymnasiums. So also the schools that were not so interested in our activi-

ties at first and also were tired of previous projects, joined us. One important reason was also the fact that the senior high school reform efforts were at that time finally financially supported by ESS. All the schools that wanted to get European financial support had to have a well thought out plan and strategies and they saw an opportunity to build that in our project.

It was really helpful that our institutionally based efforts were linked to European support. But on the other hand the schools were now much more under the control and had to fulfil many administrative obligations. They became more and more busy with this than with the strategies of implementing changes and with policy development. Sometimes the developmental teams felt themselves more as administrative workers than change agents. It took some time to suppress all these tensions.

Empowerment between the top-down and the bottom-up process

The main shift in the project can be shown as follows. On the level of aims of the project (our, the NEI, perspective) we rearticulated the aims in such a way:

1. *We encourage teachers in searching for and guaranteeing the quality of the learning opportunity for each child* through self-questioning of their mental models about teaching and learning. Each teacher was directed and supported in self-reflection, the process in which he or she answered the questions, such as: Are my lessons really challenging for my students? Are they really planned in a way to stimulate critical thinking, creativity, self-reflection etc.? What are my strengths and my weaknesses in my teaching? How can I overcome my weaknesses? Do I have enough motivation for this process?

2. *We encourage and support teachers in their professional development and growth.* They were encouraged to raise their awareness about basic assumptions that lead their teaching practices, to articulate their personal professional vision and to take small steps to come alive.

3. *We encourage schools to implement such processes and practices to become learning schools and to find their own answers and strategies on the questions above.* We work with school development teams and encourage them to intervene in their schools on all dimensions of learning organisations (Senge, 2000): personal mastery, shared vision, awareness of mental models that lead teachers practises, team learning, system thinking and constructivist view on learning.

The basic assumptions of our new model of supporting schools in their change process became:

1. A teacher's practices are led by his or her basic assumptions, expectations and values. Relevant and everlasting change in his or her practice occurs when the teacher changes these basic assumptions and values. This change is not an event, it is usually a quite long process.

2. Action research is an effective strategy of challenging the relevance and truth of the teacher's basic assumptions and values. Apart from the testing the relevance of her or his thinking and the deepening of understanding of some problems, it enables teachers:

   a. to develop the ability to debate about curriculum in an argumentative way,

   b. to develop self-awareness and the sense of professional growth,

   c. to develop the need and the ability to competent evaluation of her or his work.

3. If the process of systematic learning and self-reflection include the critical mass of teachers that learn from each other and support each other in the process of change, the entire school climate and school culture change. And the same assumption about constructivist view on learning is behind individual processes on the level of pupils as on the level of teachers as members of learning community.

4. The process of change leads its own life in every school, and external support – if wise and not pushy – can be of very big importance.

With these assumptions in mind we started to stimulate the following shifts in relation to the entire teachers' team:

From:	To:
• Informing about goals, strategies …	• Constructivist approach – discussing the need for changes, analyzing the initial stage, estimation of capacities, discussing concepts of quality and indicators, reflecting teachers' own philosophy, defining expectations and priorities, activities and strategies
• Support exclusively from the outside (subject) specialists	• Peer support (critical friendship, peer monitoring, reflection …)
• Uniform and prescribed activities	• Individualized paths: on a personal level – personal plans at school level – development plans on level of AR teams – AR plans together with networking
• The responsibility to the Institute, dependency	• The auto-regulation, their own responsibility

In the work we started by new principles with the new group of schools we also paid much more attention to start-up activities, i.e. on preparing an environment conducive to implementing change.

For this purpose a set of workshops was introduced through in which teachers were stimulated to:

- discuss the need for changes (we construct some workshops for this purpose in which teachers' attention was focused to various competencies their students will need in the future,
- analyze the initial stage at the school's and at personal level and estimate the school climate and their capacities (SWOT, DION and similar techniques were used),

- analyze the concepts and indicators of quality and discuss them in the connection to the reflections on their personal teaching philosophy (some questionnaires were made for this purpose with questions such as: *»What do you want your pupils to know from your field«, »What kind of knowledge and attitudes toward it do you want to develop by them«, »What is really important to know and manage in your subject for the future of the pupils«, »What are the qualities you want for your students« …)*
- define expectations and priorities on the ground of former reflections,
- and finally the development plan was designed which included the list of their own goals, appropriate activities and strategies including the plan of education and other support activities for teachers,
- and also the plan of follow up, reflection and evaluation strategies and the strategy for the sustainability of the project.

All these steps were described and illustrated with examples of workshops in the handbook we edited. So the schools were equipped to choose between many workshops and to adapt the process to their own interests and time and other resources.

In the past all these steps (designed as workshops) were prepared and executed by our project team in all involved schools. But in the continuation we have realized that these activities also should be more and more put in the hands of schools themselves. We prepared school development teams (3–6 teachers and the headmaster) to lead these activities for their schools and to adapt them to their needs and capacities. The role of this »executive« team became more and more important.

We didn't go to schools any more. We only prepared school development teams for the development methodology and supported them as tutors when they met resistances or specific problem situations during activities. Everything else was done by them and their colleges.

The steps mentioned above were still done together with entire teachers' team, but now directed with the assistance of school development team – no more by us.

The main core of their development activities were the school development plan together with the education plan of the school.

After the development plan was designed, the spiral of change continued by the following steps: implementation, monitoring, reflecting and evaluating, presenting and exchanging experiences through established networks and then upgrading in the following year. E.g., if active teaching methods systematically had been developed during the first year on school level, interdisciplinary approach or authentic learning was stimulated next year. Or if the interdisciplinary approach had been stimulated at the first stage, selected cross-curricular competences were chosen at the next stage …

Therefore we were no more the ones who come to schools and tell what the goals, the strategies and activities are (with time schedules) – what the content of the changes is. On the contrary: we have invited schools to become the initiator and creator of their own development path; we only offered a methodological training for development planning and the support by it. The concrete procedure was theirs and – of course – also the content of the changes.

With this intention we facilitated the empowerment of the school development team by stimulating their transformation from coordinators to change agents and therefore from a school project team to a *school development team* as we can see in the following table:

From:	To:
• transmitters, coordinators, occupied with prescribed tasks	• change agents • creating, researching their own practice, negotiating, developing (through performing workshops and action research)
• subordinated to the headmaster and to our team	• headmasters' partners and we as their partner
• their main challenge: – to answer the question: *How to stimulate each stage of the project closely observing guidelines?*	• their main challenge: – to lead reflection and discussion about key questions, such as: *What is quality? Indicators? Where are we? What are our capacities and expectations? What are our priorities and aims? What are necessary activities, strategies and competences?* – and to manage the development on the school's level
• formal reports	• evaluation, reflection, portfolios

Of course we met many problems and lots of resistance on our way. In many schools colleagues rejected their colleagues as their change agents. It took a lot of time before they were accepted as such. In some schools they were perceived by colleagues as someone who forced them. These teams were invited in team coaching and supervisor process to find better solutions for their situation.

Even now, 4 years after, the situation in different schools varies. Some schools have done extremely big changes, some smaller. But in most of them not only didactics but also the whole style of leading the learning process has changed according to our evaluation activities. Our evaluations were mostly based on teachers' and pupils' subjective perceptions of changes on different dimensions measured through different surveys and questionnaires. We also want to know more about potential changes in the quality of student's knowledge and skills, which is our biggest challenge for the future.

New roles and learning communities

In such circumstances all the roles became different including the role of the headmaster.

The main responsibilities of all school stakeholders from our perspective were from now on:

Headmaster	The members of school development team (SDT)	Teachers (entire teachers' team)	External supporters (NEI staff)
Leading, directing, encouraging and supporting the members of the SDT and teachers – creating the opportunities for implementation of change.	Leading, directing, encouraging and supporting teachers – creating the opportunities for implementation of change. Following all processes. Reacting to potential hints and problems. Evaluation of overall effects.	To be actively involved in searching of their existing practices, to challenge them through critical reflection, action research etc. To signal when they need support, to take risk with new practices. To be systematic in their professional development planning.	Give global directions. Leading, directing and supporting SDT through different practices (supervision, coaching, workshops ...)

But the key to success are attitudes and strategies, which enable the headmaster and members of SDT to realize these responsibilities. In our opinion, the headmaster can realize his responsibilities when:

- she or he believes in the rationality of a particular change,
- she or he argues for the sanity of change,
- she or he leads her or his school staff without pressure: give support, is emphatic, invite teachers to cooperate, set the responsibilities clear and invite teachers to own them,

- she or he is constant involved in dialogue with his staff and shows sincere interests in what is happening to them,
- she or he learn about herself or himself in the role as a contemporary leader, is willing to raise her or his awareness of her or his strengths and weaknesses and invest some energy to overcome them.

The members of the school development team can realize their responsibilities when:

- they believe in the sanity of change, they argue for it and understand it in details,
- understand the process of changes and in their actions follow some theoretical background and principles,
- show positive attitude towards the change and model it,
- support critical self-reflection of the staff,
- they are constantly involved in dialog with teachers, individually or in groups, and support them in their struggle to change,
- they care for the continuity of the change process,
- they are willing to self-evaluation with the aim to be effective in their role
- they learn about themselves in the new role (to be the member of SDT) and try to gain new knowledge and skills that are needed to fulfill it successfully.

Also the role of the headmasters has changed. They could start to share or distribute their leadership (and »power«) with the school development team. Through all the collective activities their leadership was even dispersed to all other – participating – teachers. In such a way we can talk about distributed leadership.

Involved in discussions about key concepts and strategies and involved in designing the development plan all the teachers started to participate in the development and even in the decision process. They started to direct their development in a systematic way and had an influence on their own professional future more than before. They got the power to decide about themselves and their school – they became *empowered*.

By all these strategies and activities schools began to gradually transform into learning and auto-regulative communities, because:

- through all preparatory ativities the "innovations friendly environment" was assured
- and most importantly: schools started to direct and manage their development in a systematic and shared way.

The new model of supporting schools in their transformational processes

In the new model two concrete innovations were very influential.

We paid much more attention to start-up activities, i.e. on preparing an environment conducive to implementing change and, subsequently, we kept teachers involved by using the elements of action research.

The very important breakthrough in the project happened when we stepped up the individual implementation of the project. Teachers were advised to plan their innovation activity individually through 'personal projects' (though in collaboration with their colleagues, naturally) and to implement innovative techniques with the support of subject counsellors, evaluating the process and documenting it with evidence. In this way, they themselves took responsibility for the project and felt more empowered and interested in it. This served to develop a sense of ownership, to promote self-regulating activity and consequently encouraged them to take greater responsibility for the project.

Another guarantee assuring that greater responsibility was taken for project activities was introduced at the level of the school development project teams. They planned their follow-up activities together in accordance with the workshops that we had prepared for them. These school teams were the ones responsible for the project activities in schools following the front-led seminars. In this process we have placed particular emphasis on the preparatory activities which should help schools regulate their development processes on their own.

In such a way we overcame the usual teachers' training methods and changed them into overall development policy and practice.

Traditional courses, conferences and workshops were only one part of the whole story, the main point was on cascade model of training with school development teams, who work then with their colleges in the same way. In such a way a system of networks between teachers and schools were established and the teachers have themselves become agents of change among their colleagues. The greatest impact can be achieved through mutual professional trust and overlapping of goals of individuals and groups.

The national project was transformed into development projects initiated by schools themselves. Our experiences show that the engagement in the development projects on the level of entire teachers' team is the most effective way for teachers' training and especially for professional development.

Conclusions

So we can conclude that we succeeded not only in reaching didactic goals, which were our priority at the beginning, but also in reaching others, wider goals that can add to real school quality. The didactic (and later curricular) context of the project remained important but it was not implemented exclusively top down any more but much more with the participation of the teachers, who discussed concepts, aims, priorities and strategies and connected them on the school's level in the developmental plan of the school. Therefore the improvement of the climate because of more pedagogic discussion and common learning has emerged, the improvement of the culture because of more self-evaluation, critical friendship and reflection and developmental orientation mediated through action research and developmental planning.

In general more openness to changes and a widening of the repertoire of methods, strategies and even concepts and behaviors has arisen.

We hope we succeeded in stimulating schools to change into learning and empowered communities.

Thus we have realised that different kinds of teacher training are of value, but the most effective are the ones, which are going on "in situ" – in the complexity of their authentic working situation in the connection with new challenges and the widest range of developmental opportunities.

BIBLIOGRAPHY

Fullan M., (1993). The new meaning of educational change. London: Cassell.

Kimonen E. (ed.). (2001). Curriculum approaches. Jyvaskyla: University of Yvaskyla.

Rupnik Vec T. (2007) v Pušnik M. (ur.) Vpeljevanje spremembe v šole. Priročnik za šolske razvojne time. Ljubljana: Zavod za šolstvo, str. 113–121.

Shollaert R. (ed.). (2006). Spirals of change. Leuven: Lannoo Campus. Senge P. (ed.) (2000). Schools that learn. London: Nicholas Brealey Publishing.

References:

Basile, C., Olson, F., Nathenson – Mejia, S. (2003). Problem-based Learning: reflective coaching for teacher educators. Reflective Practice, Vol. 4, No. 3, str. 291–302.

DiBella, A. J. in Nevis, E. C. (1998). How Organizations Learn? An integrated Strategy for Building Learning Capability. San Francisco: Jossey-Bass, inc.

Hole, S. in McEntee, G. H. (1999). Reflection is at the Heart of Practice. Educational Leadership, vol. 56, št. 8, str. 34–37.

Holen, A. (2000). The PBL group: self-reflections and feedback for improved learning and growth. Medical Teacher, let. 22, št. 5, str. 485–488.

Larrivee, B. (2000). Transforming Teaching Practice: becoming the critically reflective teacher. Reflective practice, vol. 1, No. 3, str. 293–307.

Lieberman, A. (1995). Practices that support teacher development. Phi Delta Kappan, let. 76, št. 8.

Schein, E. H. (2004). Organizational Culture and Leadership. 3. izd. San Francisco: Jossey – Bass.

Senge, P. M. (1993). The fifth discipline. The art and practice of the learning organisation. London: Century Business.

Senge, P. in sod. (2000). Schools that learn. A fifth discipline Fieldbook for Educators, Parents, and Everyone Who Cares About Education. New York, London: Doubleday.

Walkington, J. Christensen, H. P. in Kock, H. (2001). Developing critical reflection as a part of training and teaching practice. European journal of Engineering Education, vol. 26, no. 4, 343–350.

ABOUT THE AUTHORS

Tanja Rupnik Vec

Tanja Rupnik Vec works as a counsellor, supervisor, teacher trainer and the researcher at the National Education Institute, and partly as a teacher assistant in the Faculty of Education (University of Ljubljana). Her professional interests and activities are quite diverse, but teaching critical thinking, encouraging professional development of the teachers and implementing changes in schools are her highest priorities. She is the author or co-author of several books, among others: The challenges of teaching: encouraging the development of students' critical thinking skills (2011), Methods and techniques of supervision (2004), Implementing changes into schools. A Handbook for the School Development teams (2009). Her latest challenge has become using ICT in all above mentioned fields.

E-mail: tanja.vec@zrss.si

Zora Rutar Ilc

Zora Rutar Ilc is a senior adviser, researcher, project leader and teacher trainer.

Her main activities focus upon:

- Designing evaluation research on teaching and school quality in general and vocational education,
- Designing and leading developmental projects on pilot and on national level: The new culture of assessment in primary and secondary schools,
- The didactic reform of gymnasium,
- Implementation and facilitating changes in gymnasium, etc.

She is author, co-author and trainer of different programmes for teacher's training and the author of two monograph publications, co-author of two handbooks and author of over 50 articles from above mentioned fields.

She is the editor of the journal on Education and she has also edited many publications from the following fields: new culture of assessment, facilitating changes with the goal of creating learning organisations and maintaining distributed leadership and empowerment of teachers and schools, integrative and interdisciplinary curriculum.

E-mail: Zora.Rutar-Ilc@zrss.si

Learning to learn: implementing a professional learning community of teachers in a secondary school

Jos Bertemes, Gene Bindels, Manuel Bissen,
Dr. Liana Kang Schmitz, Dr. Anne Meyer

Learning to learn: implementing a professional learning community of teachers in a secondary school

JOS BERTEMES, GENE BINDELS, MANUEL BISSEN, DR. LIANA KANG SCHMITZ, DR. ANNE MEYER

Part 1 – Introduction

In the following we shall first present the more general context of Luxembourg and its educational system before moving onto the second part where a group of teachers from a innovative school in Luxembourg presents a range of educational tools which help to create not only a reflective community of practice amongst teachers but at the same time fosters learners' autonomy and responsibility for their personal learning development within such a learning community. The article shows what key elements have been implemented during the progress of the project by the school in order to attain their objectives and describes in the last part the elements that will be needed to give the project a persistent status.

1.1. Ongoing reforms in Luxembourg: an overview

Luxembourgish society is characterised by

- the disintegration of traditional family models and the increase of mono-parental or patchwork families,
- the intensification of individualism and loss of parental authority,
- the vanishing of unskilled jobs due to corporate relocation to emerging economies,
- the rise of youth unemployment and early school dropouts,

- a significant population growth due to unforeseen immigration streams which result in a multicultural society,
- an unusual labour market with an increasing demand for highly skilled and specialised jobs.

In 2006, the Ministry of Education launched an ambitious program for school reforms in all three major school forms, in primary and secondary education as well as in vocational education and training. All reforms aim to set up a performing school system that is fair to all students as well as constructive in its outcomes.

Starting with the conclusion that the country, struggling through a cultural, societal and economic sustained progress, is in need of all its young people as an active part of the population, the education system has to ensure that every young person can develop his full potential to become a dynamic participant in the upcoming knowledge economy and to become an active and responsible citizen (Council, 2009).

Concerning the equity issue, the education system has to build appropriate expectations for all pupils, also for those who do not get the expected or needed support at home. The overall care should be to ensure that no 'school failure' is seen as final and no pupil leaves school believing that he or she is 'unable' to learn. Flexible learning pathways according to each individual's needs, strengthened guidance systems and better possibilities to transfer between different school forms are important elements of the ongoing reforms.

1.2. Focusing on students' competencies and learning outcomes

One aspect of the actual reforms taking place in Luxembourg is the implementation of curricula based on competencies. These new curricula should allow for a development of in-depth knowledge in subject areas and also further the acquisition of specific transversal skills.

To achieve these goals, the following actions are initiated:

- A review of the curricula of all school forms to provide a better balance between skills, knowledge and attitudes by specifying subject-based competences and transversal competences for key stages of the education system.

- Promotion of new pedagogical models (inquiry-based learning, interactivity across subjects, autonomous learning models …) where teaching methods also need to be adapted in a creative way to establish a closer link to the daily life of the youth.
- Encouragement of a student-oriented approach to learning where
  - students are encouraged to learn independently from an early age by giving them more autonomy,
  - learning arrangements are developed that adopt a problem-based approach to learning and where more emphasis is given to cross curricular approaches,
  - students' sense of responsibility towards their own learning is stimulated in order to increase their motivation,
  - the links to further education and the labour market through career guidance is fostered specially at the end of lower secondary education.

One of the most powerful tools for raising standards, especially among low-achieving pupils, is to design an assessment that has as its main objective to promote learning. If the purpose of testing the pupils should not only be to (down)grade them, but to help them improve their capabilities and lifelong learning, a more extensive use of formative assessment has to take place in Luxembourgish school in order to identify and address problems early (Field, Kuczera, & Pont, 2007).

In order to certificate the level of acquired competences, a new set of sophisticated techniques of summative assessments based on agreed standards for learning outcomes at specific moments of the schooling career is currently being developed.

1.3. The focus on teacher competencies, school development and leadership

Being able to continuously adapt to a changing environment and the endeavour of school staff, and especially of teachers, is key to the success of every individual school. It is the teachers who mediate between a rapidly evolving world and the pupils who are about to enter it.

As part of their educational autonomy granted to school in the reform process, each school community has the opportunity to identify a profile that provides a global and specific vision for the school, a description of the learning environment and the organisational processes.

A major change in the reforms is the fact that the teachers should no longer act as specialised individuals, but as members of 'learning communities' which offer them opportunities to work together without being dependent upon external initiatives or interventions.

However, much depends upon a school's internal capacity to become a learning community in the first place, an important innovation in the Luxembourg education system where a lot of functions, assignments and roles have to be adapted before they can be adopted by the majority of the actors in education. One of the key factors for a successful implementation process is the new understanding of the responsibilities of school leadership.

The study *Improving School Leadership* (Pont, Nusche, & Moorman, 2008) states for example several key factors of a modern school leadership:

> *"School leadership focused on goal-setting, assessment and evaluation can positively influence teacher and student performance. […] School leaders are becoming more broadly engaged in activities beyond their schools, reaching out to their immediate environment and articulating connections between the school and the outside world. […] The strategic use of resources and their alignment with pedagogical purposes can help to focus all operational activities within the school on the objective of improving teaching and learning."*

Thus, the center of the actual reforms and the basis of the implementation of a sustainable school improvement process is an effective leadership that fosters the development of a shared vision, the introduction of a distributed leadership and the fostering of a coherent school culture.

The major changes intended in the ongoing reforms are addressed in one way or the other in all primary and secondary schools in Luxembourg and a successful example of implementation of a learning community will be presented below.

The second part of this article will present a successful example of a school where the necessary steps were originated before the national reform process was instigated. Years before the national objectives of the reform were defined, principals and teachers of this school started a reflection process that

lead to the implementation of a learning community within an innovative Luxembourgish school thanks to the Ministry's help and support. The example illustrated below has never been designed with the ideas of the ongoing educational reforms in mind. In other words, the learning community and its practices that shall be discussed below are pre-reform and should emphasise that schools do not have to wait for reforms to be implemented for learning to take place.

Part 2 – The implementation of a professional school and learning community through ECI and teacher interaction

2.1. The "Lernkette"[1] of the Atert-Lycée (ALR)

The ALR is a relatively young school as it opened its doors in 2008 in a rural area. One of its major aims has been to create a community of learners right from the start. In fact, the school wants to improve all learners' chance for academic as well as social success. Student learning is central to all efforts and planning and so learners are encouraged to develop their individual talents and their ability to work independently. What is more, authentic relationships are crucial in our school community and to overcome academic difficulties and social inequality, we offer additional activities where leisure and learning are combined. How these aims and objectives are then implemented into everyday life shall be illustrated through the description of the schools internal pedagogical project below.

Secondary schools in Luxembourg can request funding from the Ministry of Education in order to bring their educational objectives to fruition. After handing in detailed application forms, the creation and development of a so-called "Projet d'établissement" (ProET)[2] can be authorised by the Ministry. Within the framework of such a project the Ministry provides the school assistance with funding staff and the requisite tools needed for the realisation of their educational efforts. Thus it is conceivable to disengage teachers from a few teaching

[1] Translation: Learning chain. For reasons of practical understanding, we shall henceforth use the original term *'Lernkette'*, as this is the term teachers in the ALR work with on an everyday basis. It is important to see this *chain* from an interactional perspective because the different components of it are linked interactionally and not chronologically.

[2] Institutional project.

hours in order to allow them to work on the institutional project. The duration of a project can last from one to three years, a period during which the school representatives have to officially provide account to the Ministry of Education of the progress as well as of the financial situation of their project.

The ProET of the ALR is called *„L'évaluation des performances scolaires dans un enseignement par compétences et par tâches"*.[3] The focal point of the project is to provide students with a better counselling on educational as well as vocational level. At the same time, the project also aims at offering a high and homogeneous quality of teaching and evaluation: it perpetuates and promotes sustainable learning and aims at bringing forth expressive and representative data of students' learning and social behaviour. Ergo, the aim is to generate a coherent learning and evaluation community of practice whose elements are not only dependent on each other, but at the same time also reinforce each other. The project explicitly calls for teacher collaboration and exchange (for a more detailed discussion, see section 2.4. below). Teacher teamwork is then not only based on the collective reflection on teaching and evaluation, but also on the collaborative and continuous development of a cultivation of discussions and meta-level contemplation of education as well as its policy.

In order to meet these ambitious goals and to facilitate the yearning for educational development, a variety of tools have been developed over the past few years. These tools are collectively referred to as the *"ALR-Lernkette"* (for a more detailed discussion please see: Bissen, 2008).

- At the beginning of *"ALR-Lernkette"* the *model task pool (Musteraufgabenpool)* is to be found. This pool consists of a transparent, high-quality digital collection of first-rate sample tasks. This model task pool defines the quality of instruction and evaluation that is striven for at the ALR.
- The *week plan (Wochenplan, WP)* assembles all the tasks of each individual subject which the learners of one class are supposed to accomplish during one week. The week plan encourages the learners to work independently and to acquire skills in dividing and organising their personal workload. The learners are free to choose which tasks they want to do first and at the same time they are made responsible for determining their personal work pace.

[3] Evaluation through competencies and task-based-learning.

- The FOLA-lessons (FOllow-up Learning Activities) typically consist of three lessons which are integrated into the habitual weekly timetable of each student. During these lessons the learners are supposed to work on their week-plan and they are supported by one teacher from their normal teaching schedule.
- In the lower grades, three *Learning-Coaches* per class are supporting and guiding each a group of 7 to 8 learners in their personal learning development.
- The *"Epreuves communes internes" (ECI)* are parallel school-internal assessments and comparative evaluations which are put into practice at each grade level of the lower secondary level. The ECIs are skills-oriented tests which are attuned to the learning standards that are aspired to at national level according to each grade level.
- The *"Annexe au bulletin"*[4] *(report supplement)* of the ALR is an addendum to the officially certified grades report. This *annexe* provides third parties (parents, government, employers, …) with valuable information about the learner's social behaviour and participation in class but also in school on a more general level.
- The *school-internal evaluation and analysis* allows collecting valuable information and recommendations from pupils, parents and teachers about all delicate and relevant areas in the schooling community. The findings of this school-internal evaluation and research are thus analyzed statistically. Further data from all possible and relevant working areas within the ALR community of practice and learning is collected and analyzed. They are derived from additional tools such as the "School Barometer", a "Class Feedback Questionnaire", a "Teacher-Stress Survey" and several surveys on the efficiency of the individual teaching tools. Taking into account these findings and repercussions, the school's perpetual development and maturation can then be systematically embarked upon.
- A further important instrument of the ProEt is the *ALR-Toolbox*. The toolbox can to some extent be perceived as a digital "nucleus" which combines all valuable pedagogical tools of the ALR in one single place. The week-plan as well as the "annexe au bulletin" are for example managed through this very toolbox. Teachers can access the online toolbox from any place at any time.

[4] Addendum to the officially certified grades report at the end of each term.

The eight above introduced components of the *ALR-Lernkette* jointly contribute to the creation of a high quality learning community of practice which persistently develops through self-assessment, self-evaluation and scrutiny.

2.2. The ALR professional learning community of practice

Looking at the previously introduced teaching and learning tools, it becomes apparent that the ALR teacher community and the way it is put into practice originates in socio-cultural theories which promote that learning and development takes place in interaction (see for example: Donato, 2000; Duranti & Goodwin, 1992; Hall, 2005; Lantolf, 2000; Lave & Wenger, 1991; Rogoff, 1990; Wootton, 1997). It is no surprise then that at the ALR we conceptualise learning as an aspect which is part and parcel of teaching and learning practices as they are deployed in and through talk-in-interaction. Thus, our idea of learning is that it is something that is taking place as participants (here teachers and students) co-construct social reality in and through interaction (Meyer, 2010).

Hellermann for example promotes a situated perspective on learning and points out that a

> *"… situated approach to learning looks for ways that learners improve in the way that they participate in processes or systems that are integrated across contexts."* (Hellermann, 2008, p. 15).

Learning, and consequently also teaching, is comprehended as a process of development, i.e. a "process of becoming" (Hellermann, 2008, p. 7) and in order to structure this process, we have chosen a variety of tools (see section 2.1.) which help us to organise this process at organisational level, teacher level and student level. Inevitably, these tools lay the foundations for the creation of learning opportunities. At the same time these tools and their implementation embody certain assumptions of how the learners should be supported and guided in how to organize their personal learning process. For the purpose of this article we shall limit ourselves to presenting the teacher and organisational level.

In order to implement these ideas, ALR community has, with the help of the already mentioned tools, constructed itself as a community of practice which is

> *"[…] a group of individuals, usually physically co-present, who come together under the auspices of a common interest or goal and co-construct practices for the interaction that, in turn, constitute the community of practice – their reason for coming together."* (Hellermann, 2008, p. 7).

In the following we will illustrate to what extent such a community of practice (Lave & Wenger, 1991; Wenger, 1991) can come about within the Luxembourgish schooling context. After the short description of the school's ProET and learning tools, we will have a look at only one, but undeniably one of the most consequential and distinguished teaching and learning tool: the ECI.

2.3. ECI

The "Epreuve Commune Interne" (ECI – parallel school-internal assessment) is a test which is written twice a year by all students of the same grade level. All students are evaluated on basis of the same evaluation criteria (for an in-depth reflection on the implementation, the prerequisites and the consequences of this tool please see: Bindels, 2008).

In the run-up of an ECI, all the teachers of the same grade level agree on the learning material and the skills that are to be evaluated. Teachers of the same subject and the same grade level prepare the questions and exercises or tasks as well as the correction key. After the ECI has been written by the students, students' copies are normally evaluated by a different teacher than the class teacher. After the evaluation, the results are discussed and analysed by the grade level teachers and within a fortnight the students should be handed back their assessed copies. Please see section 2.4. for a more detailed discussion.

Previous studies such as *Breaking Ranks II*™ (Sizer 2004) *Effective Schools Research* (Taylor, 2002) and others have shown that schools that have a high learning success rate consider evaluation, and mainly formative evaluation and assessment, remarkably seriously. These schools develop and judge evaluation instruments and measure the learning outcome of their students on a regular basis (see Ruebling, 2007, pp. 4–9). Internal school assessment is a part of this collection of measuring instruments. As J. Collins has already demonstrated, it is very important that this form of evaluation is not seen as a foreign body but that it should belong to and be integrated in the thriving school community:

> *"Schools are deeply engaged in their own assessment in a way that can only be characterised as embedded."* (J.Collins (2001) cited in Ruebling, 2007, p. 212).

Furthermore, Schratz argues that

> *"[…] traditional performance assessment is an inhibiting element for the pedagogical improvement and the development of the school considered as a whole"*[5] (cited in: Winter, 2006, p. 313).

And Winter adds that

> *"[…] what is tested and evaluated, affects to a high degree what is learned. Furthermore, the way of assessing and evaluating affects the culture of learning. Any attempts to establish a new culture of learning, will reach their limits to some extent, if the system of assessing and evaluating student achievements is not undergoing a reform"*[6] (Winter, 2006, p. 313).

If one wishes different, enduring, competency- and exercise-based teaching and instruction performance assessment has to be changed and adapted accordingly. The question then is no longer what teaching and instruction should look like, but what assessment should look like.

Along these lines Winter points out that

> *"[…] one can assert that from changing the way of handling student achievements a strong incentive for didactic reforms, the motivation of the involved and the school climate overall can be expected. However, therefore performance evaluation must become a school area that can be remodelled."*[7] (Winter, 2006, p. 313).

In normal assessments students are compared to their class-mates, however, in the ECI the reference standard is the entire grade level. This helps to measure and infer the learning success, i.e. it helps the students to better rate and rank their personal learning development and it assists teachers in evaluating the effectiveness of their teaching methods. On that account then, it is possible to readjust teaching and consequently create a positive learning atmosphere in the classroom but also amongst teachers as teachers take responsibility for their accomplishments.

---

[5] „ … die herkömmliche Leistungsbewertung ist ein retardierendes Element für den pädagogischen Fortschritt und die Entwicklung der Schule insgesamt …".

[6] „Das, was geprüft und beurteilt wird, bestimmt in großem Maße das, was gelernt wird. Darüber hinaus bestimmt aber auch die Art, wie geprüft und beurteilt wird, die Lernkultur. Alle Versuche, eine neue Lernkultur an Schulen zu etablieren, werden daher an Grenzen stoßen, wenn nicht auch das System der Prüfung und Beurteilung der Schülerleistung reformiert wird".

[7] „ … lässt sich feststellen, dass von einem veränderten Umgang mit Schülerleistungen starke Impulse für eine didaktische Reform, die Motivation aller an der Schule beteiligten und das Schulklima insgesamt erwartet werden können. Doch dazu muss die Leistungsbewertung ein Bereich schulischer Arbeit werden, der neu gestaltet werden kann".

In assessments on class level the evaluation depends mainly on the teacher persona and his or her personal attitude towards assessment and evaluation. This still holds true nowadays even though standards are set by mostly all school administrations all over the world.

Through the ECI students encounter and experience exercises and evaluation criteria that are brought forth through the consensus of all the teachers of the same grade level. The result of a student can thus confirm or contradict his or her achievements in normal class-assessments. A contradiction can lead to an in-depth investigation and analysis of the student's result and the teacher's course.

The ALR has chosen to advocate the ECI as one of its main school development instruments and in the following we will demonstrate to what extent the bi-annual ECI comes into force on the different levels of the school community and how this improves teaching and learning and therefore ultimately leads to school development.

2.4. Teacher teamwork

As previously mentioned, the *ECI* and its implementation have a *significant impact on the ways in which teachers from one subject*, and responsible for the same grade level, *communicate*. In fact, it is quite rare that teachers who teach the same grade (but in different classes in the same school) collaborate extensively in Luxembourgish secondary schools. In the ALR, however, this kind of *collaboration is essentially vital, specifically because of the ECI*. The fact that all learners ought to have the same opportunities and prospects for writing an ECI, inevitably demands for an increased cooperation among the implicated teachers especially in relation to establishing the learning goals for the ECI. This obvious, and thus apparently trivial, approach literally brings about significant and profound alterations with regard to the development of teaching methods within a subject, i.e. department. The regulation and adaptation of the learning aims and objectives as well as of the learning content to be taught results in vivid discussions of how to implement these. Further points of discussions are then also of course the best possible teaching methods and materials within the teacher's respective classrooms.

As can be noticed, teachers who teach the same grade have a regular and lively exchange about teaching methods. Giving the example of the German department the discussions become very specific and refer to topics like ap-

propriateness of texts or exercises and the like. During these meetings ideas and practical experiences are analysed and compared so that every single teacher benefits from these exchanges. This applies not only to novices but also to experienced teachers, who can broaden their horizon by new and maybe never thought of methods. The commonly agreed on learning content is implemented in all classes of one grade, which ensures that all pupils are equally well prepared for an ECI. This does of course not mean that all teachers march in lockstep in order to achieve the learning goals of the ECI and thereby lose their individuality. The teacher's authenticity remains at the forefront and there remains enough freedom for every teacher to live out his or her identity. The ECI's quality is further enhanced by the integration of all the teachers in one grade in the process, though this might vary depending on the department. Referring once again to the German department, there is always one team that prepares the questionnaire and the correction key while a different team critically scrutinizes these. This procedure is meant to prevent questions that pupils cannot understand or a too narrow-minded correction key. In the Maths department on the other hand all teachers work in unison to prepare the questionnaire as well as the correction key.

Apart from the teachers' collaboration before an ECI they also have to agree on common standards when correcting an ECI. Once again, communication and exchange move to the fore. The correction key reduces the influence of every teacher's individual correction expectations and consequently also minimises the learner's dependence on the teacher's eventual bias or subjectivity. To further enhance this effect, the ECI are in some departments even corrected by other teachers than the class teacher. At the same time this approach increases the professional security of each individual teacher because he or she can always ask colleagues for advice if controversial answers appear. Furthermore, this close collaboration between teachers illustrates another effect which is still lacking in most Luxembourgish schools: the self-evidence of teamwork creates an atmosphere of mutual trust and safety, in which questions can be asked and requests for advice are not regarded as weakness or inability. On the contrary these questions and requests are considered as proof of professionalism.

After having had a closer look at how the implementation of the learning tools at the ALR instigate teacher teamwork, we will now move on to taking a closer look at how the implementation of such a tool also shapes the larger framework as well as the profile of the school.

2.5. From project to schooling framework and school profile

The pedagogical project at the ALR is, like any other project, limited in time. One specific challenge is the implementation of the above mentioned ProET contents into a perpetual school framework. One has to understand that innovations coerce most effectively when all school partners accept to participate in such a project and to implement these new measures. Such an acceptance comes into existence, for example, when teachers realise and apprehend that their work actually becomes more straightforward, and even improves qualitatively. In other words, new measures and methods have to demonstrate that they not necessarily only generate an increased workload, but that they ultimately enhance the actual value and merit of teacher's work and workload, independent of the fact whether these measures affect the learners, the teachers, the rectorate, or actually all of these at the same time.

In the case of the ALR, a primary focus of the last years has been to structurally integrate pedagogical tools such as the week-plan, ECI, FOLA, COACH, etc. into a very young school. While doing so, a professional teaching and learning community has, at least to some extent, originated and flourished. After the expiry of the pedagogical project, however, it is pivotal to permanently implement and develop what has previously been achieved into the school structure, as well as to continuously proliferate the increased values of all innovations in order to yield additional compliance with all school partners.

The educational project of the ALR having proven competent and thereby significantly contributed to the fine-tuning of the school's profile, it appears to be appropriate to think about the foundation of an additional post within the school management in order to further develop the respective elements of the project. This post needs a precise and clear job description whereby two development perspectives ought to be considered.

A first perspective concerns teacher development, because even the best educational tools and facilities ultimately depend on the people who bring them to life. Accordingly, the ALR has to put even more energy into interdisciplinary, school-internal teacher lifelong training and learning which possibly gathers all teachers around essential common goals. In addition to that, one must not ignore that particularly novices have to be trained in accordance with the specific requirements of the teaching profession at the ALR. Such a school internal teacher training then has to be tailored according to psychological facets of the teacher's identity on the one hand, as well as according to the practical elements of the job, such as the design and implementation of classroom projects or exams, i.e. tests, on the other hand.

The second development perspective concerns the optimisation of the already available resources of the *ALR-Lernkette*. For example, a systematic development and maturation of the parallel school-internal assessment tool (ECI) would entail the following series of steps:

- Step 1: A more consistent exchange and communication between the different departments (languages, maths, science, …) is called for and encouraged. Such intensified exchange and communication increases the quality of the test on the one hand, and prevents a "drifting off" of individual subjects on the other hand.
- Step 2: Each department creates a binding ECI checklist. This checklist, which can also be viewed as a list of requirements, must be attended to at each ECI. Such a checklist is required in order to ensure a consistently high test quality.
- Step 3: It appears to be quite tenable that an interdisciplinary ECI will come into being in the near future. Hence, this would allow for decreasing the number of parallel school-internal assessments while at the same time encouraging interdisciplinarity. Furthermore, test quality could be improved through intensified collaboration and combined effort between the different departments.
- Step 4: In several years, cross-disciplinary project work, which is based on complex and challenging subject matters, could issue out of a cross-disciplinary parallel school-internal assessment in certain classes. This project work could possibly even be dealt with by two students from two different classes over a longer period of time. Similarly to the previously mentioned steps, this may then also decrease the total number of tests while increasing the quality of the tests.

Further developing perspectives would of course have to be developed for all the other tools and elements of the ALR-Lernkette, especially if a systematic school development were to take place at the ALR. Nevertheless, it is of utmost importance to proceed cautiously and allow adequate time for the respective development of each individual pedagogical tool. In and through this development and maturation process then, a well defined and specified school profile is bound to emerge. By reason with this profile, the ALR will be singled out in striking ways if compared to other individual schools.

Apart from these consolidation efforts, further alternative efforts for innovation and change have to come to life. On the one hand, the generation of a new educational project with a different focal point would allow for such efforts to materialise. On the other hand, the constitution of an "ALR think tank" appears to be recommendable. This "think tank" would consist of a small working group which would develop and test entirely new educational ideas for the ALR, however without any rigid thought control. Out of this pedagogical-didactic laboratory, which ought to be characterized by a touch of avant-garde, more valuable impetus and driving forces relevant for school and teaching development as well as for the development of alternative evaluation and assessment tools will emerge.

BIBLIOGRAPHY

Bindels, G. (2008). Interne Vergleichsarbeiten als Motor von Schulentwicklung? Betrachtungen am Beispiel einer neuen Schule, TU Kaiserslautern. Available from http://www2.alr.lu/images/documents/eci/ma-interne-vergleichsarbeiten-alr.pdf

Bissen, M. (2008). Auf der Suche nach der guten Schule. Schulentwicklung und Qualitätssicherung – zum Aufbau einer weiterführenden Schule im Kanton Redange. Retrieved from http://www.manuel-bissen.de/mediapool/43/438359/data/Auf_der_Suche_nach_der_guten_Schule.pdf

Council, E. U. (2009). Strategic framework for European cooperation in education and training ('ET 2020') from http://ec.europa.eu/education/lifelong-learning-policy/policy-framework_en.htm.

Donato, R. (2000). Sociocultural contributions to understanding the foreign and second language classroom. In J. P. Lantolf (Ed.), Sociocultural Theory and Second Language Learning (pp. 27–50). Oxford and New York: Oxford University Press.

Duranti, A., & Goodwin, C. (1992). Rethinking Context: Language as an interactive phenomenon. (Vol. 11). Cambridge: Cambridge University Press.

Field, S., Kuczera, M., & Pont, B. (2007). No More Failures: Ten Steps to Equity in Education

Hall, J. K. (2005). Toward an understanding of how we learn languages. Linguistics and Education, 16(1), 124–126.

Hellermann, J. (2008). Social Actions for Classroom Language Learning. Toronto: Multilingual Matters Ltd.

Lantolf, J. P. (Ed.). (2000). Sociocultural Theory and Second Language Learning. Oxford and New York: Oxford University Press.

Lave, J., & Wenger, E. (1991). Situated learning. Legitimate peripheral participation. Cambridge and New York: Cambridge University Press.

Meyer, A. (2010). Peer-interactions in the learning classroom: expert-novice-practices in learning activities at primary school. Unpublished Book, University of Luxembourg, Luxembourg.

Pont, B., Nusche, D., & Moorman, H. (2008). Improving school leadership. OECD publication, 32–84.

Rogoff, B. (1990). Apprenticeship in thinking. Cognitive Development in Social Context. New York and Oxford: Oxford University Press.

Ruebling, C. E. (2007). Redesigning Schools for Success: Implementing Small Learning Communities and Teacher Collaboration. Longville, Minnesota: AuthorHouse.

Sizer, T. R. (2004). Breaking Ranks II (TM): Strategies for Leading High School Reform: The Education Alliance.

Taylor, B. O. (2002). The effective schools process: Alive and well. Phi Delta Kappan, 83(5), 375–378.

Wenger, E. (1991). Communities of Practice. Learning, Meaning, and Identity. Cambridge and New York: Cambridge University Press.

Winter, F. (2006). Leistungsbewertung; Grundlagen der Schulpädagogik, Band 49. Baltmannsweiler: Schneider.

Wootton, A. J. (1997). Interaction and the development of mind. New York: Cambridge University Press.

ABOUT THE AUTHORS

Jos Bertemes has a DEA de mathématiques pures (Strasbourg-F) and started his career as a mathematics teacher in secondary school in Luxembourg. Besides his teaching, he was early involved in innovative projects around media education, ICT and new ways of learning. Since 1999, he worked part-time for the ministry of education where he participated in all major reform projects, for some in a coordinating role. Since 2009, he is director of SCRIPT which is the administration in charge of the coordination of pedagogical and technological research and innovation.

Manuel Bissen has graduated in Germanistik and Politics from the Albert-Ludwigs-University on Freiburg. He taught as a German teacher at the Lycée Technique Bonnevoie (2005-2008) and at the Lycée Aline Mayrisch (2002-2005) before he came to the ALR (Atert Lycée Rédange) in 2008. Since 2011, he's been active as teacher trainer within the FOPED (Formation pédagogique des enseignant-e-s du secondaire) at the University of Luxembourg. He's the manager of the ALR ProET (institutional project) entitled Evaluation through competencies and task-based-learning and member of a ministerial working group whose focus is the implementation of competencies based teaching practices within Luxembourg's schooling system (since 2008). For his publications please visit: http://www.manuel-bissen.de/mediapool/43/438359/data/Auf_der_Suche_nach_der_guten_Schule.pdf

Dr. Liana Kang-Schmitz graduated from Bochum Ruhruniversität in 1995 as a major in Korean Studies, Chinese Literature and Political Science. After working in public relations for the Institute for Automotive Engineering of the RWTH Aachen (Aachen university), she moved to Luxembourg where she started working as a teacher in 2002. Coming from a completely different scientific field the work as teacher posed a great challenge but at the same time also a great opportunity to get an insight view into the Luxembourgish school system.

Dr. Anne Meyer is currently working as English teacher at the secondary school ALR (Atert Lycée Rédange) in Luxembourg. She graduated in English from the University of Aberystywth, Wales and obtained her Master in Cultural Politics from the University of Norwich, UK. She obtained her PhD in Educational Sciences from the University of Luxembourg and has been a member of the research group DICA-lab since 2006 (www.dica-lab.org). Her main field of teaching and research include learning and interaction, multimodal and non-verbal communication, multilingualism as well as Foreign/Second Language Acquisition & Development. For further information see: http://dica-lab.org/people/team/anne-meyer/3/

Gene Bindels has graduated in Mathematics and Physics (1991) and in School management (2008) from the University of Kaiserslautern. He taught as a Mathematics teacher at the Lycée Classique de Diekirch and the Lycée Technique d'Ettelbruck before starting to teach at the Atert Lycée Redange (ALR) in 2008. Since 2000 he has been active in teacher training and since 2008 he has been co-responsible for the teacher-training in Mathematics within the FOPED (Formation pédagogique des enseignant-e-s du secondaire) at the University of Lu.

Creating learning for all within outcome-based education in the Netherlands

Annette Thijs, Wilmad Kuiper & Nienke Nieveen

Creating learning for all within outcome-based education in the Netherlands

ANNETTE THIJS, WILMAD KUIPER & NIENKE NIEVEEN

Abstract

When it comes to 'learning for all' in the schools, education policy in the Netherlands has high expectations of moving towards outcome-based education with at its heart assessment for learning and differentiated teaching. Although schools keep curricular space to live up to these expectations in a way that suits their local possibilities and aspirations, these boundaries have been sharpened by favouring – for the first time in Dutch history – output regulation by means of mandatory achievement tests for Dutch literacy and numeracy at the end of primary education and for Dutch literacy, mathematics and English at the end of lower secondary education.

This contribution first provides insight in the historical background of the prevailing policy shift by introducing the notion of curriculum (de-)regulation and by briefly describing three episodes in the past 40 years of educational policy in the Netherlands. The three episodes demonstrate the difficulty in striking a good balance between autonomy and regulation.

Then, concerns and challenges for schools and teachers who are adopting an outcome-based education approach are being described, leading to the conclusion that professional development and support of schools and teacher teams is crucial for the success of outcome-based education. Anticipating on the vulnerability of the curriculum reform, synergy is required in demand and support of *all* intermediary partner organizations. Moreover, in the context of outcome-based education there is a strong need for broadening the debate on what knowledge is of most worth in order to make 'learning for all' more meaningful.

Introduction: A policy move towards outcome-based education

The improvement of learning results is high on the policy agenda in the Netherlands. Policy plans express high expectations for the coming years. Just like ambitions stated by governments of many countries around the globe, policy makers in the Netherlands emphasize that Dutch students' performance on the PISA tests for mathematics, reading and science should improve as well as the achievement of students on secondary school-leaving examinations and on the final tests at the end of primary education. Not only should average scores increase, but also the scores on the highest skills levels and of the 20 % of the best pupils. This strong policy focus on student performance is related to recent ranking results from international comparative studies like PISA and TIMSS, which pointed at several areas for improvement. For instance, when comparing students' results in PISA 2009 with the previous study in 2003, there is a slight decline in results while other countries have succeeded to improve their achievements in this period. Furthermore, the PISA studies also show that highly gifted pupils do not achieve according to their potential. Compared to other countries, the score of the best pupils lag behind. As part of the high expectations for student learning, the promotion of excellence in education is now a major policy priority: the achievement of excellent pupils, which are defined as the 20 % best achievers, should substantially improve in the coming years.

The strong policy ambitions regarding student outcomes are currently being accompanied by more input and output regulation by the government. The last five years policy heads for more detailed specification of educational outcome. In 2010 a curriculum framework with standards for Dutch literacy and mathematics was put in place. This framework outlines standards ('goals to attain') for several stages in the curriculum, i.e. end of primary education, end of junior general vocational education, end of senior general education and end of pre-university education. With its detailed descriptions of desired outcomes for Dutch language and mathematics, the framework is more steering than the current (rather abstract) attainment targets that specify curricular aims in terms of 'goals to strive for'. Especially in primary and lower secondary education Dutch schools have always enjoyed a lot of curriculum autonomy, with limited specifications of curricular aims and content 'at the front door' of the education system. The recent shift towards input and output regulation has also led to more emphasis on standardized achievement tests. Policy intentions are to introduce an obligatory final test at the end of primary

education and a mandatory diagnostic test for Dutch language, mathematics and English at the end of lower secondary education. In the secondary school examinations, the pass criteria have been raised, especially for the key subjects of Dutch language, mathematics and English.

The policy changes have led to increasing calls for accountability of outcomes, also at the school level. Schools are urged to adopt an outcome-based approach, in which goal-setting and assessment are key elements of curriculum planning. The development of outcome-based education is supervised by the Inspectorate. The Inspectorate assesses the quality of outcome-based education in reference to five indicators, i.e. (i) use of a coherent assessment system, (ii) systematic monitoring and analysis of learning results at the classroom level; (iii) regular evaluation of the teaching and learning process; (iv) annual evaluation of the quality of learning outcomes, (v) evaluation of the effectiveness of care for special needs learners.

This policy move towards outcome-based education shows an obvious deviation with the past and with all of the aforementioned arrangements in its slipstream it has strong implications for educational practice in the Netherlands. In this chapter we will first look at the historical background of the prevailing policy shift and at its pros and cons. Then, we will look at the challenges for schools and teachers who are adopting this approach and implications for supporting schools and teachers.

Reflections on the Dutch curriculum policy context

In the Netherlands, the extent to which the goals and contents of primary and lower secondary education should to be regulated has been and still is a complicated balancing act between prescription and teacher professionalism (Kuiper, van den Akker, Letschert, & Hooghoff, 2008; Nieveen & Kuiper, 2012). Against a long-standing statutory tradition of freedom of education with a strong trust in the teachers as professionals, governmental input and output regulations as regards the goals and contents for primary and lower secondary education have been delicate issues. This curriculum policy tradition exists already for about 400 years (van Damme, 2011), with the high stakes examination system at the end of senior secondary education as a striking exception. So, restraint in curriculum issues is deeply rooted, and the same is true for

schools autonomy. As said, schools have ample space for site-specific curricular choices (although for a variety of reasons schools and teachers perceive the space offered as rather confined).

As part of an international comparative trend study (Kuiper et al., 2008), school-wide curriculum practices in compulsory education were studied in California, Finland, Sweden, England, Belgium/Flanders, and the Netherlands. Each country/state was positioned on a scale 'centralized – decentralized curriculum policy'. The resulting picture showed that pendulum swings between government steering and control (centralized policy), on the one hand, and school autonomy and curriculum freedom (decentralized policy), on the other hand, can be very strong. From a cross-case analysis, three arguments could be inferred in support of regulation and prescription:

- *Raising the bar and narrowing the gap,* an argument used in California and England. In California, curriculum policy became very much centralized in the 1990s in the context of No Child Left Behind (2002). Implementation of standards along with students performances in the basics were enforced via state-wide assessments. As such, California became an example of the 'assessment model of curriculum control' (Hopmann, 1999). In England, from 1989 onwards a statutory national curriculum was established. Most agreed that educational standards were too low and too varied and that some form of state intervention was needed (Hopkins, 2005).
- *Provision of more structure, uniformity, and homogeneity,* an argument in Finland against the 1994 national curriculum for the comprehensive school. It offered schools more freedom than they could cope with. In order to offer more structure and to (re)create more homogeneity, the 1994 version was replaced by the more prescriptive 2004 document.
- *Regeneration of economic prosperity,* an argument brought up by Goodson (2005) who takes the position that the implementation of the national curriculum in England was presented as part of the project of economically regenerating 'a nation at risk'.

Arguments in support of deregulation and autonomy enlargement were:

- *Acknowledgement of teachers' professionalism,* based on the idea that teachers are competent professionals and that curriculum renewal can only be effective and sustainable if teachers feel responsible for it (counts for many countries, among which the Netherlands).

- *Regulated market competition*, a neo-liberal argument that implies curricular heterogeneity, autonomy and governance. This argument was voiced in Belgium/Flanders (Standaert, 1998) and the Netherlands.
- *Decrease of education budget at the central level*, which serves as an impetus to pass on tasks and responsibilities to the local level. See, for instance, Belgium/Flanders.

Encouraged by this kind of analysis, in this chapter we use the concept of 'curriculum (de)regulation' in order to typify the recent Dutch policy move. Curriculum (de)regulation pertains to the curriculum as a document and to the process of curriculum implementation. A curriculum as a document, in particular a national curriculum framework, usually includes descriptions of goals and contents and sometimes also other curricular components (e.g. teacher role, time allocation, assessment arrangements). When defining the term 'goal', a distinction can be made between *goals to strive for*, expressing qualities to be developed by teaching and learning, and *goals to attain*, expressing what students should know and be able to do (cf. Carlgren, 2006). 'Curriculum regulation' reflects a government's intention to prescribe the implementation of directives at the input level ('goals to attain') and at the output level (assessment modes). Prescriptions imply that the room for site-specific choices is limited. 'Curriculum deregulation' reflects a government's intention to refrain from prescription and control at input and output level by stimulating school-based decision-making. At the heart of curriculum deregulation is trust in schools (cf. Hopkins, 2005). Curriculum regulation and curriculum deregulation are the two extremes of a continuum, with a variety of modes in-between.

Curriculum (de)regulation in the Netherlands

When analysing the curriculum policy in the Netherlands during the past 40 years, the following three episodes can be distinguished (cf. Nieveen & Kuiper, 2012). The first episode (1970–2000) marks a slight swing towards input regulation. From the 1970s the government's commitment to the content of education gradually increased – reflecting an inclination to try to regulate a bit more at the input level – in order to stimulate the continuous development of students as well as equity. The lack of clarity about what should be taught also became an issue of concern because of the international trend of developing core curricula, prompted by the effective school movement (cf. Brookover & Lezotte, 1977) and reports like 'A nation at risk' (Mortimore *et al.*, 1988). The Netherlands embarked on this movement, although the process turned out

to be extensive and lengthy, finally resulting in the legislation of attainment targets ('goals to strive for') for primary education and lower secondary education in 1993 (Letschert, 1998). A reduction and de-specification took place in 1998.

The second episode (2000–2007) starts at the beginning of the new millennium. Due to a change of government aiming at deregulation and market forces, the focus shifted towards site-specific commitment and ownership. This led to a further reduction in number and detail of attainment targets, implying less input steering. Based on this renewed trust in teachers as professionals (Ekholm, 1996), schools and teachers were expected to make their own site-specific curricular choices. In many cases this resulted in innovative school profiles, but also into concerns with the complexities that school-based curriculum renewal brings about.

The third episode (from 2007 onwards) is characterized by a striking shift towards a result-oriented steering model (Ekholm, 1996), due to PISA/TIMSS and a government change in 2010. Input regulation has been revitalized by specifying the attainment targets for Dutch literacy and mathematics into standards ('goals to attain'). Moreover and relevant for the contribution to this Yearbook, in the first time in Dutch history, educational policy is also favouring output regulation for primary and lower secondary education by means of mandatory achievement tests for Dutch literacy and numeracy at the end of primary education and for Dutch literacy, mathematics and English at the end of lower secondary education, to be implemented from 2014.

Pros and cons of curriculum (de)regulation

The three episodes demonstrate the difficulty in striking a good balance between autonomy and regulation. Both prescriptive and flexible models have their pros and cons (Fullan, 2008; Hargreaves, 2003). Prescriptive models obtain better short-term results but do not last, while flexible models with more freedom for schools and teachers seem to last longer but often lack focus (Fullan, 2008). Flexible models last longer because at their heart is trust in schools and teachers (Hopkins, 2005), generally perceived as a prerequisite for sustainable change (Hargreaves & Fink, 2006; Hargreaves & Fullan, 2012).

The recent policy shift towards output regulation by means of mandatory achievement tests – in the context of the move towards more outcome-based education – brings about issues that need to be carefully considered. Standards may provide teachers with more operational support and might help to

counteract the underperforming of students (up to a certain level). However, they also bear the risk of preserving 'the old school' (Carlgren, 2006) and opening the door to the negatives of rigid assessments. Moreover, it discourages professional activity on the part of teachers (cf. Kelly, 2004). In order to avoid all of this, Carlgren speaks of 'goals to attain while striving'. This goal model has been implemented in Sweden, as part of the 1994 national curriculum. To stay away from 'curriculum deadening' (Herman, 2006) – the excessive focus on test scores for the basics – learning trajectories should preferably pertain to a wide range of subjects and should also value cross-curricular skills (Brinkley *et al.*, 2010).

Because of these aforementioned reasons, it does not make sense to make a major swing towards strongly regulating teacher's work via standards along with stringent achievement testing. The major strengths of the curriculum policy period between 2000–2007 – fostering bottom-up renewal initiatives and appealing teachers to their professional capacity – should not be discarded. Teachers in the Netherlands are not looking for overly prescriptive frameworks. Rather they welcome support and inspiration by promising and prototypical practical examples. Important lessons can be learned from other European countries: *some* specification may provide teachers with the hold and support they say to need (see the introduction of 'descriptions of good performance' as part of the 2004 national curriculum for the comprehensive school in Finland, cf. Sahlberg, 2010), while *over*-specification may be perceived as a straightjacket that works counterproductive (England, cf. Alexander, 2010).

Finally, output regulation – framing the 'back door' of education – in any kind should not go without a proper democratic debate about what needs to be tested – framing the 'front door'. So, the question of 'what knowledge is of most worth' needs to be addressed first. This does not mean that all final decisions about goals and contents should already have been made before any decisions about assessment could be taken. 'Backward design' (beginning with identifying the desired results and then working backwards on planning the curriculum) may be a useful means for defining intended learning outcomes (Millar, 2011; Wiggins & McTighe, 1998).

Implementation challenges related to outcome-based education

The policy intention is to double the number of schools that have an outcome-based approach in the coming years, and to strive for 90 % outcome-based schools by 2018. However, for several reasons, implementing these changes seems to be(come) quite a challenge for schools and teachers. First of all, the school culture in most schools deviates significantly from the conditions needed for outcome-based education. For instance, the Inspectorate of Education (2012) reports that in the past year about 40 % of the primary schools and 20 % of the secondary schools were able to meet all five assessment indicators used by the Inspectorate. Most schools have a well-established quality assurance system in place, but the assessment data are hardly used to inform curriculum planning. Student learning is regularly assessed with various types of assessment tasks and tests, but achievement data are primarily used to report about learning progress rather than to determine areas for improvement. Assessment for learning hardly takes place. There is limited analysis of test results to learn more about strengths and weaknesses in students' performance and to decide on next steps in learning. Moreover, at the school level, there is a lack of clearly defined ambitions for school development.

Second, for quite a number of schools and societal stakeholders the increased focus on standardized tests and learning outcomes impinges on the cherished pedagogical freedom and it has raised concern about how to keep room for relevant site-specific curricular choices related to ideological, religious and pedagogical views. This concern is also related to the perceived one-sided focus on Dutch language and mathematics in terms of accountability, while other curriculum domains and goals that are key to their pedagogical views are given less recognition, also because they are less measurable.

Third, schools are also concerned about the feasibility of living up to the underlying assumption of outcome-based education, i.e. that the introduction of standards will raise the achievement of all students. While standards may provide more clarity on desired outcomes, the extent to which students are able to achieve these outcomes depends on the learning opportunities that are offered and how these are geared towards their learning needs. Differentiated instruction is key to the success of outcome-based education. Considering the variety of educational needs, this is a complex challenge for teachers. The complexity mainly lies in the ability to make relevant differentiation decisions based on achievement data, and in the challenge of offering differentiated

instruction within a whole-group setting. Schools and teachers have a lot of questions in this respect: What are realistic and challenging goals for different learners in Dutch language and mathematics? How to deal with students with special needs or language difficulties, will they be able to meet the standards? What are effective differentiation strategies to work towards these goals? What type of assessment data is needed to monitor the development of these outcomes and to inform next steps in the learning process? Research (Inspectorate of Education, 2012) shows that teachers have difficulty with differentiating in learning activities, subject content, and instruction time.

To address these questions, SLO, the Netherlands institute for curriculum development, has worked with several schools to elaborate on differentiation strategies for various subject domains in primary and lower secondary education. Several insights have arisen from this experience. Firstly, teachers tend to rely heavily on the textbook as a tool for instruction. Although the textbooks are of a high quality, there are a few limitations in view of differentiation. The textbooks often cover too many topics and lack suggestions on what topics to omit for students that have difficulty in meeting the minimum requirements. Furthermore, not all textbooks are articulate about goals that are strived for per module. For teachers it is thus difficult to take the lead and use the textbook as a relevant instruction medium within their own curriculum planning efforts (cf. Nieveen & van der Hoeven, 2011). This is further complicated by the types of test that are offered in the textbooks: it is not always clear which knowledge and skills they measure, and the types of outcomes that are assessed are not always informative to decide on next steps in teaching and learning. While the textbooks often contain differentiated modules, with additional tasks for bright learners and more exercises for slower learners, there are no clear suggestions on how test outcomes determine which students should work on which types of activities. Some textbooks with online tests automatically link students to next activities, based on their outcomes, without providing teachers insight in the underlying test scores or arguments. As such, it is difficult for teachers to play a role in adapting the textbook to their students' needs.

In conclusion, the recent move towards outcomes-based education puts forward numerous challenges for schools and teachers in the Netherlands: next to concerns about the loss of autonomy and the perceived one-sidedness of the standards, the use of achievement data to guide differentiation also requires a certain level of assessment literacy which cannot be presupposed and the need for adapting the curriculum to students' needs also requires curriculum

(re-)design capacities which are not always available in schools. Professional development and support of schools and teacher teams is thus crucial for the success of outcome-based education.

Implementation support for schools and teachers

The implementation of outcome-based education is challenging for many schools and teachers. As schools differ in student population, in contextual factors, in capacities of teachers, in beliefs and aspirations, the task complexity may differ from school to school and from teacher team to teacher team. Nevertheless, the implementation and scalability of this type of curriculum reform is a complex multilevel endeavor that needs concerted actions of many in order to reach deep change that goes beyond surface structures and procedures and that sustains over time (van den Akker, 2003; Coburn, 2003).

Curriculum reform endeavors of this grandeur do have many players. Next to teachers and school leadership, many intermediates (i.e., textbook publishers, test developers, interest groups, support agencies, teacher training colleges, Inspectorate) play an important role in the educational reform arena. Moreover, the curriculum reform is value-laden by nature (parties vary in their past experiences, differ in their sense of urgency and often have dissimilar views of the renewal). Anticipating on the vulnerability of the curriculum reform, synergy is required in demand and support of *all* intermediates. This means that the curriculum reform calls for a systemic approach with high degrees of interaction amongst the different groups involved and efforts should be put into reaching trust, common ground and speaking the same reform language (cf. Fullan, 2001). Moreover, each and every party should have a keen eye on school and classroom practices, for instance by involving teacher teams and school leadership in curriculum planning. "Connection between the big ideas and the fine grain of practice in the core of schooling is a fundamental precondition for any change in practice" (Elmore, 1996, p.18). This means, for instance, that textbook publishers and others (such as test designers) need to anticipate on the fact that teachers will need to adapt the high-quality materials by being responsive to their learners. For instance, publishers need to design a wider range of the educative materials and materials need to be made adaptable (cf. Elmore, 1996; Penuel & Fishman, 2012). As the reform diverges quite strongly from many existing classroom practices, continuing attention

should be paid to capacity building at multiple levels. Teachers and all intermediates need to be able to learn about the reform (Coburn, 2003; Hargreaves & Fullan, 2012). In particular, teachers need assistance in becoming more responsive to their learners and in gaining the capacities that are needed for redesigning educative materials (Penuel & Gallagher, 2009; Nieveen & van der Hoeven, 2011). These and other concerted efforts are needed to assist in coordinating balance and linkages between curricular components and the support that accompanies the curriculum reform (cf. Pareja Roblin, Corbalan Perez, McKenney, Nieveen & van den Akker, 2012).

Concluding remarks

When it comes to 'learning for all' in the schools, education policy in the Netherlands has high expectations of moving towards outcome-based education. Although schools keep curricular space to live up to the expectation of raising the achievement of all students in a way that suits their local possibilities and aspirations, these boundaries have been sharpened by favouring – for the first time in Dutch history – output regulation by means of mandatory achievement tests for Dutch literacy and numeracy at the end of primary education and for Dutch literacy, mathematics and English at the end of lower secondary education.

This policy move shows a strong belief in 'moldability' of education. However, when listing the implications for educational practice (including culture change and capacity building), one can easily see that this reform is quite substantial for all involved. It calls for a strong systemic approach, starting from local needs of schools and teachers and with continuous attention for professional development of teachers and other stakeholders. All of this would become easier if all involved would endorse the basic rationale for the policy move. However, although many people will subscribe the idea that education needs to reach all learners and serve them all in an optimal manner, it is unfortunate that the ideological motives for this policy move seem more economical than pedagogical, that is: improved educational outcomes (and becoming a top 5 nation in the next PISA rankings) are needed to realize Dutch ambitions for economic growth and social development.

On top of that, there are good reasons to advocate an expanded set of educational goals (besides the narrow basics) when aiming at becoming a successful knowledge-based economy. "To be productive contributors to society in our 21st century, you need to be able to quickly learn the core content of a field of knowledge while also mastering a broad portfolio of essentials in learning, innovation, technology, and careers skills needed for work and life" (Trilling & Fadel, 2009, p.16). This type of rational can be found in the education policies and practices of countries like Finland, but also in Singapore. In order to make, learning for all' more meaningful, the Netherlands needs to broaden the curriculum debate on what knowledge is of most worth.

REFERENCES

Alexander, R.J. (ed.), (2010). *Children, their world, their education: final report and recommendations of the Cambridge Primary Review.* London: Routledge.

Brinkley, M., Erstad, O., Herman, J., Raizen, S., & Ripley, M. (2010). *Defining 21st century skills. Draft white paper 1.* Melbourne: The University of Melbourne, Assessment & Teaching of 21st century skills.

Brookover, W., & Lezotte, L. (1977). *Changes in school characteristics coincident with changes in student achievement: Schools can make a difference.* New York: Praeger.

Carlgren, I. (2006). *The epistemic practices of curriculum delivery and making – three teaching practices.* Paper presented at the Second World Curriculum Studies Conference, 21–24 May, Tampere, Finland.

Coburn, C.E. (2003). Rethinking scale: Moving beyond numbers to deep and lasting change. *Educational Researcher, 32*(6), 3–12.

Ekholm, M. (1996) *Steuerungsmodelle für Schulen in Europa – im Schnittpunkt zwischen Zentralismus und Dezentralismus. [Steering models for schools in Europe].* Invited address for the annual meeting of the Deutsche Pedagogische Forschungsverbunds, March 11–13, Halle, Germany.

Elmore, R.F. (1996). Getting to scale with good educational practice. *Harvard Educational Review, 66*(1), 1–26.

Fullan, M.G. (2001). *The new meaning of educational change.* London: Routledge Falmer.

Fullan, M. (2008). Curriculum implementation and sustainability. In F.M. Connelly (ed.), *The Sage handbook of curriculum and instruction* (pp. 113–122). Los Angeles, CA: Sage Publications.

Goodson, I.F. (2005). Nations at risk and national curriculum. In I.F. Goodson (ed.), *Learning, curriculum and life politics. The selected works of Ivor F. Goodson* (pp. 91–104). London: Routledge.

Hargreaves, A. (2003). *Teaching in the knowledge society. Education in the age of insecurity.* New York: Teachers College Press.

Hargreaves, A., & Fink, D. (2006). *Sustainable leadership.* San Francisco, CA: Jossey-Bass.

Hargreaves, A. & Fullan, M. (2012). *Professional capital: Transforming teaching in every school.* New York: Teachers College Press.

Herman, J.L. (2006). *Accountability and assessment in K-12: Is public interest in K-12 served?* Paper presented at the AERA Annual Meeting, 7–11 April, San Francisco.

Hopmann, S. (1999). The curriculum as a standard of public education. *Studies in Philosophy and Education, 18*(1), 89–105.

Hopkins, D. (2005). Leadership for curriculum improvement: Going deeper. In J. Letschert (ed), *Curriculum development re-invented. Proceedings of the invitational conference on the occasion of 30 years SLO 1975–2005. Leiden, the Netherlands, 7–9 December* (Enschede: SLO), 33–49.

Inspectorate of Education (2012). De staat van het onderwijs. Onderwijsverslag 2010/2011 [The state of education in the Netherlands 2010/2011]. Utrecht: Inspectorate of Education.

Kelly, A.V. (2004). *The curriculum. Theory and practice.* London: Sage Publications.

Kuiper, W., van den Akker, J., Letschert, J., & Hooghoff, H. (2008). *Curriculum policy and practices in a European comparative perspective: Finding a balance between prescription and professionalism.* Enschede: SLO.

Letschert, J. (1998). *Wieden in een geheime tuin: Een studie naar kerndoelen in het Nederlandse basisonderwijs. [Weeding a secret garden: A study into the attainment targets in Dutch primary education].* Enschede: SLO.

Millar, R. (2011). Reviewing the National Curriculum for science: Opportunities and challenges. *The Curriculum Journal, 22* (2), 167–185.

Mortimore, P., Sammons, P., Stoll, L., Lewis, D., & Ecob, R. (1988). *School matters: The junior years.* Somerset: Open Books.

Nieveen, N. & Kuiper, W. (2012). Balancing Curriculum Freedom and Regulation in the Netherlands. *European Educational Research Journal, 11*(3).

Nieveen, N. & Hoeven, M. van der (2011). Building the curricular capacity of teachers: Insights from the Netherlands. In P. Picard & L. Ria (Eds.), *Beginning teachers: A challenge for educational systems* – CIDREE Yearbook 2011 (pp. 49–64). Lyon, France: ENS de Lyon, Institut Français de l'Éducation.

Pareja Roblin, N., Corbalan Perez, G., McKenney, S, Nieveen, N, & van den Akker, J. (2012). *Designing for scale: How relationships shape curriculum change.* Paper presented at AERA, April 13–17, Vancouver.

Penuel, W.R. & Fishman, B.J. (2012). Large-scale science education intervention research we can use. *Journal of Research in Science Teaching, 49*(3), 281–304.

Penuel, W. R., & Gallagher, L. P. (2009). Preparing teachers to design instruction for deep understanding in middle-school earth science. *Journal of the Learning Sciences, 18*(4), 461–508.

Sahlberg, P. (2010) *Finnish Lessons: What can the world learn from educational change in Finland?* Teachers College Press.

Standaert, R. (1998). Geef aan de keizer wat de keizer toekomt: Mogelijkheden en grenzen van centraal en lokaal onderwijsbeleid [Provide the emperor with what he deserves to get: Possibilities and limitations of central and local education policy]. *Impuls, 28*(3), 115–131.

Trilling, B. & Fadel, C. (2009). *21st century skills: learning for life in our times.* San Francisco, CA: Jossey-Bass.

Van Damme, D. (2011). *Sturingsmodellen in het onderwijs. Presentatie ter gelegenheid van afscheid Anneke Boot.* [Steering models in education]. Paris: OECD.

Van den Akker, J. (2003). Curriculum perspectives: An introduction. In J. van den Akker, W. Kuiper, & U. Hameyer (Eds.), *Curriculum landscapes and trends* (pp. 1–10). Dordrecht, Netherlands: Kluwer Academic Publishers.

Wiggins, G. & McTighe, J. (2005). *Understanding by design.* Alexandria, VA: ASCD.

ABOUT THE AUTHORS

Netherlands Institute for Curriculum Development (SLO)
Piet Heinstraat 12
7511 JE Enschede
The Netherlands

Annette Thijs

Annette Thijs is senior researcher and advisor at SLO (Netherlands Institute for Curriculum Development). She is coordinator of the thematic strand diversity in the curriculum and is engaged in several projects related to diversity in education. This includes research and development projects related to gifted students and cultural diversity. Another focus in her work is on international education and how to strengthen the international orientation in Dutch education. Up to 2005 Annette Thijs was assistant professor at the Department of Curriculum and Innovation at the University of Twente, specializing in curriculum development in an international perspective. Her PhD focused on curriculum reform and teacher professional development in Southern Africa.

a.thijs@slo.nl

Wilmad Kuiper

Wilmad Kuiper is employed at SLO (Netherlands Institute for Curriculum Development) as manager of the Department Research & Advice. Since november 2008 he is Professor (due to SLO) 'Curriculum evaluation regarding the mathematics and science education' at the Faculty of Science of the University of Utrecht. From 2007 he is SLO project leader of the evaluation of the renewal of science and mathematics curricula in upper secondary education. From 1986 to 2008 he was employed at the Department 'Curriculum Design & Education Innovation' of the Faculty of Behavioral Sciences of the University of Twente, in the function of associate professor from 1999.

w.kuiper@slo.nl

Nienke Nieveen

Nienke Nieveen is senior researcher at SLO (Netherlands Institute for Curriculum Development). She is coordinator of the thematic strand 'Curriculum and Teachers' and is engaged in projects related to school-based curriculum development and professional development of teachers in the field of curriculum development. Her dissertation, in 1997, was based on a four year design research project in the field of curriculum design and evaluation. From 1997 to 2007 she was appointed as assistant professor at the University of Twente, specializing in curriculum design research and school-based curriculum development. Some co-edited books over the last decade that represent her orientations: Design approaches and tools in education and training (1999), Educational design research (2006), Introduction to educational design research (2009) and Schools as curriculum agencies: Asian and European perspectives on school-based curriculum development (2010).

What Influences Educational Achievement in Swedish School?

Lena M Olsson, Per Kornhall

What Influences Educational Achievement in Swedish School?

LENA M OLSSON, PER KORNHALL

Introduction

At the beginning of the 1990´s Swedish pupils fared well in international comparisons regarding assessment of educational outcomes. However, since the middle of the 1990´s the performance among Swedish pupils has declined, the importance of socioeconomic background has strengthened and the differences between high and low performing schools have increased sharply. This trend has become more pronounced during the first decade of the 21st century. It has also become obvious that the equivalence in the Swedish education system has detoriated. Factors that might have influenced the decline in results and equity have become a big issue in the Swedish public debate as well as how to break the downward trend.

Given this background the Swedish National Agency for Education initiated a systematic review: *What influences Educational Achievement in Swedish Schools?* published in 2009. The aim of the review was to expand the breadth and depth of knowledge about what factors have an impact on educational attainment in Swedish compulsory schools. The review was based on a broad sweep of research and contains a summary of findings that bring to light the impact of various factors on pupils' attainments at different levels, from the systemic to the classroom level. It addressed factors such as societal change, educational reforms, available resources and the inner workings of schools. The report also builds on an in-depth review of changes in educational attainment based on various outcome measures (Skolverket, 2009a).[1]

[1] Scientists from three different research groups are responsible for the various chapters: Jan-Eric Gustafsson (Professor, Unit: Individual, Culture, and Society, University of Gothenburg), Eva Myrberg (Lecturer, Unit: Individual, Culture, and Society, University of Gothenburg), Monica Rosén (Professor, Unit: Individual, Culture, and Society, University of Gothenburg), Kajsa Yang-Hansen (Lecturer, Unit: Individual, Culture, and Society, University of Gothenburg), Henrik Roman (Senior lecturer at Department of Education, University of Uppsala), Jan Håkansson and Daniel Sundberg (Lecturers, Unit: Pedagogy, Psychology and Science of Sports, Linneus University).

A recurring theme throughout the educational reforms of the 1990s was decentralisation, and the general aim was to create a school system that was adapted to local needs, resources and circumstances. The reforms were of course "well meant", however, one interpretation of subsequent developments is that the reforms in their implementation, partially gave another result than the wanted. Rather than local adaptability, more rote-like solutions evolve: same per-pupil capitation fees, teaching organised in homogeneous groups, individual schoolwork and more independent classroom tasks.

This chapter mainly consists of the most important findings from the review, where the National Agency for Education relates the results of the systematic review to patterns of change in Swedish compulsory schools.

Reforms

Seen in this light and towards the background of increasingly complex society with greater demands on participating in democratic processes, an increase in required qualifications on the labour market as well as high expectations from policy makers on more pupils going into higher education, the Swedish educational system has again entered a new period of intense reform. The National Agency for Education is extensively involved in this process, through curriculum and syllabus development, a new grading system, the development of national assessment tests and through national development initiatives.

A comprehensive reform programme concerning the whole school system including preschool, compulsory school and upper secondary school was introduced in 2011, and adult education in 2012. Extensive efforts have been made in a new teacher education and in teachers´ and principals´ professional development, as well as in registration of teachers and preschool teachers. The purpose is to raise the level of skills among the professionals as to improve the quality of educational services. Extensive efforts are also made in developing the teaching and learning processes in particular subjects, such as mathematics and science. The work on fundamental values and democracy objectives is highly focused.

The purpose of the governmental reform initiatives can be summarized in the following points:

- Pupils should be well prepared for labour market and higher education directly after upper secondary education. The degree of specialisation must increase without any reduction in the requirement for general competences.
- Everyone should reach the goals.
- Education should be equitable.
- Study paths and steering documents should be clear, providing a strong support to teachers in their teaching and good information for pupils, parents and stakeholders.

Equity and results

A central theme and ideologically important part of Nordic school policy is equity, in the Swedish context expressed in the concept ”one school for all”. Historically, the Nordic countries have been good at compensating for the impact of family background and socio-economic status on achievement. That every child shall be given equal opportunity in education regardless of where they live and regardless of social and economic conditions is strongly emphasized in the Swedish school legislation. However, from a position above OECD average and something of a model for a school system´s ability to compensate for in-equivalence in backgrounds (PISA 2000), Sweden has turned to an average OECD level entirely (PISA 2009). Equivalence is one of the main focuses in OECD´s work on education since a reduction of school failure pays off for both society and individuals. The highest performing education systems across OECD countries combine quality with equivalence (OECD, 2010)

International surveys have become of increasing importance, such as PISA, TIMSS and PIRLS, as well as ICCS and ESLC[2]. Swedish pupils grade 9 are on top in English language compared to the participating European countries, while their knowledge in Spanish turns out to be weak (ESLC 2012). Their skills in digital reading comprehension are very good and above OECD average (PISA, 2009). However, a negative trend in reading comprehension, mathe-

[2] PISA: reading comprehension, mathematics and science for 15 year olds; TIMSS: mathematics and science, grade 4 , 8 and 11; PIRLS: reading comprehension, grade 4; ICCS: Citizenship and Social Issues; ESLC: the European Survey on Language Competences.

matics and science outcomes, and increased differences between high and low performing pupils and schools emerges in PISA 2000 compared to 2009. This downward spiral was already foreseen in PIRLS 2006 (Skolverket (2007a) and TIMSS 2007 (Skolverket (2008b). The pupils of grade 4 were very successful readers and on the top 2001, while a noticeable decline occurred 2000 - 2009. The same development was found in mathematics and science among pupils grade 8. After a decrease in pupil outcomes since 1995 the performance was below EU/OECD average in mathematics and on average in science (Skolverket 2008b).

The importance of succeeding in school was illustrated in an analysis of a large statistical material searching for important background factors that might explain serious problems in young adults (The National Board of Health and Welfare, 2010). According to that particular study the strongest explanatory factor were low final grades in school year nine, the last year in Swedish compulsory school. It turned out to be even stronger than family background. This is one illustration among others that there are very strong reasons, both for the individual and the society, to help all pupils to achieve educational objectives.

Comprehensive Educational Reforms and Major Societal Changes

The Swedish context is important in order to understand the changes in results and equity. Several reforms of the Swedish school system were carried out in the beginning of the 1990s. These, when taken together, might be described as the introduction of a systemic realignment of how schools function. Strong common denominators were decentralisation and choice.

One description of the changes taking place in Swedish education during the 1990s is that the school system changed from one of the western world's most centralised organisations to one of its most deregulated within a short space of time (Björklund, Clark, Edin, Fredriksson& Krueger, 2005; Lundahl 2002). Swedens 290 municipalities were given authority for schooling and, within municipalities further decentralisation took place, with responsibility being given to school districts and headmasters.

New state guidelines took effect aimed at developing professional responsibility and leaving significant scope for teachers' own interpretations. Increased possibilities for pupils and parents to choose their schools, as well as greatly

increased opportunities and funding for founding independent schools, with a possibility to make profit out of them, were other changes that took place during the same period. Last, but not least, a new outcomes-based grading system was introduced that stipulated a lowest possible level of attainment that all pupils were expected to achieve.

The changes within the schooling system in Sweden took place parallel to a range of societal changes that may have had more or less of an impact on schools and conditions for schooling. Long periods of the 1990s were characterised by a deep recession that lead to decreased resources for schools, and also to increasing unemployment and widening social differentiation. Residential segregation became more pronounced during the 1990s. An unusually large increase in numbers of compulsory school pupils had special implications for the allocation of resources and meant a lowering of teacher–pupil ratios. Immigration increased and included new groups of immigrants. However, one important conclusion in the review is that increased immigration could only marginally explain the national decline in levels of attainment.

Impact of the Reforms

What combined knowledge is there about how educational reforms have impacted on schools? Just as it is difficult to study the effects of social change, substantiating the consequences of any educational reform is equally problematic. Generally speaking, it is difficult to ascribe any reform impact, either in space or time, especially since reforms often do not have a clear beginning or end. Any reform, as its impact filters through, meets a schooling process with its own particular history that, in turn, has been formed by earlier school reforms and social traditions and changes.

Another difficulty is how to ascribe the impact of a specific reform where several other reforms have been put in train at approximately the same time. There is also the complication of separating out the effects of several reforms in relation to other social changes.

Studies that have investigated the effects of the 1990s school reforms have grappled continually with these types of problems. Despite these difficulties, it remains nevertheless a reasonable premise that reforms actually do have an impact on pupils' attainments. In the systematic review *What influences Educa-*

tion Achievement in Swedish Schools? the researchers conclude that an increasing differentiation of levels of attainment coincides with comprehensive changes in the Swedish school system that have occurred since the beginning of the 1990s.

Several Swedish researchers have pointed out that the intentions of various reforms are not always achieved, and that it cannot be taken for granted that a specific reform will work in the intended direction (Rothstein,1986; Rönnberg, 2007; Sundberg, 2005). Within the international body of research on reforms, it is well known that reforms may often result in effects other than those that were intended (Sarason, 1990; Tyack&Cuban, 1995).

Reasons for such undesired effects might be weaknesses in the reforms themselves; a lack of understanding of the complexity of a school system; that reforms have not had adequate support among affected groups; a lack of resources in the implementation phase; or that reforms have not carried sufficient impact because of competition from established patterns and traditions (Ibid.).

The changes in Swedish compulsory schools can probably be related to general societal change as well as to the educational reforms themselves. Concerning the central intentions of the reforms, certain developments may be interpreted as expressions of undesirable reform effects. One central question – based on evaluation research on the impact of educational reforms – is what these changes have meant for Swedish pupils' educational attainments in the long term.

Choice of Themes for Deeper Analysis

The National Agency for Education chose to categorize the developmental tendencies in Swedish compulsory schools into four broad perspectives or analytic themes, namely: *segregation, decentralisation, streaming* and *individualisation*. This choice was based on the fact that there was strong support in Swedish research findings that the changes, as outlined above, have actually taken place. These themes recur in various ways, more or less explicitly, in all the research chapters of the review.

What influences Educational Achievement in Swedish Schools?

The aim of the review was to summarise research, primarily within a Swedish context, on the impact of various factors on educational outcomes in compulsory schools. The significance of various impact factors has been studied within a range of scientific disciplines, particularly within educational research but also by sociologists, political scientists and economists.

The research covered in the review encompasses several methodological approaches, both quantitative and qualitative, with varied claims to generalizability. Throughout the period in question – from 1990 onwards, and especially since the 2000s – interest in studying the impact of various factors on educational attainment has been increasing. This shift is particularly evident in the field *The Inner Workings of Schools*. This is presumably a reflection of an increased focus on educational outcomes in the general debate on schooling; for example, in the way international attainment research has come more and more to the fore.

The review describes a broad sweep of factors in evaluation research regarded as having a significant impact. These factors can be separated into different areas that are linked to individuals, the home, the school and teachers and teaching, which in turn are echoed in a comprehensive summary of international research dealing with factors that impact on pupils' learning outcomes (Hattie, 2009).

In a range of studies, correlations between individual factors such as social background, gender and ethnicity and learning outcomes are well established. This pertains primarily to the impact of various aspects of pupils' social backgrounds (parents' level of education, cultural capital, etc.) on their school results. International research also links socio-economic status (family income, occupation, and education) to educational attainment. Other significant factors are parents' expectations and ambitions for their children, parents being involved in schoolwork and being able to "speak the language of schooling". Thus, there is strong evidence, in both Swedish and international research, that "the curriculum of the home" has a significant impact on learning outcomes (Hattie, 2009).

Segregation

An important political goal in education policy is that schools should help in minimising the influence of the home and provide all pupils with equal opportunities for reaching educational goals, as expressed in aspirations of equity. It is therefore troublesome that a certain shift in the Swedish school system towards *segregation* has been identified. A number of studies have shown how the composition of pupil cohorts between schools has become more homogeneous; that is to say, that pupils from similar backgrounds have shown an increasing tendency to congregate in the same schools. There has also been an increase in differences in outcomes between schools and between various groups of pupils, particularly based upon social background. One conclusion is that the impact of parents' level of education on learning outcomes has assumed greater significance, including an increase in the impact of school choice. The review also supports the contention that stratifying pupils on the basis of school performance has a negative impact on general levels of educational attainment.

Results from both Swedish and international research demonstrate that the impact of socio-economic background is significantly stronger at school level than at individual level. Where the composition of the pupil cohort is more homogeneous, the effects of social background are stronger. Research has identified factors in the form of peer group effects and teacher expectations that arise at school and classroom levels and that are strongly related to learning outcomes. There is even research that suggests that peer group effects and teacher expectations reinforce one another so that so-called "compounding effects" arise (Skolverket, 2006).

By *peer group effect* is meant that a pupil's grades are influenced by performance levels among friends and classmates. In international research, there is strong support for the existence of powerful peer group effects (Hattie, 2009; Hoxby, 2000). In contrast, peer group effects have been infrequently studied in Sweden. Those results that have come to light, are in line with international research. (Gustafsson, 2006) carried out a systematic review of international research and has concluded that peer group effects do have a significant impact on pupil performance and, therefore, ought to do so in Sweden also (Gustafsson, 2006). A relatively recent Swedish study also confirms the impact of peer group effects, particularly for poorly performing pupils (Sund, 2007).

There has also been great interest among researchers in investigating what *teacher expectations* might mean for pupils' grades. Nowadays, researchers are agreed that actual expectation effects do exist (Jenner, 2004; Hattie, 2009). That teachers' expectations can influence pupil performance is also confirmed in studies by the National Agency for Education (Kåräng, 1995). However, it can prove difficult to explicate causal connections – are teachers' expectations of pupils driven by *a priori* perceptions, or are such expectations a result of a teacher's day-to-day interactions with their pupils? If *a priori* teacher perceptions about various categories of pupils create special expectations (for example, a teacher might have greater expectations of Swedish pupils, especially for pupils of parents with higher education), then the increasing homogeneity within schools, in conjunction with other contextual effects, creates special systemic problems in delivering equitable education for all pupils.

Increased segregation and increased differentiation between schools and between various groups of pupils can also be related to other structural changes that have occurred since the beginning of the 1990s.

Decentralisation

Decentralisation has played a central role in the transformation of Swedish schools in the 1990s and has to a great extent influenced the conditions at various levels under which schools operate.

One aspect of decentralisation is that municipalities have been given responsibility for the allocation of school resources. There are, however, significant differences between municipalities in how resources are allocated. Municipal costs for schools vary significantly, as do teacher–pupil ratios and numbers of certified teachers. However, the research does not provide unequivocal answers regarding the extent to which municipalisation has contributed to these variations. The goal of municipalisation was a more effective redirection and allocation of resources to where resources were most needed. A study by the National Agency for Education has shown that municipal allocation of resources is only to a minor extent based on the varying needs of schools, which can further contribute to increased dispersion in levels of learning outcomes between schools.

The review comes to the conclusion that *the general effect of teacher–pupil ratios is weak* and, therefore, that changes to teacher–pupil ratios cannot explain large changes in pupils' levels of attainment. On the other hand, resources in the

form of class size and teacher–pupil ratios do have a significantly greater effect on pupils with lower academic possibilities and weaker support from home. Results from Swedish research are confirmed by both Nordic and international research. Given the result, that differences between schools have increased, and that the profile of pupils within schools has become more homogeneous, resources and their allocation assume greater importance in order to understand how variation in pupils' educational attainments has widened.

Parallel with the municipalisation of schools, local decentralisation has occurred within municipalities where school districts have been given increased responsibilities and greater authority. Since the mid-1990s, in terms of prioritising and allocating designated resources, *the sphere of influence of schools, at local level, has greatly increased*. Even if the majority of municipalities, by 1995, had implemented a regime of school-level performance outcomes, resource utilisation was still in municipal control, at this point in time, and to a significantly greater extent than today (Skolverket, 2009b).

Resources are obviously an important requirement in the delivery of high-quality education. Notwithstanding this, research has shown that resources alone cannot explain differences in pupil performance, but, rather, how resources are utilised. Budget responsibility and responsibility for the management of teaching is, in principle, left totally to school districts and headmasters. Here, we find a link between decentralisation and another changing trend in compulsory schools, namely, streaming and homogenisation as organisational solutions in the framework of compulsory comprehensive schools.

Streaming

A comprehensive compulsory school, with late tracking towards upper secondary school, and integration as a defining principle has been a characteristic of Swedish compulsory schools. Similar to other Nordic countries, Sweden has a tradition of a unified and lengthy compulsory school where tracking towards upper secondary school and other educational pathways takes place relatively late (Hanushek & Wössmann, 2006). In international comparative research, using an historical-comparative approach, delayed tracking is emphasized as a factor that increases pupils' opportunities to continue in higher education, regardless of social background. Compared with several other countries, the Swedish school system can, in this respect, be regarded as equitable, in spite of remaining differences in educational performance between social classes (SOU 1993:85). In the systematic review *What influences Educational Achievement in*

Swedish Schools?, the evidence is that class differences have, in fact, increased. A conclusion near at hand would be that the introduction of compulsory comprehensive schools has not been sufficient to counteract this inequality.

In one piece of research, data from international studies was collated with the aim of comparing consequences for pupil performance of early and delayed tracking in different school systems (Hanushek & Wössmann, 2006). The researchers found that early tracking leads to increased inequality in the sense that variation in performance increases between fourth and eighth grade. Despite delayed tracking in Sweden, variation in performance between these grade levels increases even here, which was not the case in other countries with delayed tracking onto other educational pathways.

That Sweden diverges from the prevailing pattern would seem to indicate that other differentiating factors are at work on different levels in Swedish compulsory schools. Variation between schools has increased and the manner in which schools organise and deliver instruction would seem to indicate that a new form of *tracking and streaming has evolved in compulsory comprehensive schools*.

Integration is a leading organisational principle in school statutes. The legislation for compulsory schools stipulates *integration/inclusion* as a guiding organisational principle for teaching pupils with special needs. This principle is founded on the notion that any group of pupils is heterogeneous in various ways and that this in itself ought to be valued and be viewed as an asset in the creation of fruitful learning environments (Vinterek, 2006).This perspective regards difference as an asset in the teaching process.

However, in terms of educational organisation, Swedish studies indicate that *streaming*, as a means of dealing with individual differences between pupils, has evolved as an organisational principle *within* the unified compulsory school.

Streaming solutions have become common. Pupils are often separated into different classroom groups based on special support needs or attainment levels, resulting in increasingly homogeneous groups. Research results indicate that such solutions generally do not have a positive impact on learning outcomes. Stigmatising effects often arise, leaving a negative impact on pupils' self-image and motivation. There are risks for persistence effects when placements in special groups become more permanent.

In those groups where a lot of pupils have learning difficulties, teacher's expectations tend to be lower and positive peer group effects are weakened, which is the same mechanism that arises at school level in a segregated school system. John Hattie suggests that low expectations of pupils become self-fulfilling prophecies. What is important is "teachers having expectations that all pupils can progress, that achievement for all is changeable (and not fixed), and that progress for *all* is understood and articulated."

Teaching streamed classes and striving for homogeneous groups of pupils may be seen as an organisational and pedagogical solution to adapting teaching to pupils' varying abilities and needs (Skolverket, 2008). Streaming, as an organisational principle, can be interpreted as an expression of *individualisation*, which in itself is another powerful force for change, both in compulsory school and in society at large.

Individualisation

A significant amount of research supports the view of the importance of teachers, but also points to significant differences in how well teachers succeed in helping pupils attain their grades. Subject-related didactic competence or pedagogical content knowledge (the ability to vary teaching practice in a given subject) is of greater importance than knowledge only in a subject. In other words, a teacher's competence is closely linked to how teaching practice is organised and delivered. Patterns of teaching practice in Swedish compulsory schools have moved in the direction of individualisation. This can be described in general terms as a shift of responsibility for the learning process away from teachers towards pupils and in the longer term as a move from the school towards the home.

There has been an increase in pupils' responsibility for their own learning with the result that schoolwork is more individualised and teachers adopt more withdrawn roles. This, in turn, leads to an increase in the importance of home support for pupils' educational attainments, where parents' levels of education and their cultural capital assume even greater significance. Where individualisation is meant as individual schoolwork, the impact on learning outcomes has been shown to be negative. Pupils' motivation and involvement is negatively affected. These findings can be related to Swedish and international research results all pointing to the importance of teachers being active and precise, with an ability to engage and encourage all pupils and give formative feedback.

However, the concept of individualisation can be endowed with different meanings. There is research support for the notion of individualisation, meant as individually adapted practice, having a positive impact on learning outcomes. In this case, the intention is to shape teaching and design support measures based on pupils' needs, capacities and experiences.

Thus, it proves fruitful to make a distinction between the different meanings of the concept of individualisation, since research results have demonstrated different consequences for pupils' learning outcomes.

Good teaching?

The results in the review find support in both international and national research pointing to the importance of active teachers with clear objectives for their teaching who are able to engage and encourage all pupils. Swedish researchers (Håkansson, Sundberg 2012) have looked at various studies to identify what distinguishes an "expert teacher" from a novice. They found that the expert teacher can:

- identify the essentials of their subjects,
- lead learning through classroom interaction,
- monitor learning and provide feedback,
- use their emotional sides and
- influence pupils' academic performance.

Three dimensions that primarily distinguish expert teachers from in-experienced teachers are described. The expert teachers provide challenging tasks and goals, have deep knowledge about teaching and learning that is used integrally with subject knowledge, and they constantly monitor and reconnect to the pupils' learning. These teachers are clear leaders of the learning that goes on in the classroom. It is important that teachers have faith in the

pupils ' ability to learn and act; can lead learning by creating relationships with pupils with a diverse teaching repertoire; use their subject knowledge for the specific context and circumstances and use well-structured qualitative goals and challenging projects, just beyond the pupils' current understanding.

Research shows that the experienced and skilled teachers use a variety of methods to learn and consolidate their knowledge of learners, and that the best teaching takes place in a climate of dialogue (Hattie, 2009). Teacher-led instruction does not mean one where the teacher speaks the most. Research is unambiguous about that the teacher has to supervise and be responsible for the learning processes and visualize them to both himself and the pupils. That kind of teacher chooses methods according to the situation and the purpose of teaching.

Collaborative professional development

How can one raise the quality of teaching? A compilation of evaluations and research (Wade, 1985; Timperley *et al*., 2007; Cordingley *et al*., 2005) made by the National Agency for Education in 2011, on what kind of professional development that has the most impact on pupil achievement, pointed at the following ingredients:

- Focus on pupils' performance and targets to achieve. The professional development must have pupil's learning in focus and also be evaluated by it.
- Long-term thinking. A professional development scheme must last long to give effect.
- Participation. It is important that the participating teachers are involved in, and can influence what they will learn.
- A professional development must be supported from the top of the organization. In many cases, changing structures in the organization to a desired development to come about might be necessary. The organization must give teachers time to reflect, discuss and develop its activities with their peers and may require changes in scheduling or service distribution.
- Contain collaborative peer-learning with access to external expertise.

Peer or collaborative learning is a collective term for various forms of skills development where colleagues through structured cooperation acquire knowledge and skills. Collaborative learning is based on two or more teachers who together have information to prepare and resolve, discuss and reflect on, before seeking help or discuss further with a supervisor. Central to peer learning

is that participants practice to give each other feedback on the performance of various tasks. Collaborative learning is planned and structured and emphasize the way to solve tasks, formulating problems and critically examine not only others but also their own work. There is a number of different methods that can be classified under the term peer learning such as learning study, lesson study, co-teaching and others. Collaborative professional development will be in focus in the development of Swedish schools in the coming years.

Research on reform

When Swedish and international research results are compared, to a large extent, the same factors emerge as meaningful. When conclusions are drawn and measures are discussed, this is clearly a strength. The review, aimed at mapping out various factors in a number of areas, takes the position that changes in learning outcomes can seldom be explained within one area only. Reasons for changes in learning outcomes are complex, where various factors interplay at different levels.

This is made abundantly clear when the evidence of the various chapters is combined. Is our knowledge about the impact of various factors on levels of attainment sufficient? While a systematic review may provide a broad picture, certain lacunae are evident. In each of the research chapters, a number of areas requiring further research have been highlighted. The "map" of Swedish evaluation research presented in the review would seem to indicate a need for building a more long-range, systematic, and comprehensive knowledge base. Knowledge about how various factors co-vary in certain contexts needs to be developed. One theory base that might prove fruitful is so-called "frame-factor theory", where relationships between goals, frameworks of prerequisites, processes and outcomes are studied. There are strong reasons for tracing change through the entire chain when systemic goal-setting and assessment practices are the target of reform. Research indicates that outcome measures in themselves have an impact on pupil performance and teaching practice.

It is evident from the systematic review that studies highlighting changes in Swedish compulsory schools from a perspective of equity are rare. Knowledge about how various factors affect different groups of pupils as well as how schools can contribute to changing social patterns needs to be developed.

The summary analysis points to four broad pathways to change in Swedish compulsory school that are well grounded in evaluation research, namely: segregation, decentralisation, streaming, and individualisation. The review has shown that these perspectives, based on educational assessment research, are valuable in summarising and explaining trends in levels of attainment in Swedish compulsory schools. They contribute, separately, to explaining changes in levels of attainment, while, in addition, a not unreasonable assumption is that these factors act to reinforce the impact of one another.

In terms of research on reforms, certain areas of development might best be regarded as unwelcome side-effects. A recurring theme throughout the educational reforms of the 1990s was decentralisation, where the general aim was adapting to local needs and circumstances. The reforms, in this sense, were "well meant", however, one interpretation of subsequent developments is that the reforms, in their implementation, partially, took another direction. Rather than local adaptability, more rote-like solutions evolved: same per-pupil capitation fees, teaching organised in homogeneous groups, individual schoolwork, and more independent classroom tasks.

Conclusion

Sweden has still a school that with international standards is quite good, there are great strengths in the school system and efforts are underway to address some of the problems that have arisen. In this chapter we wanted to show how system changes can affect the teaching but also the importance of thorough investigating into the potential effect of changes in systems. The negative development that Sweden has seen was not something anyone had expected.

The National Agency for Education's choice of themes for analysis should be seen in the light of the fact that the Swedish educational system has entered a period of intense reform. In future evaluations, it is important to closely monitor national and international assessment research on patterns of change in educational outcomes. Through international studies, data is gathered which lends itself to in-depth analyses about how various factors interact. These studies also provide opportunities for longitudinal comparisons. In other words, useful opportunities will arise for following the effects, both anticipated and unanticipated, of future school reforms.

REFERENCES

Björklund, A.M., Clark, M., Edin, P.-E., Fredriksson, P. & Kreuger, A., (2005). *The Market comes to Education – An Evaluation of Sweden's Surprising School Reforms.* Russell Sage Foundation.

Cordingley P, Bell M, Thomason S, Firth A (2005). *The impact of collaborative continuing professional development* (CPD) *on classroom teaching and learning.* Review: *How do collaborative and sustained CPD and sustained but not collaborative CPD affect teaching and learning?* In: Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London;

Cordingley P, Bell M, Evans D, Firth A (2005). *The impact of collaborative CPD on classroom teaching and learning. Review: What do teacher impact data tell us about collaborative CPD?* In: Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Gustafsson, J.-E. (2006). *Lika rättigheter – likvärdig utbildning?: en sammanfattning av studien Barns utbildningssituation – bidrag till ett kommunalt barnindex. (Equal rights – equal education?: a summary of the study, children's educational situation – contribution to a municipal child indexes.)* Stockholm: Rädda barnen.

Hanushek, E. A., & Wössmann, L., (2006). *Does Educational Tracking Affect Performance and Inequality. Differences-In-Differences Evidence across Countries.* The Economic Journal, 116(510), C63–C76.

Hattie, J. A. (2009). *Visible learning. A synthesis of over 800 meta-analyses relating to achievement.* New York: Routledge.

Hoxby, C. (2000). *Peer effects in the classroom: Learning from gender and race variation.* NBER Working Paper 7867.

Håkansson, J., Sundberg, D., (2012). *Verbal communication.* Available: http://www.vaxjo.se/upload/Profilerad%20webbplats/Växjökonferensen/Föreläsningsmaterial/2012/Växjökonferensen-Sundberg-25%20jan-2012.pdf

Jenner, H. (2004). *Motivation och motivationsarbete: i skola och behandling. (Motivation and motivational work: in school and treatment).* Stockholm: Myndigheten för skolutveckling.

Kåräng, G. (1995). *Den nationella utvärderingen av grundskolan våren 1992. Skolfaktorer och elevutveckling:* [fördjupad analys], *(The national evaluation of compulsory school spring 1992. School factors and student development:* [depth analysis]), Stockholm, Statens skolverk: Liber distribution.

Lundahl, L. (2002). *Sweden: Decentralization, deregulation, quasi-markets – and then what?* Journal of Educational Policy, 17(6), 687–697.

OECD. (2010): *PISA 2009 Results: Overcoming Social Background, Equity in Learning, Opportunities and Outcomes, volume II.*

Rothstein, B. (1986). *Den socialdemokratiska staten: reformer och förvaltning inom svensk arbetsmarknads- och skolpolitik. (The social democratic government: reform and management in the Swedish labour market- and school policy).* Diss. Lund: Lunds universitet.

Rönnberg, L. (2007). *Tid för reformering: försöksverksamheten med slopad timplan i grundskolan. (Time for reform: experimentation with the abolishment of compulsory school timetable.)* Diss. Umeå universitet, 2007.

Sarason, S.B. (1990). *The Predictable Failure of Educational Reform.* San Fransisco: Jossey-Bass Publishers.

Skolverket (2006). *Vad händer med likvärdigheten i svensk skola?: en kvantitativ analys av variation i måluppfyllelse och likvärdighet över tid, (What happens to the equivalence in Swedish schools?: A quantitative analysis of variation in achievement and equivalence over time),* Rapport 275, Stockholm, Skolverket: Fritze [distributör].

Skolverket (2007a). *PIRLS 2006: läsförmågan hos elever i årskurs 4: i Sverige och i världen. (Literacy skills of students in grades 4: in Sweden and in the world).* Stockholm, Skolverket: Fritze [distributör].

Skolverket (2008). *Särskilt stöd i grundskolan: en sammanställning av senare års forskning och utvärdering (Special needs eduction in compulsory school: a compilation of recent research and evaluation).* Stockholm, Skolverket: Fritze [distributör].

Skolverket (2008b). *TIMSS 2007: svenska grundskoleelevers kunskaper i matematik och naturveteskap i ett internationellt perspektiv.(Swedish primary school students' knowledge of mathematics and science in an international perspective).* Stockholm, Skolverket: Fritze [distributör].

Skolverket (2009a). *Vad påverkar resultaten i svensk grundskola?* Kunskapsöversikt om betydelsen av olika faktorer. *(What influences Educational Achievement in Swedish Schools?* Knowledge survey about the importance of different factors). Stockholm, Skolverket: Fritzes [distributör].

Skolverket (2009b). *Resursfördelning utifrån förutsättningar och behov? (Resource allocation based on needs and requirements?)* Rapport 330. Stockholm, Skolverket: Fritzes [distributör].

Skolverket (2012). *Internationella språkstudien 2011. Elevernas kunskaper i engelska och spanska. (ESLC-The European Survey on Language Competences 2011. Pupils' skills in English and Spanish).* Rapport 375. Stockholm, Skolverket: Fritzes [distributör].

Socialstyrelsen. (2010). *Social rapport 2010. (The National Board of Health and Welfare. 2010. Social report 2010)*

SOU 1993:85. *Ursprung och utbildning. Social snedrekrytering till högre studier. (Origins and education. Social recruitment bias in higher studies.)* Stockholm.

Sund, K. (2007). *Teachers, family and friends: essays in economics of education.* Diss. (summary) Stockholm: Stockholms universitet, 2007.

Sundberg, D. (2005). *Skolreformernas dilemman: en läroplansteoretisk studie av kampen om tid i den svenska obligatoriska skolan. (School reforms dilemmas: a theoretical curriculum study of the battle for time in the Swedish compulsory school,)* Diss. Växjö: Växjö universitet, 2005.

Timperley mfl. (2007). *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration.* In Wellington, New Zeeland: Ministry of Education;

Tyack, D.& Cuban, L. (1995). *Tinkering toward Utopia. A century of public school reform.* London: Harvard University Press.

Wade (1985). *What Makes a Difference in In-service Teacher Education? A Meta-analysis of Research.* Educational leadership. 42(4);

Vinterek, M. (2006) *Individualisering i ett skolsammanhang. (Individualisation in a school context).* Forskning i fokus, 168. Stockholm: Myndigheten för skolutveckling.

ABOUT THE AUTHORS

Lena M Olsson

Lena M Olsson, Licentiate of Philosophy (behavorial science/sociology) and pre-school teacher, Director of education at the Swedish National Agency for education since 1998. She has participated in several national system-evaluations in connection with different reforms of pre-school and school. She has participated in two national evaluations concerning the transformation of Swedish pre-school into the educational system and a new curriculum. For several years Lena M Olsson has worked with evaluation of outcomes and international educational assessment with special interest of various factors on pupils' attainments at different levels. She acted as project leader and wrote the analytical summary of the systematic review "What influences Educational Achievement in Swedish Schools?" on behalf of the National Agency for Education.

lena.m.olsson@lararforbundet.se

Per Kornhall

Currently school strategist at the municipality of Upplands Väsby just north of Stockholm. Have a PhD in Plant Systematics and a Swedish upper secondary school teachers diploma in chemistry and biology. Worked as a teacher in upper secondary school and at the Swedish National Agency for Education. Author of two books.

per@kornhall.se

School-based curriculum development – document or process?

Pille Kõiv, Katri Lamesoo

School-based curriculum development – document or process?

The role of school leaders in school-based curriculum development in Estonia

PILLE KÕIV, KATRI LAMESOO

Abstract

Based on the new Estonian National Curriculum of General Education (established in 2011), the school principal is responsible for the democratic arrangement of school-based curriculum development process. The school principal is in a key position to set and specify the school goals as well as to create a positive environment for school-based curriculum development. However, the actual practices in schools indicate that school principals tend to delegate the leading role to the assistant principal. The main aim of this contribution is to describe and compare school principal and assistant principal understandings of their role and responsibilities in the process of school-based curriculum development (SBCD). For this purpose, we conducted individual interviews with school leaders in ten schools.

The analysis of the interview data indicated that school principals and assistant principals interpret the process of SBCD from a different perspective. The school principals find the SBCD to be an opportunity for designing school activities as a whole. By contrast, the assistant principals tend to take a more formal approach towards SBCD, defining it as a regular document that must be completed on time and strictly follow the content of the National Curriculum established by the Ministry of Education and Research.

The considerable difference in the understanding of the process of SBCD is a challenge for the implementation of curriculum. This is because the principal is responsible for creating strong organizational culture in order to support shared vision, teamwork and learning from each other among the colleagues. These are the attributions, immanent to a learning organization, that have a positive impact on student learning.

It could therefore be useful to provide guidelines in state and local curriculum that would suggest possibilities for incorporating the process of SBCD into school organization development and indicate ways how school leaders could direct the process.

Introduction

Curriculum innovation can occur at various levels of the curriculum. Reforms can be implemented at the international level, system/society/nation/state level, school/institution level, classroom level or individual/personal level (van den Akker, 2003). However, it is quite obvious that all political decisions made at the international or national level are put into practice only in the school and classroom. Beside teachers, the success of a school-level curriculum reform is determined by the competence of the school leader and perceptions of both the content of the curriculum and its development process as the role of a school-based curriculum (SBC) in school in general. The school leader is in a critical position to set and specify the goals of the school as well as to create a positive environment for school-based curriculum development. Fullan (2002) has pointed out that effective school leaders are key to large-scale and sustainable education reform.

School leaders and student outcomes

Teachers are directly involved in supporting student learning in school. Their task is to create a classroom atmosphere which contributes to student learning and development. In addition to the influence of teachers, researchers have been interested in the nature of the impact of school leadership on student learning. Leithwood, Harris, and Hopkins (2008) note that although school leadership indirectly affects student learning in the classroom, several studies have shown that some leadership distribution patterns are more effective than others. Mulford (2003) has compared the three approaches to school governance: old public administration, new public management and organisational

learning. He believes that organisational learning as one of the possible ways of leading a school creates a better context where school leadership and teachers' work have a positive impact on student outcomes. At the same time, Mulford (ibid) admits that the impact of leadership is, nevertheless, indirect.

Leithwood et al (2004) looked at different models of leadership and formed the basic core of successful leadership which is made up of three sets of practices: "setting directions, developing people and redesigning the organization". Although these practices can be thought of as the "basics" of successful leadership, the authors (2004:8) point out that "rarely are such practices sufficient for leaders aiming to significantly improve student learning in their schools". However, school leaders have the power to make well-considered choices between different features that are associated with school leadership and influence student learning (Leithwood, Patten and Jantzi, 2010).

Despite the fact that there is no clear explanation to the link between school leadership approach and student outcomes, it is clear that in order to teach students how to learn, schools themselves have to be good learners in the process of innovation and develop as learning organizations (Hirsch, 2003). The literature on school governance and leadership focuses mostly on the role played by the principal in implementing innovations in school (Marsh and Heng, 2009). Given that the assistant principal as a middle level leader affects teachers' perceptions of learning and teaching and, thus, students' performance in school more than the principal, (Burton and Brundrett, 2005), his or her role in the SBCD process is equally important to that of the principal.

The role of the principal and assistant principal in SBCD in Estonia

"School-based curriculum" became a widely described notion in the educational literature and educational policy of 1970s and early 1980s (Marsh, et al., 1990). In Estonia, SBC became a topic of discussion in the beginning of 1990s when, for the first time, the national curriculum stated that a school prepares its curriculum on the basis of the national curriculum (National curriculum for Basic School and Upper Secondary Schools, 1996). The new national curriculum implemented in 2011 (National curriculum for Basic School and Upper Secondary Schools, 2011) defines SBCD as follows:

1. A school shall prepare the school curriculum on the basis of the national curriculum. The school curriculum is the basic document of learning and educational activity at school.

2. In preparing the school curriculum, the basis shall be the national curriculum and the school development plan, taking into consideration the regional needs, the needs of school staff, parents and students and resources to be used.

3. *The principal is responsible for the democratic organization of preparing and developing the school curriculum. The school curriculum shall be approved by the principal.* Amendments to the school curriculum shall be submitted before establishment for an opinion to the board of trustees, student representative board and teachers' council.

Thus, the current national curriculum clearly defines the role of the principal in SBCD. The tasks of the assistant principal are not as clearly defined in the regulations; these are described by the principal of each school. The actual practice in Estonian schools shows that some principals delegate the task of developing SBC entirely or partly to assistant principals. Such division of labor may indicate a distributed school leadership model, which is one of the important strategies of educational policy for improving school leadership (Pont, Nusche, Moorman, 2008). A distributed leadership model has several meanings and it is characterized by such keywords as "delegated", "dispersed", "shared", "team" and "democratic" (Leithwood et al, 2004). The fact that the Estonian national curriculum emphasizes the very democratic organization of SBCD suggests that school leaders have interpreted it as a shared leadership model.

Sharing Leithwood et al's (2004:7) concern that "distributed leadership is in danger of becoming no more than a slogan unless it is given more thorough and thoughtful consideration", we will examine whether and how the delegation and reallocation of tasks between the principal and assistant principal affects SBCD. Are the principals and assistant principals emphasizing the same or different aspects in the development of SBC? What is the role of SBC in the functioning of a school in the opinion of principals and assistant principals?

Study process, sample and analysis

The sample of the interviews conducted was drawn according to the objective of the study to determine whether and to what extent the descriptions of principals and assistant principals differ with regard to the SBCD process in a situation where they themselves have been leading the process. The interviews

were conducted in ten schools. In half of the schools, SBCD was the responsibility of the principal. In the other half, SBCD was the responsibility of the assistant principal. The type and location of the school were also taken into account: the sample consisted of an equal number of urban and rural schools and an equal number of basic and upper secondary schools.

Prior knowledge of the nature of the division of labor between the principal and assistant principal was based on our years of experience in dealing with schools and on the interviews with the internal evaluation advisor of the Ministry of Education and Research. Of course, there are schools in Estonia where the principal and assistant principal lead SBCD on bases which are more equal, but at the same time more difficult to distinguish. Therefore, for the purposes of clearer interpretation, we chose schools where the roles of the principal and assistant principal are clearly defined.

In order to determine who is responsible for SBCD in school, we conducted a short interview with the school leader. The interviews revealed that if the principal delegates the task of leading SBC to the assistant principal, he or she believes that the assistant principal has competence for the job, since he or she has all the necessary knowledge and skills and, therefore, the principal is a) completely distanced or b) aware of the activities to the extent that he or she performs some of the tasks given by the assistant principal; for example, gives a motivating opening speech to the teachers, develops a subject curriculum or solves problems related to the arrangement of teaching time and teachers' workload.

Data analysis

Semi-structured interviews with school leaders (i.e. principal, assistant principal or both) lasted from 1.5 to 2 hours and were conducted on school premises. Interviews were transcribed verbatim.

At the first stage of analyzing the interviews, we proceeded from the principle of open coding, without paying attention to prior knowledge of the literature. This was followed by the second stage of analysis, i.e. the systematization and narrowing of codes according to the literature. The interviews were once again analyzed using the new thematic codes. In this article, we have provided the results of the analysis on the basis of a three-dimensional model of SBCD (Marsh et al, 1990). The model includes the following features of the curriculum design task: time commitment (one-off activity and short-term, medium-term and long-term plan), type of activity (investigation of an area or areas

of activity, selecting from existing materials, adaptation of existing materials and creation of raw materials) and people involved (individual teachers, small groups of teachers, whole staff and teachers, parents, students).

Results and discussion

According to the national curriculum, the school curriculum must reflect learning and educational objectives and principles, arrangement of teaching time, cross-curricular themes, integration, organization of learning and education, and organization of assessment. Based on the contents of a nationally established SBC, it could be said that it is an important document for schools and, therefore, it is difficult to underestimate its importance through the eyes of school leaders. In the eyes of both principals and assistant principals, SBC is the most important document guiding and regulating the learning and educational activities at school. According to them, it is the school's *basic document regulating everything connected with studies.* SBC must answer the question *why and how learning takes place in school.* In describing the importance of SBC, parallels were even drawn with the constitution of the Republic of Estonia and the Bible.

Despite the fact that both the principal and the assistant principal consider the school-based curriculum to be the most important document regulating the work of the school, their way of approaching and perceiving it is different. While assistant principals speak of it as a "document", i.e. in terms of paper, principals who run the curriculum development speak of it in terms of a process. These two interpretations – the document and the process – involve a number of additional aspects.

Time commitment

Conceptualization

When the task of school-based curriculum development has been delegated to an assistant principal, he or she takes the job passionately and very seriously. For assistant principals it is a *formal document* – just like, for example, the school's general work plan or timetable, etc. – which has to be completed in time, to ensure that daily work in school runs smoothly and the document

is available in case someone at the national level comes to check it. The main concern for assistant principals is *the compliance of SBC with the national curriculum*. By following the national curriculum, the local context and the students' needs could be forgotten to the extent that SBC ends up containing subject areas that teachers and assistant principals, according to their own estimation or due to lack of competence, may not cope with. (e.g. formative assessment, research-based learning, research supervision). Assistant principals are of the opinion that since the national curriculum introduces this innovation, it must be included in SBC as well.

Principals, on the other hand, believe that the inclusion of new methods and topics in SBC just because they are reflected in the national curriculum does not guarantee their implementation. According to them, only those topics need to be added to SBC that meet the teachers' knowledge and competence. Before including topics that require new competencies of teachers, the principals want to make sure that they can be implemented: *after all you have to find out what works best for you /.../ when working with children, it happens that some things don't work as expected*. The principals' words reflect concerns about both the teacher and the student: on the one hand, how children accept and adapt to new methods and topics and, on the other hand, whether the teacher is sufficiently familiar with new teaching methods or topics.

Deadlines

Meeting the deadlines is often the best criterion for identifying the employee's attitude towards work. Thus, for assistant principals the *deadline* is a key indicator of the efficiency and effectiveness of SBCD. Preparing SBC is a major task and the view of assistant principals that meeting nationally prescribed deadlines is unavoidable creates strong time pressure.

Unlike assistant principals, principals are not worried about whether SBC will be completed within the period prescribed by the state: *we haven't like set a target that on this exact date it has to be completely ready*. Principals dare to take responsibility for delaying the deadline for completion of SBC when they feel that teachers need to delve more deeply into some topics: *I don't rush things, because I want to see how these things in real life, what we have come up with and fixed like in our thoughts, how they work before writing them down on paper*.

One-off vs. long-term

The way assistant principals conceptualize SBC by motivating teachers and charging them with tasks is characterized by Marsh et al (1990) as a *one-off activity* on the basis of the three-dimensional model of SBCD. According to assistant principals, SBC is yet another document which must be consistent with the national document and has to be completed by a given deadline. The need to change or further develop SBC was recognized only in cases where the national curriculum needed to be changed. A remark by one of the assistant principals characterizes the one-off activity well: *no one is going to take it* [SBC] *out of the closet after completion.*

Unlike assistant principals, principals represent the *long-term* plan approach. The principal recognizes the role of SBC in the development of the school: *this is not something that sits on the shelf, another document, it is the school's target, so that the employees or the teachers would be familiar with it and well, what is our direction and what are our goals and what are we striving for.* Since principals see SBC as an important document guiding the activities of the school in the long term, its purpose is not only organizing studies or improving student learning, but also the professional development of teachers and shared understanding through collective reflection on activities. The principal believes that it is important to combine the development of curriculum with the development of organizational culture. Since the principal is also responsible for the school's finances, he or she can organize school-based curriculum development outside the school environment, in order to discuss the school's future in a different and more motivating environment: */.../ Then I'll take all teachers who, of course, want to come with me somewhere for three or four days in the summer … It is very good for internal culture. Like mutually supportive /.../*

In brief, when principals see SBCD as an opportunity for school's development, assistant principals perceive it as an obligation of all employees which has to be fulfilled during school holidays or after working hours. This is probably the reason why preparing SBC means *considerable extra work* for assistant principals who do not see it as an additional value for the staff in a broader context, *because life in school is as it is. There's no time for paper work.* Unlike principals, assistant principals see teachers first of all in the context of this work, i.e. preparing SBC, paying less attention to his or her development as an employee.

Type of activity

The state has offered both teachers and school leaders the opportunity to undergo training in the sub-themes of the national curriculum, including the development of syllabuses; however, training in issues such as how to develop SBC as a whole and which aspects should be considered is not available. School leaders and teachers have access to materials drawn up by training providers (public and private training providers, both free of charge and for a fee), from which schools are able to choose. At the same time, there is no training available on how to proceed with these materials – on what basis should the choice be made, how to organize them and assess what information is still missing. In these circumstances, principals and assistant principals act differently. By seeking confirmation that he or she is on the right track and that his or her interpretation is "correct", i.e. SBC is in compliance with the national curriculum, the assistant principal relies on materials obtained during training, *selecting from existing materials* the suitable ones: *But this is what I've always used, basically all these reference materials which we received from [name of the training company], so that you decide purely on the basis of these materials how it should be. And exactly what points and... I mean, this is the basis of everything. I haven't come up with anything by myself.*

The principal, on the other hand, is more critical of the materials obtained during training. He or she rather tries to come up with some ideas for how *to adapt* the knowledge gained for the school context or how *to create* a school-specific approach to SBC.

The basis of SBC depends largely on which training courses teachers and school leaders attend. Both principals and assistant principals encourage teachers' participation in training and consider it important. The difference is that while assistant principals leave the decision of choosing which training courses to attend up to teachers, principals are much more likely to intervene. However, the purpose of intervention is not to check whether training funds are used reasonably and purposefully. On the one hand, the aim of such behavior is quality assurance, i.e. the training teachers receive is, indeed, useful: *first of all I went there* [name of the school] *myself and listened to it. I really enjoyed the way those teachers demonstrated practical teaching /.../ and there were those two teachers who carried out the training here as well.* On the other hand, the training chosen by the principal is in the interests of creating shared collective knowledge: */.../ you see, I brought* [ministry representative] *before all teachers. He came to tell everyone about the curriculum. So, basically, my job is to make sure that our teachers received the same level of training. All have received equal training in some field.*

In conclusion, assistant principals select from existing (training) materials when developing SBC, whereas principals believe that in order for the school to develop, it is necessary to adapt existing materials or create new ones.

People involved

Both principals and assistant principals form subject-matter teams of teachers. However, in addition to subject-matter teams, principals build teams for issues concerning teaching and learning in general, for example integration between subjects, cross-curricular themes, SEN (special educational need), and assessment: *I started by dividing the general part into different topics /.../ And then we formed different teams. Er…, for example, there was one team that was responsible for, /.../ assessment /.../.*

When it comes to involving people, no significant differences can be detected in terms of the behavior of principals and assistant principals. Formation of teams does not depend so much on whether SBCD is led by the principal or the assistant principal; but above all, the size of the school is the determining factor. In large schools, teams are formed of all teachers of the same subject, whereas in a small school where there is, for example, only one physics teacher, he or she is alone responsible for developing subject curriculum. In such circumstances, both principals and assistant principals recommend seeking help from either local or state subject-matter teams.

If we look at the interviews with school leaders from the perspective of people involved (i.e. teachers, parents, students) of the three-dimensional model of SBCD, involving parents and students was, indeed, an option; however, for both principals and assistant principals, involvement did not have developed rules and forms, but was rather sticking to notification of decisions made at school.

In conclusion, the views of principals and assistant principals on the involvement of employees did not differ. Both school leaders were of the opinion that the whole staff should participate in SBCD. It is also worth mentioning that both school leaders described the involvement of parents and students in SBCD at the level of formal involvement.

Conclusion

In this article, we compared the descriptions of principals and assistant principals with regard to the SBCD process in a situation where they themselves have been leading the process. The descriptions of how work was organized, i.e. who did what and how they did it, were analyzed on the basis of the design tasks of the three-dimensional model of SBCD (Marsh et al, 1990).

When we look simply at the facts of who does what in school during SBCD or, more specifically, what tasks have been distributed to people, one would think that in a situation where the assistant principal is responsible for the development of SBD, a distributed leadership model is used. Leithwood et al (2004) have suggested that distributed leadership can occur in different forms, for example, "that it is helpful for some leadership functions to be performed at every level in the organization; for example, *stimulating people to think differently about their work*". However, the way assistant principals described their activities in the SBCD process did not refer to thinking differently. On the contrary, assistant principals stuck to the usual ways of performing their daily tasks. However, the intention is not to complain about the behavior of assistant principals. Rather, the question concerns the one who distributes the tasks, i.e. the principal, as *it takes two to tango*: the principal has distributed a task to the assistant principal, but not the rights associated with the role of a school leader.

Principals who have assumed the responsibility for SBCD recognize its role in the development of the school as a whole. The school leader sees the SBCD process as an opportunity and necessity to think through the activities and development of the school in the long term. To achieve this goal, he or she involves the whole staff in SBCD, combining work (training) and fun (trips), seeing this as an opportunity to *create a common school culture*. The principal dares to leave out the points of the national curriculum, the implementation of which is not certain, and delay the completion of SBC by ignoring the deadlines imposed by the state. He or she approaches SBC as a *long-term plan* which determines and influences the activities of the school in the long term, while being open to the introduction of changes should there be an internal need or readiness.

For assistant principals, SBC appears to be just like any other document regulating the daily activities of the school. Above all, they are focused on producing the *paper*. They are more likely to comply with the content of the national curriculum and meet the deadlines. For them, it is a *one-off activity*.

In developing SBC, the assistant principal uses the same criteria for forming subject-matter teams as in carrying out the school's daily learning activities. Since the tasks of assistant principals do not include personnel issues, they do not foresee training that includes all teachers and general educational innovations in developing SBC. They do not see SBCD as an opportunity for creating a common school culture. For them, it is extra work that just needs to be done. Assistant principals are more likely to recommend that teachers attend training sessions based on their subject and collect information about subject-related changes, in order to better prepare their syllabus.

Implications

It can be concluded that in a situation where the principal delegates the development of SBC to the assistant principal, it is the question of the principal's competence, because like Leithwood et al (2004) say, it is the leader in formal positions of authority who is responsible for building a shared vision for their organization, as the most critical function in distributed leadership.

The school principal is in a key position to create strong organizational culture in order to support long-term self-development planning, self-training, creating shared vision, teamwork and learning from each other among the colleagues. These activities are characteristic to a learning organization, in which a school leadership and teacher work has a positive impact to student learning (Mulford, 2003). Hence, it could be useful to provide guidelines in state and local curriculum that would suggest possibilities for incorporating the process of SBCD into school organization development and indicate ways how school leaders could direct the process.

Acknowledgements

We would like to thank our colleagues Maria Erss and Katrin Kalamees-Tuubel from the Tallinn University for their contribution in carrying out the interviews. Writing of this article has been funded by the Eduko program of the the European Social Fund.

REFERENCES

Burton, N., Brundrett, M. (2005). *Leading the currriliculum in the Primary School.* Paul Chapman Publishing.

Eesti põhi- ja keskhariduse riiklik õppekava (National curriculum for Basic School and Upper Secondary Schools). (1996). Vabariigi Valitsuse 6. septembri 1996. a. määrus nr. 228.

Fullan, M. (2002). The change leader. *Educational Leadership*, 59 (8), 16–21.

Hirsch, D. (2003). The Management of Learning, Schools and Systems. OECD, Networks of Innovation. Towards New Models for Managing Schools and Systems. Report on Hungary/OECD seminar on Managing Education for Lifelong Learning, 6–7 December 2001.

Budapest. [online]. Available: http://www.oecd.org/dataoecd/23/23/41284048.pdf [28 April, 2012].

Leithwood, K., Harris, A., Hopkins, D. (2008). Seven strong claims about successful school leadership. *School Leadership and Management,* 28 (1), 27–42. [online]. Available: http://www.tandfonline.com/doi/full/10.1080/13632430701800060 [28 April, 2012].

Leithwood, K., Louis, K. S., Anderson S., and Wahlstrom, K. (2004). Review of research: How leadership influences student learning. Learning from Leadership Project. University of Minnesota, Center for Applied Research and Educational Improvement University of Toronto, Ontario Institute for Studies in Education. [online]. Available: http://www.wallacefoundation.org/knowledge-center/school-leadership/key-research/Documents/How-Leadership-Influences-Student-Learning.pdf [28 April, 2012].

Leithwood, K., Patten, S., Jantzi, D. (2010). Testing a conception of how school leadership influences student learning. *Educational Administration Quarterly.* 46(5) 671–706. [online]. Available: http://eaq.sagepub.com/content/46/5/671.full.pdf+html [28 April, 2012].

Marsh, C. J., et al. (1990). Reconceptualizing school-based curriculum development. London, New York: Falmer Press [online]. Available: http://www.eric.ed.gov/PDFS/ED335745.pdf [28 April, 2012].

Marsh, C. J. and Heng, M. A. (2009). Understanding Commonalities between School-Based Curriculum Development (SBCD) and Curriculum Differentiation (CD). In: ACSA National Biennial Conference Curriculum: a national conversation 2–4 October 2009, Canberra, ACT [online]. Available: http://www.acsa.edu.au/pages/page484.asp [28 April, 2012].

Mulford, B. (2003). School leader: changing roles and impact on teacher and school effectiveness [online]. Paris: Commissioned Paper by the Education and Training Policy Division, OECD, for the Activity “Attracting, Developing and Retaining Effective Teachers”. Available: http://www.oecd.org/dataoecd/61/61/2635399.pdf [28 April, 2012].

Pont, B., Nusche D., Moorman, H. (2008). Improving School Leadership. In: Volume 1: Policy and practice. OECD. [online]. Available: http://www.ivea.ie/schools/school_leadership/improving_school_leadership_vol_1.pdf [28 April, 2012].

Põhikooli riiklik õppekava (National curriculum for Basic School and for Upper Secondary Schools). (2011). Vabariigi Valitsuse 28. jaanuari 2011 määrus nr 14. [online]. Available: http://www.hm.ee/index.php?1512622 [28 April, 2012].

van den Akker, J. (2003). Curriculum perspectives: an introduction. In: van den Akker, J., Kuiper, V., Hameyer, U. (Eds.) (2003). *Curriculum landscapes and trends.* Kluwer Academic Publishers in Dordrecht, Boston.

ABOUT THE AUTHORS

Pille Kõiv

Pille Kõiv is a researcher at the Centre for Educational Research and Curriculum Development at the University of Tartu, where she has been working since 2000. Before that, she was a teacher of biology in a school for visually impaired and blind students. She has been engaged in several projects related to cross-curricular themes, school-based curriculum development, national curriculum development and assessment.

E-mail: pille.koiv@ut.ee

Katri Lamesoo

Katri Lamesoo is a PhD student in sociology at the University of Tartu. She has been working at the University of Tartu since 2003: as a research fellow at the Unit of Gender Studies in 2003–2007 and as a specialist/researcher at the Centre for Educational Research and Curriculum Development since 2008. Her main interests in the field of education concern cross-curricular themes, formative assessment, school leadership and qualitative research methodology.

E-mail: katri.lamesoo@ut.ee

School leadership as a predicting factor for the use of interactive teaching methods and ICT in classrooms

Tidita Abdurrahmani, Elona Boce,
Marita Hamza, Irida Sina, Nazmi Xhomara

School leadership as a predicting factor for the use of interactive teaching methods and ICT in classrooms

TIDITA ABDURRAHMANI, ELONA BOCE, MARITA HAMZA, IRIDA SINA, NAZMI XHOMARA
INSTITUTE OF EDUCATION DEVELOPMENT, ALBANIA

Abstract

The predicting force of school leadership for school quality is increasingly researched in Albania. Meanwhile, for more than a decade, use of interactive teaching methods and information and communication technologies in the classroom gained greater emphasis. Our research aimed to investigate if school leadership affects use of interactive methods and technology in the classroom. The study sheds light as well on the most common school leadership style and most common teaching methods in classrooms. Theoretical foundation is the leadership model of Tannenbaum and Schmidt (1958) and the model of Blake and Mouton (1994), who define leadership style based on where the focus of leader's concern is: people or results.

The study involved qualitative (in-depth interviews and concept cards) and quantitative methods (survey). Thirteen schools from six regions of the country were selected based on criteria of urban profile, large size and easy access. Participants in the study were school principals, teachers, students, parents and regional education authorities.

Findings reveal that principals perceive their leadership style as consultative, as opposed to students who see them as authoritarian and teachers who perceive their principal's style more as a combination of the caretaker and motivator/problem-solver styles of leadership. Traditional teaching methods are the most commonly used in the classroom. Most teachers rarely use the informa-

tion and communication technologies in the classroom. Most students state that introduction of a new lesson goes without debating and that they initiate talking only if the teacher directly asks them. Lastly, in response to the primary research question, the leadership style is explanatory for 14.1 % of variation in interactive teaching methods. Both leadership and teacher training impact are explanatory for 16.4 % of variation. Results show that the independent variables significantly impact our ability to predict the dependent variable ($p < .05$).

The role of school leadership in improving education quality is increasingly becoming a researched topic in Albania. Also, use of interactive teaching methods and information and communication technology in the classroom has gained greater emphasis in the last decades. The aim of our research was twofold: first, to create a descriptive view of school leadership styles and teaching methods in Albania classrooms, and second, to investigate the impact that school leadership has on improving use of such methods and information and communication technology (ICT) in the classroom.

School leadership defined

According to the definition of Van de Grift and Houtveen (1999) school leadership is a capacity to initiate school improvement, create education climate oriented towards learning and encouraging and coaching teachers so that they can perform their duty most effectively. Traditionally, the school principal is expected to perform duties such as defining clear objectives, delegating tasks, managing curricula, supervising instruction and assessing teachers. Nowadays, the school principal is expected to be more involved in the "basic technology" of learning, and offer more sophisticated support for staff development, as well as making decisions based on results. Tannenbaum and Schmidt in 1958 defined management styles based on orientation towards results or relationships. They suggested that these orientations conflicted each other and the more a person cares about results, the less he or she cares about relationships and vice-versa (Everard et.al., 2004). Blake and Mouton (1964) extended this model based on the assumption that concern about results or concerns about relationships were not necessarily conflicting. They believed managers could be concerned with both at the same time. Their model of management reflected five styles of management based on a combination of both concerns: the impoverished management – a passive style of low concern for people and low concern for results; the task management style of low concern for people and high concern for results; the middle of the road style where

leader tends to balance between concern for people and concern for results; the country club style where the leader has high concern for people as opposed to low concern for results and finally the team management style that combines a high concern for both people and results (Rees and Porter, 2008).

Other theoretical models on the constructive, collaborative and open school leadership have been elaborated. Most authors agree that some components of the leadership are key to instruction and the learning process. Research has showed that management styles have their effects on school life. The leader contributes to improvement of learning, influencing conditions and climate where teaching and learning takes place. A number of research studies from various countries and school contexts have shown the essential role of leadership in increasing school quality (Scheerens and Bosker, 1997; Teddlie and Reynolds, 2000; Townsend, 2007 cited in OECD, 2008). Among these models is the one on instructive leadership. It focuses on how the leader influences instructional processes in school and later effect on learning (Hallinger dhe Heck, 1996, cited in Veenman et.al., 1998). School leader needs to coordinate objectives of the teacher with the school objectives, to ensure instructional support and monitor classroom teaching. A study from Cheng (1996) shows that leadership is a critical factor in school and student performance. Another form of leadership used in school context after 1992 is transformational leadership. It aims at increasing capacities and personal commitment to the organizational goals from the staff. Increased capacities and commitment positively affect engagement and productivity (Bass, 1985; Burns, 1978 cited in Leithwood and Jantzi 1999). However, according to Leithwood and Jantzi 1999, there is no unified concept of transformational leadership in education. These two authors offer a model with six leadership dimensions and four management dimensions. Leadership dimensions include having school vision and goals; ensuring intellectual progress; offering individual support; modelling professional practices and values; showing expectations for high performance and developing structures to trigger participation in school decision making (Leithwood and Jantzi 1999). They added in this model the management dimensions of staff, instructional support, monitoring school activity and community focus. Another model which is increasingly common since the '90s mainly in the US is the school-based management model. Advocates of this model argue that among other things this model significantly changes education practices (David, 1989), produces more creative and contemporary solutions (Doyle, Cooper dhe Trachtman, 1991) and increases school productivity and learning (Ogawa, 1992 cited in Robertson and Briggs, 1998).

Models of school leadership are of interest for this research because of their presumed effect on the interactive, reflective and student-centered teaching methods. Interactive teaching is the process where both students and teacher are co-authors and actors of teaching, with various roles across the stages of the process. The teacher is supposed to be a leader and organizer, while the student is at the center of the process. Recently, the information and communication technology (ICT) has become a priority approach for teaching as well. Educational policies and strategies in Albania regard ICT of key importance because of the benefits it entails. ICT improves communication, management and teaching through ensuring lifelong learning, experience-based learning, ensuring distance learning and direct communication (Bibeau, 2006).

School leadership effects on teaching

Reviews offer a limited number of studies particularly focused on the impact that school leadership has on instruction and teaching. These studies focus on general effects, especially on variables that go beyond teaching methods, such as school performance, school effectiveness and student performance. Even when it is specifically expressed, the effects of leadership on teaching are described in terms of wider procedures and processes, not specifically of techniques. Therefore literature available suggests that methods and information and communication technology in teaching are researched tangently as part of leadership effects. Even so, research on the impact of leadership on school results has not proved to be effective for the understanding.

One reason why research is contradictory is the methodological viewpoint. According to Hallinger and Heck (1996a) cited in Leithwood and Jantzi 1999 research that focuses on direct effects of school leadership on students' achievements tends to report non concluding results, while research including intermediary variables tends to report significant effects. Therefore teaching methods may be investigated as an intermediary variable towards an end variable, such as students' academic achievements and school performance.

In their study Leithwood and Jantzi included classroom conditions as intermediary variables. These conditions are decisions and actions directly related to instruction and learning in classroom and include instructional services and policies and procedures. Instructional services were defined as teacher interventions to students with the aim of encouraging learning. Practices related

to this variable were instructional planning, decisions on curricular content, selection of learning strategies and use of instructional time. On the other hand, policies and procedures were defined as guidelines for decision making and action in school (Leithwood and Jantzi 1999). Therefore the first condition of instructional service is an effect of leadership and implies teaching methods. Although it is a fact that the classroom conditions contribute to student achievements (Bosker, Kremers and Lugthart, 1990, cited in Leithwood and Jantzi 1999), the strength of this relationship is still unknown.

From the review of forty research studies dealing with the leadership effects in education, Hallinger and Heck (1998) posed the thesis that leadership could influence through four dimensions: 1) aims and goals; 2) structures and networks; 3) people and 4) organizational structure. Within the dimension of "people" they included changes in teachers and teaching techniques. According to the model proposed by Leithwood and colleagues (Jantzi and Leithwood, 1993; Leithwood et.al., 1993; Leithwood, 1994; Silins, 1994) many of the results during school restructuring are effects on teachers, for example changes in behavior, use of new programs and teaching techniques. Again, teaching techniques are part of these variables and are studied as effects of leadership that precede the ultimate effect of school achievement.

Studies based on the instructional leadership model support the effects of leaders in people as ways to influence results indirectly. Heck and others (1990) discovered that leaders in elementary and high schools who were more productive, spent more time in direct supervision and support in classroom, worked with teachers to coordinate the instructional program of the school, solved the teaching problems in collaboration, assisted teachers in finding resources and provided staff building activities (cited in Hallinger and Heck, 1998).

Leadership practices that affect teaching

A set of interesting leadership practices that have positive effects have been proven by a longitudinal study with school principals in The Netherlands. According to this study the school principal demonstrated practices such as informing teachers of the latest teaching methods and tools; showing interest in what happened in the classroom; making direct observation of classroom practices and encouraging the teachers to improve student achievement (Van de Grift and Houtveen, 1999). Another element of the principal's style is how

he spends his time. Studies from Martin and Willower (1981) and Kmetz and Willower (1982) suggest that principals spend only 2.5–10 % of their time in classrooms. According to Duke (1987) more than one in three principals stated as a major problem the lack of time for direct observation in classrooms and meeting with teachers.

Many principals are unclear on how to spend their time. They do not have a clear vision of the desired results that will get them to redefine their time. They are unclear on which responsibilities that more likely will have an impact. (Veenman et.al., 1998). Reflection is another technique that principals can use as a mechanism to reflect on teaching process in a wider and possibly deeper way. Internal assessments can have a positive influence on teaching methods and curricula development and can be an important step towards school empowerment. Vollanski and Bar-Elli (1996) emphasize the internal monitoring system developed by university experts in collaboration with school staff as one of the components of school based management. In particular, coaching can assist in improving teaching performance of average teachers, but also of those who perform lower than the standard (Veenman et.al., 1998).

The research study presented here aims to explore the most frequent school leadership style of principals in compulsory and high schools in Albania. The study also takes an interest in the dominant form of teaching methods and extent of use of ICT in classrooms. Finally, it aims to understand whether leadership style is predictive of teaching methods and ICT use.

Finally, it aims to understand if leadership style is predictive of teaching methods and use of ICT.

Methods

Sample

Main samples of the study were teachers (N=130) and students (N=650, 395 from compulsory schools and 255 from high schools) from 13 schools distributed in six regions of the country. School sample was selected by convenience including schools in urban areas with high number of students. Margin of error for student sample is 3.8 %.

In addition, the school principals from each school participated in the study.

Instruments

Two questionnaires were designed: for teachers and students. They were multi item scales applied to measure both reported leadership practices and teaching methods. The teacher questionnaire comprised 20 items for reporting on leadership style of the principal of their school and 16 items for teaching methods used by them. Items on leadership style were based on the Blake and Mouton model. Both sections were measured through a four-point scale ranging from 1 (completely disagree) to 4 (completely agree). One added variable was the teacher professional development five-item scale.

The student questionnaire comprised a 7-item section for leadership style and 12-item section for teaching methods, both measured through a four-point scale ranging from 1 (completely disagree) to 4 (completely agree).

Another instrument was the concept cards for school principals, comprising 10 sections of open and closed questions collecting reports of principals on management/leadership and teaching methods in their schools.

Procedure

Classrooms where student and teacher questionnaires were administered were randomly selected. All instruments were self-administered by participants upon their informed consent. Teachers and students responded individually to the questionnaires in the classrooms. A study coordinator gave brief instructions on how to fill in the questionnaires and was present during the process. Overall, the fact that the questionnaire required data about the principal and teacher (from student) and principal and self (from teacher) increased the reluctance to filling the questionnaire.

Results

Leadership style in schools

The principals understand school leadership mainly as an administrative role: executing guidelines from education authorities and coordinating tasks among the staff. The concept did not convey roles of devising vision and developing strategies for people and school transformation or developing productive human relationships. Principals describe characteristics of their role mainly re-

lated to gaining staff respect, conflict management, control and coaching. They do not mention as part of the role characteristics such as staff and student support, developing potentials and energizing the team, seeking resources, taking initiatives, influencing, strategic and analytical thinking and respect for others. Principals report that the majority of their time is spent on curricula and teaching (classroom observations and teacher support). The second most frequent task they undertake is school administration (human resources/staff issues, regulations, reporting, school budgeting, schedules). These reports conflict with how principals understood the concept of leadership, which is less about content of teaching and curricula and more about administrative work.

Principals defined themselves as consultative types, mainly concerned with staff. Data analysis of concept cards revealed that they do not tend to measure success in terms of results, but rather in terms of relationships with people. On the other hand, teachers report a style that resembles the team management principal, who is concerned equally high about both people and results. According to 81 % of the teachers, principals show concern for teachers' feelings and opinions. A vast majority of 92 % of the teachers describe their principal as a guide for the teachers to achieve the objectives. Principals tend to monitor classroom work and make assessments on teachers' work. Students, on the other hand describe the style of school leadership closer to the task management type, highly concerned about results but not about people. According to them, school principals rarely monitor classroom work (72 % of students say so). One third of students respond that principals in general do not take in consideration their opinions regarding the teaching process.

Leadership practices that affect teaching

Principals report using some of the techniques that affect the quality of teaching in their school. They report use of informative sessions, discussion and internal coaching for the successful implementation of the curricula in their school. None of the principals report collaboration with other schools and universities, providing ways of support for new teachers, group decision making, organization of teaching or internal assessments of teachers.

Leadership impact on the selection of the teaching methods and the use of ICT

Frequency of interactive teaching methods

Teacher-centered teaching methods are the most frequently used methods in the classroom as opposed to student-centered ones. Teachers and students report that some interactive methods are used as well, but have not gained significant terrain. Most students state that teachers prefer to have students stand in front of the class when doing knowledge testing and that during introduction of a new lesson teachers do not engage students in debates. Most students (91 %) responded that they sit in desks set in columns, one after the other, and that during class they talk only if their teacher asks a question. One forth of the students responded that in the classroom they do not ask questions, do not debate or do group work. Students (73 %) stated that the teacher assesses them through facts reproduction during the lesson rather than higher order thinking skills. One forth of the students never or rarely receive assessment for their group work or curricular projects. Although student-centered teaching methods are theoretically known to the principals, their use in the classrooms is still scarce.

Frequency of ICT use

Most principals reported that they use computer programs such as Word (for reporting, planning, multimedia classes), Excel (for producing statistics), PowerPoint (for curricular projects and demonstrations in staff meetings and capacity building events in the school) and Web (for work related information resources). The younger the age of the principal, the more likely they were to report use of programs. Teachers also reported that principals use ICT in communication with staff.

However, schools encounter challenges with regard to ICT use. Although most principals have received capacity building on information and communication technology from education agencies, some of them have not. Also, the infrastructure conditions that allow teaching through ICT are reported not favorable including low quality equipment (desktop computers and printers) in schools, poor internet connections, poor maintenance, lack of funds, scarce number of equipment insufficient to cover needs of the school, as well as lack of CDs and DVDs with instructional material.

Most teachers do not use ICT in the classroom. Although principals are seen to be supportive of the use of ICT, only one third of the teachers use it in the classroom. Meanwhile three out of 13 principals mention that ICT usage in teaching has been successful. Results show that teachers who report high capacity building impact, use ICT more frequently.

Correlates with teaching methods variable

Data were calculated for delivering a team management leadership style score and interactive teaching methods score.

Teachers who tend to have a high score on traditional teaching methods in the classroom allow students to talk only when asked by them, use assessment only by them rather than peer assessment or student self-assessment and rarely or never organize group work with students.

Analysis shows a significant positive correlation (.354, $p<0.01$) between the extent to which the principal encourages experience exchange and impact of experience exchange reported by teachers. Interactive teaching methods score positively correlates with principal's practices for professional development. Another significant although not strong correlation is noticed between presence of school infrastructure that allows interactive teaching methods and extent of principal's involvement in infrastructure improvement (.226, $p<0.05$).

Principals who support the opportunities for experience exchange offer as well other opportunities for professional development and are more likely to use ICT in communication with staff. It seems that there is a positive relationship between use of interactive teaching methods and ICT in teaching (Table no. 1).

Table no. 1 – Correlation coefficients

	Principal offers opportunities for professional development.	Principal supports and creates opportunities for experience exchange.	Principal regularly observes the classroom hours and teaching practice.	Interactive teaching methods score.	Teacher uses ICT in the classroom.	Principal uses ICT with staff.
Teacher capacity building impact.	.309(**)	.341(**)	.100	.278(**)	.090	.245(**)
Principal offers opportunities for professional development.	1	.601(**)	.379(**)	.202(*)	.095	.592(**)
Principal supports and creates opportunities for experience exchange.		1	.340(**)	.187(*)	.090	.512(**)
Principal regularly observes the classroom hours and teaching practice.			1	.226(*)	.291(**)	.474(**)
Interactive teaching methods score.				1	.503(**)	.227(**)
Teacher uses ICT in the classroom.					1	.145

** Coefficient significant at 0.01 level.

* Coefficient significant at 0.05 level.

As mentioned in the previous section, students describe leadership style in a more autocratic light as compared to teachers (mean 2.79 as opposed to 3.39 from teachers). However, teaching methods score has not been significantly different in either group (Table no. 2).

Table no. 2 – Descriptive statistics

	Students				Teachers			
	Min	Max	Mean	Standard deviation	Min	Max	Mean	Standard deviation
Interactive teaching methods mean score	1	4	2.72	.480	2	4	2.82	.380
School leadership mean score	1	4	2.79	.544	2	4	3.39	.495

Students (N=648); Teachers (N=130)

Predicting value of leadership style

Regression analysis from leadership and teaching methods shows scores resulting from teachers' questionnaire that convey some key findings.Two models were calculated: the first when the predicting factor for teaching methods is school leadership style, and the second when the leadership factor and impact of teacher capacity building were both analyzed as predictors. The regression coefficient (R) for the first model is significant at the significance level of $p<0.01$ (.375). In the second model the regression coefficient (.405) is a multiple regression result.

The leadership style score is explanatory for 14.1 % of the variation of interactive teaching methods score. A combination of leadership style and training impact is explanatory for 16.4 % of the variation of interactive teaching methods score. In both cases the predicting value is significant but not strong.

ANOVA analysis presents significant values of independent variables predicting the teaching methods variable. F value for the first model is 20.9, thus it is not likely to be mere chance. The predicting value for the second model is 12.4, therefore it is also significant. These results demonstrate that our models improve significantly our ability to predict the dependent variable at the significance level of .05.

Discussion

School leadership construct as reported

The results show differences in the way principals perceive their leadership style and the one teachers and students see in their performance. Therefore the study can not be conclusive on which leadership style is dominant in schools. However, for purposes of analysis a leadership style score was calculated out of the teachers' responses and analyzed in relation to the teaching methods score. It turns out that teachers see their principal as a team manager, oriented both towards people and school results. Students describe the principal based on the autocratic and categorical view, less oriented towards relationships. Even though a unified perception among the three groups of participants can not be expected, these differences raise questions on how certain perceptions influence school life dynamics. If the principal perceives himself as consultative, the teacher sees him as result oriented and students see him as autocratic, this may affect the dynamics.

Principals involved in the study score low as referring to the Leithwood and Jantzi leadership dimensions. Defining a vision, modelling professional practices, offering individual support were not revealed as part of the leadership roles. Moreover participatory management is understood and applied as an integral part of daily management. Administering school-based curricula despite some achievements is accompanied by misunderstandings and difficulties throughout its whole implementation. These roles are not mere theories for principals in Albanian schools. They also appear in the regulating legislation and policy papers. The new Law on Pre-University Education and professional standards for school principals envisage specifically: strategic leadership and vision, instructional and learning leadership, personal development and interaction with other actors, school management and community participation in school life (IZHA, 2010).

Leadership practices that affect teaching

Of the leadership practices proved by previous research, (Duke 1987, Vollanski and Bar-Elli 1996; Van de Grift and Houtveen, 1999) principals in Albania reported they use informing, discussion and coaching. As research has shown, coaching can help in improving teaching performance of teachers (Veenman et.al., 1998), which can explain why the leadership style is found predictive of interactive teaching methods. Principals report that they spend most of their

time on curricula and teaching (classroom observations and teacher support) with administrative tasks coming second. These findings do not comply with the findings of Kmetz and Willower, 1982, cited in Veenman et.al., 1998, who suggest that principals spend only 2.5–10 % of their time in classrooms. It is important to consider the context in which the studies were carried out.

School leadership effects on teaching

Among teaching methods the traditional ones are dominant over interactive methods. ICT is either not frequently used in schools or not extensively known and understood. Leadership style is a predicting factor of teaching methods, complying therefore with previous research on effects of leadership (Jantzi and Leithwood, 1993; Leithwood et.al., 1993; Leithwood, 1994; Silins, 1994). Specifically interactive methods were proved to be linked with the leadership style (team management style). However, despite being statistically significant this linkage was not evidenced to be strong. It seems to be stronger if the leadership style is studied in relationship with other variables such as impact of training on teachers. This research did not measure end variables such as student or school performance. If effects on teaching methods are to be studied, then a number of factors need to be considered. This reinforces what Hallinger and Heck have emphasized 16 years ago about the need for research on school leadership to include intermediary variables in order to report significant effects. Some factors could be curricula structure, school infrastructure, staff training, budget and school legislation.

Recommendations

A number of recommendations have been formulated based on the key findings of this study:

Firstly, the professional standards of the principals need to be reinforced creatively in schools, if we want interactive teaching methods and ICT to take natural place in classrooms. However, the selection and use of teaching methods can be influenced by other factors as well such as education, staff training, infrastructure and resource improvement. More capacity building sessions need to be organized with the focus on improving school leadership, using interactive teaching methods and increasing the use of ICT in the teaching process.

Secondly, a more intentional process of setting learning standards for compulsory education, organizing national testing of students and assessing schools and teachers based on student performance will make school leaders and teachers more focused on results.

Thirdly, the participatory approach in school management is crucial. School structures and especially parents and community need to be actively involved for the school to be effective. Support can be provided more intentionally by the regional education authorities through setting up online forums created to exchange experiences and challenges with regard to teaching and leadership issues. Another source of support can be provided through the collaboration with regional or European networks, and the facilitation of the central education authorities such as the Ministry of Education and Science and related agencies.

Fourth, the contribution of such educational institutions consortium as Cidree, on providing reciprocal assistance on the development of radical reforms in the teaching and learning process is crucial. The focused group discussions with members of Cidree and the contributions to the yearbook, will serve to provide answers to questions such as: *"What kind of support, conditions and insights are needed for schools to be able to fulfil their tasks? How to get schools that create learning environments where all pupils are supported in their efforts to learn and achieve the targets and expected outcomes?"*

Acknowledgements

We are grateful to the Open Society Foundation in Albania that kindly supported this research study.

REFERENCES

Bideau Robert (2006). «Les Les TIC à l'école : proposition de taxonomie et analyse des obstacles à leur intégration». *EpiNet.* En ligne : <http://www.epi.asso.fr/revue/articles/a0511a.htm> (consulté le 16 décembre 2008).

Cheng, Y.Ch. (1996). School effectiveness and school-based management. A mechanism for development. Falmer Press.

Everard, K.B. et.al. (2004). Effective School Management. 4th Ed. Paul Chapman Publishing.

Hallinger, P. and Heck, R.H. (1999). Exploring the Principal's Contribution to School Effectiveness: 1980–1995. School Effectiveness and School Improvement. Vol.9, No.2.

IZHA. (2010). Paketa e Standardeve: Standardet e Drejtuesit të Shkollës. (Translation: Institute of Education Development. 2010. Standards of School Principal.)

Leithwood, K. and Jantzi, D. (1999). Transformational School Leadership Effects: A Replication. School Effectiveness and School Improvement. Vol.10, No.4.

OECD. (2008). Improving School Leadership. Volume 1: policy and practice. By Beatriz Pont, Deborah Nusche, Hunter Moorman.

Rees, W.D. and Porter, C. (2008). Skills of management. Cengage Learning EMEA.

Robertson, P.J. and Briggs, K. (1998). Improving Schools Through School-Based Management: An Examination of the Process of Change. School Effectiveness and School Improvement. Vol.9, No.1.

Van de Grift, W. and Houtveen, A.A.M. (1999). Educational leadership and pupil achievement in primary education. Department of Educational Sciences, Utrecht University. School Effectiveness and School Improvement. Vol.10, No.4.

Veenman, S et.al. (1998). Implementation Effects of a Program for the Training of Coaching Skills with School Principals. School Effectiveness and School Improvement. Vol.9, No.2, f.137.

ABOUT THE AUTHORS

The Institute of Education Development (IED) is a public institution subsidiary to the Ministry of Education and Science (MoES), part of Cidree consortium. The mission of IED is to offer expertise and high level professional counseling to the Ministry of Education and Science, and the subsidiary institutions of all levels based on the results of scholarly research and educational practices.

Tidita Abdurrahmani

Tidita Abdurrahmani has been involved in executing socio-cultural and educational research for more than a decade. She has produced several research articles on such issues as curriculum design and assessment, educational reforms, curriculum and cultural orientation, psycholinguistics and child development, sociolinguistics and dealing with children of culturally heterogenous background. Recently she joined the Institute for Education Development, as the Executive Director. She is involved in carrying out studies focusing on media literacy, inclusive education, and teaching pre-service and in-service training.

Marita Hamza

Marita Hamza is head of the curriculum development sector, whose main focus includes offering expertise and counseling for the educational institutions of all levels in the field of curriculum organization and integration as well as in terms of school management and leadership, developing syllabi and standards for teachers, lecturers and local directorate heads, organizing informative sessions with the target institutions, school agents, employers and employees involved in the education system.

Elona Boce

Elona Boce is head of the Educational Policy Development directory whose mission involves carrying out research about the whole educational policy-making system such as: the educational framework, curriculum designation, external and internal quality assurance tools, decentralization and deconcentration.

Irida Sina

Irida Sina is head of the Didactics and Teaching Methodology Directory. Her work focuses on integrating ICT in education. Preparing modules and facilitating training sessions with community and professional groups from rural areas and preparing some brochures about methodologies in learning, how to help students to learn easily. She is an organizer of educational games for children aged 2–6 years, educational work with children who are violent, or have difficulty in mental development.

Nazmi Xhomara

Nazmi Xhomara a professional specialist in the directory of methodology. His work in the directory focuses on the development of the school-based curriculum dissemination and promotion of the results gathered from the most successful local and foreign experience, the integration of modern information technology facets into the process of subject teaching-learning aiming at a successful and qualitative acquisition and application of the curriculum objectives by school actors.

Educating spaces: quality learning environments for future schools

Mónika Réti, Edit Lippai

Educating spaces: quality learning environments for future schools

MÓNIKA RÉTI, EDIT LIPPAI

Abstract

The Hungarian Institute for Educational Research and Development hosted a project entitled "Educating Spaces", sponsored by the TAMOP 3.1.1 (Social Renewal Operative Programme) fund that focused on learning environments in educational facilities. Research activities within the project identified a set of nine quality criteria. These were based, inter alia, on a comparative analysis of literature, field visits in Hungary and other countries, a trend analysis of large-scale school building programmes and content analysis of five quality criteria systems. The project initiated a lively dialogue between experts representing a technology-centered approach and those engaged in research and practice in human-environment relation: architects, interior designers, landscape architects, psychologists, as well as teachers, educational managers and policy makers. The project demonstrated that solutions can emerge from conflicting points of views and showed how qualitative research can support forward-looking dialogue. In this paper we provide an insight to the quality criteria framework established within the project.

Introduction

Physical spaces provide more than mere sceneries for pedagogical processes: they frame, embrace and in many cases define or even regulate the functioning of the environment and thus the course of learning. Learning theories have put far less emphasis on the importance of the quality of educational facilities than environmental psychology would suggest: in general it is presented as a secondary or even inferior factor to others influencing didactical procedures. One of the reasons why there is little literature available is that describing what makes a school building or a schoolyard "good" in terms of pedagogy is an extremely complex issue. In our research we made an attempt to establish a set of quality criteria, by the help of which users and designers can create quality learning environments in public educational buildings.

For establishing our framework of inquiries concerning the arenas of pedagogical procedures we regarded all spaces of educational facilities as settings of pedagogical work of formal learning. Therefore we equally focus on the interior design of learning spaces, the plan of the building, the materials used for construction or the arrangement of the yard or gardens: in other words, we intend to grasp the integrity of the whole facility. On the other hand, we decided to exclude from our investigation all out-of-school activities (such as forest schools, museums, school-community collaborations, theatres), which nevertheless provide an outstandingly important section of education. (Similarly, we hardly touch on the educational opportunities in dormitories and student hostels and we do not deal with home learning.) At the same time we are dedicated to raising attention to the didactical aspects of space that are usually neglected in this context: transition spaces (including foyers, lobbies and atria), community areas, toilets, canteens, store rooms, staff rooms or offices.

We envision these future schools as such which simultaneously serve the needs of the learners and the staff, which open opportunities for the holistic development of personality through mutual learning processes and which invite different actors for collaboration. A school like that should nest its users but at the same time offer possibilities for opening up to other actors. In other words, future schools in our vision are inclusive, comprehensive schools that function as learning organizations and regularly interact with the surrounding (local) communities establishing mutual learning situations. Learning in this sense includes the progress in attaining social roles and coping with strategies to relate to and to collaborate with others and to deal with complex problem situations.

Literature on learning environment suggests that educational facilities seem to serve this type of knowledge building with more than providing barely a stage for actions. Especially through affective factors they establish a basic motivation to participate in activities, to absorb impressions and influence the mere willingness to spend time in the given space: all these represent essential components of inclusion.

Quality criteria for learning environments in schools

Most quality criteria come from the need of evaluating investments in school building programmes; consequently these are dominated by the architects' and designers' points of view. Other criterion systems originate from the teachers' perspective – thus they tend to neglect the realm of technical traits and opportunities. Our intention was to establish a framework that bridges these points.

Our framework of quality criteria was established through a learning process which included content analysis of other quality criteria systems.

First we chose sets of quality criteria that represent markedly different approaches and use dissimilar references. At the same time, all of them were used to describe school buildings and were elaborated to assess infrastructure in a complex manner. Consequently we expected that the content analysis and synthesis of these concepts may result in a cluster of quality criteria that equally embraces knowledge from different fields of expertise (from architecture and design to brain research or environmental studies). The basis of our analysis consisted of the set of criteria developed for BSF (Building Schools for the Future, CABE, 2007), a set of 31 criteria based on practical pedagogical notions (Earthman, 2004), 12 criteria mainly for eco-schools with a strong sensibility for ecological aspects of learning environments (Mellauner and Clees, 2005), and finally also 12 criteria based on a summary of results in brain research (Lackney, 2008). We established a matrix from the criteria, we examined the occurrence of them and analysed the context in which each criterion was used; from these we made clusters. We found that the most frequently used criteria fall in nine clusters: physical well-being, safety, individual needs, community-development, learning in focus, legibility, identity, agility and sustainability.

After that these nine criteria got refined by subsequent steps of roundtable and panel discussions with experts representing relevant stakeholder groups (using Delphi method), on-the spot investigations (including structured and semi-structured interviews, photo reports and field observations of space use and spatial literacy) in various schools (in Hungary and other countries), online surveys involving different user groups and some supplementary investigations (such as drawing tests with students). After the content analysis we also compared our results with the EQES (Evaluation of Quality in Educational Spaces) system established by CELE expert group (OECD, 2009). We found that our set of nine criteria matches the EQES points and they could also be further divided into sub-groups (that would result in a framework very similar to EQES). On the other hand, user groups reported that clustering criteria helps structured thinking in planning, design or evaluating results.

The nine criteria are strongly interconnected (therefore some features or specific spaces may appear in multiple groups). An atrium, for example, serves the physical well-being of users (if it provides natural light, the feeling of space, facilities to relax) but is also a public place that has an important role in community-building and identity (referring to local values), while it is necessary to be a part of a legible plan and function in a way that allows flexible use. Furthermore, it may provide users with learning opportunities as well. Also, it should be safe and tailored to users (for instance, considering age groups). At best, it is aligned with sustainability as well.

Aspects of learning environments

To evaluate educational environments from the point of whether or not they are capable to support this approach we applied a constructivist model of learning environments (Manninen *et al*, 2007) that describes five aspects related to the process of learning. This model serves for designing and assessing the sum of factors affecting learners' development and knowledge building in their complexity. Our basic questions with adapting this model were:

- What factors can transform educational facilities to efficient learning arenas providing genuine experiences for learners?
- How can we facilitate learners' development, their knowledge building, unfolding their abilities, enrichment of their skills and deepen emotional elements essentially needed to try and apply their freshly acquired competencies?

According to Manninen *et al*, such learning environments have five main aspects: didactic, physical, technical, social and local ones. When adapting their model, we used a sixth trait as well (that was originally incorporated into technical features): the virtual aspect.

1. *Didactical aspects* of learning environments serve as a foundation of planning and design and therefore determine all the other aspects: it refers to the pedagogical aims, learning sequences and the teaching methods applied to support these, besides it includes the value-orientation and the mission of all educational activities and procedures.

2. *Physical aspects* contain characteristics of the physical environment (the plan and materials of the building, the spatial experience it provides for the users as well as environmental features such as air quality, temperature, light, colours and smells) and other factors that maintain the appropriate physiological status of learners which allows them to concentrate on and participate in activities proposed for them. Hence it is the physical aspect that frames and contextualizes the scope of all the other aspects.

3. *Technical aspects* involve infrastructural elements that are applicable or necessary to support learning – and the rationale of which most usually gets meaning in the didactical context. The virtual aspect of learning environments has more and more strongly impacted on learning not only by ICT tools but via the whole virtual projection and image of the educational institute including its own website, various platforms and presentation in social media. We therefore decided to separate the virtual aspect from other technical aspects.

4. The *social aspect* reflects how successful it is in daily activities to invite different groups of users (with their age or gender characteristic, socio cultural background and preferences) to participate in common activities. We found that it is equally important to consider sociocultural differences between members of school staff or between teachers, students and parents when shaping social aspects of learning environments and that inclusive infrastructure plays a key role in this process.

5. Last but not least, the *local aspect* of learning environments helps to include real and relevant problems (or as social learning theories mention "legitimate questions") in the pedagogical work. Accentuated attention to local projections of regional, national or general human heritage and values are capital factors in creating meaningful learning environments as well as in establishing school-community collaborations.

We applied this model in the framework of quality criteria, thus creating a two-dimensional scale to evaluate educational facilities: each criterion can be viewed from six aspects.

In our experience, the nine criteria put in the context of the six aspects of learning environment model is suitable to guide future thinking and to initiate a collection of practical approach to planning and refurbishing educational facilities, to increase spatial literacy and to inspire pedagogical experiments of spatial arrangements.

Physical well-being

Biological needs form a basis for efficient work, whereas the physical well-being also determines attendance and attitudes towards participation. Some of the elements are necessary to maintain healthy body functions; others are responsible for the proper functioning of the brain (making it capable for learning and work). Besides the amount and quality of light, ventilation, air quality, acoustics or smells, the impressions given by the appearance (colours, cleanliness, isolation) and the availability of bathrooms, changing rooms, showers and canteens together with the facilities of recreation (from cushions, benches or chairs in corridors, halls or schoolyards to places to temporarily hide from noise and disturbance) many factors determine the overall sensation. The main conflict is that schools must serve the needs of all users, including students and school staff providing conveniences for both (smaller or larger) groups and individuals. Age, gender, social customs and cultural traditions all influence how satisfactory or proper an individual finds these.

In Király Endre Vocational Training School (Vác, Hungary), refurbishing the toilets and bathrooms resulted in diminishing vandalism in the school building and increasing attendance and student responsibility in community actions.

Didactical aspects	Health consciousness and attention to physical needs of the body is a necessity to conserve well-being. Therefore all compartments serving "real learning" at school can themselves turn to educating spaces: the school canteen can teach about healthy nutrition as well as circumstances to support proper digestion, but it can develop the sensibility toward community or environment as well.
Physical aspects	The structural elements (such as doors, windows, floor plan, materials) apparently determine the perception of well-being. Special attention needs to be paid to sceneries of recreation. Green colour and sight of natural elements (garden, plants) have an equally strong influence.
Technical aspects	Applying modern technology can be a costly, but definitely future-leading investment: efficient and green technologies used for maintaining the physical environment (lights, cleaning) represent an enormously effective way of education.
Virtual aspects	It is worth explaining technology use and innovative (or, in a local-social environment, unusual) solutions on the school's web site.
Social aspects	As spaces related to physical well-being directly affect all users, they can become key elements of community development and social education – these can be enhanced if students (as well as other users) are involved in revising, shaping and maintaining these. They can serve as places for learning.
Local aspects	Users' requirements towards the facilities of physical well-being reflect the main features of their own habitation. Via the way schools consider physical needs and through the activities related to ameliorate the environment from that aspect, they give reference and role models to users and their environment.

Safety

Safety is regulated and controlled by strict rules (in most countries standards, laws and other legal regulations). It is a basic criterion to avoid danger of accidents and prepare for emergencies. On the other hand, safety is more complex from the point of users and user communities (including parents). Additional points include the way the school is circumscribed (how clear the boundaries are, how transition areas appear and how the school's place and

space is defined within its surrounding environmental zones); how closed and how open communities are; how "outsiders" are treated in the school community. Individual safety also embraces the feeling or perception of safety: therefore it is not enough to construct a safe building or respect regulations but it is necessary to maintain the communication about safety. Furthermore, there are gender and age factors that also influence how users interpret the safety of a facility: some physical factors (structural features, for instance the ceiling height or cosmetic factors, such as the colours of the walls) might be important to create an environment that communicates personal safety.

Didactical aspects	Trust and responsibility are key concepts: they must include all elements of the facility in order to guarantee safe activities. Teachers can enhance the feeling of individual safety via various common rules and the rhythm of activities. Continuous communication with parents and local communities provide a basis for the reputation of being safe which is also a very influential factor of safety.
Physical aspects	The plan and the type of the building determine the perception of safety. Elements of legibility, clear boundaries, and transition zones may increase the impression of safety. Attention should be paid to crowded spaces or those where mobility is expected.
Technical aspects	Safe use of articles and equipment that students have not acquired at home should get increased attention. The message transmitted by surveillance or access control systems vary depending on sociocultural context, therefore survey or consultation with user groups is suggested before installing these.
Virtual aspects	Tools supporting participation can help to ameliorate safety and to establish the communication platform. Social media offer opportunities but the misuse of these also represents threats: it is suggested to establish common rules within the school community considering sociocultural and local features. A virtual presentation of the building can also reduce risks.
Social aspects	Inclusive and open processes of norm-establishing and clear explanation of rules improve norm-following in school communities.
Local aspects	Requirements of the local communities should be respected and the possible risks represented by the local environment and characteristics of user groups should be considered too.

Individual needs

Differentiated spaces are necessary for creating a building that is suitable for meeting individual needs of users. Although literature usually refers to spaces supporting individual learning or development, our framework includes features of other individual needs such as perception of space, need for privacy or solitary activities (influenced by age, gender, sociocultural background). Herzberger's "safe nest" compensating common challenges (Herzberger, 2008) may be provided by the shadow of a large tree in the schoolyard but also by angles of the piazza-like meeting points, a staircase or some cubby-hole in the classroom itself. Decoration or the opportunity to use their own objects can contribute to the feeling of ownership and place attachment that determine attitudes to the school activities. A homey atmosphere can be comforting to young students and consequently can ease the transition between school types.

In Lánczos Kornél Gimnázium (Székesfehérvár, Hungary), where classes are based in the same classrooms (with some exceptions such as labs or PE) students can decorate their desk as they wish and they keep them for 4 years. The school observed many positive impacts (such as raising attendance, diminishing discipline problems) of this initiative.

Didactical aspects	Inclusive pedagogy has more credit and can be conducted more easily in inclusive spaces. Techniques improving participation help to create these.
Physical aspects	Besides supporting individual development work (for instance special lessons or talent care), individualized spaces are needed for coping with success or failure. Corners can be used for that in various ways.
Technical aspects	Separating spaces (mobile walls), transferable decoration or smartboard walls can serve to meet individual needs of mixed groups.
Virtual aspects	School web-sites or shared platforms should respect individual needs. Besides, solutions exist to tailor-made these (avatars, chatrooms, etc.).
Social aspects	"Homey atmospheres" vary due to a set of factors: inquiries about these support design. Diversity in space and use of decoration can guarantee to meet many of these different needs.
Local aspects	Local customs of the school's environment also influence individual needs, therefore it is worth learning about these and inviting local communities to a design process.

Community-development

Socialization is an important element of the learning journey and represents a main advantage of public education. Many schools are melting pots of members of diverse groups. Spaces that serve the community to establish and practice their traditions or to practice the social patterns that are needed to deal with problems emerging from diversity are core elements of school life. The needs of various sub-groups within the school community call for flexible buildings.

The community of Petőfi Sándor Lutheran Grammar School (Bonyhád, Hungary) created a sports yard and a Japanese garden involving alumni and local communities in the planning as well as the construction work itself. Not only the school community got profoundly stronger, but the schoolyard became a popular meeting point for local citizens and a recreational place from which local communities benefit too. Therefore the school's next plan (transforming a derelict neighboring industrial building into an indoor athletics stadium) rapidly got enough support and it became realized relatively quickly, without involving external resources from the school maintainer. At present the stadium is used by the school, sharing it with other institutions, local sports clubs, sportsmen and amateurs and also for various regional events.

Didactical aspects	Social interactions are necessary for efficient learning, norm-following and internalizing shared values. Public schools provide unique opportunities for students to get to know with the knowledge and values brought about by peers from different socio cultural backgrounds and learn to collaborate with them in many situations. Community events for instance serve with special opportunities to develop these competencies.
Physical aspects	Besides assemblies and halls, flexible spaces are needed to support work in smaller or larger groups. Schoolyards can also provide good sceneries for community actions or events.
Technical aspects	Amenities promoting parallel collaboration (sound insulation, space separation) mean necessary conditions to support efficient work.
Virtual aspects	Virtual environments can be democratic and inclusive platforms to support community development. Events or groups represented at the site and tools that invite for participation (comments, wikis) scaffold the process.
Social aspects	The facility must provide safe places for different individuals within the community to try and experiment with social roles. Joint spaces should be visible, open but also suitable for contemplation and observation. Involving local communities (or parents) represent the most powerful tools to balance imparities and compensate for inequities within the community. Attention should be paid to provide places for members of these “outsider” groups.
Local aspects	The schools’ organizational culture educates its environment but only in case it establishes an interchange with other communities.

Learning in focus

School is a focused place for learning. Ideally, the educational facility provides an arena to experiment with attempt to solve problem-based situations providing answers to ‘legitimate questions’ and gain original experiences. For some groups learning starts with trust-building.

The teaching staff of IV. Béla Primary School (Hejőkeresztúr) designed a learning environment to support intergenerational and intercultural exchange to

create special areas for activities and provide an inclusive environment for distinctive learning programs. After the first period of mutual exchange, the mainly Romani population of the village acknowledged the importance of school attendance, later they accepted invitation to its learning programs and became proud of the school. As a side-effect of this cooperation, student performance rose relatively rapidly.

Didactical aspects	Learning strategies and therefore efficient teaching differ depending on a variety of factors: diverse teaching methods are necessary to comfort or challenge student groups and to create opportunities for students to gain genuine experiences. These call for functional spaces and careful planning.
Physical aspects	Modern teaching methods require flexible, multi-purpose solutions in building. At the same time schools should consider the most effective ways to access equipment and material needed for teaching as well as storing these. One should keep an eye on indirect learning opportunities emerging from daily life in the school (school canteens or regular maintenance, for example).
Technical aspects	Technological support to learning should be planned and installed parallel to spatial planning, serving didactical purposes. New technology introduced to learning processes as well.
Virtual aspects	Digital technology must reach out more because it offers miscellaneous opportunities for active involvement of students. Virtual platforms, e-portfolios, interactive tools as well as Web 2.0 offer unique solutions for differentiation in learning.
Social aspects	Narratives by students influence learning outcomes. Shaping attitudes towards learning might mean key elements of teaching efficiency. The purpose, the outcomes, the very process of successful learning can be reflected in the building (in the form of exhibitions, installations, any other type of student product for example) or in the schoolyard. Examples show that socio cultural narratives can be influenced by the representation of learning at school (e.g. on the web-site). (Réti, 2012)
Local aspects	Including local issues to the learning process stimulate problem situations and give extra motivation for students. Exchange with local communities requires apolitical spaces that at the same time reflect elements of the local culture.

Legibility

Legibility is a concept introduced by architect Kevin Lynch. Although originally he applied it to city planning and city design, his classical theory serves school design with useful guidelines too. Lynch proved that (Lynch, 1960) a well-organized cognitive map increases the feeling of safety and (by comparing cognitive maps of cities) he identified five key elements that are generally represented in all human cognitive maps: paths, edges, districts, landmarks, nodes. Using these five key elements of legibility serves as a basis for conscious spatial planning. Naturally, the perception of these spatial forms is determined by our cultural heritage, therefore taking the local architectural traditions and the geographical settings into account influences legibility. Although the logical organization of the floor-plan, ratios, and sizes is the most obvious way of creating a legible building, there are solutions to ameliorate an existing building.

Deák Diák Primary School (Budapest, Hungary) had little scope as they use an old building with rather limited resources. To better adapt it to the needs of their diverse student population (with a large number of minority students), they applied decoration that enhances and emphasizes elements of legibility. They involve students in the process and experience changes in motivation while creating a special school ethos.

Didactical aspects	Legible buildings are perceived as cozy and increase place attachment. It helps to develop spatial literacy, coordination, and motoric abilities, visual and kinesthetic intelligence. The presentation of the facility is also an element of legibility: signs should have a clear meaning to all users.
Physical aspects	If the original design of the building is not legible, colours, additional decoration or signs (indicating paths, edges and districts) or well-placed landmarks can easily amend the legibility of the building. In these cases it is worth assessing how users relate to the building and where real paths and districts are. Environmental psychology offers efficient tools for that.
Technical aspects	Many creative solutions have minimal technical requirements. It is worth observing whether screens or other technical equipment form landmarks.
Virtual aspects	Being accessible and user-friendly are minimal criteria for a school webpage. Maps, floor-plans, photo galleries with codes and other ways of virtual presentation of the building can help legibility in real environment.
Social aspects	By creating signs, codes and districts schools can refer to traditions while also providing space for creativity.
Local aspects	Legible spaces act for place attachment and improve the involvement of members of local communities. Participative planning, surveying, following and respecting the opinions and views of local communities and stakeholder groups contribute to forming a legible school building and schoolyard.

Identity

School ethos is one of the driving forces that guarantee attendance, motivation, dedication and norm-following in the school community. It is an essential question to find the synergy between the "genius loci" (the school's place, the local context, the message of the settlement and the setting) and the pedagogical mission of the school. The characteristics of the learning environment function as a mirror in this aspect: they focus users' attention on their missions, targets, aims and goals, while also reflecting on achievements, the journey taken and projecting strength (and weaknesses). For that reason the school ethos cannot stay rigid: it keeps changing with the development of the school as an organization while treasuring the history and shielding shared values.

Kincskereső Primary School (Budapest, Hungary) established traditions throughout the year (reflecting on folk traditions of the calendar) and special rites for inviting 6-year-old newcomers to the community. Márta Winkler (founder and pedagogical leader of the school) took care that all rites and traditions have specific settings. Besides outstanding results both in student achievement and in educational work, the school managed to create a special ethos that is still living in its alumni after decades of graduation as well.

Didactical aspects	Identity became an important issue in the globalized world as in modern societies one must meet the challenges brought about by different roles, rebuilding and re-shaping their identity day by day. Shared values that function as a basis for that process are part of the ethical communication between teachers, students and parents thus they need to be represented in the learning environment as well.
Physical aspects	Symbols and elements expressing the school identity are important features of school ethos. The role of the entrance has an outstanding importance in this aspect.
Technical aspects	Infrastructural conditions of communication about common values, shared history (heroes) are necessary for having a living and dynamic school ethos. Yearbooks, periodicals, journals, radio and local television broadcasts are all such opportunities.
Virtual aspects	The school's virtual network can create a link between alumni, present students and supporters. Many schools use social media – supposedly that can also act for keeping contact with these groups.
Social aspects	All groups of students are affected by identity crisis. For some groups, it is about getting to know the basic values or the process of attachment, for others it is about accepting or redefining traditions, or finding their roles within the network of that. When shaping the pedagogical mission (or refining the mission statement and the pedagogical program) teachers should considers how these specific groups can profit from being invited to the community of the institution and in what way they can be supported to accept the invitation.
Local aspects	No educational facility can neglect its city context. Besides challenges represented by this, it can offer development opportunities. The school ethos can result in finding allies and collaborative partners that help to realize the pedagogical mission.

Agility

School life is in an endless change. On the short term, didactical needs, community events and sudden changes require flexibility. On the long term, changes in the region or the surrounding settlement due to demographic, social or economic effects necessitate renewal. We should also mention weekends and school holidays: in most countries school buildings are used for some 180 days out of 365.

The primary school in Algyő (Hungary) had already represented a unique example of participative planning before it was rebuilt last year. The school principal Zsuzsanna Iván did her best to represent stakeholders' needs and consulted experts to ensure agility: being a neighboring village to Szeged, the third largest city in Hungary, the school is conscious that they must be prepared to changes including the possibility to modify (widen) the school's present profile. They put a large emphasis on pedagogical planning resulting in the new building's great flexibility on the short term, which allows teachers to apply diverse methods. A commitment for strong collaboration with the local government and local communities was a requisite for the process.

Didactical aspects	Altering different types of activities form a basis for efficient teaching. The didactical repertoire, the traditional activities and event should mean a basis for design in cases of reconstruction or refurbishment.
Physical aspects	The school building must serve its users. The main challenge is that the way they use it (sometimes even the number of users) is in perpetual change. In most cases, traditional structural elements (brick walls, for instance) cannot accommodate these alterations. Global changes (such as climate change) also modify expectations from buildings. Therefore it is a relevant need that new-built facilities should apply modern achievements in architecture supported by smart technology.
Technical aspects	Short-term flexibility is greatly influence by the organizational culture: how resources are shared (where they are stored, how they are used), how tasks are delegated, how school life is organized. When investing in technology, one must consider using future-leading solutions (also for their pedagogical value).
Virtual aspects	ICT tools might mean a rescue in cases when the building is unable to accommodate the didactical needs (bridging time and space, for example).
Social aspects	Schools act as role models in dealing with change. Although public education itself is traditionally conservative, it does not mean that by preparing for changes and put long-term thinking in daily practice it would not be possible to educate.
Local aspects	Strong collaboration with local communities results in opportunities to forecast changes and finding answers to sudden challenges.

Sustainability

Sustainability is addressed here from three main aspects:

- the questions of long-term maintenance (involving regional planning and cooperation in sharing resources and responsibilities);
- preference for sustainable ("green") technologies (keeping in mind that schools already transmit the message by making users see these solutions in practice);
- providing opportunities for the pedagogical practice of educating for sustainability.

Expert groups agreed that no future school can operate efficiently while neglecting these points.

Didactical aspects	Practicing educating for sustainability reaches beyond classroom teaching: the school staff as a reference group also acts as a model. “Green” solutions and the philosophy of sustainability should be incorporated into the learning journey in all three fields of sustainability.
Physical aspects	Long-term planning, agile and flexible solution, inclusive design, apolitical plans can determine the success of pedagogical mission. Balancing between traditions and modern technologies represent one of the greatest challenges in this aspect.
Technical aspects	Recycling, reusing, energy efficiency and sensible use of modern technology as an overall philosophy should be represented in all steps of infrastructural planning to support educational aims. New technology might serve as a special learning arena for many subject-related teaching activities too.
Virtual aspects	Platforms that comfort, respect and empower diverse user groups can promote participation as a basis for educating for sustainability. Solutions offered by virtual or augmented environments can substitute those activities that would otherwise contradict with the educational philosophy.
Social aspects	Although schools are seldom critical about economic or social questions, it is important that they show sensibility towards these and examine alternatives and trends, showing possible answers for complex situations.
Local aspects	“Legitimate questions” that form a basis of educating for sustainability rise when the school has a continuous interaction with the local communities, being aware of problems and participating in coping with them.

How to use quality criteria

Applying a system of quality criteria helps to design learning environments that serve the needs of all users and thereby increasing the efficiency of educational activities in schools. In other cases, it serves as a tool supporting self-reflection and evaluation that is needed for long-term planning.

We found that efficient learning environments act for developing learning organizations, that is to say establish a network structure where the interactions of partners involved lead to creation of synergies, sharing information and re-defining knowledge elements. Conscious observation, investigation and regular assessment of a learning environment maintain a strong contact with inner notions of expectations about individual participation and community achievements, reflects changes in the organizational structure, stimulate a revision of original missions, aims and values and last but not least empowers innovative teaching. These statements were equally relevant in all efficient learning environments no matter what level of educational facility we surveyed in many countries. Although all examples presented here come from the Hungarian partner schools of the project, we hope that their attitudes might be inspiring for others too.

REFERENCES

Bahovec, E. D. (2009). 'The Touch of Class. Philosophy, Architecture and Schooling'. Keynote presentation at OECD CELE "Sustainable School Buildings: From Concept to Reality" International Conference 1–2 October, 2009, Ljubljana.

CABE (2007). *Being involved in school design. A guide for school communities, local authorities, funders and design and construction teams.* [online] Available: http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/files/being-involved-in-school-design.pdf [2 August 2012].

Dúll A. (2002). 'Ember és környezet affektív kapcsolata: a helykötődés'. *Alkalmazott Pszichológia*, 4:(2), pp. 49–65.

Dúll A. and Kovács Z. (Eds) (1998). *Környezetpszichológiai szöveggyűjtemény.* Debrecen: Kossuth Egyetemi Kiadó.

Earthman, Glen I. (2004). *Priorization of 31 criteria for school building adequacy.* Maryland: Virginia Polytechnic Institute & State University, American Civil Liberties Union Foundation of Maryland.

Hertzberger, H. (2008). *Space and Learning.* 010 Publishers, Rotterdam.

Lackney, J. A. (2008). 12 *Design Principles Based on Brain-based Learning Research.* Based on a workshop facilitated by Randall Fielding, AIA. [online] Available: http://www.designshare.com/Research/BrainBasedLearn98.htm [2 August, 2012].

Lippai E. (Ed) (2011). *Ajánlások a minőségi iskolai infrastruktúráért.* Budapest: Oktatáskutató és Fejlesztő Intézet.

Lynch (1960). *The Image of the City.* Cambridge, Massachusetts: The Mit Press.

Manninen, J., Burman, A., Koivunen, A., Kuittinen, E., Luukannel, S., Passi, S. and Särkkä, H. (2007). *Environments that support learning.* Introduction to Learning Environments approach. Helsinki: National Board of Education.

Mellauner, M. and Clees, L. (Eds) (2005). *school:FREE. Recommendations for the Design of Schoolgrounds,* SEED, ILA – Vienna: Institute for Landscape Architecture, Department for Space, Landscape and Infrastructure, University of Natural Resources and Applied Life Sciences Vienna.

Mogensen, F. and Mayer, M. (Eds) (2005). *ECO-schools. Trends and divergences.* Vienna: Austrian Federal Ministry of Education, Science and Culture.

OECD (2010). *Evaluation of Quality in Educational Spaces,* EQES [online] Available: http://www.oecd.org/document/18/0,3746,en_2649_35961311_35470674_1_1_1_1,00.html [2 August, 2012].

OECD (2010). *Pathways to Success. How Knowledge and Skills at the Age of 15 Shape Future Lives in Canada.* OECD: Paris, http://www.oecd.org/dataoecd/59/35/44574748.pdf

Réti M. (Ed) (2012): *Kívül-belül jó iskola.* Tanító terek. Budapest: Oktatáskutató és Fejlesztő Intézet.

ABOUT THE AUTHORS

Mónika Réti

After teaching Biology, Chemistry and Natural Science in two Hungarian secondary schools for more than a decade, which represent a very successful period of her career, Mónika Réti moved to research and development. It was not a terra incognita for her, as already besides teaching she had participated in several international projects and she is still actively engaged in a number of international networks, projects and expert groups. She was also secretary of the advisory board on education of the former president of state of Hungary. Her first project at the Hungarian Institute for Educational Research and Development (where she works at present) was Educating Spaces; now she is involved in the preparation and implementation of the new Hungarian national core curriculum and the science frame curricula. Her fields of interest cover learning environment models, educating for sustainability and science teaching.

E-mail: reti.monika@ofi.hu

Edit Lippai

Being a psychologist and a teacher, Edit Lippai has worked as a school psychologist and a dormitory teacher for many years. Parallel to these, as a founding member of the Working Group for Environmental Communication at the Budapest University of Technology and Economics, she participated in research related to environmental psychology and became an expert concerning legible design. She started working as a research fellow at the Hungarian Institute for Educational Research and Development in 2009: her first project was Educating Spaces. Right now she is involved in curriculum design and implementation as well as research and development projects in school psychology. She also works for Eötvös Loránd University of Budapest (training student teachers) and takes part in some international networks.

E-mail: lippai.edit@ofi.hu

School improvement and accountability in France: timid changes, big hopes

Romuald Normand

School improvement and accountability in France: timid changes, big hopes

ROMUALD NORMAND

Introduction

The French educational system has recently been modernized and tries to opt out of the comprehensive school model (*collège unique*) based on broadening access to secondary education for working-class pupils through the transmission and adaptation of academic knowledge. It has until now been the backbone of successive governments. Today, things have changed. The poor PISA performance of French students confirms the failure of pupils in the mastery of basic skills, particularly in reading. The number of unqualified drop-outs is increasing in a system which maintains high and elitist standards which undermine the achievement of pupils coming with immigrant backgrounds. So, the French school system as an institution seems to be in crisis because it is no longer recognized for its economic and social functions as youth unemployment is rising and the type of knowledge transmitted and classroom teaching practices are not adapted to youth culture even for gifted pupils.

France has belatedly discovered that its comprehensive school model has failed and that it has to make major governance changes to join the ranks of countries like Finland and New Zealand which have raised student achievement through a large restructuring of their educational systems. The problem is that the French system is embedded in a tradition and history which, since the French Revolution, have influenced the French Republic's attachment to its school system and upheld the belief that equal opportunities and citizenship are its core missions far beyond the well-being of pupils or cooperation with parents.

Centralism, isomorphism and autarchy are the three main causes which delay any modernization attempt. The centralized, top-down conception of govern-

ance limits the development of more effective horizontal management. The standardization of school provision and the mimetic application of rules and official instructions compel schools to adopt the same development plan without taking their local environment into account. Lastly, schools are themselves considered a sanctuary to be protected from the surrounding world, and to be kept at a distance from parents, associations and local authorities, and even more from businesses because of the fear to open the door to communitarianism or to private interests.

Then, the challenge is to instill change in this centralized system and professional bureaucracy by using some levers that have already been implemented in other education systems and recommended by some international reports (McKinsey, 2010, OECD, 2011). As argued in these reports, even if France is recognized for its successful democratization of its education system, it maintains large school inequalities compared to other countries and suffers from a lack of quality in school provision for pupils and families. A school reform has been implemented to adapt French schools to globalization and to the new expectations of the knowledge society. Even if these changes seem relatively timid, some progress has been made. It illustrates a silent transformation of minds and practices, which escapes the scrutiny of many observers but seems promising to those who are involved in daily innovation and work towards the improved quality of public education. Nevertheless, as France attempts to design its own "Third Way", school improvement and changes in teaching practices remain a big challenge.

The common core of knowledge and skills: a new challenge for teaching and learning

The development of the common core of knowledge and skills is a major provision of the 2005 School Act. It states that pupils have to master basic skills, particularly in the French language and mathematics at the end of compulsory schooling. Even if it replicates some "back to basics" policies implemented in Anglo-Saxon countries, it is not advocated in France as a way out of the comprehensive school model and a policy of "raising standards" but as a means to improve equal opportunities. In fact, it corresponds to a translation of the European framework of key-competencies for Lifelong Learning which was adapted by the High Council of Education: the item "learning to learn" was turned into "developing humanistic culture" linked to the teaching of history,

geography and literature while the item "sense of entrepreneurship" disappeared and was replaced by "designing a personal project to enhance autonomy and creativity".

It directly affects how the common core of knowledge and skills is implemented. Firstly, teachers' professional ethics is reinforced: instead of considering the issue of learning outcomes, the focus on knowledge transmission and teaching contents still prevails, which does not help much to transform teaching practices. Secondly, the link between the acquisition of knowledge and skills and pupils' individual guidance at different key schooling stages is strengthened. So professionals pay particular attention to pupils' individual career paths and this vision overrides alternative interests for authentic learning situations and pupils' cognitive thinking based on trial and error. This problem is all the more acute because of the disciplinary conception of school subjects among teachers and the very prescriptive role of the Inspectorate. The design of a "booklet of skills", which is intended to make teachers familiar with basic skills, has become a mechanistic tool to reporting pupils' marks and it is used to gauge individual careers rather than to support pupil's learning outcomes (Black, William, 1998). What is at stake is that teaching should be reoriented towards learning outcomes and teaching strategies should accordingly be designed by teams of teachers according to the potential of pupils at different learning stages. But reflection on this issue is inadequate just as the approach to formative assessment (which is very often reduced to marking or to an approximate use of standardized grids) (Stobart, 2008). So the common core of knowledge and skills is a sort of artefact that upholds a number of shared and false beliefs among teachers and inspectors according to which a lot has already been done to improve the achievement of pupils.

Performance-driven monitoring of the French educational system: towards intelligent accountability?

In the 1980s, France introduced a modern system of assessment for monitoring the quality and standards of its educational system. Since France contributed to the design and improvement of international surveys of pupils' scores such as the First International Mathematics Study (FIMS), the French Ministry of Education has designed regular national assessments of pupils' learning outcomes and also value-added indicators for secondary schools. The

establishment of the Department for Assessment and Forecast (Direction de l'Évaluation et de la Prospective, DEP) in 1986 was an unprecedented effort to improve the statistical knowledge on the educational system and to develop a "culture of assessment" among educators. More recently, the implementation of a Constitutional Bylaw on Budget Act (LOLF) has emphasized the role of assessment and accountability in education. However, accountability mechanisms are not so firmly established in local education policies and in schools because during the first phases of implementation policy-makers' concerns were more focused on financial and administrative issues than on educational and teaching matters. Similarly, accountability indicators were designed according to a centralized, top-down approach without taking local contexts into account. As a result, the implementation of national assessments has raised tensions within the teaching force because teachers considered these national assessments as ill adapted to their teaching methods and far from what they could authentically assess in their classrooms (Harlen, 2005). However, the life of schools is gradually transformed as they are subjected to performance contracts and their budgetary framework is revised. External and internal assessments tend to be developed, sometimes on an experimental basis and they depend largely on the decision-making of each local education authority, even if national recommendations still prevail.

The most important change concerns the role of the Inspectorate. While the individual inspection of teachers in their classrooms played a predominant role to assess teaching practices, inspectors are now required to support school improvement and to conduct performance audits. Different types of audits previously existed: cross inspections (several inspectors from different disciplines shared their perspectives) or audits with "a participative aim" (a group of inspectors visits a school to make an audit required by the principal). But the challenge is now to systematize audits, to check how performance contracts have been implemented, and to assess the way schools are making progress to increase pupils' achievement. The main problem is that many inspectors face difficulties in getting rid of their habits of hierarchical supervision and to adopt more comprehensive postures, particularly in primary education where the body of inspection is still powerful while it remains more diversified in secondary education. Furthermore, the Inspectorate tends to favour official instructions and a top-down approach to assessment close to a diagnosis and does not take sufficient account of the local school context (MacBeath, 2006). It does not much help the education community to understand what is at stake in accountability, even among principals, and the word "assessment" generates a lot of stress and worries among teaching teams.

Reflection on the internal assessment of schools makes little progress. However, in the light of the Scottish experience, there is evidence that internal assessments improve objectivity and trust through a clear focus on local contexts (Grek, Ozga, 2010). The existing tools towards this type of approach are not used. Each principal has to diagnose the strengths and weaknesses of the school she or he manages in order to develop a plan and define a progress strategy according to the performance contract signed with the local education authority. But, very often, this diagnosis is not shared by teaching teams or only reluctantly and therefore impedes the assessment of the school situation. On the other hand, the 2005 Education Act set down the establishment of a committee on curriculum and instruction (conseil pédagogique) which requests the principal to appoint representatives among the teaching force to talk about possible school improvement. This committee does not contribute much to effective capacity-building, to the improvement of teaching and learning, to facilitating teamwork or to defining training needs (Elmore, 2004). It is a formal instance that raises controversy among teachers (via trade unions) because the latter argue that it challenges their "teaching freedom". But it could be the right place to develop a comprehensive self-assessment framework in order to mobilize the educational community and school partners and to define a collective vision through a mid-term strategy. This self-assessment process could complete the external audit led by the Inspectorate in the name of "intelligence accountability". The Ministry of Education has accordingly developed e-resources to help each school determine its strengths and weaknesses in different areas: scores, instruction plans, support, assessment, guidance etc. However, although it is intended to be exhaustive, this tool remains too close to a diagnosis and it does not include a temporal process and feedback which could enable teaching teams to better position themselves in a rationale for school improvement (Hattie, Timperley, 2007).

Innovation as a lever for school improvement: the challenge of professional development for teachers

In France, continuous teacher training remains relatively traditional. An annual training scheme is developed by each local education authority and teachers enroll and participate only on a voluntary basis. These training sessions are often far from the teachers' practical concerns. A conference followed by a few thematic workshops remains dominant to the detriment of other

initiatives which would give place to innovation and creativity. There is little self-reflection in discourses and analyses which serve as a sort of justification of practices linked to a professional ethic: training sessions sometimes give rise to claims and recriminations especially when the training content is provided by an inspector. On the other side, researchers and trainers do not easily accept to get rid of their positions as experts to build another approach based on the needs and concerns of practitioners. These training sessions are quite short and relatively loosely coupled: for lack of assessment, they are not really focused on the transformation of practices and pupils' learning outcomes. But research has produced a lot of evidence about the positive impact of training sessions organized at school level on teachers and pupils' learning outcomes, particularly when they are close to professional needs and when assessment is at the heart of the training process.

Despite these obstacles, several experiments have been led by the Ministry of Education and its R&D department to promote a new conception of professional development (Timperley et al, 2007). The main objective was to provide critical support to teaching teams and help them examine and transfer research findings to build a professional culture oriented towards change and school improvement. Self-assessment is at the heart of this approach: principals, inspectors, trainers are associated in order to enable teachers to be inquirers of their own practices (Timperley et al., 2009). Through varied forms of activities (brainstorming, Q-sorts, mind maps, etc.), the critical friend aims to transform cognitive representations and to help professionals develop their own criteria of professional development and self-assessment. This approach requires time according to international research findings which showed that 3 to 4 years are needed to change practices even if they are supported and assessed. Success depends on the explanation of practices and their contextualization, and on the implementation of change through trial and error in schools and classrooms.

School improvement also comes under the "right to experimentation" as set down in the 2005 Education Act in its article 34. The principal and his or her teaching teams are allowed to use a part of the school budget (teaching hours) to initiate innovative projects approved by local education authorities. Many schools have seized this opportunity to transform all or part of their pedagogical organisation, to facilitate team work, to diversify teaching practices, to build partnerships, to rearrange timetables (Harris, 2002). Some outstanding projects have been implemented by innovative schools in terms of teaching basic skills, collaborative work, assessment criteria for learning, or ambitious

cultural and scientific programs. Difficulties remain however in the implementation. A lot of initiatives are not focused on teaching and learning issues in the classroom and they do not have much impact on the transformation of practices. Some of them only replicate previous initiatives as part of national projects, as in the teaching of sciences, without taking any risk or even developing creativity. These innovations remain a minority and they depend on the interest and support of local policy-makers. So they are not always well promoted by the Inspectorate and they suffer from a lack of local engineering harmful to their effectiveness and to the improvement of pupils' achievement (Timperley, Parr, 2009).

Besides, the Ministry has gradually devised a plan intended to make innovation a strong policy at national level. Under the supervision of the R&D department, a data bank has been set up (Expérithèque) to map all the experiments and innovations led at national level. This bank is also a resource center for teams who wish to be involved in innovative approaches and who can benefit from the support of R&D centers at local level. Some monitoring tools for innovation have been designed (heuristic maps, self-assessment framework, editorial series for innovation) to help local people make use of these tools and to reinforce support and assessment of their actions. Seminars for professionalization and a national conference on innovation have been arranged to implement this national policy. Lastly, the R&D department designed a website (RESPIRE) to mobilize professional networks and enable practitioners to exchange practices and knowledge about innovations and experiments. At the local level, each innovative team can build a professional group, post messages on blogs and share experiments and knowledge with members of a national professional community. The culture of creativity and the sense of initiative are enhanced on this collaborative web platform.

From administration to school leadership: the need for the creation of intermediary functions

French schools are loosely coupled organizations. In primary education, the principal is appointed by local education authorities after recommendations from the Inspectorate, but she or he has no power over the colleagues and the school project depends on management by peers. In secondary education, principals are separated from year heads and teachers work individually in their classrooms. Principals are administratively responsible for educational

supervision. But they have to share their power with inspectors in charge of inspecting teachers on an irregular basis. So the legitimacy of the former is contested by the teaching force. Year heads manage problems of attendance and discipline but they are also responsible for all matters concerning citizenship (elections, training of pupils' representatives etc.) and very often educational activities inside the school. Teachers focus on classroom management: they sometimes work according to affinities with one or two colleagues but team work remains very limited and it is rarely focused on shared teaching strategies. The teachers defend their "pedagogical freedom" and considers the classroom or their relationship with pupils a protected area. Trade unions have a conservative approach to the separation between these different roles.

But the creation of intermediary functions inside or outside schools appears more and more needed to develop school improvement (Butt, Gunter, 2007) The appointment of a "prefect of studies" in each school located in Education Action Zones (Réseaux Ambition Réussite) is a first step. The role of prefects of studies is to coordinate instruction and they are responsible for enhancing the coherence of teaching practices and projects in order to improve pupils' learning outcomes. However, this position is difficult to hold between administration, year heads, and the teaching force. Furthermore, the recruitment is made on a voluntary basis and only a few teachers are interested in the job. This function is also challenged by year heads who regard it as a threat to their profession. On the other hand, trade unions denounce the emergence of what they call a "middle hierarchy" and petty officiousness among teachers that harms collegiality. But functions of supporters, facilitators, leaders, trainees are essential to the internal and external support of school improvement. A lot of teachers take responsibility for these functions but they are little recognized at institutional level and not paid according to their true merit. There is a waste of skills and expertise which is a cause of disadvantage to improved pupils' achievement (Hopkins, 2007).

Changes would be required to develop these intermediary functions but strong corporatism among educators impedes them. Each profession defends their values, missions and interests, and they argue that each proposal for reform is a threat to their future. The weight of hierarchical ladders increases this tension on professional identities while bureaucratic regulation undermines the sense of initiative and responsibility needed to lead changes. The word "management" is feared and refers to a neoliberal ideology while the notion of leadership is largely misunderstood. If some principals choose to innovate, if inspectors try to promote local initiatives, they have to do it very often against

their hierarchy and might feel uncomfortable in the advancement of their professional careers. There is a complete absence of recognition of risk-taking and inventiveness within the administration of human resources. The challenge is to develop knowledge exchange and practices at the core of the school administration, to make it more sensitive to flexibility and less to bureaucracy, to recognize varied forms of expertise to gain effectiveness and to improve the organization of schools and of the educational system as a whole (Derouet, Normand, 2009).

New links between research, policy and practice?

How can the development of reforms be useful to the educational system? At global level, there are numerous examples of countries such as England or New Zealand which have set up national literacy and numeracy strategies, or large programs to support schools such as Ontario and Finland. In France, relationships between research, policy-making and practice are ill adjusted. Educational research remains strongly based on disciplines and it is not much included in humanities and social science research programs. It is weakly internationalized, not much considered by policy makers and managers, quite fragmented in its theoretical and methodological backgrounds and not much visible in teacher training contents. At the level of local education authorities and schools, practitioners lack resources, methodologies and tools to develop innovations and transform their practices to implement change.

So the challenge is to shift from research in education to research for education that would be more useful and more effective for policy makers and practitioners. This new research policy implies reconsidering the production of scientific knowledge but also its mediation and dissemination across field actors. Much knowledge is produced today outside the French academic field, by other institutions (agencies, think tanks, international organizations) at European and global level. One of the main challenges for education policy-makers is to be able to map and compile this knowledge, particularly through systematic reviews of research literature in order to support decision-making in some strategic areas (Hattie, 2008). Another issue is the mediation of knowledge, i.e. the association of different stakeholders (trade unions, associations and independent local authorities but also scientific communities, networks of experts) as partners in discussion and deliberation procedures (through conferences, forums, etc.) about the main findings useful to strategic education policy choices. Once an agreement is reached on findings and strategy, a

work of transfer and translation must be done to disseminate this knowledge to managers and practitioners through deliverables (methodologies, tools, resources).

At a local level there are institutions that provide information and resources according to ministerial instructions. The local centers for teaching resources (Centres Régionaux de Documentation Pédagogique) provide publications and training sessions to practitioners with a view to sharing practices and implementing change. Local R&D centers (CARDIE) are in charge of applying the initiatives launched by the Ministry's R&D department to promote innovation, to support change at school level. But these organizations are far from being places where experiments are systematically assessed and they remain far from research in education because of a lack of engineering which could otherwise bring researchers and practitioners closer one another around shared aims. The absence of systematic relationships between local education authorities and higher education institutions is problematic. Practitioners and managers lack relevant resources and data produced by evidence-based expertise and research findings. In France, nobody is really interested in what works and the idea of best practices which could be transferred is considered a very odd idea even among those who promote the development of innovations. Lastly, the opportunities to value and disseminate successful experiments are very limited and innovations are weakly promoted.

Conclusion

This outline of the French education policy illustrates how accountability is far from being part of the daily life of schools and classrooms. The educational function of schools – where a new relationship between teaching and learning should emerge, is not much stressed except through very formal and bureaucratic procedures but they do not question the conditions of school improvement and transformation of practices. However, under the action of the Ministry and its R&D department, innovations have been developed, teams have proved a sense of initiative and creativity, and local networks have been set up across the country. But for lack of reform engineering, it is difficult to launch consistent initiatives based on a national strategy targeting the achievement of all pupils. Major challenges remain: the revision of teacher training, the development of assessment, support to local teams, and the networking of schools. France, for historical and cultural reasons, did not choose the market to regulate its educational system. Most policy-makers are against any at-

tempts at the privatization of public services. But the French state is gradually changing through a conversion to the principles of New Public Management: economic efficiency and effectiveness. The issue of justice is still of considerable importance in France as it relates to the neutrality of the State and to equal opportunities. Finland is taken as an example, more than the UK or the USA, while the most aware experts focus on Scotland or Quebec to think about a possible transformation of the French school system. Today, policy-makers are looking for a Third Way à la française between the state and the market but this attempt at modernization hesitates between several patterns (Derouet, Normand, 2011). Hybrid solutions have until now been adopted but there is no strategy to correct the major flaws of the system and promote school achievement for all. Changes have been timid but expectations remain high among French educators and also among parents. The challenge is to move towards a more qualitative public education to reconcile effectiveness and social justice, and to give a new impetus to broaden access to education in France.

REFERENCES

Black P., William D., 1998, Inside the Black Box: Raising standards through classroom assessment, London, King's college.

Butt G., Gunter H.M., (eds), 2007, Modernizing schools: people, learning and organizations. London: Continuum.

Derouet, J.-L., Normand, R., 2011, 'The hesitation of French policy makers in identifying a Third Way in Education', Journal of Educational Administration and History, 43(2):141–163.

Derouet, J.-L., Normand, R, 2009, 'Devolution, Partial Decentralization of Education in France and Improvement in the Running of Schools', in Centralization and School Empowerment from Rhetoric to Practice, ed. Adam Nir (Jerusalem: Nova Publishers, 2009), 31–44.

Elmore R.F., 2004, School reform from the inside out, Cambridge, MA: Harvard Education Press.

Grek S., Ozga J., 2010, "Governing education through data: Scotland, England, and the European Education Policy Space", British Educational Research Journal, 36(6), pp. 937–952.

Harlen W., 2005, "Teacher' summative practices and assessment for learning-tensions and synergies, The Curriculum Journal, Vol.16, June, pp. 207–223.

Harris A., 2002, School improvement : what's in it for schools?, London, Falmer Press.

Hattie J., 2008, Visible Learning. A synthesis of over 800 meta-analyses.

Hopkins D., 2007, Every School is a Great School. Realizing the potential of system leadership, London, Open University Press.

MacBeath J. 2006, School Inspection and Self-evaluation: working with the New Relationship London, Routledge-Falmer.

McKinsey & Company, 2010, How the world's most improved school systems keep getting better, London.

OECD, 2011, Education at a Glance, Ed. OECD, Paris.

Stobart G., 2008, Testing Times. The Uses and Abuses of Assessment, London, Routledge.

Timperley H., Parr J. M., 2009, 'The chain of influence from policy to practice in the New Zealand Literacy Strategy'. *Research Papers in Education,* 24, 135–154.

Timperley H.S., Parr J.M., Bertanees C. 2009, 'Promoting professional Inquiry for Improved Outcomes for Students in New Zealand' *Professional Development in Education,* 35(2), 227–245, 2009.

Timperley H, Wilson A, Barrar H., Fung I., 2007. Teacher Professional Learning and Development : Best Evidence Synthesis Iteration [BES]. Wellington, New Zealand: Ministry of Education.

ABOUT THE AUTHOR

Romuald Normand

Romuald Normand is an associate professor at the Ecole Normale Supérieure (French Institute of Education) in Lyon, France. Fulbright scholar in 2008, he was an expert for the European Commission from 2006 to 2010 (DG Education & Culture). He is now involved in the activities of different European networks of expertise funded by the European Commission (Evidence-Based Education, Leadership, Higher Education). Romuald Normand is also an expert for the French Ministry of Education and he has joined a national program of professional development and innovation led by the Department of R&D. As a researcher, he works on educational reforms and transformations of schools (accountability, school improvement, leadership) and the changing conditions of the academic work in higher education. With other academic partners, he is currently leading a European Marie-Curie program sustaining mobility and exchanges between students working on higher education policies and changes in higher education systems.

romuald.normand@ens-lyon.fr

Previously published in this CIDREE yearbook series:

1. Turning the Perspective
   New Outlooks for Education
2. A Europe of Differences
   Educational Responses for Interculturalism
3. Becoming the Best
   Educational Ambitions for Europe
4. The Integrated Person
   How Curriculum Development Relates to New Competencies
5. Different Faces of Citizenship
   Development of Citizenship Education in European Countries
6. Schools for Quality
   What Data-based Approaches Can Contribute
7. The Education of 4- tot 8- Year-Olds
   Re-designing School Entrance Phase
8. A toolkit for the European citizen
   The implementation of Key Competences. Challenges and opportunities.
9. Many Voices
   Language Policy and Practice in Europe
10. Beyond Lisbon 2010:
    perspectives from research and development for education policy in Europe
11. Beginning teachers:
    a challenge for educational systems

CIDREE

Consortium of Institutions
for Development and Research
in Education in Europe

CIDREE
yearbook
2012