# Beyond Lisbon 2010:
# perspectives from research and development for education policy in Europe

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2010: The 20th Anniversary of CIDREE

CIDREE

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*Edited by Sheila M. Stoney*

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# Contents

# Foreword

## *Jan van den Akker*

Welcome to the CIDREE yearbook for 2010, *Beyond Lisbon 2010: perspectives from research and development for education policy in Europe*.

Every yearbook is special, but this volume is particularly special. Not only is this our 10th yearbook but it also highlights the celebration of CIDREE's 20th anniversary. Moreover, it is a fairly ambitious book. The title refers to a big theme that effectively captures the mission of all national CIDREE institutions: contributing through research and development to educational policy-making. It underlines the supranational, European challenge. We all work on more or less similar tasks and there is a lot to learn from one another.

Under the general heading, the various chapters address an interesting diversity of educational issues (as clearly introduced by Sheila Stoney in her editorial overview), from the effects of globalisation to measuring efficiency. The authors have been encouraged to both reflect on the past and to look to the future. And all have been encouraged to include a personal perspective. It did help that they were invited to write about a topic that characterises their work and experience, perhaps even their own professional mission and passions. And, of course, the scope and quality of the writings illustrate that the authors are, or have been, in leadership positions in national agencies and often, also, on a European level. Broad and stimulating visions are presented.

This book will be a rich addition to our anniversary conference in Oxford's academic setting in November 2010. However, I am sure it will also have an impact beyond this: at later stages other readers from policy as well as research and development will find inspiration in the writings.

At this point, I would like to express our sincere thanks to the excellent work of Sheila Stoney, the yearbook's editor. Having been a long-time prominent CIDREE colleague, she has been an inspiring, careful and able editor. And, of course, our thanks also go to all the authors who have contributed to this very memorable CIDREE yearbook.

*Jan van den Akker*
*CIDREE President 2009–2010*
*Director General SLO (Netherlands Institute for Curriculum Development)*

# Editorial overview

*Sheila M. Stoney*

## About CIDREE

Through the publication of this yearbook and related activities, we celebrate 20 years since CIDREE was launched as '*a self-managing network of educational bodies that play a recognised national role in the field of curriculum development and/or educational research*'.

A central aim of CIDREE has always been to '*mobilise and share high-level knowledge and information*', and to, '*make new knowledge available through collaborative activities*'. Despite having varied missions, all CIDREE institutions are aimed at supporting national policy-making in education. By generating, identifying and/or using the best available knowledge, they seek to improve the schools, curricula, teaching and assessment regimes within their own national systems. Membership of CIDREE has often contributed to their knowledge on how to do this. In fulfilling their missions, CIDREE institutions all share the same overarching goals of helping improve and transform the educational outcomes and life chances of children and young people and helping prepare them for citizenship within ever-changing national, European and world contexts.

## The European policy context

Despite education being a national concern and outside the '*competence*' of the EU, the last 20 years have seen growing activity to coordinate and bring more commonality to educational policy-making across member states. The Lisbon Treaty objectives for education and training have provided the key context for this over the last decade.[1] They have been set within an overall target of making Europe "*the world's leading knowledge economy by 2010*".[2] They have been enacted using the open method of coordination which involves exchanges of experience and good practice; joint policy development; benchmarking; and measurement of progress.

Progress reports and evaluations show that, whilst there was some progress towards meeting the ambitious 2010 objectives,[3] there is still much to do. In 2009, a new strategic framework was agreed (ET2020).[4] This has four strategic objectives: making lifelong learning and mobility a reality; improving the quality and efficiency of education and training; promoting equity, social cohesion and

active citizenship; and enhancing creativity and innovation, including entrepreneurship, at all levels of education and training.

When we came to plan this special yearbook, the Editorial Committee reflected on the themes which the publication should address in 2010, given the policy concerns shared by many states and the new joint agenda set by ET2020. We decided to be especially ambitious and to tackle some of the major issues faced by European educators as we enter the second decade of this millennium.

## About the authors and chapters

Our yearbook agenda relates especially to the second objective of ET2020: improving the quality and efficiency of education. But its scope is considerably wider than this. Our list of chosen topics includes: the relevance and nature of schooling and the changing demands upon teachers; the roles that external and internal assessment and inspection can play in helping assure and improve school quality and outcomes; the new ways in which research and curriculum development can support effective policy-making; and the increasingly important question of assessing efficiency in education. At the same time, we have commissioned one or two chapters that look at the bigger picture and set educational developments within a European and world context.

The yearbook authors are all past and present leaders of CIDREE, or experts from CIDREE organisations. As their biographies, given at the beginning of each chapter, clearly demonstrate, they hold or have held key positions within national organisations and often play significant roles on the European and world educational stages. As such, they bring a unique wealth of experience and breadth of view to the challenging topics that they have each selected from our list of themes.

In preparing their chapters, we invited each author to reflect upon the development of their chosen area over the last 10 to 20 years, to take a European view and to help chart the best way forward. We wanted the pieces to be a personal perspective, based upon experience, and to be thought-provoking, challenging and constructive. We have been more than delighted with the results.

## A glimpse into the yearbook

The chapters are diverse in style, scope and analysis, but a number of shared themes and messages for educational policy-making and improvement ring out from the varied texts. These will be highlighted in the commentary that follows.

## Globalisation and education

The yearbook begins with a learned, global perspective from **Roger Standaert** (Belgium) who offers a layered analysis of the forces, trends and events that have shaped education within European nation states. He identifies '*the worldwide level*', '*the level of the civilisation*', '*the European leve*l' and the '*level of the nation state*'. He then documents the coordinating structures of the EU for education and examines the challenges facing European education. In particular, he views the economic imperative as being over-dominant in educational policy thinking. He sees this as promoting an over emphasis on student testing, at the expense of educational developments based on cultural diversity, sound values and pedagogical principles. Roger looks to the future and identifies three areas that need concerted and shared action: responding to the reality of English as a *lingua franca*, putting more effort into teaching children science and technology, and placing renewed emphasis on child-centred education with teachers being back in charge.

## A European 'core curriculum'?

In Chapter 2, **Chris Van Woensel** (Belgium) examines one specific area of European cooperation within education and ably charts the development and implementation of the EU's Framework for Key Skills and Competences. She sees this as the best attempt that educators have made so far to define a core curriculum for Europe and to provide a joint response to the question: '*what should young people be able to know and to do*'? This is particularly in the light of shared concerns about how well European states are preparing young people for adult and working life, but also with an eye to them becoming effective and mobile European citizens. Chris cites a range of examples showing how different states are implementing the competences, drawing upon evidence from the recent CIDREE key skills programme and 2008 yearbook.[5] She concludes that there has been a diversity of implementation, depending upon the traditions and priorities of different countries and feels that, "*the main concern for the future will not be which key competences are taught, but how they are taught, learned and evaluated*".

## Personalising future schooling

The notion of schools offering a much more learner-centred environment for young people, flagged up by Roger Standaert, is elaborated further by **Seamus Hegarty** (England), in Chapter 3, who offers a powerful polemic on the state of schooling and what it should look like in the future. He argues that current school curricula are too subject oriented and are not well suited "*to the task of equipping every young person with the knowledge and skills they need for a fulfilling adult life*". He then takes us through his idealised curriculum consisting of nine

core strands of learning and a number of cross-cutting themes (the latter resonating in part with the key competences described in Chris Van Woensel's chapter). He advocates the use of individual learning pathways and personal mentors to guide students along their personalised route. Inevitably, such a sea-change in curricular thinking suggests a changed role for teachers. He sees them as needing a new skill-set and orientation, and becoming "*managers of learning and supported by a wide range of other adults*". Finally, Seamus throws down the gauntlet to education leaders who must "*face down the many vested interests in the status quo and develop forward-looking strategies for education*".

## *Teaching profession in transition*

The large issue of a changed role for teachers who need to respond to the '*new learning paradigm*' that places the learner at the heart of the educational reform agenda, is addressed in more depth by **Anne Looney** (Ireland). In her eloquent article in Chapter 4 Anne questions whether the teaching profession is simply in need of '*restoration*' (a return to its core identities and tasks), or '*reset*' (a complete overhaul). She notes that there is a tension and duality in a teacher's '*professional identity*', how teachers see themselves, and '*teacher professionalism*', how teachers are seen by others. Using research evidence, she charts the reconfiguration of what constitutes '*a good teacher*' (the ability to operate effectively within the new learner-centred milieu) and teachers' redefinition within '*a knowledge profession*'. She reflects positively on the recent development of more broadly based European teacher competences and the idea of '*the European teacher*', which offers new opportunities for the teaching profession.

The next three chapters deal with three system functions: inspection, external assessment and internal self-evaluation. These are all targeted at assuring and improving the quality and outcomes of schools and teachers. These chapters also take up a frequently cited message within this yearbook, that effective improvement needs to be a co-produced and co-owned endeavour between school leaders, teachers, external support agencies and a range of other stakeholders.

## *Inspecting for improvement*

In his detailed and masterful overview of school inspection (Chapter 5), **Johan van Bruggen** (Netherlands) draws upon his long involvement with the Standing International Conference of Inspectorates of Education in Europe (SICI), and uses evidence from his recent comparative study of 18 European inspection regimes. He focuses on periodic full school inspections: how they are designed and implemented, and the thinking behind them. He addresses the important question of whether the latest forms of inspection do really lead to school improvements. Johan concludes:

*"The first rounds of full inspection in most countries have indeed brought change, movement and real improvement to many schools. For further development, however, a simple repetition of this type of inspection after three or four years is not enough."*

He sees that the adaptations necessary will "*depend on real cooperation between local schools (clusters), the inspectorate and the local or regional authorities and the support agencies who provide guidance, coaching, school-focused curriculum help, in-service training for teachers and quality circles for heads and senior teachers*".

He ends, however, by urging inspectorates to make more specific judgements about good and bad teachers. He calls for the quicker development of new teacher certification systems and more focused school-based strategies for self-evaluation and improved teacher development.

## *Trends and innovation in school self-evaluation*

The issue of school self-evaluation as a teacher-owned improvement strategy is tackled persuasively by **Alejandro Tiana Ferrer** (Spain), who in Chapter 6 seeks to answer: *'what has been the role of internal evaluation and what has been its impact?'*. He presents the rationale for school self-evaluation in terms of schools needing to become both more accountable and autonomous, with critical reflection and self-review being important to their development. "*To make progress*," he maintains, "*they need to reflect on their strengths and weaknesses and to account for their outcomes. In other words, they need to become learning organisations*". By reference to the academic literature, he examines the theories and European trends in self-evaluation before describing the results of a EU study, which he coordinated, on innovative approaches to school self-evaluation. Alejandro concludes that the self-evaluation movement started with expensive researcher-led models, which proved difficult to replicate, and that the way ahead may lie with more pragmatic, low-cost strategies. These will, he suggests, need a clear understanding of their limitations and require effective partnerships to be developed between researchers, teachers and other local agencies. Whilst also heralding a new form of accountability, "*school evaluation is a powerful incentive to institutional change and, at the same time, a support to facilitate this process*".[6]

## *International assessment and its impact*

If self-evaluation is indeed a powerful improvement and accountability strategy, what then is the role of external assessment? **Olivier Rey** (France) answers this effectively in Chapter 7 by first noting that, "*external assessments are increasingly at the core of education policies*", and, "*this development marks a shift from steering by inputs to steering by outputs. It also responds to a widespread concern to monitor and improve the quality of educational services in Europe, in line with the Lisbon objectives*." The article traces the rise of the use of standardised assessments cross-nationally,

before examining the differential impact of the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment (PISA), comparing and contrasting the responses of different European nation states. He then takes a more researcher-based perspective and looks at questions of methodology and the rightful uses and limitations of external assessments. Throughout, Olivier comments on the tensions existing between researchers and policy-makers in how external assessments are viewed and used, calling for more shared understandings and joint endeavours. Finally, he seeks funding for studies that provide more meaningful and context-based explanations of the headline findings and better pointers for policy and school practice.

## *Educational research and 'the triple helix'*

Whilst Olivier Rey sees data as creating both a connection and a tension between the '*realms*' of educational research and policy-making, **Gábor Halász** (Hungary) conceives of research and development as being at the interface of a triangular relationship with policy and practice. It is at the intersection between these different worlds that CIDREE institutions reside. As Gabor muses in Chapter 8: "*Mediating between the worlds of research, policy and practice is both challenging and inspiring. All past and present leaders of CIDREE institutions have stories about conflicts between the demands of these three different worlds, but they also have stories of success about creating common language and enhancing dialogue*". He provides an engaging analysis of the changing relationship between educational research, policy and practice and notes that national research institutions have to acquire a particular '*identity*', which mixes the identities of academics, politicians and professional practitioners. He speaks about '*the triple helix model*' whereby "*we find institutions doing educational research in a complex and dynamic ecosystem of actors producing and applying knowledge and we can see the emergence of a great variety of possible configurations*". He sees new opportunities, and an increased potential for influence, through the evidence-based movement, enhanced European cooperation, and national and sectoral innovation strategies. He finishes optimistically by stating that, internationally, there is "*not only growing support for educational research, but also a change in its meaning and a new place for it in the broader education sector innovation system*".

## *A new approach to curriculum development*

In his compelling article, **Jan van den Akker** (Netherlands) in Chapter 9 also addresses research's relationships, but this time with the development of curriculum policy and the improvement of classroom practice. "*Curriculum development is almost notorious for its weak relationship with research*," he states, before continuing: "*Altogether, one may conclude that curriculum development is hardly an evidence-based enterprise, in contrast to much policy rhetoric nowadays*."

Moreover, "*curriculum reform has a tendency to fail*". But this essay is not about negativities. Rather, it articulates a new research-based strategy for curriculum development which Jan presents, having first described the different ways in which curricula are generally conceived and developed with a view to "*creating balance and consistency between the various components*". He describes his new approach, design and development research, as being especially applicable to "*complex, innovative interventions for which only very few validated principles are available […]. The aim is not to elaborate and implement complete interventions, but to come to (successive) prototypes that increasingly meet the innovative aspirations and requirements. The process is often iterative, cyclic or spiral*". A key requirement of the strategy is effective collaboration between researchers, developers and teachers, who work together through the different stages of: preliminary investigation; theoretical embedding; empirical testing; and documentation, analysis and reflection on process and outcomes "*until a satisfying balance between ideals and realisation has been achieved*". The article concludes with the view that since design and development research is a new science, there is much opportunity for international cooperation and exchange, with a suggestion that CIDREE, inter alia, may wish to provide a suitable forum for this.

## *Measuring efficiency in education*

In an article that will be informative for educationists, researchers and policy colleagues alike, **Stefan Wolter** (Switzerland) in Chapter 10 takes a critical look at the difference between the rhetoric and the reality of measuring efficiency and cost-effectiveness in education. "*There is hardly a statement of educational ministers nowadays*," he notes, "*that does not stress the need for more efficiency in educational processes. On the other side, it is a fact that in the empirical research literature one finds hardly any convincing analyses of efficiency in education*". The essay then takes the reader by the hand through the concepts, terms and methodologies of efficiency measurement. Stefan highlights what data is needed, what must be taken into account and what can, or more often cannot, be concluded from efficiency analyses. He uses practical examples to explain the technicalities and, like Olivier Rey, he cites experience from the PISA project. He concludes that efficiency measurement is still very underdeveloped and that, "*in the absence of scientifically proven measures of efficiency, it will be substituted by individual and collective subjective measures. Irrespective of these being wrong or right, these subjective measures will then influence policy-making*". To counter this, he calls for researchers "*to double our efforts and come up with some solid and valid measures*" for the benefit of all.

I commend the yearbook to you, and hope that the reader will find inspiration and pointers for future directions in education within Europe from the richness of analysis, ideas, commentary and recommendations that it contains.

# Notes

1 See Roger Standaert's chapter for an up-to-date analysis of the EU's Lisbon objectives and their impact, and Chris Van Woensel's chapter for specific objectives relating to key competences.

2 The CIDREE Yearbook for 2003 provides a detailed examination of the indicators, benchmarks and work programmes of the Lisbon Treaty and the differing early responses to these. The Lisbon objectives eventually became known as 'Education and Training, 2010'.

3 EU (2009). *Progress Towards the Lisbon Objectives in Education and Training. Analysis of Implementation at the European and National Levels*. Brussels: SEC (2009) 1598. COM(2009) 640.

4 EU (2009). Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training ('ET2020'). *Official Journal of the European Union*, 28 May 2009.

5 Van Woensel, C. (Ed.) (2008). *A Toolkit for the European Citizen. CIDREE 2008 Yearbook*. Brussels: CIDREE/DVO.

6 One of CIDREE's most ambitious collaborative programmes focused on school self-evaluation in the late 1990s. There is a range of written publications still available from: cidree@roosendael.be. See Alvik, T. (1996). *Self-Evaluation: What, Why, How, by Whom, for Whom*. Dundee: CIDREE.

# 1 European education and the nation state: a globalisation perspective

*Roger Standaert*

Dr Roger Standaert began his career as a lecturer in a teacher training college in 1969 after his studies in educational sciences at the University of Louvain (Belgium). From 1976 onwards, he was the leader of a large-scale project on comprehensive education in Flanders. With his co-author F. Troch he received the state prize for the best pedagogical publication on education and learning in 1980. He obtained his PhD on a comparative study about the rationality of educational policy in 1989. In 1991 he was appointed Director of the newly established Department for Educational Development at the Ministry of Flanders. He was granted the State Prize of the Community of Flanders for his work on attainment targets and core curricula in Flanders. In 1997 he became Chairman of the Consortium of Institutions for Development and Research in Education in Europe (CIDREE). In 1998 he was appointed Professor in Comparative Education at the University of Ghent (Belgium). Nowadays, he is Secretary-General of CIDREE. His research and academic interests lie in the field of comparative education, globalisation in education and educational policy (especially curriculum).

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# European education and the nation state: a globalisation perspective

*Roger Standaert*

## Abstract

*By 2050 the unification of Europe will certainly be covered in history manuals. At the moment 27 European countries are in the middle of a process of Europeanisation. Due to the diversity of the European nation states' cultures and languages, the process is difficult and time-consuming. However, in the meantime, the expanding Europe has gradually become an important stakeholder in the legislation of the nation states. In many cases, it concerns legislation with an economic scope. It may be that cultural and educational matters will also be subject to intervention from Europe, partially as a derivative of their economic influence. At the same time, Europe extends its influence to other cultures and civilisations around the world. In turn, Europe's culture is influenced by world culture, especially in the domains of economy, climate sciences and conflict handling. My contribution will consist of three elements. In the first instance, I will explore how I see globalisation as a layered mechanism within the context of educational goals and objectives. Secondly, I will attempt to trace the consequences of such a perspective for a European education policy in connection with the member states. In the third and final part, I will make an educated guess as to the position of the EU within the global world.*

## Introduction: levels of globalisation

Globalisation is usually linked to worldwide concerns such as the economic crisis, climate change and the eradication of poverty. Of course, we can also refer to the globalisation of sport, mobility, the fight against crime, art, culture, medical innovation and so on. We can also do some hard thinking about the impact of globalisation on education. However, this impact is less obvious and the available literature is diverse. Trends can be observed, but a global and general view has not emerged yet. Nevertheless, I will try to show various trends in an orderly fashion – and from a perspective that shows four layers of interrelated influences.

We situate this process of globalisation in a process of worldwide influence ranging from the widest to a rather narrow layer. The first layer can be considered as '*the global world*'. The second level is that field of activity which Huntington (1996) has called "*a civilisation*" in his remarkable book *The Clash of*

*Civilizations*. A civilisation is to be considered as a pattern of life that forms a common unifying concept for a number of countries and peoples. This leads to a common culture. The third layer is that of '*supra-national organisations*' that exist within a civilisation. Within Western civilisation, the EU can be considered an example of such an organisation. The lower entities of the nation state all form the fourth layer.

It is my conviction that the diverse levels of an organisation can, each in their own way, influence the underlying levels, but they can also exercise an influence of resistance to the upper levels. An example of this low-down influence is, for instance, the resistance Ireland, Poland and Czech Republic have shown towards the EU's obligation for extended integration. Europe, in turn, can resist certain aspects of Western civilisation such as those to be found in the Anglo-Saxon countries (USA, Canada, Australia and New Zealand). Western civilisation can also play the role of a filter for those ideas that are promoted on a global scale.

In the following paragraphs I will focus on these four levels, with a special interest in the place and functioning of the EU in this forcefield.

On the global level, we recognise issues such as climate change, the abolition of poverty, and the rules used in sports. But also, and this becomes a pertinent theme, there are the worldwide economic forces of the free market system with its typical features such as competition, the growing discrepancy between rich and poor, capital transfers, outsourcing and so on. Also, the relentless onward march of the information superhighway and global communications are combined with the free market's economic forces.

In fact, we can proceed to the level of civilisation, with the necessary critical view, as outlined by Huntington (1996), who has delineated eight civilisations of which the eighth, the African, can be considered a speculative process. The remaining seven are:

- Islamic
- Chinese
- Hindu
- Japanese
- Latin American
- Orthodox
- Western.

Noticeable in such an outline of civilisation, which is legitimised by historical arguments, is the role or function of religion as a central, unifying concept. Christianity, Islam, Hinduism, Confucianism and Orthodoxy are, in certain civilisations, extremely relevant. Such a cultural unity can even become a key

factor in a civilisation. Civilisation and culture have a strong influence on values, behavioural standards, institutions and patterns of thinking, which remain of essential value generation after generation.

The third level of globalisation is the supra-national one. The EU is a well-known example of such an institution, uniting different nations and people. Regarding the influence it exerts, it is a very strong institution. Other examples are groupings like NAFTA, MERCOSUR, ASEAN and UNASUR which reflects a new trend in Latin America for countries to evolve together.[1]

In applying the process and progress of globalisation, we are faced with a complex filter system which operates from '*above*' to '*below*', but there are also opposing forces which operate to preserve the lower levels in relation to the upper ones. Thus, we are faced with two forcefields (global and local) operating in two directions. In order to clarify these processes, the sociologist Robertson (1992) popularised the term '*glocalization*' – it neatly combines the two forcefields and shows how they are mutually influencing each other.

This term offers the possibility to trace out the diverse trends into a global picture. Of course, there are several conceivable combinations possible: all of them reflecting the complexity of the situation. This leads to the observation that the mutually influencing forces differ within the process of globalisation. The forces and trends of, for example, climate change, information and sports are clearly defined and visible. But these are different in areas such as culture and education.

There are some exceptions, for instance, the international baccalaureate, the ISCED methodology (International System of Classification of Education Structures) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO) programme, Education for All (EFA). Indeed, across the world, more than 100 nation states recognise the international baccalaureate as preparation for their own higher education. On the same scale, UNESCO, with the Organisation for Economic Cooperation and Development (OECD) and the EU, has approved the (ISCED) meta-system for comparing education structures. Finally, the EFA programme runs like a thread through many developmental initiatives.

I will focus on a few hypotheses which, by common consent, are more or less generally accepted and are described in the literature. I will confine myself to the area of education as a key trend within globalisation. I will focus on those lines which are most clear: the forces of influence which operate from the higher to the lower level. Afterwards, I will continue this introduction by answering the following questions.

- To what extent does the process of globalisation have a direct effect on education?

- What is the influence of certain civilisations on our education system?
- To what extent is the EU influencing our education?
- In which fields do we see resistance being offered to the trends outlined above and which operate from the higher to the lower level?
- Can the EU become the go-between in the space between worldwide globalisation and some powerful civilisations?

## Worldwide globalisation

The question arises: how are we confronted with the influence of globalisation in our field of work? This issue also relates to the impact of the free market on education and the relationship between education for its own merit, and education as a process of economic investment.

The influence of the global world cannot be considered a mechanical one, originated by one well-defined source or mechanism. In fact, different types of actors, such as non-governmental organisations (NGOs), universities, powerful and dominant nations, United Nations agencies, consultants, multinational corporations and charitable institutions are all involved in globalisation's broad diversity of networks. All these actors interact with one another and often even compete in ideologies or concepts. Globalisation forces are multiple in their forms and influences. Well known are examples such as the World Bank, UNESCO, the United Nations Development Plan, the International Monetary Fund (IMF), the Soros Foundation, the OECD, Microsoft and many NGOs working in the field of developmental aid. In the end, all these initiatives are aiming to influence local situations, inclusive of nation states.

An interesting concept for understanding the diversity of global influences has been formulated by Castells (2000). He distinguished between a "*space of places*" and a "*space of flows*". '*Places*' refers to the geographical setting of human behaviour. It refers to people who are situated in the same place of living and, in many cases, a nation state. '*Flows*' refers to social interaction, dislocated from place and strongly connected with a huge explosion of possibilities due to electronic communication. The influence from the flow side is a sort of togetherness of social interaction without a connection with a given territory. The two spatial influences of flow and place, could be considered different in their impact and consequences on education. The '*flows*' content can be defined as general principles for action in the sense of, for example, respect for diversity, delivering manpower for the labour market, education for skills rather than knowledge, equality and equity and mass schooling. The '*space*' content, on the other hand, is the elaboration of those ideas and principles, in the given and specific space of a nation state, which depends on historical factors, values and

local contexts. So, it is not quite obvious that the global flow of ideas and principles leads to the same interpretations and elaborations at the local stage of the nation state.

Nevertheless, looking for a sort of panoramic view, the bulk of the global literature on education policy refers to forms of neo-liberalism and to there being high expectations in favour of an extended free market. At the same time, the global literature stresses the rather unconditional progress of sciences.

Starting from the aftermath of World War II, aspects of a world culture also affecting education can be observed. Education for all is a common social goal across the world. It's a world ideology that considers education both an individual and a collective good. Societies carry the obligation to provide this opportunity for all. In affluent societies, mass schooling has evolved into the new pursuit of higher education for all. The goals of education have a lot to do with the economic pressure towards a free market that is based on competition, efficiency and excellence. The free market requires investment in human resources, skills for the labour market, entrepreneurship, innovation and workforce brainpower. Other current concerns influencing world education policy include human rights, gender inequality and rural–urban gaps. Nevertheless, it is not obvious that these concerns are accepted in all civilisations or cultures. The economic ideology of the free market, more or less mitigated by a certain social control is, however, a vehicle for education worldwide.

Another weight-bearing principle in a world ideology for education is the powerful position of science. We are living in a rationalised global world in which virtually all aspects of human life and behaviour are subject to scientific analysis. The belief in science as an overarching paradigm for progress and efficiency is a strong steering mechanism for education and how it is organised. Scientific thinking leads to technology in a vast array of domains, including learning and teaching.

The forces of economic competition combined with a belief in science and its technological applications represent an education culture of efficiency and achievement. An international testing boom is an example for this sort of thinking. Efficiency is expressed in results in mathematics, sciences and languages. Objections to this utilitarian, economic focus are met by broadening the principle of measurement to civics and social studies.

The global ideology of education shows itself in a testing system that is not built on the uniqueness of national education systems or aims to investigate the differences between the systems. On the contrary, testing and assessment represent a change in perspective, comparing the results and the achievement of education systems and practices (Kamens and McNeely, 2010). This perspective was first mentioned by one of the founding fathers of the international testing

movement, Torsten Husen, in the early days of the International Association for the Evaluation of Educational Achievement (IEA, established in 1958).

The global free market ideology, with a pursuit of scientifically based, objective output data, can be found in worldwide organisations such as the World Bank, the International Monetary Fund (IMF) and the World Trade Organisation. It can also be found in sub-organisations of the United Nations, such as the United Nations Development Plan and even UNESCO. The declarations of the World Education Forum in Jomtien (1990) and Dakar (2000) concerning the EFA programme strongly promoted systems of periodical assessment. Indeed, it was necessary to define acceptable levels of learning acquisition for educational programmes and to improve and apply systems for assessing learning achievement.

The logic underpinning this model of assessment is the promotion of decentralisation, market competition and consumer accountability. Benveniste (2002), a World Bank specialist for East Asia, said assessment and decentralisation operate under competing logics. National assessments incarnate a centralising force that mandates universal normative criteria. Central prescriptions can and often do supersede site-specific formulations. In a decentralised environment, national assessments may signify a way for the central state to preserve its core position and offset the power-sharing logic of decentralisation (Benveniste, 2002, p. 118). The following global trends can be observed:

- priority given to competition versus cooperation
- priority given to higher education and innovation within the field of competition
- priority given to mathematics, science and technical skills
- the emerging market of tests and indicators
- the call for privatisation and less power for the central state
- the tendency for uniformity within the field of certificates
- a classification which allows comparison of higher education (bachelor, master and doctorate).

## The level of civilisation

From the literature associated with the process of globalisation in civilisations certain points of interest require our attention. Firstly, it seems that in Chinese, Hindu and Japanese civilisations prime attention is paid to mathematics, science and technical skills within the educational process. In China, India and Japan, in those places with three billion inhabitants, this forms the DNA, as it were, of

economic growth. It is not unthinkable that Western countries will be left somewhat behind in terms of economic prosperity. We also see in China, India and Japan high demands on, and expectations of, students and the adult workforce. With regard to this focus, certain education experts warn against a too radical overhaul of how children and youth are educated in the, as yet, rich West.

Should we not, therefore, make a case that would allow students to learn in a more challenging way? In such a scenario, we do not have to operate against pedagogical or didactical principles by placing too many demands on youngsters. '*Challenging*', in this context, means having higher expectations for achievement, on the understanding that the challenges are adapted to students' capabilities. This could be interpreted as a student-centred pedagogy.

A further trend is the use of English as the *lingua franca* in the world. We see that the vast majority of people in the world learn English. In China, English has been the obligatory second language for students. While in India, with more than one billion citizens, English remains the only language of general communication. Thus it is not necessary, for example, to learn Chinese. Therefore, should not every student learn English as a second language? A further study of various civilisations might show that Latin America is the leader in education for sustainable development and call for a return to a Latin American heritage of culture, nature and human relationships.

If we look at sub-Saharan Africa, with fertile and not too densely populated regions, most people would have managed pretty well if left to themselves. Most of the inhabitants did not need their states, which were usually too weak to do much harm, and, if they grew too troublesome, could probably be bypassed by a retreat into village self-sufficiency (Hobsbawm, 1994, p. 352). Turning back to the theme of the reciprocal influences existing between the worldwide and civilisation levels, I make the following observations. We saw a stagnation of the negotiations around the World Trade Organisation (WTO) at the Roundtable of Geneva in July 2006 concerning intellectual ownership, the service sector and agriculture. The resistance of some civilisations here was obvious. The World Bank moderated its previously tough Structural Adjustment Program (SAP) strategy for developing countries in 2006, in response to the views and varying characteristics of the different beneficiary cultures. Concerning China, we see a powerful Bank of China competing with the IMF to deliver important services to African nations. On the other hand, China has to live with the challenges it has in closing the borders for the flow of the global internet as can be seen in the interventions of Google.

An analysis of the impact of the most important civilisations reveals the following (and here I focus on those civilisations which form a demographic majority in the world – especially China, India, the East Asiatic countries and Japan):

- the priority given to science, maths and technical skills
- the use of English as a world language
- a focus on the group rather than the individual
- high demands and expectations for achievement
- educational ambition as a basis of prosperity, both for the community and the individual.

## The European level

Currently, there are lots of matters, both fundamental and rather trivial, that are settled on a European level. Lots of people are, strangely enough, not really aware of this: it is almost happening silently. Actually, there is not really one domain left with which the EU is not now engaged.

The EU website gives an overview of 32 different subjects that are of importance for European intervention. It covers foreign affairs, international trade, energy policy and environmental and cultural matters, as well as humanitarian aid and fishery. However, there are different accents of power as can be seen in the four different levels of decision making in the EU: regulations, directives, decisions and recommendations. The bulk of the power of the EU is situated in the economic field: agriculture, trade and, of course, the Euro. As for the railways, the postal services and the telephony, the borders of Europe are opened for competition. In some cases, the directives are rather vague, leaving space for member states to make them operational. In other cases, legislation is very strict. The level of noise of a lawnmower is fixed very precisely, as is the speed of a tractor's wipers.

If it is clear that the economic function of Europe seems to be of great importance. We can guess that the EU has an enlarged role and impact on the structure and the stress on an economically directed function of education. The role formerly played by cross-country visits, observations and imitations has been, at least partially, substituted by supra-national bodies such as the EU or the Council of Europe.

'*The market*' is the dominant European discourse. There is a constant pressure for the delivery of common taxes, rules of production and consumption, and joint initiatives and innovations that the market needs. The space for education in Europe today exists within this discourse. It may be considered a first step towards a shared identity. This identity means a demand for labour skills, mobility and innovation across the market.

Since the Lisbon Summit in March 2000, the overarching idea of Europe has been an economic one, translated into the strategic objective:

*"To become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion."*

In the wake of this ambitious agenda, and after preparatory work by the European Commission, strategic objectives for education were proposed by the European education ministers and adopted by the European Council. These objectives were consequently further specified and settled in a process of formulating indicators and benchmarking. A system was set in motion (the open method of coordination) for coordinating the Lisbon process, measuring progress and enabling European member states to make mutual comparisons. This extremely ambitious agenda has not been very successful. For a new period, from 2010 to 2020, a revision of this agenda is planned. There will be more moderate benchmarks, supervision of the process and sanctioning of member states which are not involved enough in the elaboration of the defined benchmarks.

## Steering initiatives from the EU

Notwithstanding the reluctance of the Maastricht Treaty to legislate over cultural and educational matters, Europe has been very active in using the mechanisms of indicators, benchmarks, intervision, projects and exchanges of good practice through the open method of coordination. The results are different steering projects with a stress on the economically oriented function of education.

This can be clearly illustrated by the following observations:

- the focus on a general basis curriculum and compulsory education through eight basic competences (voted as a recommendation in 2006)
- the European Qualification Framework, which aims to introduce a compatible structure of career-directed education
- a uniform system of higher education through the principles agreed upon within the Bologna process
- the introduction of European indicators and benchmarks
- the social correction, from a typically European perspective, of the extreme elements of the free market system.

In what follows, these privileged domains of European intervention will be described in more detail.

### *Eight key competences*

In a Recommendation of the European Council and Parliament, a European reference framework of key competences for lifelong learning has been

developed (Recommendation 2006/962/EC). The main aim of the reference framework is to identify the key competences necessary for every citizen in Europe. Competences are defined in the framework as a combination of knowledge, skills and attitudes appropriate to the context. Key competences are those which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment. The reference framework sets out eight domains of key competences:

- communication in the mother tongue
- communication in foreign languages
- mathematical competence and basic competences in science and technology
- digital competence
- learning to learn
- social and civic competences
- sense of initiative and entrepreneurship
- cultural awareness and expression.

The key competences are all considered equally important. Many of the competences overlap and interlock: aspects essential to one domain will support competence in another. Digital competence is an essential vehicle for learning, and learning to learn supports all learning activities. Van Woensel (2009) elaborates on these key competences in different European education systems in more detail in Chapter 10 .

### *The European Qualification Framework*

The European Council and Parliament decided on a Recommendation for the European Qualifications Framework for Lifelong Learning (Recommendation, 23 April 2008). This framework aimed to link education and work, and to make the system for qualifications transparent across Europe. The framework consists of eight levels in complexity, responsibility and autonomy. The advantages of the framework are obvious:

- clarifying learning pathways
- flexibility in learning programmes
- developing mobility in employability
- recognising non-formal and informal learning.

A logical consequence of applying the framework is the development of different instruments. The most important instrument is the European Credit System for Vocational Education and Training (ECVET), also adopted as a recommendation of the European Council and the Parliament on 18 June 2009. The main aim of the

ECVET is, of course, the recognition of learning outcomes and units. A unit is a component of a qualification, consisting of a coherent set of knowledge, skills and competence that can be assessed and validated. To guarantee this sort of assessment, it is necessary to describe the results of a learning process in terms of learning outcomes. Part of this assessment is also the allocation of a certain number of points as a numerical representation of the relative weight of a unit in relation to the qualification. Other instruments for implementing the European Qualification Framework are the Europass; systems of counselling and guidance; and creating a portal site for, for example, an inventory of qualifications.

## *The European Higher Education Area*

The creation of a European area of higher education and research originated in a meeting of the ministers of education for France, Germany, Italy and the UK at the Sorbonne in May 1998. The resulting proposals promoted increased mobility and collaboration between European universities. A year later, 29 countries gathered in Bologna to continue the effort. It was the start of the so-called Bologna Process.

Two concepts are important. One is the European Higher Education Area (EHEA) and the other is the Bologna Process. The notion of a EHEA follows the idea of the European Economic Area, which extended the European Community's single market to the members of the European Free Trade Association (EFTA). By analogy, the Sorbonne and Bologna declarations widened the European Community's area for higher education to other European countries. The Bologna Process refers to an intergovernmental arrangement of nearly all European countries, both EU and non-EU members, plus the European Commission, which meet more or less regularly to discuss the actions agreed upon. It has an institutional structure, composed of a Follow-Up Group, Board and Secretariat. Every two years, a large conference is organised to discuss the implementation of the process and to agree upon new aspects. The first of these large-scale conferences was in Prague (2001), followed by Berlin (2003), Bergen (2005), London (2007) and Louvain (2009). In summary, the Bologna Process has led to ten important actions:

- adoption of a system of easily readable and comparable degrees
- adoption of a structure based on two cycles (undergraduate and graduate)
- a European credit transfer system
- promotion of mobility by overcoming obstacles
- promotion of European cooperation in quality assurance
- promotion of the European dimension in higher education
- promotion of lifelong learning

- student involvement
- promotion of the attractiveness and competitiveness of the EHEA to other parts of the world
- synergies within the European Research Area (ERA).

## *European indicators and benchmarks*

The '*opening up*' of education initiated a wide-ranging debate in the Council of the Ministers, resulting in the adoption of several conclusions and resolutions. Existing European education programmes were strengthened and new ones launched; for instance, Erasmus, Leonardo, Comenius, Socrates, Lingua and Grundtvig. In 1998, the ministers decided to create a working committee to define a range of quality indicators in education. The final report in 2000 summarised 16 priority indicators, covering four areas (Directorate-General for Education and Culture, 2000):

1. attainment (seven indicators): mathematics, reading, science, foreign languages, learning to learn, ICT and civics
2. success and transition (three indicators): drop-out rates, completion of upper secondary education and participation rates in tertiary education
3. monitoring of school education (two indicators): parental participation, and evaluation and steering of school education
4. resources and structures (four indicators): educational expenditure per student, teacher training, participation rates in pre-primary education and the number of students per computer.

Meanwhile, the European Council launched the ambitious programme at the Lisbon Summit in 2000 with the open method of coordination, defined in paragraph 37 as:

- The EU will set guidelines and specific timetables for achieving the goals.
- Quantitative and qualitative indicators and benchmarks will be established as a means of comparing best practices.
- Exchange of good practices will be promoted by comparative analysis, peer review and bilateral projects.

In 2003, the Education Council took another ambitious step in moving forward the Lisbon Strategy in the area of education and training by adopting five European benchmarks to be reached in 2010.

- An EU average rate of no more than 10 per cent of early school leavers.

- The total number of graduates in mathematics, science and technology in the EU should increase by at least 15 per cent while at the same time the level of gender imbalance should decrease.
- At least 85 per cent of 22 year olds in the EU should have completed upper secondary education.
- The percentage of 15 year olds with insufficient abilities in reading literacy in the EU should have decreased by at least 20 per cent compared to the year 2000.
- The EU average level of participation in lifelong learning should be at least 12.5 per cent of the adult-working-age population (25–64 age group).

At the end of the period of the Lisbon Strategy in 2010, the results were not as planned. The benchmarks seemed to all be too ambitious. For the period from 2010 till 2020, a new set of six benchmarks was adopted by the Council in May 2009, which was named the *Strategic Framework for European Cooperation in Education and Training* (ET 2020). The benchmarks to be achieved by 2020 are (http://ec.europa.eu/education/lifelong-learning-policy/doc28_en.htm):

- At least 95 per cent of children between the age of four and the age for starting compulsory education should participate in early childhood education.
- The share of 15 year olds with insufficient abilities in reading, mathematics and science should be less than 15 per cent.
- The share of early leavers from education and training should be less than 10 per cent.
- The share of 30–34 year olds with tertiary educational attainment should at least be 40 per cent.
- An average of at least 15per cent of adults (age group 25–64) should participate in lifelong learning.

## *The question of social cohesion*

The Lisbon declaration of 2000 mentioned the EU becoming:

> *"The most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion."*

Although the core business of the EU is an economic one, social cohesion is of some importance. We find social cohesion partially referred to in the elaboration of 13 associated objectives of the Lisbon Strategy, established after the Summit of Stockholm in 2001. They are:

- improving teacher training
- developing skills for the knowledge society (literacy, numeracy, key competences and learning to learn)
- ensuring access to ICT for everyone
- increasing recruitment to scientific and technical studies
- making the best use of resources (for example, quality measurement and targets)
- open learning environments (for example, recognition of acquired skills and career guidance)
- making learning more attractive
- supporting active citizenship, equal opportunities and social cohesion
- strengthening the links with working life and research, and society at large
- developing the spirit of enterprise
- improving foreign language learning
- increasing mobility and exchange
- strengthening European cooperation (for example, networks, accreditation systems and mutual recognition of diplomas).

Nevertheless, in this impressive list of associate objectives, the place of social cohesion and its related aspects seems rather moderate.

## The level of the nation state

Is there, in a modern context, a viable place for the nation state and its own educational system?

If it is more or less a given fact that within the process of globalisation the nation state is evolving towards a form and level that offers a kind of psychological certainty, then it is worthwhile to use as a starting point those elements that are experienced within the nation state. From this starting point, we can build towards the EU becoming the level between civilisations and global issues. The Treaty of Maastricht (1992) sets a clear, but restricted, remit in article 149:

> *"The community shall contribute to the development of quality education by encouraging co-operation between Member States and, if necessary, by supporting and supplementing their actions, while fully respecting the responsibility of the Member States for the content of teaching and the organisation of educational systems and their cultural and linguistic diversity."*

Article 150 sets out similar provisions in relation to vocational training activities.

Discourses on the connection between globalisation and the nation state do not always give an optimistic view of the remaining role of the nation state. Some authors utter strong doubts about the future of the nation state. Others are more reserved about the power of supra-national entities over the nation states.

As has been sketched above by Castells (2000), the '*place*' becomes an important power, aside of and maybe in competition with the '*flow*' of influence. This has been lucidly illustrated by Beech with the introduction of the global concept of '*competences*' in the curricula of the hard-working Latin American countries, Brazil and Argentina. In his research, the interviewees interpreted the new curricula regulation as a legitimisation of their existing practices (Beech, 2009). Consequently, they felt that there was no need for them to adapt their practices to the new official discourse. Rather, they felt that the new official discourse could be adopted to describe their existing practices.

In the same line of thinking, Waldow mentioned a sort of '*welfare state nationalism*', based on his observations on the Swedish education system. He referred to nations having a '*natural feeling of supremacy*' concerning their own educational system (Waldow, 2009). Inspiration from organisations, congresses and projects from abroad are interpreted almost exclusively in the national context. As such, the individual national system more or less ignores the international impact (Waldow, 2009).

The historian Landes stated in his important work on the differences between the poor and rich that there are significant differences between nation states in terms of what he called the '*cultural potential*' (Landes 1998, p. 321) of a nation state. Characteristics of cultural potential are: hard work, honesty, tenacity, patience and also openness to change, especially to equal rights for women (Landes, 1998). Countries with a high degree of such a cultural potential will strongly resist the influences of globalisation. In many cases, this results in a limited adaptation of foreign influences into one's own traditions. On the contrary, nation states with a low cultural potential are more liable to be influenced from abroad.

Moreover, transnational borrowing occurs mainly at the level of policy talk. What gets translated into local or national policies, and what finally gets implemented at school level, does not necessarily reflect the borrowed model. Lessons learned '*from abroad*' are often reduced to political rhetoric that helps make domestic school reforms sail under the flag of internalisation and adaptation to '*international standards*' in education. In fact, we are witnessing a huge international market of buzzwords in educational reform, such as '*effectiveness*', '*outcome-based education*', '*multiculturalism*', '*quality assessment*', that all mean something entirely different in various cultural contexts (Steiner-Khamsi, 2002).

Focusing on educational outcomes in France, Germany, Japan, Singapore, Sweden, the UK and the USA, Green concluded that there are very broad cultural characteristics, which seem to underlie national educational achievement, and that can be manifested in a set of related institutional characteristics. He noted that high-achieving countries have what he calls an "*inclusive learning culture*", which is characterised by the high premium which society places on learning for all groups (Green, 1997).

This does not necessarily require all decisions to be made at a central government level – or for a government to make all such decisions on its own – but it does require a high degree of state regulation where the government acts in a concerted fashion at different levels to define and make the system operational, including defining and enabling the roles of the different social partners within it. Contrary, therefore, to the present vogue for decentralised systems and the development of '*markets*' and '*quasi-markets*' in order to supposedly enhance '*quality*' in education, Green's important comparative work suggested quite strongly that the most effective education systems appear to show signs of '*tight regulation*' in the critical areas, with high levels of policy coherence, institutional systematisation, and close articulation between levels of the education and training system and between this system and the labour market (Green, 1997).

Recent literature teaches that the highest pressure of resistance to the trend of globalisation emerges from the cultural system of norms and values. This is generally interpreted as a defence mechanism working in opposition to the stronger forces which operate on the level above the nation state. This can be interpreted as a form of psychological search for established values within the threatening forces seen to be operating in the globalisation process. This process of resistance is reflected in all nation states, in various degrees of operation, and it comprises the following elements:

- the retention of established educational systems and curriculum (cf. Maastricht Treaty)
- the rise in popularity of nationalistic political parties
- the care and attention paid to individual cultural inheritance
- the call for a '*canon of values*' to conform to the common identity of the nation state (for example, history of the country, literature, heroes of the country, national symbols and gastronomy).

In many cases, we can see resistance to importing educational models from abroad. After a period of goodwill, we can see a period in which stakeholders downplay externalisation and instead emphasise the local adaptation and interpretation of the borrowed model (Steiner-Khamsi, 2002).

The most visible sign in Europe is the tendency of politicians to refer to other continental European countries and to distance themselves from countries

outside of Europe. This newly emerging European space for policy borrowing is still, more often than not, imagined. Although for some countries in central and Eastern Europe it is not imagined but real, as they look for ways of distancing themselves from an undesired past (Steiner-Khamsi, 2002).

Nevertheless, in accordance with the worldwide tendency for assessing progress, many nation states do interpret the aims of combining central assessment with decentralisation in a rather paradoxical way. Instead of supplying schools with up-to-date information in order to support local management and greater school autonomy, we can observe a contradictory tendency. National tests are implemented centrally yet, if programmes and learning processes fail, the responsibility is shoved away from the central policy to the local level. In fact, we see, as remarked on the worldwide level, a competition between assessment and decentralisation. By implementing national tests, the tendency for centralisation is reinforced, by leaving a lot of responsibility for the success of programmes in the hands of the local schools and the teachers. The rise of the '*evaluative state*', with schools ranked and classified, illustrates the ease with which nation states are taking over the competitive and accountability culture of free market worldwide globalisation.

The power of the local context should not be underestimated. The translation of global and European trends in the own political context is often interpreted in different ways, because of the existence of opposing parties or groups in a given nation state.

## The position of the EU on education

This concluding section analyses the globalising forces which impact on the European education environment. The discussion then considers the positive lessons for Europe as it responds to these global pressures, on the one hand, and the countervailing forces which are detracting from educational developments, on the other.

### *Lessons to be learned*

A clear trend we cannot ignore in Europe is the expansion of English as the *lingua franca* in the world. In absolute terms, English is not the most commonly spoken language by the world's population. However, taking into account the numerous countries where English is used as the official second language or is well ingrained, it reaches the larger part of the world's population. In China with its 1.3 billion inhabitants, English is a mandatory course in the education system. And in India, with more than one billion inhabitants, English is a connecting language between many local languages. Looking at the language policy in

Europe, we know the sensitiveness concerning the position of local languages, but would it not be realistic to recommended English as the second language as a standard policy?

It is also notable that the upcoming strong civilisations (China, India and South-East Asia) put an emphasis on teaching sciences and technology. The innovative power of a society is closely related to its level of technological know-how. It is important for Europe, with a long and remaining history of gymnasium-type contents of status subjects in the sense of pure and not utilitarian, to think about a valorisation or revalorisation of applied sciences. This idea could be a serious challenge for curriculum creation in Europe and for possible collaborations. The Consortium of Institutions for Development and Research in Education in Europe (CIDREE) could be an initiator or a central leverage point for such initiatives.

In the upcoming civilisations, one can observe willpower, strength in labour and study ethos. Several educationalists have identified this ethos and compared it to that in Western and European countries. As Damon, the well-known educationalist, argued, educational approaches in Western societies tend to be too '*coddling*'. As a consequence, Western youth lack ambition, willpower and perseverance. Damon argues that Western educators confuse child-directedness with a sort of *laissez-faire* mentality (Damon, 1995). This interpretation is also open to our European educators. Should we not consider education practices that challenge children in the direction of what Vygotskij (van Parreren and Carpay, 1972, p. 113) called the "*zone of the immediate nearly development*"? This means it is perfectly possible to differentiate challenges for all sorts of children, thereby taking them always one little step further in complexity.

## *Ways forward for European education*

Market thinking is the dominant European emphasis, and this fits in perfectly with the global trend. It is not difficult to identify the strong economic approach in a lot of texts concerned with the education policy of the processes of Lisbon, Copenhagen and Bologna. Nonetheless, let us be realistic: efficiency is of vital importance for the labour market; therefore, objectives for economic efficiency are logical for the world of work and production. But this is less obvious when handling compulsory general education and even university. Lots of texts are full of economic jargon such as: '*accountability*', '*indicators*', '*benchmarks*', '*HRM*', '*output assessment*', '*competition*', '*effectiveness*', '*market orientation*' and '*private investment*'. The whole focus sometimes looks like a team of engineers developing an assembly line for a new car model: they design the machines, construct the robots, train the workers for various sub-functions and, at the end of the line, the programmed car will appear.

A striking example of this use of language is in the European Commission's report, *Mobilising the Brainpower of Europe* (European Commission, 2005), as these quotations illustrate.

> *"Most universities are ill prepared for worldwide competition over talent, prestige and resources."*
>
> *"Europe's universities need quality seals with international credibility."*
>
> *"In an open, competitive and moving environment, autonomy is a precondition for universities…"*
>
> *"Universities should be responsible: setting specific medium-term priorities… and targeting the collective effort of their staff towards achieving these; professionally managing their faculties (owning, running and developing them), financial resources (welding budgets, investments and borrowing) and external communication (image building)."*
>
> *"This requires more competition-based funding in research and more output-related funding in education."*

These kinds of messages are, to a large degree, a break with the European traditions of universities and higher education. In this context, the messages of privatisation, commercialisation, specialisation and flexibility are based on strongly market-oriented thinking. Thinking, which results from extreme flexibility and diversity, finally leads to a '*supermarket*' higher education, or even more negatively, the '*zapping*' of higher education. It is not surprising that this can result in an increasing lack of cohesion and coherence in higher education programmes. An illustration of this trend can be found in secondary education in the USA. Fifty-three percent of new high school graduates are in need of extra schooling, including more help with written communication (Scheele, 2005).

In this view, Europe follows the worldwide economic trend of the exaggerated stress placed on an uncontrolled free market. Novoa and Lawn (2002) explained these processes as "*fabricating Europe*" and called it rhetorically "*planet speak*" in "*an illusion of a single course for educational issues*" (p. 135). The erosion of value-oriented thinking within European politics in favour of a narrow economy-directed thinking leads to relentlessness among different social and religious inspired circles.

The late Dutch diplomat Altes represented this uneasiness by pleading in favour of a spiritual renewal in Europe (Korthals Altes, 1999). The Dutch politician van Burg elaborated on a similar idea in his dissertation, *The Western Culture Out of Balance*, (van Burg, 2001). He stated that, in dominant economical thinking, man is reduced to a "*homo economicus*". Such an economical model man is not a man of flesh and blood, but an abstraction. This economical model man strives to make big profits and produce and consume with minimum costs and efforts. He

is a rational, materialistic individual, his eye fixed on self-interest. Referring to Sen (1999), this kind of man is called a "*rational egoist*" who is looking exclusively for behaviour and situations with a high degree of utility for his own good. In this case, the creation of an all-penetrating structure of competition, combined with a never-ending expansion drift, is not far away. In this context, slogans such as '*standing still is going backwards*' and '*business is war*' are common.

Based on these ideas, this article concludes by proposing some relevant paths for Europe and its education policy. First of all, the question of the global tendency for over-testing should be placed under consideration. A further point for attention is the impact of a worldwide common language. From the upcoming civilisations with dense populations, European education has also to pay attention to the importance of the subjects relating to science and technology. Finally, Europe must think about a re-interpretation of the principles of child-centred pedagogy.

We can observe a sort of economic culture of evaluating education against a more pedagogical culture. In this context, Lundahl spoke of the rise of psychometrics as a "*quick language*" that reduces complexity by creating a shared language and facilitating a smooth transmission of information within education. This quick language is sustained by overarching myths from the scientific world. It appears as particularly '*modern*', '*rational*' and '*scientific*'. It can function as a powerful source of legitimisation (Lundahl and Waldow, 2009). As explained before, one of the striking characteristics of worldwide globalisation is precisely the translation of the scientific progress ideal. The price of using this sort of quick language is the loss of complexity in favour of forms of simplified communication. The form in which this '*quick data*' is presented looks like '*league tables*' and standards for so-called literacy. In this form, the data furnishes a usable and efficient quick language for public discussion. As Lundahl mentioned, the quick language follows the logics of numbers, counting, labelling, comparing and ranking in purpose of choosing (2009). In a critical contribution, De Ketele pointed out the restrictions of the existing psychometric models, including the frequent use of the item-response model. This sort of measurement is well adapted to the evaluation of basic knowledge, but comes unstuck with the measurement of more complicated and multi-dimensional behaviour. There is a risk that the measurement of more complex behaviour is left undone (De Ketele, 2009).

The testing explosion, also seen more and more in Europe in the wake of the global trend, is not in harmony with the prominence given to the diversity of values, structures, financial resources and concepts found within education systems across European nation states.

A negative consequence of the rise of this evaluation hype is that greater responsibility is put on teachers and schools by accountability procedures and the one-sided attention to output at the expense of processes, and a strong

emphasis on the evaluation of teachers and schools. The logical next step in this evolution is schools seeking to climb up the rankings by means of subtle mechanisms of recruitment and by excluding some categories of learners.

Maybe Europe is too kindly disposed to the global testing movement, assuming that accusations will be directed towards it of having insufficient efficiency in the quality of its education. The overarching competition logic of the free market opposes the value and ethical sides of education. It sees education as strongly connected to notions of consumer needs and is based on the right to choose and consumers' purchasing power. But this is only one side of education. The school is not an enterprise.

Of course, there is no question of banning tests and measurements from the educational world. But European nation states and the EU should seriously reflect on the aims of measurement as well as on the locus of the evaluation processes. For training objectives related to the labour market, it seems to be rather logical to speak in terms of economic efficiency. This is less obvious when dealing with compulsory education and even higher and university education.

Recognising the diversity in the nation states, and also the professionalism of teachers in managing the pedagogical processes in the classrooms, other ways are possible. For example, why don't we leave the bulk of the evaluation processes in the hands of the teachers, the true guardians of the pedagogical act? The accountability of schools can be considered in a more meta-approach to quality. Give teachers good evaluation instruments and count on their professionalism for their application and interpretation. Meta-approaches for the accountability of schools could be grounded on a system-based assessment of performance (without the possibility of ranking) and on promoting the self-evaluating potential of the learning school, where capable and caring educator professionals are at work. The objective can change: but the judgement of teachers should not be replaced with the '*objectivity*' of external tests; rather it should improve this.

Without doubt, the testing issue is a very important one, but the question of having a common worldwide language is also very meaningful for Europe, and has implications for European language policies in education. As mentioned and explained above, English is on its way to becoming the *lingua franca* of the world. Youngsters are interested in mastering English as well as their mother tongue.

Let's not forget the importance for Europe of being competitive in sciences and technology. There is a real danger of underestimating the learning and teaching of sciences and technology. Finally, new ideas on the interpretation of a generally accepted principle of child-centred education will force themselves on Western educational practice.

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## Note

1 NAFTA – North American Free Trade Agreement
MERCOSUR – *Mercado Commun del Sur*. Southern Common Market (English) between Argentina, Brazil, Paraguay and Uruguay
ASEAN – Association of Southeast Asian Nations
UNASUR – Union of South American Nations

# 2 Unity in diversity: the cross-Europe debates surrounding key skills and competences

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# Unity in diversity: the cross-Europe debates surrounding key skills and competences

*Chris Van Woensel*

## Abstract

*In December 2006, a European Parliament and Council recommendation, referring to key competences for lifelong learning, was communicated to the EU member states (European Parliament and Council of the European Union, 2006). This contribution not only looks at the development of the resulting framework, it also takes a close look at the impact and implementation of the framework in a number of member states taking different lines of approach.*

*Indeed, as well as looking at the usual implementation path of an educational innovation, this article addresses a number of conceptual and policy-making points of interest. Examples are given of the functioning of the European framework within some member states in terms of the education content and core curriculum in compulsory education. Although it is not possible to give the whole picture, it is clear that due to the framework interesting and inspiring events are happening in Europe.*

## Introduction

However necessary, unification of Europe under the auspices of the EU is a major task, as ongoing comments in the press reveal. Moreover, the diversity of our continent is expressed in the diversity of our individual education systems, which are closely entwined with the history and culture of each country or region. One of the EU's problems is its complicated structure, with which few people are familiar. This contribution is not intended to familiarise readers with the labyrinth of commissions, councils, working parties, types of resolutions and powers. We will trace a single route: the development and implementation of what carries the official title of: Recommendation of the European Parliament and of the Council of 18 December 2006 on Key Competences for Lifelong Learning (European Parliament and the Council of the European Union, 2006). This is trying to achieve a limited form of harmonisation in all European education systems as far as content is concerned. This event may justifiably be called historic: a European core curriculum. With the exception of the European

schools, there is not a '*European*' education in the sense of an education system organised and managed by the EU. Education systems and, not least, their content are the responsibility of national governments, as stated in the Treaty of Maastricht (1992).[1]

This contribution looks at what is behind the title of the aforementioned document, and how a number of countries deal with this recommendation.

## Creation and development of the EU framework

The Lisbon European Council of 23–24 March 2000 concluded that education has an important role to play in strengthening Europe's position in the world. Education is one of the factors which the Lisbon strategy says plays a well-defined role in helping Europe "*to become the most competitive and dynamic knowledge economy of the world*" (European Parliament and thr Council of the European Union, 2006, p. 3). A report on progress in the Lisbon process was published in 2004 by Wim Kok, who chaired a group of high-level experts. Education is mentioned, here, in the context of employment and greater investment in '*human capital*'; more precisely, the creation of a highly qualified and creative group of employees, who are able to acquire additional knowledge and skills through life long learning (Kok, 2004, p. 33).

As far as education is concerned, this boils down to the fact that training and education systems in the EU member states respond to the requirements of the knowledge society; and they increase the level and quality of employment, and education and training. It was agreed that a European framework was to be defined which described up-to-date '*new*' basic skills. '*New*' was used in the sense of being necessary in today's society; being able to read and write, and being numerate, were no longer seen as sufficient for participation in a complex society. A work programme was endorsed at the European Councils of Stockholm (23–24 March 2001) and Barcelona (15–16 March 2002), which was renamed in 2004 as Education and Training 2010. This programme includes skills for the knowledge society and also specific objectives for promoting language learning, developing entrepreneurship and enhancing the European dimension, in general, in education.

### *The basic skills working group*

The European Commission established a number of working groups in 2001 in order to flesh out agreements reached at a European level at Lisbon 2000. One of these was the working group New Basic Skills, which was to look into which competences are needed by European adult citizens. The working party comprised the representatives of the then member states. The group was

supplemented in 2003 with representatives of the candidate member states at that time.

This working group was charged with selecting and defining the new basic skills necessary for all citizens of the EU, an exercise which had already been undertaken at a global level by the OECD as part of its Definition and Selection of Key Competences (DeSeCo) project (OECD, 2010). This working group, which abolished the name New Basic Skills and replaced it with Key Competences, produced a working document containing a European framework for key competences in 2004.

The European Commission based its resolution to the European Parliament on this working document. Following the necessary negotiations and discussion, the framework was adopted by the Council and the European Parliament who published, *The Key Competences for Lifelong Learning: a European Framework.* This was an annex of the *Recommendation of the European Parliament and of the Council of 18 December, 2006* that was published in the Official Journal of the European Union on 30 December 2006/L394 (European Commission, 2010).

The word '*recommendation*' in the title is relevant. EU resolutions and directives are comparable with national laws and are, therefore, binding. A recommendation, as is evident in the word itself, is not binding. It is, however, expected that education contributes to the realisation of the aims of the Lisbon Strategy. In this connection, the Commission has strengthened political cooperation in education, especially by means of the open method of coordination. This method is applied in areas which fall under the competency of the member states, such as employment, social protection, social inclusion, education, and youth and vocational education and training. It is based mainly on the joint establishment of objectives to be achieved, which have been approved by the Council. Specifically, we are talking about jointly defined measuring instruments in the form of statistics, indicators, guidelines and benchmarking; in other words, comparison of the performance of member states. Lastly, the exchange of good practices (Europa Glossary, 2010)[2] and a peer review are also included. In a peer review, one country invites other member states to take a critical look at their policy choices, and to use these as inspiration for their own policies.

Following this open method of coordination, the Council approved five European benchmarks in 2003.[3] These are closely related to the acquisition of key competences. Study visits were arranged for the exchange of good practices, and a new generation of working parties was established to organise peer reviews (see the later discussion on peer learning activities (PLAs)).

A recommendation is not binding and must logically, therefore, result in differences, not least in a domain such as education, which is closely entwined

with a country's history and culture. The EU, however, uses the strategies referred to above for the purpose of lending this recommendation a measure of support. And so, despite the fact that this recommendation is not binding, and does not have the force of law, its effect is not dissimilar.

## *A closer look at the EU parcel of key competences*

A first question is: what are (key) competences? Eurydice concluded from a study in 2002 (Eurydice, 2002) that the efforts of many people (scientists, policy-makers and philosophers) to arrive at a common definition of the concept of '*competence*' have achieved nothing. It does not become any easier when we are talking about '*key competences*', because this begs the question: what does '*key*' stand for? Depending on the answer to this question, different lists of key competences will be compiled. Each definition of a key competence (p. 13) is based on the scientific and social role of those who present the definition. Its origin, therefore, is a first characteristic of the European Framework of key competences.

The background of the selected EU key competences is sketched in the December 2006 recommendation mentioned earlier. It contains a reference to globalisation and a rapidly changing world in which everything is connected. The following role is assigned to the education of European citizens:

> *"Education in its dual role, both social and economic, has a key role to play in ensuring that Europe's citizens acquire the key competences needed to enable them to adapt flexibly to such changes."*
>
> (European Parliament and Council of the European Union, 2006, p. 3)

It is emphasised that there are groups of people who need special support due to educational disadvantage caused by personal, social, cultural or economic circumstances. Specifically, there are references to people with limited basic skills in reading and writing, early school leavers, the long-term unemployed, people who enter employment after an extended period of leave, immigrants and people with disabilities.

The key competences have been selected and defined for adult European citizens in relation to "*personal fulfilment and development, active citizenship, social inclusion and employment*" (Euopean Parliament and Council of the European Union, p. 13). We could say that this list contains a number of areas of tension. Self-development is an individual dimension, while social cohesion is a social dimension, and employability an economic given. How these different dimensions weigh up against each other, especially where they conflict, is determined by the level of influence and power that specific groups or people have in society.

It is also the intention that all young people by the end of compulsory education possess these key competences to a sufficient level that enables them to continue learning, working and living without further support. The framework produced a common European instrument to develop these key competences during one's entire life (adult education and retraining), and to update or improve them (for example, day-release and in-service training). The reference framework is meant to be an instrument to offer common objectives at a European level for policy-makers, education and training providers, employers and citizens. We could speak of a European '*core curriculum*', which is applied by the member states and, to the best of their ability, implemented, adapted and/or supplemented.

Let us now briefly look at the list and the way in which key competences are formulated in the European recommendation. The reference framework sets out eight key competences:

- communication in the mother tongue
- communication in foreign languages
- mathematical competence and basic competences in science and technology
- digital competence
- learning to learn
- social and civic competences
- sense of initiative and entrepreneurship
- cultural awareness and expression.

We also point out a number of concepts which feature repeatedly in the reference framework, because they play a role in all key competences. These are:

- critical thinking
- creativity
- initiative
- problem solving
- risk assessment
- decision taking
- constructive management of feelings.

Each key competence is defined and then fleshed out in detail in terms of essential knowledge, skills and attitudes. The word '*essential*' is very relevant. This term denotes that there are other knowledge, skills and attitudes which may also be listed in relation to each competence. We are faced here with a selection from which the most essential items have been retained. What is deemed to be essential also depends, of course, on the background and objectives of the EU

framework. A different organisation with a different line of approach would probably select different '*essential*' knowledge, skills and attitudes. National education authorities, for instance, are able to insert their own emphasis here, as they obviously take into account their own educational context and priorities.

## Impact and implementation of the EU framework

The impact of the EU framework is supported by a number of strategies. As well as the establishment of benchmarks, which are deemed to be related to the mastery of key competences, exchange of good practice and mutual learning (PLAs, for instance) are also structurally organised. These two activities are always aimed at the policy level. The EU wishes to support the member states in their education policy development by collecting policy-makers around a particular theme and, in doing so, not lose sight of European education policy. To this end, the following new working groups have been established:

- Cluster on Modernisation of Higher Education
- Cluster on Teachers and Trainers
- Teachers and Trainers in Vocational Education and Training
- Cluster on Making Best Use of Resources
- Cluster on Maths, Science and Technology (MST)
- Cluster on Access and Social Inclusion in Life Long Learning (LLL)
- Cluster on Key Competences
- Cluster on Information and Communication Technologies (ICT)
- Cluster on Recognition of Learning Outcomes
- Working Group on the Adult Learning Action Plan
- European Lifelong Guidance Policy Network (ELGPN).

PLAs stimulate exchanges of information on different policy options and can help advance reforms in national education and training systems. The PLAs are organised by the existing peer learning clusters or other working groups (consisting of national delegates, experts and representatives of the European Commission) interested in specific topics.[4]

The Cluster on Key Competences – Curriculum Reform comprises experts from a number of member states,[5] who discuss and elaborate on the possibilities and difficulties relating to the EU framework's implementation. The cluster group has been meeting regularly in Brussels since 2007, and has since completed the organisation of five PLAs. The reports on these PLAs can be found at http://ec.europa.eu/education/school-education/doc834_en.htm. Based on the

experiences of the PLAs, recommendations to the member states have been formulated, and a summary of the main policy conclusions can be found on the same website.

The working group focuses mainly on those key competences (learning to learn, social and civic competences, sense of initiative and entrepreneurship, cultural awareness and expression) which are considered to be cross-curricular and, therefore, more difficult to apply because there is a strong '*subject culture*' in secondary education in all member states. A specific problem has arisen concerning how to assess and evaluate key competences. The cluster group is, therefore, preparing a manual for policy-makers including guidelines for the assessment of key competences.

## The European framework in practice in the member states

The way in which the different member states deal with the European framework depends on the type of key competence, as well as on the education traditions and culture in the country in question. A number of key competences, such as communication in the mother tongue and mathematical competence, are, of course, easily integrated into existing subjects. However, in the case of the mother tongue, for example, all subject teachers should give attention to the language, concepts and terminology they use in the classroom. Indeed, teaching (and learning) happens primarily by means of language. Certain other key competences, such as learning to learn, and social and digital competence, clearly cross subjects or can be either subject-based or cross-curricular. With the aid of contributions from the CIDREE Yearbook (CIDREE, 2008), we now look at a number of ways in which the European framework is dealt with in different member states.

### *European and national concepts (Sweden and Ireland)*

When the European framework first lands in the education culture of a country, problems can arise, as happened in, for example, Sweden. The present Swedish curricula and syllabuses work with four types of knowledge: facts, insight, skills and experiences acquired. These various aspects of knowledge are always present in practical as well as theoretical learning. The qualities of knowledge within a domain, which are expressions of insight, skills and acquired experience, are included in the national documents. The direct subject and course contents are defined mainly within the school; this is the result of the de-centralisation planned at that time. The authorities decide on objectives and expected results. Content and methods are the responsibility of those who must carry out the task and ensure that the objectives are achieved.

A curriculum reform is currently being prepared in Sweden in the compulsory education sector for 2011. Proposals for renewed objectives, with an in-built evaluation system and a more clearly defined place for knowledge in the curriculum, are being discussed. The way in which the European framework will be dealt with has also been included in these discussions. Key competences are certainly present in the current Swedish curricula; these are, however, based on the Swedish concept of '*knowledge*'.

The model presently being developed in Sweden is based on three dimensions, namely:

- knowing (the knowledge dimension)
- thinking (the cognitive dimension)
- doing (the action dimension).

This system is a compromise between the concept used in Sweden and the concept of key competences used in the European framework. The various dimensions are interpreted differently, depending on the level of development of the students and the learning material. For instance, more knowledge will be incorporated in a course for beginners than for advanced students. There may also be different levels in the thinking dimension and the doing dimension, depending on the target group and the domain in question. Expanding the learning line to the ultimate objective, the competence or key competence envisaged, is important for aligning the various educational levels, amongst other things.

Another example can be found in Ireland, where a curriculum reform in higher secondary education was finalised in 2002. They did not wish to abandon the concept of '*skills*', which is deemed to be synonymous with '*competence*'. The National Council for Curriculum and Assessment (NCCA) conducted a broad-based social survey, and based its development of a Key Skills Framework on national and international research (NCCA, 2010). No less than 35 frameworks were studied closely, including the European Framework for key competences. The result was a dedicated Irish framework comprised of five key skills: information processing, communication, personal efficacy, cooperation, critical and creative thinking. Each key skill was further elaborated into essential components indicating which knowledge, skills, aptitude and attitudes the learners develop. Each of these key skills has been defined, included and fully integrated into the subject-based learning. The Key Skills Framework is incorporated into the syllabuses and integrated into the learning results of the subject in question at each review of subject-based learning results.

## *Selection of key competences (France and Spain)*

The examples referred to above showed that key competences, as defined in the European framework, sometimes turn up implicitly or drastically modified in official education documents. The European framework for key competences does explicitly feature in the education legislation of two countries, namely France and Spain, where it has been variously adapted to each nation's educational context.

In France, for instance, an act dated July 2006 (re)organises the content of the *socle commun*, a common package of basic knowledge and skills in the compulsory education sector. A comparison between the *socle commun* (Ministere Education Nationale Enseignement Superior Recherche, 2006) and the European key competences throws up similarities and differences (see Table 2.1).

**Table 2.1: Comparison between France's *socle commun* and the European key competences**

| Socle commun (France) | EU key competences |
|---|---|
| 1. La ma"trise de la langue française | 1. Communication in the mother tongue |
| 2. La pratique d'une langue vivante étrangére | 2. Communication in foreign languages |
| 3. Les principaux éléments de mathématiques et la culture scientifique et technologique | 3. Mathematical competence and basic competences in science and technology |
| 4. La ma"trise des techniques usuelles de l'information et de la communication | 4. Digital competence |
| 5. L'autonomie et l'initiative | 5. Learning to learn |
| 6. Les compétences sociales et civiques | 6. Social and civic competences |
| | 7. Sense of initiative and entrepreneurship |
| 7. La culture humaniste | 8. Cultural awareness and expression |

Looking at one example in more detail, we see that '*learning competence*', as such, is not mentioned. The *socle commun* does, in fact, contain elements of the European learning competence. However, it approaches the competence from the perspective of students' autonomy and, as far as implementation is concerned, places more emphasis on intellectual capabilities, and less on occupation and employment skills. Moreover, physical skills and awareness are added (for example, knowledge of one's own physical limits, such as being able to swim).

Autonomy is combined with the development of initiative. And, entrepreneurship has clearly been abandoned.

Spain, in comparison, adopted the European framework almost in its entirety, and its legislation fleshes out the evaluation process for key competences in the form of a generic diagnostic assessment. A concrete example of this is given in the CIDREE Yearbook (CIDREE, 2008, pp. 113–20).

### *Making key competences more concrete (Belgium–Flemish community)*

An example is found in Belgium (Flanders), where the key competence, '*basic competency in technology*', has been elaborated into a framework for technical literacy. The *Techniek op School voor de 21ste eeuw*[6] (TOS21) work group, a joint initiative between the Flemish Minister for Work, Education and Training, and the Flemish Minister for the Economy, Trade, Science, Innovation and Foreign Trade, has developed a conceptual framework for technical education from pre-school education through to the end of secondary education (pupils aged 2.5 to 18 years old).

Technology and learning technology are described in an analytical fashion. This analytical method gave rise to a framework with 19 standards translated into reference points that are modified to suit a student's age and developmental stage.

Four fundamental '*core components*' have been selected to enable an understanding of what technology comprises, its specific characteristics, and how it is distinguished from science and other subjects. These core components are technological systems, processes, resources and choices. The concept of '*learning technology*' has also been clarified by means of three perspectives or '*dimensions*': learning what technology is (understanding), learning to use technology (using) and placing it in a wider framework (making sense). The technology framework, with its 19 standards, is set out in Table 2.2.

Table 2.2: Flemish Technology Framework

| Technological literacy | | Key components of technology | | | |
|---|---|---|---|---|---|
| | | Technological Systems | Technological Process | Resources | Choices |
| Dimensions of learning about technology | Understanding | Understanding that the components of technological systems are attuned to each other<br>Understanding that technological systems may fail<br>Understanding that technological systems require planned maintenance in order to ensure their longevity, quality and proper functioning<br>Understanding that technological systems are subject to quality control<br>Understanding that technological systems are invented or optimised | Understanding that the technological process is cyclical | Understanding that 'resources' means everything that is required to enable technological systems to function, to produce those systems and to analyse how they operate | Understanding that societal choices determine the use and development of technological systems |
| | Using | Using technological systems efficiently<br>Taking an inquisitive approach when technological systems fail to function properly<br>Maintaining technological systems | Running through the technological process in a cyclical way to produce a technological system | Using resources as a means to achieve the applicable objective | |

Table 2.2: Flemish Technology Framework *continued*

| Technological literacy | | Key components of technology | | | |
|---|---|---|---|---|---|
| | | Technological Systems | Technological Process | Resources | Choices |
| Dimensions of learning about technology | Making sense | Realising that technological systems are based on a need<br><br>Realising that the use of technological systems can have positive and negative effects<br><br>Realising that technological systems evolve over time | Realising that the technological process affects the society that people live in<br><br>Realising that scientific insights play a role in the technological process | | Understanding that choices are essential for the use and development of technological systems |

An example of reference points classified according to dimensions, key components and age levels are shown in Tables 2.3 to 2.6.

Table 2.3: Age levels

| Age level | Educational level | Age group |
|---|---|---|
| A | pre-school education | from 2.5 to 6 years |
| B | primary education | from 6 to 12 years |
| C | first-level secondary education | from 12 to 14 years |
| D | second- and third-level secondary education | from 14 to 18 years |

Table 2.4: *Understanding* technological systems

| A | B | C | D |
|---|---|---|---|
| **Understanding that the components of technological systems are attuned to each other** | | | |
| Understanding technological systems | Understanding that technological systems comprise various components that fulfil predetermined objectives in relation to each other | Understanding that all components of technological systems have a specific function | Understanding that thinking in terms of systems involves studying the interconnected nature of the components of technological systems |

Table 2.5: *Using* systems

| A | B | C | D |
|---|---|---|---|
| **Using technological systems efficiently** | | | |
| Using technological systems carefully to achieve a certain objective | Using technological systems in the appropriate context | Using technological systems effectively | Making optimal use of technological systems by seeking out information |

Table 2.6: *Making sense* of systems

| A | B | C | D |
|---|---|---|---|
| **Realising that technological systems are based on a need** | | | |
| Realising that technological systems are created to meet individual needs and requirements | Realising that technological systems are created to meet societal needs | Realising that the driving forces behind the development, acceptance and use of technological systems are all of a societal nature | Realising that the transfer of technological systems from one society to another causes societal changes |

The TOS21 project was concluded on 31 August 2008. The TOS21 framework has a broad base with many intermediary actors, including the inspectorate, pedagogical support services and teacher training institutes actively involved in its development. Researchers and experts from different domains of science and technology were also consulted. The TOS21 framework was completed with wide-ranging consultation and consensus between partners in education and outside. It became the basis for the modernisation of the technology curriculum objectives in basic education, which became effective in September 2010.

## *Research into the function of key competences (Greece and Austria)*

The European framework also gives rise to research. An attempt is made to answer questions which, in fact, are posed in each country in one form or another. For instance, one question asked is: which subjects contribute to which key competences? One can approach a subject such as maths or physics from one's own discipline-bound content and skills, or one may study what these discipline-bound content and skills contribute to, for instance, learning competences and communication in a mother tongue.

In addition, there is an important question relating to didactics: to what extent does the development of key competences amongst students give rise to different didactics?

An example is found in Greece, where an attempt was made to map the relationship between learning and digital competences, and the competences necessary for school-level physics. Based on an analysis of all competences relating to knowledge, skills and behaviour, elements were singled out and combined within a matrix. The conclusion was that the way students learn and are taught (in other words, the didactic and pedagogical choices made by teachers) are crucial for developing key competences amongst young people. Learning in a way which develops competences demands an explicitly process-based approach and corresponding evaluation. As part of the evaluation, researchers also asked questions about the influence of the national final exam, for which they noted: "*The assignments and questions do not always match the many pedagogical learning and evaluation innovations introduced at prior education levels.*" (CIDREE, 2008, p. 179)

In Austria, the transversal, or cross-subject, competences of autonomous learning, such as acquisition and processing of information, cooperation, critical and reflective thinking, are combined with maths competence. There are work sheets for teachers and pupils, entitled *Mathematik-Methoden*, in which both types of competences are combined by means of process-based instruction and assignments. This strategy is considered to have a number of benefits. It prevents the situation arising where nobody feels responsible because all teachers have a shared responsibility to work towards transversal competences. Offering the transversal competences in this way to maths teachers means they are integrated easily into day-to-day school life without affecting the often strict hourly timetables, which turn interdisciplinary and cross-subject working into an organisational headache.

## *Systematic thinking in relation to European key competences (Hungary)*

Legislation and official documents are not a guarantee for the successful introduction of innovative elements in the educational curriculum. Ultimately, it is the intention that something should change in the class and in schools. The trials and tribulations of reorganising the educational world have been the subject of much writing. It is certainly not the intention to look at all these in this context. We will consider a single recurring idea amongst that raft of literature: systematic thinking.

Education is a complex system, in which everything is connected to everything else. In order to instigate changes, it is necessary to try and influence as many factors or variables as possible. For instance, this approach was applied in

Hungary when the European key competences were introduced into the education system. The national core curriculum contains the explicit key competences in the vision texts as well as in the concrete framework syllabuses. The educational programmes and packages are approved only if they include tasks and assignments which are suitable for the development of competences. All these documents serve as a reference for the publishers of learning materials, for the setting of national exams and other forms of evaluation, and for the teaching teams who develop the local curricula. All this will be supplemented with targeted extra training for teachers.

## Conclusion

The principle indicated in the title of this article, *Unity in diversity*, is a difficult balancing act, which gives rise to many differences of opinion between, as well as within, European member states. The Maastricht researcher Versluis concluded, following an empirical study of two cases, that there are large differences between EU member states, even when European policy is actually applied. [7] She is of the opinion that large differences can be explained by the differences in national circumstances. She does not put forward the view that all EU member states have the same traditions and cultures when dealing with policy. Rather, the various member states each respond in their own way to EU directives and recommendations. The response is said to depend mainly on the structure of the political and administrative system in each country. She concludes:

> *"Only when science understands better the differences between countries in how they apply EU policy at national level, will we be able to gain greater insight in the extent to which European integration will actually result in European unification."*

Applied to the educational dimension of Europe, things are a little bit different. Complete unification is neither desirable nor advisable. The European framework is a meta-framework, which leaves room for member states to give emphasis to their own priorities. Nevertheless, developing a common core of such competences will stimulate not only (economic-driven) mobility in the EU, but also foster understanding between the citizens of the different member states. The way these key competences are made concrete for different age groups is the responsibility of the member states, as part of their general responsibilities for determining the curricular content. Meanwhile, schools and teachers have specific responsibility for the pedagogical and didactical methods used. The '*main*' concern for the future will not be which key competences are taught, but how they are taught, learned and evaluated. A core EU content has now been defined, stimulating the different member states to reflect and give an appropriate answer to the question: what should young people be able to know and to do? But now is the time to emphasise the other influential factors in the educational system in order to make competence-based learning possible.

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## Websites

Results of the public consultation on schools
*http://ec.europa.eu/education/school21/sec2177_en.pdf*

EU brochure about key competences, available in all member state languages
*http://ec.europa.eu/dgs/education_culture/publ/pdf/ll-learning/keycomp_en.pdf*

Strategic framework for education and training
*http://ec.europa.eu/education/lifelong-learning-policy/doc28_en.htm*

Glossary
*http://europa.eu/scadplus/glossary/open_method_coordination_en.htm*

Monitoring progress
*http://ec.europa.eu/education/lifelong-learning-policy/doc34_en.htm*

Reports of the PLAs
*http://ec.europa.eu/education/school-education/doc834_en.htm*

EU mobility and lifelong learning instruments :

There are several related initiatives to help make qualifications, experiences and skills better appreciated and easier to recognise throughout the EU.
*http://ec.europa.eu/education/lifelong-learning-policy/doc40_en.htm*

Main policy initiatives and outputs in education and training since the year 2000
*http://ec.europa.eu/education/lifelong-learning-policy/doc1120_en.htm*

In 2008, the European Commission made a series of proposals to modernise school systems in its 'Improving Competences for the 21st Century: An Agenda for European Cooperation on Schools' Communication.
*http://ec.europa.eu/education/school-education/doc838_en.htm*

Peer learning activities
*http://www.kslll.net/PeerLearningActivities/Default.cfm*

Europe 2020: A strategy for smart, sustainable and inclusive growth
*http://ec.europa.eu/eu2020/index_en.htm*

Eurydice Network
*http://eacea.ec.europa.eu/education/eurydice/index_en.php*

Core curriculum in Belgium (Flemish Community)
*www.ond.vlaanderen.be/dvo*

What is CIDREE?
*www.cidree.org*
*www.kennislink.nl/web/show?id=161602* (in Dutch)

## Notes

1 Article 149: "*The Community shall contribute to the development of quality education by encouraging co-operation between Member States and, if necessary, by supporting and supplementing their actions, while fully respecting the responsibility of the Member States for the content of teaching and the organisation of educational systems and their cultural and linguistic diversity.*"

2 http://europa.eu/scadplus/glossary/open_method_coordination_en.htm

3 http://ec.europa.eu/education/lifelong-learning-policy/doc34_en.htm

4 http://www.kslll.net/PeerLearningActivities/Default.cfm

5 Austria, Belgium (BEnl), Bulgaria, Cyprus, Czech Republic, Greece, Spain, Croatia, Hungary, Ireland and Lithuania

6 Technology in the school of the 21st century

7 Europese enwording (European unification) www.kennislink.nl/web/show?id=161602

# 3 Schooling for the 21st century: a personal view

*Seamus Hegarty*

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He has acted as an advisor and expert for UNESCO, European Commission, Council of Europe and OECD, as well as for many national bodies, most recently in Chile, Finland, Ireland, Italy, Norway and the Netherlands. He has advised universities and national bodies in a number of countries on research strategy and leadership.

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# Schooling for the 21st century: a personal view

*Seamus Hegarty*

## Abstract

*This paper sets out a vision for schooling in the 21st century. It is based on a critique of current practice, an awareness of some initiatives being taken to shape the school of the future, and a conviction that radical change in how we prepare our young people for adult life is not only possible but necessary. The vision is set out in three parts: an approach to what children and young people should learn, that starts from the concept of the educated adult and the school's role in creating it, as opposed to the subject divisions of the traditional curriculum; the use of individual learning pathways for every pupil as a means whereby personal learning mentors assist them toward powerful and appropriate learning; and an expanded role for teachers that sees them as managers of learning and supported by a wide range of other adults.*

## Where does '*the future*' come from?

There are several ways of thinking about the future. One is to analyse current trends and extrapolate from them so as to predict what will happen. This is not for the modest, or the faint of heart. The uncertain track record of economic and business analysts, with the massive resources and datasets at their disposal, should serve as a salutary warning for anybody who would attempt the even more challenging task of forecasting educational trends. A second approach is to develop different scenarios: given specified policies, resource environments and other conditions, what directions for schooling can be anticipated? This has the advantage of foregrounding policy and other levers of change and of indicating how desired outcomes can be fostered and undesirable ones avoided. It does require ambitious modelling, however; schooling, never mind education, is a complex system, with diverse component parts and many interactions between them. And a scenario approach needs sophisticated models and adequate data for it to be useful. Given sufficient time and resources, this can certainly be a suggestive way of engaging with the future.

A further approach – and the one I have opted for here – is to set out a vision of what the future should look like, taking into account current policy developments, to indicate what a young person leaving school 20 years hence

might have learned while at school. This is driven by the evident failure of so many schools to engage young people and excite them about learning, but also by examples of innovative practice, which demonstrate that schools *can* produce young people who are enthusiastic and competent learners. This vision may seem idealistic, idiosyncratic even, but sometimes it is necessary to set present reality aside. The weight of the actual can prevent us from seeing images of the future. In the real world, a totally clean sheet is seldom available but sometimes it is necessary to imagine one if we are to imagine different futures.

## What are schools for?

A key purpose of schooling is to assist in the task of transforming infants into mature, adult citizens. This is problematic for at least three reasons: schooling is only one of the agencies which contribute to this transformation; the diversity of the human situation is such that mature adulthood and the routes toward it take many forms; and the process is never finished – we are all 'works in progress' for as long as we live.

Schooling is only one source of young people's learning and, in the years to come, the relationship between schooling and education will be quite different from now, in two contrasting ways. On the one hand, children and young people will have much greater access to information and sophisticated learning material independently of school than they do currently. Precisely because of that, however, they will have greater need of support to prevent them from floundering in a morass of undigested information or flitting from topic to topic in a superficial way. Likewise, some of the learning currently done within school may well be going on outside school, and it may be advantageous to have a single point of reference so that the young person's diverse learning activities are integrated into a coherent whole. Schooling will continue to be important and, indeed, will serve key new roles, but it must be situated within the broader learning arena.

A second challenge lies in the notion of mature adulthood and the role of school in relation to it. Current discourse privileges participation in the workplace as the central aspect of adult life, and the principal purpose of schooling in many eyes is to prepare young people to become productive members of the workforce. Adulthood entails much more than economic participation, however important though that is: people have families and domestic lives; belong to various formal and informal communities; pursue leisure activities; are citizens within local, national and international contexts; engage in the arts; operate within moral frameworks; and, possibly, are touched by spiritual experiences. Maturity calls for development on all fronts and, while it is not for schools to take responsibility for education across the entire human condition, the dominant emphasis on

working life is unsatisfactory. Current schooling does not ignore the broader dimensions of adulthood completely but neither does it take them particularly seriously. So long as the requirements of university entrance and vocational preparation predominate, the contribution of schooling to adult life will be partial.

Regardless of what they have learned or qualifications achieved, school leavers are still at an early stage of their education. What they acquire from school is important in its own right, but its value is diminished if it does not give young people the tools and the motivation to embark on a lifelong path of learning and personal growth. Schooling, therefore, must be seen as only one stage, albeit a particularly intensive one, in a lifetime's learning.

The central questions that flow from this are: what should children and young people leaving school in the future have learned while at school; and, how do they learn best? Knowledge is constantly growing, and the world that young people will inhabit even 20 years from now will be very different from today. Ways of learning will have developed too, and it is likely that both research and practice will point to more efficient and creative use of the time spent in learning.

## What should pupils learn?

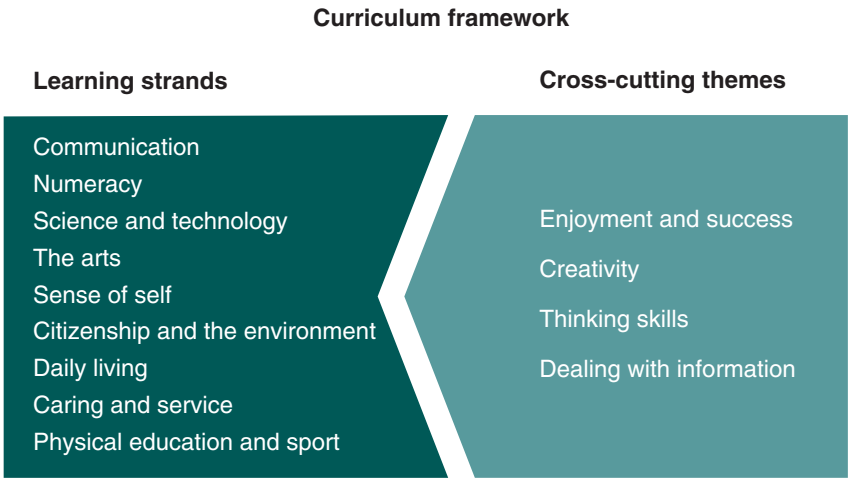
There are many views of what children and young people should learn at school but the dominant voice hitherto has been that of subject specialists. School curricula are still defined essentially in subject terms, and, within subjects, topics are set out in a structured and often hierarchical way. This is all very well if the aim is to transmit a coherent body of knowledge in an area or to produce chemists or speakers of Spanish or violin players, but it is not well suited to the task of equipping every young person with the knowledge and skills they need for a fulfilling adult life.

The problems of overload, incoherence and irrelevance for many pupils that flow from the subject approach to the curriculum are familiar. A common reaction to this has been to '*negotiate*' between the competing demands of subjects, squeeze out a little extra teaching time by looking at subject overlaps and so on. This yields limited solutions, however, and is as likely to intensify territorial clashes as it is to foster transdisciplinary learning. In any case, there are other difficulties with a subject-based approach. It reflects a particular way of carving up and presenting what is deemed to be important knowledge, whereas it is only one way of classifying knowledge and owes its current pride of place to tradition rather than to reasoned argument. It draws on patterns of knowledge storage, dissemination and retrieval that are increasingly outmoded. Above all, it is out of line with a modern approach to education and a school system that must educate all pupils, not just those who will go to university.

If we abandon subjects as a means of specifying the curriculum, what do we replace them with? Actually, we should not replace them with anything, at least not in the same way. (And we certainly should not replace them with anything that will last as long as the subjects have lasted!) It is for society, at a given time and place, to consider what constitutes an educated person and what schooling should do to help produce such people. It is unlikely that there will be unanimity over such views, and different concepts of what it means to be educated are likely to be articulated, but a widespread public debate would help to sharpen the issues. Such debates are taking places in a number of countries and diverse ways of conceiving the curriculum are being put forward – disciplines, key learning areas, learning standards and various combinations of these. As a contribution to this debate, I have set out a framework here; this draws on current good practice and makes concrete proposals which may provoke discussion, if not necessarily agreement.

The framework has nine core strands of learning, with a number of cross-cutting themes. This will provide a core curriculum for all pupils up to age 14/15. While the time allocations and weightings associated with the strands will vary, each is important and each will feature in every student's portfolio of achievement. The framework is set out schematically in Figure 3.1.

**Figure 3.1: Framework for learning**



# Core learning strands

## *Communication*

The familiar division of mother-tongue learning into reading, writing, speaking and listening provides a convenient framework for considering communication in future schools. Each of these activities will continue to be important and, indeed, the aim will still be for all learners to become competent and creative users of their mother tongue in receptive and expressive modes, and in different genres. The various activities will take different shapes, however, and their relative weights will change.

A first change is that young people's communicative competence will extend beyond words. Verbal communication will still be important but so too will graphical, numerical and (audio) visual communication. When young people leave school, they will be versed in these different communication modes, able to decode and use them, and adept at matching communication mode to content and purpose.

Secondly, oral communication will become far more important, whether it be expressing ideas coherently to a small group of peers or making effective presentations to larger groups, discussing joint projects within a team or taking part in drama activities.

Thirdly, electronic communication will be pervasive. This will have particular impact on the traditional skills of reading and writing. Much reading will be on screen in the future, and this will entail new skills for the learner as well as new challenges for those who facilitate the acquisition of reading skills. Writing, likewise, will be different, as text-entry skills supplant handwriting, and word-processing software becomes a standard tool. None of this will obviate the need for learners to understand the structure of language, or of the other communication modes they use, but the focus will be much more strongly on communicative purpose.

Learning other languages is a further aspect of communication. Early exposure to another language can give children a sense of language as a means of communication, regardless of the competence achieved in the target language. This is valuable and should be pursued for all children. Properly done, it gives them an enhanced sense of their own language and will help them to use it more effectively. And, of course, it can lay the foundations for sustained learning of another language.

Thought must be given, however, to the amount of school time devoted to learning other languages. Curriculum time is limited and there are many demands on it. If young people spend lengthy periods of time learning a

language under present arrangements and do not reach a level of competence where they can communicate in it, or have the opportunity to do so, one has to question these arrangements. It may be that the traditional in-school approach to language learning cannot sustain the necessary intensity and motivation, and the most productive approach may be to seek partnerships with community and other sources of language learning.

## *Numeracy*

Numeracy shares with communication the distinction of being important as an area of learning in its own right, a support for other areas of learning, and a key skill for the workplace and daily life. That said, much of the current discourse on maths education misses the point. By failing to distinguish adequately between numeracy and mathematics, it leads schools – and learners – down blind alleyways.

While all students need numeracy skills, not all need mathematics! To many this will sound like heresy but, in fact, much of what passes for maths education in schools is a waste of time, neither introducing young learners to the wonders of mathematics nor equipping them with numeracy skills for everyday living.

Mathematics is, in the first place, an abstract system concerned with symbolic manipulation and relationships in number, quantity and space. Mathematical knowledge is also deeply implicated in science and technology, medical and social sciences, ICT and the financial world. For the majority of students, however, neither pure mathematics nor the sophisticated mathematical algorithms that underpin the modern workplace are particularly relevant. What all learners need – and what so many schools fail to provide – is a solid numeracy for living and working in a knowledge society. This is unlikely to be produced by the mathematical operations and algebraic formulations that characterise much of maths education. What is needed is a greater emphasis on probability and statistical inference, data handling and analysis, including graphical communication, modelling, inference from uncertain data and financial literacy.

## *Science and technology*

The impact of science and technology on people's lives and on society as a whole grows ever greater, and a thorough grounding in science and its applications will be an essential part of every pupil's schooling. This should encompass: knowledge of basic scientific facts; an understanding of scientific methods; an appreciation of the impact of science and technology on society; and a capacity to understand science-based claims.

Pupils will still need to learn basic scientific facts, probably in even greater depth than now. It is unlikely that the current divide between physics, chemistry, biology and earth sciences will survive, not least because topics of major interest require an interdisciplinary approach. In any case, the changing nature of science will lead to new groupings of science topics.

Science represents a particular way of generating knowledge: assembling data, testing hypotheses, relating findings to theoretical frameworks and reporting conclusions to peers. This empirical approach is the bedrock of science and it is imperative that students acquire the fullest understanding possible of it.

Science and technology have a major impact on society. Medicine, transport, food production and communication – all are increasingly affected by, when not dependent on, science-based innovation. Young people need an awareness of the forces at work here, not merely for the wealth of vocational opportunities but also for an understanding of the world in which they live.

Science claims can, of course, be wrong, and science can be pressed into service to bolster dubious claims. This can be the result of an individual scientist's enthusiasm for findings which have not been verified (and indeed may be rejected by the research community), or it can arise from selective or mischievous use of scientific data. Recent examples that come to mind include cold water fusion and the link between the MMR vaccine and autism, likewise the succession of miracle diets allegedly based on research findings. Young people will need to leave school equipped with the resources to understand science-based claims when they are reported in the media, and challenge them when appropriate. Otherwise, they will be at the mercy of the cynical and the unscrupulous, and be ill-prepared for life in a modern society.

### *The arts*

The arts are a vital and unique way of relating to the world. For many people they are an unequalled source of insight and delight, and artistic participation and experience are central to their quality of life. The aim for schools must be that every young person is 'touched' by the arts and will leave school with the skills, developed judgement and, above all, sense of delight in artistic experience that will allow them a lifelong engagement with the arts in all their variety.

Current provision of arts education suffers in two contrasting respects: it is seen to serve many extremely important functions; and it is not taken seriously! Arts education is held to contribute to children's education by developing creativity, exploring values, educating feeling and sensitivity, helping to understand cultural differences and so on. The arts may contribute in some of these areas (though other parts of the curriculum arguably are better placed for many of them) but that is not their function and it makes little sense to justify them on

such instrumental grounds. Regardless of these grandiose claims, the arts are not core to pupils' learning in practice: low attainment in the arts is not seen as particularly problematic; there is little expectation of sustained, structured work in the arts by all pupils; and, despite pockets of excellence, teacher education in the arts leaves much to be desired.

The vision here is that all school leavers will have had a sustained engagement in the arts. (The arts are being seen broadly here to include literature and drama, cinema, music, dance and the visual arts.) Every young person will have some knowledge of the main art forms and the 'great works' associated with each – the latter are important as cultural reference points, if for no other reason – and an in-depth engagement with one or more of them. They will leave school with performance and receptive skills, they will have a developed aesthetic judgement and they will know from their own experience the delight that artistic engagement brings. They will be aware, too, that the arts constitute a major and diverse workplace and are a significant source of employment. All of this will be supported by enhanced teacher education and greater use of artists in stimulating pupils' learning and aesthetic development.

## *Sense of self*

An important aspect of growing up is acquiring a sense of self, an understanding of who you are and where you fit into local and wider communities. School is only one source of this emerging sense of self but it is an important one. We all live at the cusp of particular historical, socio-cultural, economic, linguistic and religious forces, and an appropriate understanding of these is essential if we are to develop a sense of who we are.

Much of the learning under this heading will draw on the traditional subjects of history, geography and social studies. The focus will be quite different, however. While knowledge of historical and other social 'facts' will still be necessary, their acquisition will be seen in the context of the learner's growing sense of identity rather than in terms of mastering relatively disconnected bodies of information. Whether the focus is on the nationhood of one's own country or the movement of peoples across the globe, the changing nature of agriculture or patterns of urbanisation, the history of the book or new forms of social networking, the aim is to enable young people to know where they themselves, their families and communities, fit into the larger scheme of things. Having a sense of self gives them an understanding of the diverse forces that bear upon them and to equip them, as necessary, with the means of challenging those forces.

It will be important here to strike a balance between individual and collective identities. Children of metropolitan, ethnic minority parents do not occupy the same socio-cultural or historical space as children of parents who have lived in the same part of a country for generations. These differences must be recognised

and accommodated within pupil learning, but they do not mean that pupils will be following separate, non-overlapping learning routes. There are common features as well as differences, and multiple identities will be increasingly common. Schools have an important role to play in getting young people to recognise and respect each other's social space, and in doing so make a major contribution to social cohesion.

This learning strand extends naturally into global issues. While these are exceedingly complex, children benefit from being introduced to them from an early age. Young people in Western Europe continue to live in a very favoured part of the world. At the very least, they need to be aware of this and have some understanding of the reasons for it. It is to be hoped that this will lead to greater regard for those who are less favoured and that they will grow up with a strong commitment to justice and equity between peoples.

### *Citizenship and the environment*

This strand will be based on current approaches to citizenship education in many countries but will go beyond them in several ways. It is important that young people learn about parliamentary democracy, the legal system and so on, but they also need to get behind the 'facts' and understand how government and the law work in practice. Why, for instance, are some votes in parliamentary elections worth more than others? Does the legal system really treat all groups of people in the same way? What is the proper response to endemic corruption in government, business and the professions? Dealing with these and similar questions will enable young people see where power lies in society and where they stand in relation to it. They will leave school able to understand the role of the media in the political process and with the skills to interpret the statements of politicians and political commentators. The aim will be to assist them in developing informed views on issues of the day and in understanding the capacity of the individual citizen to exert influence or bring about change.

The environment strand will deal with many issues of local, national and global concern. These span nature and the built environment, and will cover some of the topics covered in the traditional geography curriculum. It will also address questions relating to quality of life and sustainable development. Great attention will be paid to environmental awareness and action. Pupils will have a good understanding from science and technology of the environmental impact of human action. The task will be to build on this understanding so as to promote responsible behaviour at personal, community and workplace levels.

### *Daily living*

There are at least four strands of consideration here: healthy living, to include personal relationships and sex; food; finance; and travel and road use. This part

of the curriculum will build on current programmes for personal, social and health education, but it will extend them considerably and ensure that they are part of core learning for all pupils.

Healthy living entails the familiar mix of avoiding the harmful and seeking out the wholesome. The former – alcohol and substance abuse, smoking, risky sexual behaviour – are relatively well covered but there needs to be a stronger focus on the latter. These cover a wide range of things from posture, diet, sleep and exercise to the need for social and mental engagement. Lest all of this is considered unnecessary and condescending, consider backache: countless numbers of people suffer pain – and miss days of work – because of conditions attributable to ignorance of the basic elements of good posture. Examples could be multiplied of learning that would greatly enhance people's everyday lives.

A focus on food is important for the dietary and health-related implications but also for the enjoyment of food and for its significance in family and social life. Children need to know much more about food – the different kinds of food, where they come from, the impact of food production and distribution on the environment, and of course how to cook.

Young people in rich countries live in an increasingly consumer-oriented society. This points to a need for specific knowledge and skills. At a basic level, some financial literacy is needed to facilitate sensible money management and enable young people to make informed decisions on matters related to housing, debt, insurance, pensions and other savings. Beyond that, they need assistance in becoming both effective and responsible consumers. This will entail, on the one hand, being able to understand advertisers' claims, compare products and prices, and so on and, on the other, becoming more aware of the environmental footprint of consumer decisions and being guided in their choices accordingly.

The topic of travel and road use is important for two reasons: despite numerous road safety initiatives, many children and young people are still being killed or injured on the roads as pedestrians, cyclists and drivers; and travel is likely to continue to be a major aspect of everyday life as well as a significant source of environmental pollution. We must not continue to allow our young people to set forth into adulthood with the deficient skills and attitudes to road use that currently result in so many casualties. There is more at stake than personal safety, however. Transport has a major impact on the environment – locally, nationally and globally. Young people need to understand this impact and how they are part of it. The travel decisions they take as consumers and in the workplace have an environmental footprint. At the very least, they need to be aware of this, and it is to be hoped that this in turn will lead to attitudes and behaviours that minimise environmental damage.

## *Caring and service*

Caring for others and being cared for are universal human experiences. As technological possibilities expand, caring becomes more important, not less. The importance of caring relationships is evident at every stage of life from the helplessness of infancy to the reduced functioning of old age and the many stages in between. Their role is not merely functional, however: the experience of caring and being cared for is essential to the personal flourishing that characterises growth in maturity.

Schools have an important role here. It is not for them to usurp the primary role of the family but there is much they can do in reinforcing and supplementing what the family does. There will be times too when dysfunctional family behaviour or the absence of family places a larger responsibility on the school.

School staff will, of course, model caring behaviour. They will lead young people to understand and appreciate the role of caring in society. More than that, however, they will ensure that all pupils engage in caring and the service of others throughout their school careers. The form this takes will depend on pupils' age and stage of development, but it will be a serious and sustained activity that is an integral part of each pupil's learning pathway and is subject to appropriate assessment. There will be some opportunities for such service within the school but, especially as pupils get older, it will take place largely in the community, possibly in association with and supervised by service-providing agencies.

## *Physical education and sport*

Physical education and sport will be part of every pupil's learning experience. This is important in terms of healthy living, sense of achievement and personal enjoyment. While schools' primary responsibility is to provide an enriching experience for all pupils, there will be space, too, for competition and the effort to achieve potential to the full. In this context, schools will have a particular responsibility to champion fair play and counter the negative impact of certain features of professional sport – cheating, drug use and so on.

Instruction and facilities for physical education will be of a high standard, and a wide range of physical and sporting activities will be available. There will be a good deal of community involvement and, while the school will be critical in ensuring universal access and in its teaching/learning focus, these will be only part of a pattern of provision that will help all young people to maintain an active lifestyle after they have left school.

### *Options*

The nine learning strands set out above will constitute the core curriculum for all pupils. There will be a range of optional learning programmes in addition, of three broad kinds: more intensive work in the core strands, for those who need additional time and support and for those who go more quickly and further – these could be anything from advanced algebra to more sport, from learning the cello to an extra service assignment; programmes arising out of particular local contexts – industrial, historical, environmental, cultural, demographic and so on; and programmes responding to pupil interest and demand. The scope of these is boundless, but the more young people feel in charge of their own learning, the more dynamic and effective their learning will be.

While these optional programmes will be somewhat flexible and encourage exploratory learning, they will be taken seriously and, once selected, regarded as an integral part of the pupil's learning activity. Learning objectives and outcomes will be agreed and adequate resources will be secured. Some of these resources will be available locally but many will not; the global sharing of information will become critical in enabling each school to offer its pupils a rich diet of learning opportunities.

## Cross-cutting themes

Each young person's learning will reflect a number of cross-cutting themes in addition to the core learning strands. Some of these such as team working, independence, problem solving and perseverance, are quite familiar and need no comment. Four others have been picked out for particular mention because of their importance for future learners. These are: dealing with information; thinking skills; creativity; and enjoyment and the experience of success. In addition, schools will have a particular role in respect of the real world and ensuring that young people have real experiences. As dynamic virtual experiences abound, and both learning and entertainment become increasingly driven by the electronic environment, the school will help to ensure that young people have a rich experience of physical and social reality.

### *Dealing with information*

Young people in the future will live in an information-rich environment and – in contrast with today – will be surrounded by teachers and other adults who are adept at handling information. There will be two strands of pupils learning here: information use in its own right; and information use to support other learning.

First, pupils will need to be made aware of the multiplicity of information sources and how to access them. Sources will vary in relevance, reliability, thoroughness and so forth, and it is important to know something of the pedigree of any information source being used. They will need to be skilled in searching for desired information; this becomes all the more important as information sources multiply since inefficient techniques can be wasteful of time and effort. This is only the beginning, however: information is not knowledge, and there is little benefit in learners assembling masses of information if they do not know what to do with it. They must, therefore, learn to evaluate the information they assemble and make sense of it in relation to their learning purpose.

And of course much more than information will be available. Virtual experiences, simulations, social networking and so on will be routine elements of the young person's learning environment. Similar considerations apply to their use of these, with the additional element perhaps of cyber-danger, and schools will have a role in protecting young people and helping them protect themselves from cyber-exploitation.

These generic information skills will be honed by their use in pupils' substantive learning. Pupils will be using the internet and other information sources routinely throughout their learning strands. Efficient searching will be no less important here, but there will be a greater premium on skills of analysis and synthesis as pupils attempt to build up coherent bodies of knowledge in given areas.

### *Thinking skills*

There are numerous current initiatives in relation to thinking skills and how pupils learn. These go under different designations – study skills, skills for learning, critical thinking, learning to learn, accelerated learning, cognitive acceleration and more – and draw on philosophy, cognitive psychology and neuroscience as well as on classroom practice and adult learning. They give many prescriptions for more effective learning, which are supported by research of varying quality.

It is to be hoped that there will be a stronger body of research and practice to clarify which approaches are most effective and how they are best used. IT will feature strongly in these approaches. Young learners will have tools to facilitate and structure their thinking and to yield more powerful learning. These tools will be developed in age-appropriate ways so that children can be introduced to them as early as possible. They will have subject-specific as well as generic applications. The more pupils become responsible for their own learning and receive less formal instruction, the more important it will be that they acquire these tools and apply them in powerful ways.

## *Creativity*

Creativity has some overlap with thinking skills but it is worth considering separately. Like thinking skills, it suffuses all the learning strands and is best actualised in substantive areas of learning. It will by no means be confined to the arts, as is sometimes expected, and can encompass activities from solving a mathematical problem or assembling the elements of a persuasive argument to setting up a move in a game of football or responding to a challenging person in a care situation. For all learning, creativity is a core value and a criterion against which achievement is measured.

Creative response will be an integral part of pupil engagement in each learning strand. This response will take many forms and strand-specific instruction may well be necessary, but there will be benefit, too, from giving learners a general orientation toward creativity – why it matters, how to encourage it, the value of collaborative work, relating creative insights to existing knowledge, working with practical constraints and so on. A specific focus on creativity will be an integral part of every young person's learning experience and will help to ensure creative engagement – in learning, making and doing – across the curriculum.

## *Enjoyment and the experience of success*

While the instrumental functions of education are important, schools must not lose sight of the intrinsic satisfaction of learning. Each learning strand has the possibility to bring pupils delight – in learning new things, mastering new skills, acquiring a stronger sense of self, and broadening the glimpse of personal possibility. If schools are successful at this, the eager curiosity that five year olds bring to school will burn brighter ten years on. When supported by a growing body of knowledge and competences, it is difficult to imagine a better preparation for adult life.

Associated with this is the need for every child to have regular experiences of success at school. For too many, school is a relentless succession of failures, with the all-too-familiar drop in motivation and other negative consequences. Children will not become successful learners if their constant experience is of failure. This does not mean making things artificially easy – which does children no service – but it does mean valuing a wide range of achievement. It is also necessary that each child is well known to some adults so that their achievements are understood and are recognised in an authentic way.

## Individual learning pathways

The curriculum set out here is intended to provide a framework for all learning from school entry to age 14/15. (After this point, it is assumed that young people will embark on more specific learning along a variety of academic and vocational routes. The precise age at which this transition will take place is open to question.) The various strands will have a developmental progression, and the amount of time given to each will vary. It is important to emphasise, however, that each core strand is important and the expectation is that all pupils will engage in sustained learning in each, as well as in some optional programmes. Some pupils may spend more time on some strands because of special ability or need but no strand will be optional. This will be reflected in pupils' assessment portfolios where evidence of engagement and learning in each strand will be set out.

How will this be achieved in practice? How will young people with diverse interests and abilities negotiate their way through this curriculum framework? The key to this will be to ensure every pupil has a personal learning mentor. This will be an experienced adult, generally but not necessarily a teacher, who will assist the young person in selecting from the core curriculum and optional programmes. This will result in an individual learning programme for each pupil, with targets and means of determining when they have been met. Besides being rooted in the common curriculum framework, such pathways and targets will need to meet two criteria: they must be meaningful and stimulating for the pupil, and must take account of his/her interests; and they must be challenging and relevant to the outside world. Nor can they be static: as progress is made, new targets need to be put in place, and pathways may need to go in quite different directions. The selection of options, in particular, will take account of pupils' likely future learning needs and aspirations for adult life. This learning mentor role is a challenging one and, for many pupils, it will provide the bridge between individual potential and sustained learning in a social context.

Constructing and maintaining individual learning programmes in this way will be resource-intensive, but that is not sufficient reason for not doing it. Just as the world of work has recognised the importance of personal objectives in the workplace, so schooling must appreciate the benefits that flow from each pupil having an individual learning pathway throughout their time in school. Even if no extra time is made available to teachers for this specific activity, it should be given priority over other activities such as the repetitive marking of homework (much of which will be better done electronically in any case).

## Learning and teaching

The task of the school will be to facilitate whatever pupil learning is agreed to be desirable. As now, it will do so by facilitating access to information, stimulating and challenging pupils, providing structure and support as required, and generally maintaining an environment that is conducive to learning. There will be at least five significant differences, however: learning will be centred on large topics that require multiple inputs and extended study as opposed to the subject-based, discrete lessons which are currently the norm; young people will have ready access to a wide range of information, learning materials and virtual experiences; young people will have greater responsibility for their own learning; schools will make use of a wide range of adults other than teachers; and the academic organisation of the school will have evolved.

Project-based approaches to learning which are already commonplace in parts of higher education – medicine and engineering, for instance – will spread to the school sector. They will take place for both epistemological and utilitarian grounds: project-based approaches eschew the artificial barriers in knowledge that traditional school subjects and the teaching practices based on them embody; and they lead to greater learner motivation, as well as being more consonant with the requirements of living and working in a knowledge economy. While project-based learning will call for greater initiative on the part of learners and will give them more autonomy, it will require careful management to ensure high-quality, interdisciplinary learning. It will also necessitate new approaches to assessment that take account of process factors – collaboration, problem solving and information gathering – as well as outcomes.

Technological developments will transform access to information sources. It is idle to speculate what forms exactly this will take. It is enough to observe what is currently possible and to note how quickly sophisticated ICT applications become widely available. Developments in digital technology and communication will ensure that young people can access an almost boundless array of information and learning materials, 'attend' presentations and performances by leading figures, tour the world's galleries and museums, engage in lifelike virtual experiences and so on.

All of this will inevitably result in young people having greater responsibility for their own learning. The teacher or personal mentor will still be important but in a different way – it is for them to provide guidance and to help learners find their way in the many worlds available to them. The ubiquity of electronic information and experiences will, however, place young people at the centre of this expanding world in a new way.

Schools will make greater use of adults other than teachers. The trend toward increased use of classroom assistants will continue, and will be developed in a

number of ways. A principal rationale for the deployment of such assistants is to relieve teachers of those tasks for which the teacher's training and experience are not required and, in so doing, to enable pupils to receive more individual attention. This practice will continue to grow, especially as assistants are given more training and role recognition within the school. But we can anticipate a range of other developments. For example, artists already work in schools successfully, and there is great scope for other adults to impart skills and share experiences from the workplace and beyond. The challenge will be to find ways of engaging people in the work of schools throughout their careers. This will bring expertise and dynamism to schools that will enhance their offering to pupils.

A particular source of fresh input to schools is the growing number of active retired people. Most schools have large numbers of older people living in their catchment areas who have between them a wide experience of life and who would welcome the opportunity to contribute to the work of their local school. Such input will need to be properly organised: background checks will need to be carried out and some training provided, and care will have to be taken that what they offer fits within an appropriate learning framework. Properly run, however, this will add greatly to what schools can provide.

The academic organisation of the school will be quite different. Instead of fixed lesson blocks, all of equal length, the pupil's day will comprise a mixture of individual learning, one-to-one interaction with a teacher or other adult, small group activity which may or may not involve an adult, and attendance at large-scale lectures or presentations. Set-piece lectures will still take place to introduce and give context to topics; display their complexity and draw attention to contested views about them; suggest links with other areas of learning; give direction to pupils' own information trawls; and, above all, stimulate and enthuse. Such lectures and presentations, needless to say, should be of the highest quality pedagogically and in communication terms. There is no particular reason why they should be confined to single-class groups: a presentation might well be made to the whole of a year group or, indeed, to pupils drawn from a number of schools. Such presentations would, in general, be the responsibility of the master teacher but others might contribute from time to time, on the basis of a particular expertise or set of experiences. Care – and advance briefing – would of course be necessary to ensure that such external presentations fit into an appropriate learning framework.

All of the developments outlined here impact on the role of the teacher, an impact which will be felt from initial selection and training through to patterns of deployment, career progression and professional development. If we contrast the current expectations of a secondary subject teacher with the likely role of the teacher of the future, the differences become clear. In the first case, the teacher is the subject expert whose job it is to get pupils' knowledge of geography,

chemistry or whatever to the required level. In the second case, teachers are managers of a learning process where pupils have a greater and more explicit responsibility for their own learning; are routinely engaged in extended, multi-disciplinary projects; have access to an extraordinary (by today's standards) array of learning materials; have many more adults involved in their learning activities, in school and out; and being part of a team within and across schools is the norm.

Teachers – if they are still called that – will need many more skills and a quite different role orientation. They will have to be aware of the individual learning needs and pathways of each pupil in their charge; they will have to decide on differential allocation of resources – who needs one-to-one support, how small groups are to be constituted, when whole-class (or even larger group) lecturing is appropriate; they will determine how progress is to be measured for each pupil, and ensure that it is done in a reportable way; they will lead a diverse team of adults, both staff from within the school and from the community; and they will participate in teams themselves, both within their own school and across other schools.

This points to recruitment criteria which place less emphasis on knowledge of a particular national curriculum area and more on qualities of academic leadership, collegiality, flexibility and responsiveness to the individual. Initial teacher education will need to make a similar shift. Good instructional skills and effective presentation that stimulates powerful learning will continue to be important, but some aspects, at least, of the wider skill set implied here, will have to be addressed. Not all, however, because the teacher of the future will engage in sustained professional development throughout their careers. Indeed, there will be a requirement for teachers to engage in a solid amount of professional development each year in order to maintain their licence to practise.

## Concluding remarks

The vision set out here is one where young learners take greater responsibility for their learning than at present and where the teacher's role has evolved into manager and facilitator of learning. The curriculum will be broader and geared toward the full range of adult living, and will not be skewed by the requirements of university entrance. The school will be different, being both less important and more important. It will be less important because it will be only one source of learning among many, but it will be more important through its strategic role in overseeing and integrating young people's learning and from being a powerhouse of learning and learning resources in its own community. The vision is located firmly in the electronic age but is not determined by it; digital possibilities will revolutionise learning but core human values and relationships will persist.

Much has been and is being written about the school of the future. I have deliberately refrained from citing this voluminous literature, opting to let the argument stand on its own merits. The reader who wants a flavour of the discourse could refer to the Assessment & Teaching of 21st Century Skills project (www.atc21s.org) or the 21st Century Learning Alliance (www.21stcenturylearningalliance.org). For an example at national level, see the Teach Less Learn More initiative of the Singapore Ministry of Education (www.moe.gov.sg). For examples at school level, see the Escuela Lumiar movement in Brazil (www.lumiar.org.br) or the Cramlington Learning Village (www.cchsonline.co.uk) in England.

Is this vision attainable? I argue that not only can it be attained but it, or some equivalent, must be attained if schooling is to maintain its relevance – and justify its considerable financing from the public purse. Eric Hoffer's words are more prescient than ever: "*In a time of drastic change it is the learners who inherit the future. The learned usually find themselves equipped to live in a world that no longer exists*." (Hoffer, 2006). Unless educational leaders are content to preside over school systems that grow ever less relevant, they must step up to the challenges of 21st century learning, face down the many vested interests in the status quo and develop forward-looking strategies for education. If they do this, they will have played their part in creating learners who are ready for uncertain but exciting futures.

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# 4 Teacher professional identity: restoration or reset?

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# Teacher professional identity: restoration or reset?

*Anne Looney*

## Abstract

*Education and schooling feature in both Lisbon 2010 and Europe 2020. Relationships between education and the labour market, readiness for further and higher education, key competences and flexible pathways through learning all feature in past and emerging EU education policy rhetoric and discourse. Each of these in turn places the learner at the heart of the education reform agenda, and as the focus of education policy-making.*

*This relentless emphasis on the learner has had some consequences for understandings of the role of the teacher in the education process. The professional identity of teachers and conceptualisations of the work of teaching have been challenged in this reconfiguration of policy towards and around the learner. This paper looks at some of the outcomes of this reconfiguration and some of the challenges and opportunities which have arisen as a consequence, particularly in the areas of teacher education and professional development.*

*A further consequence of the focus on the learner has been a move to define the work of teaching in terms of a set of competences, and the alignment of teacher education towards these competences. These competences have featured in policies of a number of EU countries over the past ten years. Other countries have retained a focus on foundation disciplines, such as sociology and philosophy, in their teacher education programmes and have continued to require engagement with these for licensing or registration as a teacher. What are the implications of these tensions across Europe in the context of a European framework of qualifications, an emphasis on an increasingly mobile workforce and the Europeanisation of teaching?*

## From Lisbon 2010 to Europe 2020 – from teacher to learner

Education and schooling are given prominence in both the Lisbon 2010 and Europe 2020 strategies, although the shift in emphasis over the decade is striking. The Lisbon agenda aligned education and school systems with the drive to make Europe the world's leading knowledge economy by 2010. In contrast, for the decade up to 2020, education is given a further purpose: to support a more equitable and inclusive Europe. To this end, the education targets for the Europe

2020 strategy were confirmed at the May 2010 meeting of the Council of Ministers:

> *"By 2020 the school drop-out rate should be less than 10% and the share of the population having completed tertiary or equivalent education should be at least 40%."*
>
> (Council of the European Union, 2010, p. 1)

The focus for 2020, as was the case for 2010, is on the learner, and on the outcomes of education for learners. This placing of the learner at the heart of the education reform agenda, and as the focus of education policy-making, has implications for teachers and teaching. The EU acknowledges this. In a discussion of learning outcomes, for example, the European Centre for the Development of Vocational Training (CEDEFOP) noted that:

> *"A move away from traditional curricula and assessment to approaches led through learning outcomes, is a marked shift for which, at the very least, teachers and trainers need to be properly prepared."*
>
> (2008, p. 39).

This paper suggests that such technical adjustments are only a partial response to this "*new learning paradigm*" (CEDEFOP, 2008, p. 9).

A more comprehensive response to this relentless emphasis on the learner has to consider the consequences on understandings of the fundamental role of the teacher in the education process. As shall be discussed below, the professional identity of teachers and conceptualisations of the work of teaching have been challenged in this reconfiguration. Understandings of teacher education and teacher professional development are also challenged in such a paradigm shift. The paper will also explore how the focus on the learner, while seemingly benign, can sometimes be associated with a far more malign discourse that is not so much '*for*' the learner, as '*against*' the teacher.

Teachers and teaching feature in the second of the four strategic objectives adopted as the Framework for European Co-operation in Education and Training, known as ET2020. They feature in the objective to improve the quality and efficiency of education and training. Before commenting on the inclusion of teachers and teaching under this objective, it is worth noting where teachers and teaching are 'not' included. They are not included in either the objective to make lifelong learning and mobility a reality; the objective to promote equity, social cohesion and active citizenship; or in the objective to enhance creativity and innovation, including entrepreneurship, at all levels of education and training. In short, it seems that for the EU, teachers and teaching are matters of quality and efficiency:

> *"At the same time, there is a need to ensure high quality teaching, to provide adequate initial teacher education, continuous professional development for teachers and trainers and to make teaching an attractive career choice. It is also important to improve the governance and leadership of education and training institutions, and to develop effective quality assurance systems. High quality will only be achieved through the efficient and sustainable use of resources – both public and private, as appropriate – and through the promotion of evidence-based policy and practice in education and training."*
>
> (Council of the European Union, 2009, p. 4).

While no one would challenge the value of aspiring to "*high quality teaching*" and "*adequate initial teacher education*", much could be made of the assumptions underlying these phrases given their location within the framework and the apparent absence of any contestation around their meaning and implications. Of course, in the context of deliberations within EU institutions, the use of such general phrases and the absence of interrogation are not in themselves unusual. It may often be a necessary consequence of the Open Method of Coordination. However, given the debates currently underway about teachers and their work, and competing discourses about what constitutes '*high quality teaching*' and, as a consequence, '*adequate initial teacher education*,' the absence of such contestation from the framework is noteworthy.

## Teacher professional identity and education policy-making

This paper is an attempt to reintroduce some of the contestation around teacher professional identity to the European policy-maker's discourse. The term, '*reintroduce*,' is carefully chosen. Such debates have not disappeared, but they have been distanced from the processes of policy and decision making. This paper attempts to reconnect the two. For clarity, this paper will assume that '*teacher professionalism*' relates to how teachers are viewed by others, and '*professional identity*' relates to how teachers view themselves. It is difficult to separate the two, especially, as is indicated below, because both are social constructs. Both carry widely differing definitions in the literature and in policy discourse. Here, the approach adopted to the terminology may be pragmatic, but this dualism is a useful heuristic to which the paper returns in a number of sections.

The last two decades have seen the hailing of a new era, or a new age of teacher professionalism. Writing in the 1990s, Hargreaves and Fullan (1998) suggested that the next few years would be defining ones for the teaching profession, a profession that, they claimed, "*had not yet come of age*" (p. 110). Writing in 2001,

Fullan spoke of "*professionalism at the crossroads*" (p. 133). For some, this new age marks a restoration of a '*golden age*' of high-status teachers. For others, it is a reset of all understandings of teacher professionalism. All agree, however, that for teachers and their work, things are changing across Europe and elsewhere.

Hargreaves and Fullan (1998) reflected that, until the mid 1960s, teaching was seen as demanding but not particularly technically difficult, a job that could be learned in a relatively short period of time and which required little further development in the course of a teaching career. Although this image seems outdated now, they claimed that it is a "*pervasive myth*" (p. 111) about teaching that continues to shape the views of many working outside the classroom and school, particularly those with responsibility for public policy about teachers and teaching.

Alongside this somewhat simplistic view of teachers and their work, a parallel discourse of the teacher as professional has gained ground. In this discourse, there is little that is simple or straightforward about the work of teaching. On the contrary, complexity is one of its defining features. The Irish academic and policy commentator, Coolahan (2003), summarised this complexity:

> *"It is only highly intelligent, highly skilled, imaginative, caring and well-educated teachers who will be able to respond satisfactorily to the demands placed on the education system in the era of the knowledge society. If society's concern is to improve quality in education and to foster creative, enterprising, innovative, self-reliant young people, with the capacity and motivation to go on as lifelong learners, then this will not happen unless the corps of teachers are themselves challenging, innovative and lifelong learners."*
>
> (p. 6)

While the pervasive myth of simplicity abounds, policy-makers are also attracted by the image of the modern teacher proposed by Coolahan. According to Ginsburg (1997), while there has been some criticism of the "*positive aura of professionalism*" (p. 6) in the public mind and in academic and policy contestations, teacher professionalism is presented as a positive. Teachers want this. Parents and the wider community expect this. Students deserve this. And for all of these reasons, policy-makers in Europe (and elsewhere) exhort this.

But what exactly do they want: the '*golden age*' of high status; the simple days of just learning to teach and doing the job; the more complex construct of recent times; or something else entirely?

The discourse of complexity discussed by Ginsburg and Coolahan drew its source largely from within the field of education. By comparison, a discourse of simplicity, as presented by Hargreaves and Fullan (1998), came largely from outside that field. This tension between the '*internal*' and '*external*' aspects of the

debates are important, not only because of the dualism between professionalism and professional identity flagged earlier but also because in all of the debates, professionalism (how teachers are seen by others) and professional identity (how teachers view themselves) are understood as 'social' constructs.

## Teacher professionalism as a '*good deal*'

Labaree (1992) explored this theme and presented the professional recognition of any occupational group in terms of a '*bargain*' between the group and society. In such an '*agreement*', technical competence is traded for relative autonomy and practical knowledge for control over practice. This seems, on the surface at least, to be a good deal all round. The classification of teachers as professionals gives them status, higher pay and more opportunities for career advancement. In exchange for recognising teachers as professionals and endowing them as such, society gets a competent and dedicated teaching force – with a strong sense of professional identity – which leads to better outcomes for students, and, thus, it could be concluded, improved social and economic development. However, as Labaree himself noted, all is not as comfortable as it appears.

What makes professionalism and professional identity an uncomfortable bargain? First, as has been discussed, there are multiple definitions and expectations of teacher professionalism – both within the teaching profession and across the society that endows this status. For example, Moloney (2010), writing about the professional identity of those working with very young children in early childhood education settings in Ireland and in the early years of primary education, found that the processes of identity formation worked differently on either side of the school gate. Thus, for teachers of the infant classes (the first two years) of primary schools, their identity was more likely to be shaped by a democratic discourse than their colleagues outside the school gate, who were more likely to encounter a managerial discourse. This contrast was further complicated by the experiences of infant teachers who reported that they felt that their status was perceived as lower than colleagues teaching older children. Moloney concluded:

> *"They believe that this is related to a perception that the infant class is akin to a playschool; similar to a waiting room for children before they move onto the higher classes, where their real learning occurs."*
>
> (p. 184)

Hargreaves and Goodson (1996) argued that teacher professionalism is what teachers and others experience it to be rather than what policy-makers, researchers and theorists decide it should be.

A further destabilising factor in Labaree's '*agreement*' is the issue of the good teacher. For some, the question of what constitutes a good teacher is unresolved, as is the associated question of how we can help people to become good teachers (Hamacheck, 1999). It is of note, however, that while some believe the question of the '*good teacher*' to be open, there are others who have provided definitive answers and even lists that can be used to identify those good teachers in the field and guide those who prepare the teachers of the future.

## The emergence of competences

Korthagen (2004), in his analysis of what he sees as a global discourse about teachers and teaching, suggested that current debates inevitably give rise to lists of competences as means of identifying what a good teacher should look like. These lists continue to enjoy strong support from policy-makers, who take little account of the lessons of history. According to Korthagen, such lists made their debut around the middle of the 20th century when the performance-based or competency-based model of teacher education started to gain ground. This was premised on the idea that observable criteria of expert performance could serve as a basis for the training of novices. Efforts were made to identify those teaching behaviours that produced the greatest learning results for children, results that were of course similarly observable and concrete. The weaknesses of this approach are clear. It is impossible to teach the ways of experts to beginners or novices. Formation in the field is needed. The context in which expert behaviours are acquired and fine-tuned cannot be isolated from the behaviours themselves. Nor can they be isolated from other 'competences' and reduced to atomised actions that can be ticked off in turn.

Despite the evidence that they lead to fragmentation of the teacher's role, ever-longer lists have begun to emerge, particularly in teacher education. One of the best known of the checklists, recently endorsed by Bill Gates in launching his funding programme for effective teachers, is that of Doug Lemov in the USA. His 49 techniques even made it into the *New York Times* early in 2010 (Green, 2010) under the provocative headline, '*Can Good Teaching be Learned*'? In summary, the piece concluded that the "*mechanics of teaching*" (p. 44) can be learned, but are usually neglected in teacher education programmes in the USA. The piece also refers to the €335 million Gates Foundation project to identify and support "*effective teaching practices*" (p. 44).

Hogan (2010) concurred with Korthagen's perspective on competences as a mid-twentieth century phenomenon, born of behaviourist psychology. Hogan noted that while teacher education in North America had been shaped by a competences approach for many years, it gained a foothold in Europe in the early 1990s through a series of reforms adopted by the Department for Education for

England and Wales. Hogan sourced the reform agenda in a number of policy think tanks that were influential in the Thatcher era, but also in the complacency of teacher education departments and institutions. The latter, he suggested, were caught off guard by the pace and power of the reforms and were less than persuasive in their response.

A number of high-level reports, generated from outside the education sector, have also claimed that the issue of the good teacher is resolved. For example, McKinsey (2007, p. 28) announced at the end of the decade: "*There is good agreement about what constitutes effective teaching and leadership*." The challenge now, they suggested, is to develop a strong consensus around what constitutes good teaching practice and ensure that it is consistently applied (p. 31). And at the start of the decade, Hay McBer (2000) offered a framework for effective teaching built around 16 dimensions that were associated with over 30% of the variance in pupil progress. Labaree's (1992) idea of a cosy '*agreement*' is less persuasive when there isn't even a shared view as to whether there is a shared view of a good teacher!

Nonetheless, that image of an '*agreement*' is useful in flagging both the dualism of the concept of teacher professional identity and the tension between the professionalism as '*endowed*' and as '*experienced*'. One has its source external to the profession, in non-teaching discourses, and the other is rooted within the heart and soul of teaching. This tension in the process of identity formation is explored further by Tucker (2004) who looked at youth work and suggested that identities are formed at the confluence of historical, economic and political trajectories, and thus are subject to these external forces, but the process of their formation also draws on resources ranging from pre-service training, professional development, communities of practice and good experiences. In the early 1990s, Labaree suggested that the process of teacher professionalisation can appear to be moving in contradictory directions at the same time, fuelled by seemingly incompatible ideologies. This seems to be the case.

## Redefinition and reset

A brave and useful attempt to resolve some of these tensions was made in 2009 by a global alliance of teacher education institutes and colleges. They attempted to resolve these tensions by responding to the need for what they termed a '*redefined professionalism*' for 21st century education. They flag the urgency of the process of redefinition and the scale of the task in the face of a range of social challenges for schooling. This, the authors suggested, has resulted in "*increased recognition of the complex and demanding nature of teachers' work*", and now requires "*radical rethinking*" of how teachers are recruited, prepared and deployed (Gopinathan *et al*., 2008, p. 210). It is clear, then, that the report was eschewing

the simplistic view of teaching, and positioning itself within the '*complex*' side of the debate. The report suggested that a redefined professionalism would move teaching out of the old paradigm (presumably, the "*pervasive myth*" identified by Hargreaves and Fullan, 1998, p. 111, as discussed earlier) of teaching as simple work, requiring little specialised knowledge. What knowledge is needed can easily be acquired by anyone with a textbook. In summarising the old paradigm, the report's authors claimed that "*at its worst, a teacher's work is seen as mere dissemination of already existing information*" (p. 23).

By contrast, the new paradigm sees teachers' work as requiring specialist knowledge and skill:

> *"A growing body of research in the cognitive sciences and in pedagogic practice shows that to enhance student learning requires teachers to have both a wide body of knowledge and the ability to use this knowledge appropriately in a variety of institutional contexts. Today we recognise that teachers must exhibit several distinct categories of knowledge."*
>
> (p. 24)

The report envisaged a redefined professionalism as a "*complex but functional mix of old and new ideas about teaching and teachers' work*" that possesses a number of characteristics that are "*crucial enablers for teachers to continue to do intelligent and demanding work in classrooms*" (p. 22). So, while the report was from '*within*' and presented teaching as a highly '*complex*' task, it also presented some characteristics of '*good*' teaching, as was attempted by McKinsey (2007) and Hay McBer (2000). However, it is of interest that these characteristics are about the kinds of knowledge required to teach well.

Drawing on Shulman (1987), the authors elaborated on seven of the categories of knowledge, and suggested that effective teachers draw on a "*complex mesh*" of these categories of knowledge in their daily practice. The first of these is content knowledge, or knowledge of the subject matter that is the focus of the lesson. The second is general pedagogical knowledge, or broad principles and strategies, about how to organise a classroom. The third is curriculum knowledge, or knowledge of the programme to be followed in the school or educational setting. The fourth is pedagogical content knowledge: "*Special amalgam of content and pedagogy that is unique to the province of teachers*" (p. 24).

Of interest for the EU is an emphasis on the learner at the centre of the education process. The final three categories of knowledge relate to the knowledge of the learners, knowledge of the educational contexts for those learners and, finally, knowledge of the aims and purposes of the educational project. This complex knowledge base, according to the report, needs to be mastered and used by all who aspire to teach well.

Such mastery and application in practice is demanding. But for Gopinathan *et al* (2008), these alone are not enough for the effective teacher working out of a redefined professionalism. The authors offered further elaboration of what constitutes such redefined professionalism. '*Reflexivity*' is one such characteristic. Beyond reflexivity, they included a focus on the quality of each interaction with the learner, and the use of data and evidence in support of judgements on achievement and progress. '*Accountability*' is another characteristic, although the report was somewhat equivocal on whether this should come from external sources or from within the profession. For their final characteristic, they drew on Hargreaves and Goodson's (1996) idea of "*occupational heteronomy*" (p. 21), where teachers have autonomy and the freedom to work independently, but choose to work collaboratively with other partners – such as parents – in the wider community. This wider community includes the learning community. Redefined professionalism includes "*self-directed commitment to continuous learning related to one's own expertise and emergent needs of pupils and schools*" (p. 34). The final characteristic is a connection to the moral purpose of education and the social purposes of schooling, especially in a time when schooling and success at school is so highly correlated with life chances.

This vision of a '*redefined professionalism*' is built on a set of complex and demanding components. It is not beyond critique; however, it does represent an attempt to bring some apparently opposing discourses together. '*Redefined professionalism*' is not a nostalgic restoration. With its focus on knowledge, and teaching as a knowledge profession, it is contemporary and appealing to policy-makers and educationalists alike.

## Towards a European teacher identity?

But what of the teachers: those who must form their professional identities against this backdrop of continuing contestation about their work and role? From a European perspective, an interesting contrast has been made by researchers between teachers in France and England. This study researched the professional identities of primary teachers in both countries in the late eighties and early nineties. The researchers concluded that, in general, French teachers view themselves as having a more restricted professional role with a focus on classroom-based work and the achievement of academic goals. By contrast, English teachers have a more '*extended*' professional self-understanding. They tend to see their work as reaching well beyond the classroom walls to include extra-curricular and community-based work. Broadfoot *et al*. (1993) suggested that, at its most extreme, the French teacher's professional identity is associated with meeting the obligations of the contract, whereas the identity of the English teacher is associated with meeting often intangible moral goals, often diffuse, and usually impossible to achieve. Further research conducted on the response of

English teachers to a decade of reforms showed that teachers felt somewhat overwhelmed by the number and nature of policy initiatives over the last two decades of the 20th century (Osborn *et al*., 2000). Teachers felt "*increasingly besieged by critics and demands for accountability from outsiders, especially parents, whilst losing little of their deeply held sense of moral responsibility to pupils*" (Osborn, 2008, p. 70). The research also showed that for many teachers, the reforms being proposed were at odds with their own fundamental beliefs about teaching and its purpose. Furthermore, they felt that their sense of vocation was being displaced by a drive to become expert technicians in transmitting predefined knowledge and skills to their pupils. Osborn concluded:

> *"The policy emphasis of successive governments on education as a commodity to be delivered and measured was at odds with many teachers' views of education as being fundamentally concerned with personal development."*
>
> (p. 71)

Of note for this paper, and the discussion about the internal and external dimensions of professional identity, is the account of how teachers responded to the external reforms from within the profession and created something of a '*counter-identity*' through collaboration and engagement. Indeed, the new emphasis on technical skill and accountability gave teachers opportunity for collaboration with colleagues, and, through increased demands, the motivation to work together, if only to survive!

Osborn also reported on what she termed "*creative mediators*" who were able to take control of the reforms and filter them through their own values so that "*they took on board those aspects which more closely accorded with their own beliefs and values as teachers and worked with them creatively*" (p. 72). But for older, more experienced teachers who found it difficult to revise their professional values and educational practices, the reforms tended to make them both depressed and disheartened.

Thus, professional identity is the result of a complex set of interactions between personal beliefs and convictions, the reform agenda, school contexts and cultures, and even career history. Equally, professional identity is neither stable nor fixed. Circumstances change. A new reform is introduced. The profile of the student intake can change. All these shape the professional identity of the teacher.

Osborn concluded her analysis on a positive note, however. She suggested that in England, at least, there are signs that teachers perceive their status as higher than in recent years, even though centralised control and centrally driven reforms have continued apace. She referred to the conclusions of Hargreaves *et al*. (2007) that teacher attitudes to government reforms have softened as the reforms have gained a foothold and become more systematised.

Of note for the Consortium of Institutions for Development and Research in Education in Europe (CIDREE), and all interested in the European project and the role of education in Europe, is Osborn's speculation at the end of her piece about the Europeanisation of education and any move towards a common idea of the '*European teacher*'. She suggested that the reforms in England are bringing teachers closer to the restricted professionalism of France which, she claimed, is similar to that in Belgium, Italy, Spain and Portugal.

However, in Denmark and in other Scandinavian countries, teachers still have a wide range of duties and are encouraged to look at the holistic project of education. Osborn said that the same applies, although to a lesser extent, in the Netherlands. Although not mentioned by Osborn, Ireland would also fall into this category. From a European perspective, therefore, any attempt to specify competences for teachers is doomed to failure, not just because teachers respond differently to external pressures but because, despite increasingly common educational policies that cross borders, "*there are distinctive cultural and historical traditions which will lead to policies being interpreted and mediated differently by teachers*" (p. 78).

In 2010, the European Commission published '*Common European Principles for Teacher Competences and Qualifications*'. The document aimed to support national and regional policy-makers interested in enhancing quality and effectiveness across the EU. The '*competences'* – what teacher should be able to do – are defined as types or forms of work. Teachers across the EU should be able to work with others, work with knowledge, technology and information, and work with and in society. In this set of competences, teachers are seen as knowledge workers, working in a social and civic context. These competences are broad; there is no evidence of atomisation or checklists.

Something is happening to teacher professional identity. Or, rather, things are happening to teacher professional identities. Restoration or reset? Or something else entirely? It may be too early in the decade to say which. The utopian tones of knowledge society discourse echo for teachers and teaching as '*the*' knowledge profession. The positioning of teaching in this way, and the recognition of teacher education as a process of induction into this profession, is good news for teachers and teacher professional identity, although not without its challenges. In contrast, the more dystopian and technicist discourse of checklists and '*how-to-teach*', is good news for those who wish to find efficient and effective ways of preparing and accrediting teachers.

It is clear that the process of restoration and reset, while sharing some common elements, are different in the USA and Europe. For CIDREE, the emergence of the idea of a '*European teacher*' affords an ideal theme for shared reflection and contestation. Capturing how the Europeanisation of teaching, and the new learning paradigm, are enacted within national boundaries, and sharing those

insights with academics, policy-makers and practitioners, will contribute greatly to discussions of teacher professional identities both within and across borders.

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# 5 The role of school inspection in ensuring quality in education: past, present and future

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# The role of school inspection in ensuring quality in education: past, present and future

*Johan C. van Bruggen*

## Abstract

*In the last 20 years or so, the roles and tasks of inspectorates of education have changed radically in most countries already in existence since the early decades of the 19th century. In Sections 2 and 3, I sketch this change in the direction towards periodic full inspection of all schools in the country against a national framework of quality statements. This change fits into newer ideas about the governance of schools with more emphasis on self-steering, self-evaluation and self-development, and with a more distant, but not less important, role for governments in shaping the policy context and steering the intermediate agencies for inspection, guidance and curriculum development. The important question, of course, is whether we can register real improvement in schools and education as a consequence of these changes. In order to answer this question, I describe what inspectorates do in Section 1 and the 'theory' behind the ideas about full inspection in Section 2. After a short summary of what we know about inspections from impact research (Sections 3 and 4), I set out my conclusions in Sections 5 and 6. Here, I argue that the first rounds of full inspection in most countries have indeed brought change, movement and real improvement to many schools. For further development, however, a simple repetition of this type of inspection after three or four years is not enough. Adaptations to the mode of inspection are necessary – I expect much of the mode that Flanders is developing. But, also, a much better link is needed between the support agencies working at local and regional level with clusters of semi-autonomous schools and their regional authorities. Promising examples of this new type of concerted action, where national and regional levels are coupled, are already visible.*

## 1. What do inspectorates do nowadays?

In this section, I give a short description of education inspectorates' tasks as they are executed in most European countries. Not all inspectorates do all types of work, or carry out all tasks frequently, but most of these tasks can be found in many inspectorates. Details may be found on the websites of the inspectorates. The Standing International Conference of Inspectorates of Education in Europe

(SICI) has on its website recent profiles of 18 inspectorates in Europe in a common format (www.sici-inspectorates.org). These profiles contain a wealth of information, plus addresses, websites and contact persons. In summer 2010, a comparative analysis of these inspectorates was due to be available (van Bruggen, 2010). I have edited these profiles and written the comparative analysis, and refer to them here frequently. A somewhat older source for inspectorates in Europe is Eurydice (2004).

## *Full inspection of schools*

By far the most visible and time-consuming task of inspectorates is the '*new*' mode of inspection: the so-called '*full*', '*whole*' or '*complete*' inspection of a school.[1] It has been in existence for the last 20 years or so in some European countries; in others, for only the last three or four years. This mode is also used in many inspectorates in other parts of the world (for example, New Zealand, Australia, some US states, some parts of China and South Africa). Firstly, I give a short summary of full inspections.

The core of this mode of inspection is:

- Inspectors visit a school in order to gain an overview of what happens there and the learning and teaching results.
- Inspections take place in small groups, and the size depends on the school size and its complexity.
- The visit usually lasts two to five days, depending on the school size and complexity.

Inspectors' activities vary but usually, before a school visit, they analyse the syllabus, school development plans, timetables and self-evaluation reports. The inspectors talk with the school head, other leaders, students, parents, and sometimes also employer's representatives and other stakeholders. They observe lessons and other learning and teaching activities, observe staff meetings and study pupil files.

Inspectors use a common, '*inspectorate-own*' framework of criteria about what is seen as good quality in education. They use this set of indicators and criteria to evaluate what they have seen and come to an evaluation of the '*quality*' of a school. In most cases, this is described in terms of '*quality domains*' (for example, '*the organisation and management in the school*' and '*the teaching and learning*') and not simplistic '*one-liner*' judgements about a school as a whole. Most inspectorates believe that a school's reality is too complex to catch in one evaluative statement.

The evaluation is shared with the school; this is almost always in a meeting with representatives immediately after the inspection, but also in a report that is

delivered to the school after a short period. Most inspectorates also publish these reports, but in various ways, and not all inspectorates do this.

If an inspection shows that a school has serious quality problems, inspectorates have various policies for communicating this to the responsible authorities (governors of a school, the regional authority and ministry). The arrangements for help or other measures that may come into force vary widely, depending on national governance structures.

Full inspections are undertaken in every school, and most inspectorates have a scheme of repeated inspection after three, four or six years.

The methods for full inspections can vary for different school types or sectors.

## *Full school inspection reports*

A key question is whether the final report about a school produces a correct picture of the school and a fair judgement about its quality. Simply put, the value of these reports for the various stakeholders of a school can be assessed by their ability to answer the following questions.

- Do the reports enable parents and students to make an informed decision about which school to select? (For issues about free school choice, see Hirsch, 2002)
- Do the reports give clear and convincing facts about the quality of the school(s) that enable the staff and its management to take measures for improvement?
- Do the reports give clear and convincing facts about the quality of the school(s) that enable the board (in the case of a non-state school) or the local or regional authorities, to take the necessary governance measures? For example, this could be bringing extra money in for extra temporary staff or obliging the school management to tighten the staff policy or provide in-service training.
- Do the reports give clear and convincing facts about the quality of the school(s) and about any failures of the staff, management or authorities that enable the minister of education to take measures for improvement, help or even closure?
- Do the reports provide information on the common problems shared by schools, from an aggregate analysis of all reports that have been inspected in a certain year,[2] for formulating new regulations, other policy or national change projects for the whole system?

From these questions, two functions can be easily recognised: the '*stimulating function*' (or, '*inspection for improvement*' – often used as a mission statement for inspectorates) and the broader, '*accountability function*' (do all stakeholders do

what they are thought to do in the governance system of the country, in order to guarantee that there are no schools delivering too low quality without being known by the inspectorate?). I come back to these issues later.

## The conditions for an effective full inspection system of schools

*The first condition is access to all schools and information.*

This has always been, since the start of state-organised inspections in the early 19th century, an important characteristic of school inspectorates. Formulating a general judgement about the quality of a school can also be done by those outside of an education inspectorate. Schools can ask a committee of external people, for example, heads of other schools, to do a type of full inspection as part of their own self-evaluation and school-development strategies. In several countries, such movements, associations or initiatives exist. In Germany, for example, the *Blick über den Zaun* is such an organisation (www.blickueberdenzaun.de). And often governments stimulate this type of work, because it is generally believed that self-evaluation (with an external component) is good.[3]

However, such an inspection, resulting in a judgement by '*a critical friend*', is not obligatory, is not done in all schools and, mostly, is not done against a nationally agreed framework of criteria, indicators and norms. It does not have the official status of an external inspection undertaken by an '*official*', government-linked organisation like an education inspectorate with the right '*to look in every hole*'.

The heart of the matter is that, by law or decree, government-linked inspectorates have a formal '*right to access*' and a '*right to information*' about all relevant aspects of the reality of a school. So, inspectors have the right to talk with pupils, communicate with a random sample of parents and decide the classrooms they want to observe. This right to access and information is a guarantee that schools cannot easily engage in '*window-dressing*', hiding some aspects or showing only favourable situations for inspection. Schools cannot refuse inspection. Almost always, inspectorates give notice in advance (weeks or even months), but unannounced inspections also exist. This right to access and information is one of the most important characteristics of education inspectorates, with the others being independence, professionalism, reliability and authority.

*The second condition is a national, standardised framework about what is 'good quality' in schools.*

A quality framework with criteria, standards and indicators is not something that is more or less privately owned by a team of inspectors. Rather, it needs to have

been developed and discussed carefully within the inspectorate, along with scientists, representatives from societal organisations, and all kinds of school groups. And only after such a procedure will a minister of education or parliament approve a quality framework. The consequence is that inspectors, in their application of such a framework when formulating judgements about a particular school, can rightly see themselves as representatives of society at large or the state in general. This gives weight to the judgements made, and they have to be taken seriously.

Another key issue is that in most countries many requirements concerning the quality that has to be delivered by schools have been formulated in laws and regulations. These cover, for example, the subjects that have to be taught and in which grades; the types of tests and examinations that have to be used; the number of lessons per grade and per subject; and teachers' required competences. But 'quality' is also established in a more general way by formulating more general aims, goals and principles in educational legislation and statutory guidance. One example of such a legal demand is the requirement that schools have to recognise the differences in learning capacities and character (etc.) among the students and they have to stimulate the individual development of students. There are many more examples of this kind, and it is one role of inspectors to check if schools are compliant with these demands.

But it is not by chance that in most countries this type of formulation remains rather general and schools are left to interpret and translate state guidance into practice. In the inspection frameworks, interpretations of these general formulations are also given, because, of course, individual inspectors cannot make subjective interpretations. But what is then the power of these framework interpretations? If a school is judged as violating the interpretation of the inspectorate by '*individualising*' education, is that in itself a reason for a penalty? In several countries, it is said that in fact it is the inspectorate who takes the chair of the legislators. And in a way this is true. But, generally, this is accepted as long as the framework is developed in a more or less open and democratic procedure and is adapted periodically. We touch here on an important political issue in the relationship between the state, individual citizens in and around schools, and an intermediate agency such as the inspectorate. It is beyond this article to develop the issue further, but it is clear that all kinds of issues are connected: autonomy of schools; the need to maintain a national educational system with transparency and transferability; the division of power between bureaucrats (inspectorate) and politics; and the democratisation of legislation. The profiles on the SICI website show various balances here, also connected, of course, with the traditions and governance structures in the various countries.

The content of the various frameworks in use by 18 inspectorates in Europe does not differ widely. Although I have not done a detailed comparative analysis of

the frameworks,[4] it is clear that all inspectorates have a shared set of quality domains that they define as important. There is a core covering the following areas:

- the learning outcomes, in terms of examinations or tests results and also more general outcomes such as attitudes and general competences
- school efficiency in terms of average number of years of schooling before pupils have a diploma; and percentages of incoming students leaving with a diploma
- learning and teaching processes, a very broad area that covers classroom organisation, differentiation, good structuring of the teaching, enough opportunities for independent or self-governed learning, monitoring of students' learning, coordination among teachers of one group of pupils, longitudinal coordination, activating students, cohesion among all teachers and other staff in a school, and a shared vision on teaching and learning
- the curriculum in terms of its coherence, alignment over periods, cohorts and years, coverage of the prescribed national curriculum, and adaptation to the needs of the students
- differentiation based on different needs due to learning pace, learning needs, general assistance, and cultural and linguistic backgrounds
- the (pedagogical) climate of the school, its ethos and culture, and ability for some frameworks to be split into two levels: the school as a whole and the class or group
- the care of students with special learning or educational needs
- school leadership and management
- the process of school development: its continuity, planning, and participation of all involved.

There are some other areas that feature less commonly in the frameworks:

- sufficiency of learning time for students (some identify this as a sub-area within learning and teaching, in the same way as I mentioned above)
- the evaluation of students' work and progress (some identify this as a sub-area within learning and teaching)
- external conditions: funding and staffing levels, the social environment (often taken into account as a value judgement), and the quality of the building and furniture
- communication with parents and other stakeholders (some see this as a sub-area in management)
- student, parent and other stakeholders' satisfaction (some see this as a sub-area in several other areas).

In the forthcoming comparative analysis (van Bruggen, 2010), more details can be found. My statement, there, is threefold.

The differences at domain level among the 18 frameworks lie more in the grouping of quality domains into a smaller number of '*higher order*' concepts, than in real differences in thinking about what is important in the quality of schools that we want to see in Europe. So, for example, some inspectorates combine several domains from this list under '*learning and teaching*'. More important seem to be the differences at indicator level.[5] At '*practice descriptor*' level it is too difficult to get a comparative picture, because most inspectorates only have these statements in their handbooks and observation instruments, and, in most cases, these are not visible on their websites, or only in their mother tongues.

This result is not astonishing because the results of research about '*effective schools*' are one important source for the definition of the frameworks, and this research shows clearly what the most important domains of quality are. An important and convincing source is Scheerens *et al.* (2003).

It would have been very good if SICI (supported by European money because the work is expensive) could have done a thorough comparative analysis and developed a common framework at SICI level. This could facilitate a European-wide discussion about what we want to see in European schools, and such a common framework could also be used to make real comparisons in order to learn more from each other.[6] Of course, such a common framework could have common domains and indicators, but also optional domains or indicators, for choice by individual inspectorates. It is not necessary to talk about '*supra-nationalism*', because it should only be an instrument for doing the inspection work and for the exchange of good practice in schools at a more sophisticated and professional level, for combating the often-seen superficial cafe-talk about good schools, and debates in some national parliaments and newspapers.

*The third condition is the clarity and sharpness of the report.*

The reports of a full school inspection have to be clear, give detailed lists of the strong and weak points of a school's quality, and show that the inspectors have a complete and profound knowledge of what is going on in a school. (This links to the acceptability of the inspection work.) I have the strong impression that more and more inspectorates have problems with this aspect.

A first factor is that only a few inspectorates still inspect the quality of subject teaching in an in-depth way and much of the quality of learning and teaching is, in fact, the quality of, for example, good biology teaching. It is not enough that inspectors attend a few lessons, spread over many subjects, and only give a general judgement about the teaching: is it, for example, structured or interactive? It is also important that the teaching is adequate, up to the desired

standard for the subject and its didactics. This is, of course, a matter of time for inspectors: it is impossible with two or three days in a school to do a real inspection of subjects, and it is also a matter of having the necessary subject knowledge. But there is a second factor: even if the inspectors have done a thorough inspection of a certain topic (for example, the recording of learning progress per child and the individualising consequences of having a continuous focus on classroom work), it could be that the description in the report, the analysis of the findings and the judgements made are too general, not detailed or sharp. In such a case, the report does not give much stimulus for action. Whilst the guarantee of this aspect of quality can be given, the grounds may not be very clear and the judgement does not serve the improvement function of the inspection. I refer to my comparative analysis for more about this sensitive issue. The still scarce impact research about inspection reports seems to confirm that only detailed, sharp reports have impact and lead to action by schools (Ehren, 2006).

*The fourth condition is that the judgement is taken seriously, leads to actions for improvement by the schools and/or the authorities and, in some cases, has consequences for, for example, staff positions and finance.*

In several countries, this 'taking it seriously' is formalised by asking schools to respond to the judgement within, for example, three months with an adequate reaction or improvement plan. In most German and Anglo-Saxon countries, it is the local or regional authority that obliges the school to deliver such a response, approves this response and later checks whether the school is indeed doing what has been agreed. In some of these authorities (in most English, Scottish and German local authorities, and also in Norway and Spain) they have a support department for helping schools to analyse the inspector's judgement and to develop the improvement plan. Sometimes there are support agencies outside the authority which schools can use to buy support. It is important that the principle is that all schools have to take the judgement seriously, even those schools which are judged to be very good in almost all quality domains, but can improve in one or two areas. So, the idea is that inspection keeps the schools under pressure to develop and improve continuously.

Of course, this only works if the framework is accepted broadly as 'the' framework for a serious discussion about the quality of a school and if the inspection report about a school is sharp, focused, clear, and not too general. And equally, it only works so, if the inspectorate itself takes the framework seriously and, internally, invests sufficiently in an exchange of views and interpretations between inspectors, and invests in training to ensure inter-inspector reliability.

If inspectors have to give a judgement about the quality of a school, this judgement may also be that the quality is insufficient and has to be improved immediately. Or, it may be that the quality is extremely good and much better

than might be expected. In both cases, we touch on sensitive issues about what to do next: punishment, closure, or rewarding a school with extra money? (The Matthew Principle applies here: the good ones are rewarded and may become even better; the bad ones are punished and become even worse).

In the cross-national profiles, we see various solutions. It is clear that, in all countries where full school inspection has become the tradition, the regimes for improving weak or very weak schools have tightened in the last few years. Authorities and the public no longer accept that children receive a school education that is below standard; all parents, of course, want '*the best*'. The regimes vary, but where the largest problems are to be found, the important strategies adopted are replacing staff and, in particular, the heads, and an emphasis on the rapid improvement in the school's teaching methods, materials and cooperation. There are many schools that show a fast improvement if a coordinated and tough approach is practised. See further in Section 5 where I touch on the general issues of school development and improvement, and the many studies and theories about these important issues (Fullan, 2001; Hargreaves and Fink, 2005; Hargreaves and Dennis, 2008; Rolff, 2007). It has become more and more clear that a good mixture of pressure and support has to be found for both an individual school and a school system to improve.

The issue of the public availability of the inspection judgement (in print or on the internet) is strongly related to this '*pressure*' issue. This availability easily leads to 'league tables' or other forms of ranking, constructed by newspapers or other groups, even if inspectorates themselves do not want this to happen. All inspectorates say that the reality of a school is too complex to pack into one figure or score. This may be true, but the reality is that parents are even prepared to move into another part of a town to find a better school for their children. Public reports and school rankings are also connected with the issue of the open and free choice of a school by parents, which in itself is a strong movement in many countries (see Hirsch, 2002).

## *Full inspections and two state governance functions for schools*

The four conditions for an effective full inspection of schools are not fulfilled equally strongly or well everywhere (access and information, a well-developed and well-applied framework with standards and criteria for school quality, clear, structured and sharp reports, and a good structure for obliging schools to take the judgement seriously). But the rationale behind the rapid growth of full inspections as an important instrument in national educational policy is that these conditions enable the inspections to work with two rather different educational governance philosophies.

The first is where the national government is accountable for an education system that is seen as '*good enough*' and for schools that are '*good enough*' in all

villages and towns throughout the nation state. In many constitutions and/or laws on education this duty of the state is clearly formulated.[7] The government can, of course, share this accountability with other stakeholders (regional authorities, school boards, professional school people, parents and local advisory boards) by adopting various governance structures. Also, the financial consequences can be shared and, in many countries, this issue is still a source of conflict and political struggle between national, provincial and local authorities, and also between public money and private money from parents who have to make higher or lower contributions. The national profiles show rather decentralised governance structures where the first governance philosophy is in play. Denmark, with its high emphasis on local autonomy of the communities, is one such example.

The consequence of this decentralisation is that there is no inspection of public schools by a national state inspection, but 'only' a monitoring of the accountability structure that the local authorities have built and maintained in cooperation with the parents. Privately run schools have their own inspection regime, but this is based on national regulation and, only in exceptional situations, checked by a very small national inspection unit. There are also centralised structures (for example, in the Netherlands and Portugal) and all kinds of variations (for example, in Wales, Slovakia and Sweden) but, in all these structures, the inspectorate has to maintain the standard of '*good enough*'. This is the '*guarantee function*' of the inspectorate, which I try to formulate as follows: 'There may not exist a school that is not good enough without it being known by the inspectorate and without the actions of stakeholders – initiated or requested by the inspectorate – that have tried to improve and repair it'.

The second educational governance philosophy is enacted where the government wants the '*best possible*' schools. This is the improvement push that inspections and all related work must give; not only for the schools with quality problems, but for all schools. One example is the Netherlands. The Dutch inspectorate reported in its annual report for 2008-09 that there are still too few schools (25 per cent in the primary sector) that really try to realise so-called '*results-driven education*', based on regular and periodic assessments of what children can do and know (Inspectie van het Onderwijs, 2010). And it also reported that it is clear that the school results, and so their quality in terms of learning outcomes and efficiency, could be improved considerably, if more schools adopted these principles. The inspectorate also published examples of '*good practice*'. Now it is up to the schools, their boards, the supporting agencies and also the government (via all kinds of smart, stimulating and subsidised projects, the production of tools for schools and a boost to the in-service training that is offered) to take action in order to bring significant improvement.

Here, we also see an important facet of inspection: the inspectors' report about what they have seen ("fair and without fear", as Office for Standards in

Education, Children's Services and Skills (Ofsted,) the English inspectorate, has said). In this, they identify quality problems and give a diagnosis of the cause of these problems or recommend a further investigation into the causes. But, in general, the inspectors do not give concrete advice or an action plan; this is seen as being beyond both their remit and expertise. It could also lead to the situation that, after a few years, the inspectors would have to evaluate their own advice and recommendations, and this would prejudice their independent position.

My clear view is that these functions can never be fulfilled by inspectorates who work in a kind of isolation. There has to be a strong link with the work of authorities and supporting agencies who support school development via local or regional centres, curriculum development, in-service training for teachers and heads, test development and development of teachers' tools. This approach requires coordination at local, regional and national level and, fortunately, we see this happening more and more frequently. See the profiles of the 18 inspectorates for more details (van Bruggen, 2010; www.sici-inspectorates.org).

Of course, the two governance philosophies ('*the good enough*' and '*the best*' schools) are strongly connected with many discussions about educational policy, modern school governance and the best division of responsibility within education. For example, they relate to the important issue of the self-evaluation by schools as an important engine for improvement. Some people, particularly in England and Germany in the nineties, have written that external inspection could damage this internal driver for change. Now it is more clearly seen that it is not a matter of either external inspection or self-evaluation, but a combination that is an effective dual strategy for school improvement (see note three for sources).

A second example is the discussion about the autonomy of individual teachers and their professionalism as the vital force of innovation and impact in school education. Are external inspections killing the professionalism of teachers and dealing with teachers as '*technical appliers of a set of indicators for good teaching*', without giving room for the more creative side of the profession, and without seeing the limitations of central regulations?

In a way, the discussion about inspection is a node for all kinds of other discussions about the power of education in economic restructuring and in raising the welfare of a country. So, it is no wonder that in many of these discussions, policy documents and general declarations (see the well-known European statements of Lisbon, etc.), a link is made with the '*external evaluation of schools*', or '*inspection in order to monitor the development*' of schools.

But this does not mean that the inspection of schools is an important innovative force in itself or an isolated '*provision*' that can bring about the improvement of schools that so many governments want. Many ministers have made this mistake

in the initial phases of introducing inspection regimes for full school inspections, and feeling that, if such a regime is introduced, '*you can lean backwards and everything will be better*'. In some of the 16 German Länder (states) this was the way of thinking in the early 2000s, which we would now see as being rather '*primitive*'.

From the short statements about the four conditions for effective inspection, it is clear that inspection can only bring change and improvement under the condition that other powers have also been activated and are ready to be used. These include the school itself, the supporting agencies, the pushing, requesting and checking authorities, the parent force that takes responsibility and, last but not least, the national government that has regulatory and financial responsibilities and also takes responsibility for enabling all parties to do what they are expected to do. I will return to this important issue later, but, first, a few words about other tasks of education inspectorates.

## Other potential tasks of the inspectorates

In this section, I only give very short descriptions about the other tasks of inspectorates and, to do this, I refer to the international comparative analysis that has already been mentioned and to other publications. My intention here is to show that inspectorates still have other important tasks apart from the full inspections of schools.

### Thematic inspections

These are inspections of a restricted topic or subject, and are usually conducted in a sample of schools within a country. In such an inspection, a more detailed and deeper analysis can be achieved than is possible in the full inspection mode. The aim is to obtain a more detailed evaluation of a given topic at a national level. One example could be a report about the quality of mathematics education in the junior grades of primary education.

### A general periodic report about 'the state of education' in a country

Many, but not all, inspectorates analyse their school inspections and their thematic inspections, sometimes also combining them with other sources, and periodically publish a summarising report about 'the state of education' (between every year and every three years). Some inspectorates also publish regional reports of the same type.

### Complaints

Traditionally some inspectorates had a lot to do with, for example, teachers' complaints about heads and parents' complaints about teachers. Now, in most countries, schools have complaint procedures with complaint commissions held at a school or regional level.

### *Management and administration*

Traditionally, some inspectorates had important managerial tasks in running schools: curricular decisions, staff appointments, and facility management of buildings, furniture and school books. Almost everywhere these tasks have now been transferred to school heads and/or to local or regional education boards or similar agencies.

### *Examinations and tests*

Several inspectorates inspect whether school examinations (secondary or higher level) are organised well and taken by students in an honest way. This, of course, has to do with the important civil effects of examinations. In most cases, inspectors are not themselves involved in setting the examinations or the grading. In some inspectorates, staff are involved in advisory work about the development of national programmes for examinations and their link with the national curricula. In a full inspection, inspectors will use pupil examination and test results as an important source for their judgement about the learning outcomes of a school.

### *Advising schools*

Traditionally many inspectorates had important tasks advising, by request or mandate, heads and teachers about all kinds of issues: for example, choice of school books, interpretation of national curricula, and teaching methods. In most countries, these tasks are done by advisors in regional or national offices and are separate from inspection, although these advisors can use the outcomes of inspections as a basis for their advisory work. But there is an important advisory element in the daily work of inspectors, perhaps not intended as such, but still perceived by teachers and heads as 'advice'. This comes in informal 'in between' talks; or in short feedback given to a teacher after a classroom visit; and certainly in meetings where the provisional outcome of the full inspection (or another inspection) is presented and discussed. Almost all inspectorates say that this advisory work is not their explicit task.

### *Advising authorities*

There is a thin boundary between 'publishing' a report at system level about some thematic inspection (or annually about the state of education), and sending specific advice to a ministry, parliament or regional authority. If an inspectorate gives a clear judgement about a situation and also gives an analysis of the causes, then formal 'advice' about what to do is, perhaps, not written, but that message is so clear from the report that, in fact, advice is given. So, the statement in many profiles that inspectorates do not give formal advice to the authorities is true, but does not convey the full picture. Some inspectorates have official and formal advisory tasks relating to general issues about educational policy. In many inspectorates, the senior chief inspector participates in high-level meetings with

ministers and other decision makers. In some inspectorates, there is a formal 'duty of advice' about measures to be taken if a school is 'below standards'. And there are, in some inspectorates, other important advisory tasks; for example, about the admission of newly founded privately run schools, the admission of foreign teachers, and diplomas.

### *Influence, public debate and publications*

The profiles are not very explicit on this issue, but there is a general feeling that inspectors have to be careful and discreet with public statements about educational policy issues. Opinions about political issues under debate or about detailed aspects of the teaching and organisation of schools (for example, differentiation and individualisation) are not given in public, or only in a rather indirect way. Certainly, inspectors are required not to speak or write about particular schools. In some countries, however, it is seen as a pity that the broad knowledge and experience of an inspectorate about what works in schools is kept within the corps. Books or films with 'good practice' are published – sometimes also within the general inspection report. It is not easy to find out what happens in this case, because the profiles do not give many details. And in most countries, there is still little 'hard' research about the 'impact of inspection', and certainly not about this more general influence on public debate and policy-making. This is still more difficult to establish in a tangible way than the impact on school improvement, as such.

## 2. Theories behind the work of inspectorates

Of the two main functions that school inspections have to fulfil, the '*guarantee function*' (in which there is no school below the quality threshold that is not known and monitored by the inspectorate), has a clear under-pinning theory. It is the opinion that '*somebody*' has to guard the quality of education for '*the future of the nation*'.

Somewhat less immediately clear is the question of what theory lies behind the thinking that school inspection can bring improvement to schools and to the daily work of teachers. Perhaps for most of the inspection tasks mentioned in Section 1, the answer is indeed simple. For example, if inspectors report that a certain national quality theme could be improved with actions '*x*' and '*y*', it is up to '*somebody*' (the government, the support agencies or the training colleges) to take action. Of course, the problems about innovation, implementation and adaptation (well known in the literature) remain, but the function of the inspectorate is clear: report about the facts and give a clear diagnosis. This is also the case when we talk about the functions of inspectors regarding complaints, examinations and management.

But in a full inspection, this theory (which I summarise as: '*give facts and diagnosis and people will easily and immediately take action*') is perhaps too simple. This thinking, which was prominent in the seventies, eighties and early nineties can be summarised.

1. Hold an outsider's mirror up for school staff to receive a clear, independent and professional reflection of the quality of their work, showing it against a national framework. Understand that staff really did not know about quality problems.[8]
2. Staff will be happy with the inspection and accept any judgements and diagnoses.
3. Staff will easily accept the consequences of their change processes, start to learn and adapt their practices.
4. If staff need help to do this, they will look for it because they are capable of identifying what has to be done, how, when, in which sequence, and by whom.
5. Staff can easily find and accept knowledge about how to act better, and they will apply this knowledge immediately.

It is important to underline that these notions fully respect the autonomy of the school (one of the political dogmas during those years) and express high expectations about what teachers and heads want to do and are able to do. So, the theory fits very well in the headlines of current thinking and rhetoric.

In the above five statements, I deliberately chose rather naive and simple formulations. This '*simple*' theory, however, may sound a little crazy for people who know about school innovation processes and have read some of the hundreds of case studies about school improvement in individual schools and/or about school improvement at system level.[9] But it is indeed true that from 1990 to 2000, many governments and inspectorates put this very simple idea into practice. Evidence for this statement is visible in the '*very impatient*' questions of politicians who asked: "*What type of inspection brings real improvement to our schools?*" This can be seen, for example, in the German developments introduced between 2005 and 2010, and in countries such as Slovakia and Estonia, and in Sweden in the late nineties and England in the mid-nineties. In several countries, impact studies about the value of inspections were launched two or three years after they started.

But perhaps the above theory with its view on '*how inspections work as triggers for improvement*' is too simple, and this is certainly so if we take into account everything we know about school improvement. I summarise, below, our main understandings about the challenges to be overcome by those seeking to make school improvements, based on research in the last 10 to 15 years:

- the difficulties in the articulation of self-knowledge and self-consciousness by teachers and school teams
- the resistance mechanisms towards knowledge and pressure from outside a school
- the reluctance to adopt innovations invented elsewhere
- the human need to develop your own way of doing things (ownership)
- the difficulties in introducing a new type of leadership and management that is evidence based and results driven and which creates a new sense of belonging to a team that is seeking to develop a growing and changing school.

This knowledge on school improvement fits well with the image of a semi-autonomous school that is confronted with an inspectorate's judgement about its quality, takes its judgement seriously and uses it as a trigger for action. Two important differences exist between an inspector's report and the general advice and recommendations for schools about what to change that are given in thousands of booklets, articles, conferences and meetings.

The first one is that the inspection report describes and analyses the real school as people know it or know it however partially. So, the judgements, diagnoses and eventual recommendations are not '*general*' or '*for everybody*', but are '*for us here and now*'. This is a potential '*antidote*' to the lack of self-knowledge by teachers mentioned in the first bullet point above and their reluctance to change given in the third bullet point. The second difference relates to '*the power or pressure issue*'. This pressure for change by the inspectorate differs from the general pressure delivered by social scientists (who, for example, publish articles about bad PISA results and call for school actions '*x*' and '*y*' without really bringing practical solutions which fit into an individual school's context).

These two factors, often seen in parliamentary debates, could perhaps help to counter the indifference or even resistance to change and improvement found in some pedagogical circles – see the virulent debates in England in the early nineties about 'pedagogical mafia' and in certain teacher unions (who feared the 'power play' of the inspectors and their attacks on professional and pedagogical freedom). It is, of course, meaningful that my language here is the language of struggle and power. But, indeed, it was and is strongly believed that an inspection has some power and exerts pressure itself, because it is 'the state' that says 'x' or 'y', despite the fact that there are few who hesitate to accept the authority and quality of the inspectors.

But the question is, of course, is there enough legitimacy to overcome all the problems in the adoption, adaptation, innovation and ownership of the changes needed to improve schools? Here we reach the heart of the matter about the impact of inspection reports about schools. There is more about this in Section 3.

But before this, I have to talk about the fact that we can often see improvements rather speedily after school inspections. Firstly, schools with serious quality problems can sometimes attain astonishing improvement quickly, but only if certain conditions are fulfilled. There are several case studies, in England in particular (for example, see National Audit Office, 2006). I write about this issue at more length in Section 4.

Secondly, many schools quickly make some improvements after the inspections. As impact research (see Matthews and Sammons, 2004; Ehren, 2006 in the list about impact literature), inspector observations and second-generation inspection reports have shown, however, these improvements, most often have to do with '*the easy issues*'. These include, for example, improvement in the arrangements for parents to receive feedback about the progress of their children; improvements in the planning of teachers' meetings; better coordination of teachers' work; administrative improvements; a better playground; better and more sophisticated computer facilities for higher grades in senior secondary schools; better use of the tests that are taken by younger children for analysing their strengths and weaknesses in reading or maths learning; better observation instruments for developing better cooperative behaviour; and better planning of pinpointed help and actions.[10] I called these '*easy issues*', but we must not underestimate these '*rapid improvements*' because they are rather important for many people.

I have also seen and heard about several examples of this type where improvements occur when the staff act coherently and cooperatively, and change is well focused and planned. This effect can bring another spirit, ethos or atmosphere into a school and generates a 'snowball-effect' from this positive experience. Much depends, then, on a school's leadership; a leadership can be successful if it sees and grasps the 'small sparks' of new initiatives, cooperation and innovation, but does this carefully, not too hastily, not with immediate big plans for say three years and not with a lot of externally organised support. This happens by simple means and simple empowerment, with the trick being to create an atmosphere of joy and pleasure in the real and visible improvement that is realised. One example is to offer a simple drink on Friday afternoon in the classroom of a teacher who has, over three weeks of extra work, installed a new and better system of individual and differentiated task selection for children. Such a small celebration can enforce the sense of belonging and also the sense of cooperation.

Of course, this effect can be stimulated by the inspection report and certainly by the way it is presented to a school community. More and more inspectorates nowadays do more than attend only a short meeting with a representation of the school community immediately after the inspection, where the main findings, judgements and recommendations are presented orally. A good example, in my opinion, is the arrangement of the inspectorate in Germany's Rhineland-

Palatinate. After finishing the final report (with a prior opportunity for the school to comment on a draft), the inspectors organise a large meeting with all teachers, school management, parent representatives and other stakeholders. In the first part of this meeting, they present the report for the whole audience. In the second part, group discussions are held about: what can we as a school learn from the report and what can we do, both quickly and later, in order to improve things; and what type of conclusions do we not find so important?'

These discussions are chaired by inspectors and have to conclude with provisional ideas for an action plan. Of course, the action plan has to be developed further shortly after the meeting and an agreement has to be made between the school and its local or regional authority (the Germans use the fine word, 'Zielvereinbarung': agreement about the objectives of our actions). This arrangement has the potential to generate positive energy and to discover and adopt realisable improvements that can bring long-lasting benefits. In the comparative analysis of the 18 inspectorates, more of this type of connection between the inspection report and the start of improvement actions can be found.

In my work as a member of the jury for the German School Prize (see www.schulpreis.bosch-stiftung.de) in the last four years, I have inspected some 15 of the best German schools in the primary and secondary sector. I am again impressed that many schools have been brought into an accelerating movement of improvement and change by small, and at first sight, not too important innovations. These have been seen by good school leaders, however, as important seeds or starters. Biographies for some of these schools already exist or are summarised in the books about the prize winners in 2006, 2007, 2008 and 2009 (forthcoming); see Fauser, *et al.* (2007, 2008 and 2009). [11] Some of these school leaders confirm (mostly in confidential and off-the-record conversations) that a recent school inspection has often been the engine that has led to new motivation and a new consciousness that things can and have to happen. [12] Good school leaders can use a school inspection as a trigger for a new process of school improvement that goes much further than the improvement issues that have been mentioned in the inspection report.

So, less piecemeal and more general, holistic and sustaining school improvement can be triggered by a school inspection report. But this will only happen under certain conditions – in part, those requirements set out in the report itself and its 'presentation' to the school, and in part, those fulfilled by making changes to the internal school context, in particular in the leadership.

Now we touch again on the more general issues highlighted by impact research about full school inspections.

## 3. What do we know from the research about the impact of school inspections?

Can this type of research say something about whether the 'simple theory' about school inspections as an engine for school improvement actually works?[13] What do we know from previous impact studies (see some studies mentioned in a separate part of the literature list at the end of this paper)? I summarise, below, some of their key findings.

- About 90 per cent of teachers and heads are satisfied with inspections in that they agree that the inspectors did a good job, saw the things that mattered and judged fairly.
- Schools frequently take action immediately after the inspection, but they tend to do things that are 'easy' to improve; see Section 2.
- Most teachers and heads confirm that the inspection report (if it is good and sharp) is often not very surprising, and mostly confirms what they already knew about their strong and weak points, but these had not been openly discussed in the school. They also say that the report brought a new stimulus for action and discussion that, if the leadership took up these opportunities, led to improvement. So, the inspection can bring a new consciousness and willingness, but if this happens, it depends on other interventions and circumstances. See Section 2.
- Doing really good and reliable impact research into the more important and deeper improvement processes within schools is difficult and very time- and energy-consuming. There are simply too many intervening variables operational in long-lasting and sustainable school improvement and thus the effect of one event, an inspection, is very difficult to isolate. From school biographies, it is clear that in all cases it is a combination of variables, rather than one event or factor, which is important. The leadership, a new motivation brought by some new teachers, clear pressure, plus support, by the school board and/or the local authority, are just some of the more influential variables.
- The impact of inspections on the improvement of learning outcomes is difficult to attribute to inspections alone. If an attempt is made to measure that impact, then it is found to be rather small. Rather, it is that inspections fit into a more general climate of '*results-driven*' teaching and development in schools. In such a climate, all kinds of other measures fit too: the promotion of self-evaluation, the production of good tests and observation instruments for teachers, in-service training, national assessments and greater weight on final examinations and cross-school comparisons. Inspection of schools is only one measure in this long list.

Most impressive, for me, were the results of a series of in-depth interviews with Dutch schools immediately after an inspection, and then three years later, undertaken by Ehren (Ehren, 2006 in Dutch, but later sources are in English). These showed clearly that much depends on the quality of the inspection reports. The reports must be clear and sharp, and give details of quality issues that deserve quick and not superficial action.

The interviews also revealed that detailed suggestions about what to do and how to bring improvement had to be given. This is, of course, a painful issue, given the division of tasks between inspectors (for example, judgement and diagnosis) and advisors or support people. It also appeared that it was helpful to have clear agreements between inspectors and a school, or between the local authorities and a school, about what to do and how and when to do it. (This refers to the 'pressure issue' that I have already mentioned).

It also appeared that if these conditions are fulfilled, schools with relatively good structures and systems for self-evaluation and self-governance were able to use the inspection report better and more fruitfully than other schools. This is a welcome confirmation of the relevance of the investments in strengthening the management, self-evaluation and self-governance of schools.[14] These findings are also confirmed by much research done in England; for example, in the fine review of Matthews and Sammons (2004).

If we want this type of impact to be seen in all schools in all our systems, two consequences then follow. First, it means that regular (say, once in three or four years) and rather detailed inspections have to be done. The resulting report has to give a clear indication of the good and weak points in school quality and provide a sharp diagnosis of the underlying quality and organisational problems that need to be addressed. It also means that the links between three key components must be effective. The three components in a successful arrangement are:

1. evaluating and diagnosing – the tasks of inspectors
2. guidance, in-service training, school-based and school-directed curriculum development – the tasks of the school management and external support agencies
3. pressure, contracts about actions and improvement, monitoring and supervision – the tasks of regional authorities or other 'agents with power'.

So, my conclusion is that indeed the impact of school inspections can be feasible and visible, but only when certain important conditions have been fulfilled, will there be a 'double impact'. We come back to some of these issues later.

# 4. Case studies about very weak schools that can improve quickly

In some impact studies one can find evidence about impressive improvements in very weak schools. Most of these studies have been done in England. In the profiles on the SICI website some other inspectorates also report convincing results; for example, Sweden, Ireland, Scotland and Flanders.

I describe here one convincing example from the Netherlands (Hoogenboom, 2006). It is about six very weak schools, identified by the inspectorate in 2003–04. The government had commissioned a small consortium of one national and three regional support agencies to support the schools. In the action plans drawn up, as a basis for the extra money given by the national government to these schools, rather tough measures were agreed. These involved: extensive in-service training for the staff (partially in their own unpaid time), replacement of some heads, other staff and some school boards,[15] and immediate use of new teaching materials. In the three towns with the six very weak schools, a concerted and well-coordinated action was planned and carried out by the local authorities, school boards, national and local support agencies, parents' commissions, and the teaching force themselves. All action was based on the schools' inspection reports. Within a year and a half, a considerable improvement was recorded. This took place in the learning outcomes of children, as measured by standardised tests; in the atmosphere and spirit and ethos in the schools; in the cooperation amongst teachers; and, in particular, in the leadership and management of the schools. With the hard work of all involved, with tough measures and with unpleasant consequences for some people, it was possible to pull the weak schools out of the quagmire and to save children from bad or mediocre teaching. The analysis in the six schools, after two to three years of work, showed some very interesting and convincing facts that were at the heart of the change. There were a number of important messages.

- Regular testing and/or standardised observation of learning and learning outcomes are vital.
- Visits by experienced and respected school heads, deputies or senior teachers with the specific task of being a '*visitor-connoisseur*' in working classrooms and giving direct feedback on teaching helps a lot if advice is given in a safe atmosphere of collegial support with a shared professional will.
- Younger teachers must agree to use the teacher handbooks as 'recipes' and must not use their own creativity when they have to work with complicated learning sequences in reading or maths or are encouraging children to adopt better social behaviours. They also have to cope with the broad differentiation in their learning groups. This is a difficult task and they have to accept that they must study and apply the resources in the handbooks, and not start with

their own experiments. Growing into the profession costs time and energy, but can be planned and coached.

- Renewed '*technical*' training of more experienced teachers brings considerably more improvement in classroom management, teaching effectiveness and learning outcomes than people might expect in advance.
- The stimulating and regulating function of the school leadership is vital, but that is also true for the managerial and organisational capacity that enables teachers to concentrate on their core business, because everything else in the school is running smoothly.

What is convincing in this type of case study, and in other schools' biographies, is that it is indeed possible to make the more difficult improvements to schools. Improved behaviours of teachers or heads, much better curriculum planning,[16] visible improvements in the pedagogical climate (or ethos), real improvements in the coordination between subject teachers, or improvement in the longitudinal coordination between succeeding grades, and other important aspects of what makes a good school, can all be achieved. This needs more than some quick '*plug and play*' arrangements.

Deeper and sustainable innovation and improvement requires a lot of hard work in preparing teaching, engaging in smart curricular planning, and trying to find new and motivating learning arrangements, materials, projects or syllabi.

Time and energy are also needed for real talking and looking. There has to be time and openness for having colleagues in your classroom who want to see what you are doing and how (and who give their reactions). There has to be development of an open attitude to experimenting and using mistakes as sources for improved learning.

This sustainable improvement requires good leadership, a smart management, clear arrangements and rules in the school on how to behave and how to manage the daily stream of information on changes in children's lives and circumstances that could facilitate or detract from learning.

It is also clear, however, that in these case studies, the inspection and its report is '*only*' a trigger, an important trigger, yes, but not more than this. And it is only effective if it clearly identifies the quality problems and their underlying causes – and preferably gives a clear direction of what can be done to improve the situation.

## 5. School improvement and innovation at school and system level, and newer inspection arrangements

In this article it is not possible to challenge the conclusions at the end of the preceding section with all the knowledge we have about the processes of school improvement. But the summaries given in preceding parts are clear enough: what we know about school improvement is in line with what I wrote earlier. My view is that we know enough about how to create circumstances and environments that are favourable for bringing about really sustainable improvement, as indicated by good and thorough full inspections of schools.

Most of the 18 profiles on the SICI website (www.sici-inspectorates.org) show that countries have developed various modes for full inspection. Overall, they are rather similar, at least for the early cycles of school inspections in a country. The inspectorates that have longer experiences of full school inspections are, however, confronted with some problems.

A key question is whether an inspection of two days or so, with two or three inspectors, really can give an in-depth image of the quality of all important aspects of a school, subject teaching included. As we have seen, a detailed inspection is needed if it is to have a real impact in the majority of schools. In practice, such a deep and differentiated image of the quality of a school is not found in most inspection reports, although it is difficult to generalise. In a first inspection, that is not a big problem, because a rather general quality judgement is valuable for guaranteeing threshold quality and for delivering starting points for school improvement. But a repeated inspection of the same '*superficial*' character – and certainly if this comes only after five or six years – does not bring much new knowledge. This is, of course, for many inspectorates a budgetary problem: not having sufficient staff and money. But this is not the only cause: many influential bodies (political parties, teacher union executives and universities) find it dangerous to build too powerful an inspectorate that has too large an influence on schools, and one that is going to dictate what 'the best quality' is in terms of quality statements and indicators.

Although the judgements of the inspectorate have no legal or obligatory status (with the exception of special regimes being in place for very weak schools in most countries), the fear is that the inspectorate is going to decide what good teaching is. As leaders of some inspectorates say, this does not fit with the current philosophy of collaborative and shared responsibility, and could lead to dependency and the deprofessionalisation of teachers.

I cannot go deeper into this very interesting issue that directly touches on one of the political '*trials*' of inspectorates. But it is clear that not many inspectorates can

easily ask for more money from their governments, even if there is pressure for this from outside – sometimes from teacher groups and unions.

Some inspectorates try to solve this problem in a second or third round of inspections by adopting a short general inspection, which produces an overview of school quality, plus an inspection of one or two issues chosen by the school or the inspectorate to inspect in more depth. See the profiles for Northern Ireland, Wales, the German state of Hesse, and Flanders. In these places, schools have the opportunity to use the inspection outcome to improve one domain of quality and perhaps as a more general trigger for improvement that I sketched earlier.

Some other inspectorates take a '*risk-based*' view: only those schools that display indications of deteriorating quality (as shown by national tests or examinations, alarming articles in the press, a growing number of serious complaints by parents or pupils, and poor self-evaluation reports required by authorities of inspectorates) are subject to further inspection. The Netherlands inspectorate does this most radically, but other inspectorates have elements of this risk-based strategy. In such an approach, the '*average schools*', that are not really bad and not really excellent, are not inspected.[17] And so, the inspectorate cannot have a positive influence on improvement for these schools. These inspectorates make a clear choice: the '*guarantee function*' of the inspectorate is vital and the '*improvement function*' is only fulfilled at system level by thematic inspections in a sample of schools. Estonia's inspectorate is very clear about this political choice: after a couple of years of full inspections, it could not be demonstrated that all schools were better, and so the full inspections were abolished and only in high-risk cases is there a general inspection (conducted by a small national inspectorate), apart from the thematic inspections.

This is a pity because I am convinced that all schools can benefit from a really good, and not superficial, inspection from outside. This is one that is undertaken by experts (when it is an inspection about a rather specific subject or aspect of quality),[18] produces a detailed report with recommendations, engenders a professional debate among teachers and with people who are able to support the school,[19] and creates a '*pressure structure*' around the school that keeps even an excellent school awake and always striving for better quality.

The Flemish arrangement, started in the summer of 2009, seems very promising; they call it the "*differentiated mode of inspection*". All schools are inspected in a one-day inspection, which also examines self-evaluation reports and other kinds of written material. The result is an estimation of '*risk*' and, if the school is rated as being at '*high risk*', a full and deep inspection is conducted (about all quality domains within the inspection framework, thus fulfilling the guarantee function). If there is no serious risk, two or three quality issues are selected for a consequential inspection a few months later. These quality issues are selected by the inspectorate in consultation with the school. An issue might be put forward

by the school because its leaders think that a tough external inspection could boost developments, but it could also be an issue that is felt to be very good or excellent and is inspected in order to expand the set of good practice published by the inspectorate. For further details, I refer to the Flemish profile. We have to wait and see whether this dual process of inspection provides a workable solution.

In countries where a close connection exists between the inspectorate and the local or regional authorities (support agencies included), one could hope that even a general inspection report once in three or four years, combined with good attention to the post-inspection work, gives enough triggers for the stakeholders to take real action and to go further – perhaps even with their own more focused inspections. In the profiles of Wales, Scotland, Northern Ireland, Hesse and Saxony, some glimpses of this creative use of a general inspection report may be seen, but the vision is not very clear. Much will depend on real cooperation between local schools (clusters), the inspectorate, and the local or regional authorities and the support agencies who provide guidance, coaching, school-focused curriculum help, in-service training for teachers and quality circles for heads and senior teachers. Incidentally, there are fine reports about this type of effective school-improvement work in England, Flanders, the Netherlands, some German states and France.

## 6. Final remarks

In these newer arrangements, delivering '*tested*' new knowledge about '*good teaching and learning*' remains vital. This means teaching and learning with better and more up-to-date content and with teaching and learning arrangements that are updated with our newer knowledge about how young people learn and how they can be stimulated to develop an active learning attitude. We know so much about what could be done better in classrooms, based on careful thinking and experiment, as well as on the sometimes amazing creativity of teachers and on small-scale curriculum development (as seen in the best German schools that I mentioned and, of course, also in the best schools in all countries). But it will only reach the classrooms on a larger scale if the curriculum institutes and the inspectorates build much better interfaces with each other. This will need locally- and regionally-based projects which help improve clusters of schools and where the learning from these becomes embedded in local or regional agreements with the authorities and the support agencies.

I am convinced that the controversies about the usefulness of inspection as one of the newer instruments in new governance structures for schools and education systems (see Brockmann, 2007) that dominated so many discussions in the nineties and early 2000s are now over. We can now experiment with concerted

actions in order to make the best use of all our capacity in trying to improve our schools further – for the sake of children and our future society.

I have left one important problem untouched. This is the problem that there are too many '*not so good as they could be*' teachers, and even bad teachers.[20] All inspectors know this, and often make comments like:

> *"If only this teacher did 'x' or 'y', the learning or the climate in the class could be much better."*
>
> *"What a pity that he/she seems not to know that it could be done differently."*
>
> *"What a pity that she does not read teaching journals or books about the methodology of her subject teaching."*

I am convinced that another condition for improving the impact of inspections and for real improvement in schools and school systems is that the problem of '*bad*' or '*not good enough*' teachers is tackled.[21]

This means that the inspectorates have to change their standpoint that they do not give a judgement about individual teachers or heads. Emerging examples of possible new roles for inspectors are present in Ireland and Wales. But if the new systems of certification for teachers in the Netherlands and England, and new school-based strategies for self-evaluation and improved teacher development, do not develop more quickly and with sharper foci everywhere, improvement in schools will remain slow and unsatisfying. Fortunately, in countries like England and the Netherlands new systems of certification for teachers and also new school-based strategies for self-evaluation and improved teacher development are being developed and implemented, but, I think, too slowly. All teachers must really develop a professional attitude towards their own learning and development; otherwise, improvement in schools will remain slow and unsatisfying – and our society will not accept this for too much longer.

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## Notes

1 Several inspectorates in the 19th century did inspections of schools with some of the characteristics of what we call now 'full inspections'. See Dodde (2001); Coolahan and O Donovan (2009); Lawton and Gordon (2003) for examples from the Netherlands, Ireland and England.

2 Most inspectorates publish an annual report, sometimes once every three years. They have an analysis of the state of education in the nation.

3 There is a wealth of literature about self-evaluation and its value, including a Consortium of Institutions for Development and Research in Education in Europe (CIDREE) network programme with ten reports and a summarizing report (Alvik, 1996). See also the Effective School Self Evaluation (ESSE) project of SICI. See Janssens and van Amelsvoort (2008) and other sources mentioned there. See also the general literature, for example Macbeath (1999) MacBeath *et al.* (1999) and Buchen and Rolff (2006). See also Stern *et al.* (2006) about the successful German project SEIS (Selbstevaluation in Schulen).

4 Such an analysis is a lot of detailed work and is also hampered by the fact that it is true that most frameworks may be found on the inspectorates' websites, but mostly only in their mother tongues, with sometimes summaries in English. A second problem is that the three levels of statements about quality that can be distinguished have not always been elaborated completely in the published frameworks. For more explanation about the three levels I refer to the comparative analysis mentioned. Summarised, these levels are: domain statements – for example, about 'good learning outcomes'; indicators for such a domain – for example, about good results on examinations for a number of subjects or good competences acquired in problem solving; and the third level of practice descriptors – observable characteristics of the indicators – for example, 'the

mastery of problem-solving competences in solving social conflicts among children in grades 7 and 8 in this school is above what is seen in average in schools in comparable social and ethnic circumstances'.

5 In the mentioned comparative analysis I have described three examples (Rhineland-Palatine in Germany, Slovakia and Scotland) and could show some examples of differences at indicator level.

6 The PISA project and other international assessments have given us a lot of comparative facts but, of course, these projects have difficulties in isolating the factors that explain why some countries score better than others. See, for example, the ongoing discussion in Germany about the characteristics of the Finnish system and the Korean system compared with German schools: what are the secrets? Inspection of a sample of schools against a common framework (or eventually, to start with, a part of it) could reveal what is really going on in classrooms and among teachers who do or do not cooperate. A very promising beginning has been made in the SICI project ICALT (International Comparative Analysis of Learning and Teaching). See Van de Grift (2009) and the website of SICI for other publications.

7 It is a seduction to go deeper into the fascinating history of these formulations – mostly stemming from the times of the Enlightenment and – on the European continent – often introduced in the first decades of the nineteenth century in the aftermath of the French Revolution and the Napoleonic era. One of the key elements was that more and more it was believed that education was also a right for poor children of farmers, labourers and miners. Much later it was also seen that this education – at first only in reading and some arithmetic – was important as a production factor in the capitalistic society. Inspectors, in these early days often church people or people from the lower nobility layers had to ensure that everywhere village schools were established by counts, church parishes or the local authorities and that school masters were hired. See the stories about the Irish, Dutch and English inspectorates of Coolahan and O' Donovan (2009); Dodde (2001); Lawton and Gordon (2003) and the more general study, Schmale and Dodde (1991). Some of the interviews of Caplat *et al.* (1986) show similar issues about the history of the French Inspectorate.

8 This expectation has often been confirmed in research about how teachers and heads see the report of the inspectors. Although in most of this research, it was reported that teachers often said that they knew about the problems, there was an attitude in the school not to talk about these and to continue with the everyday business. School leaders, who were more aware about problems, often welcomed the mirror of the inspectors because the report helped them in their actions to break open the culture of 'continuing as if there are no problems'. Many inspectorates undertook research into perceptions about inspection reports and also made this type of conclusion; see, for example, Matthews and Sammons (2004) in the specific list of literature about impact research.

9 I mention the names of only a few important authors who are well known: Fullan (2001); Hargreaves and Fink (2005); Hargreaves and Dennis (2008); Rolff (2007); Buchen and Rolff (2006). Earlier work from the eighties, but still very good, includes publications from the OECD's ISIP project (International School Improvement Project), the RAND studies and the work of Goodlad in the USA in the eighties.

10 It is not possible for me to give specific references for this issue, but my statement can be based on many inspection reports about schools and on consultations in SICI workshops, for example, about 'follow-up on inspections' and many informal interviews.

11 All these reports are only in German. They contain short descriptions of the 20 finalist schools each year that were inspected by small teams, with two members of the jury and one or two assisting experts and staff; members of the Bosch–Stiftung. They also contain longer biographies of the five prize-winning schools and an analysis of the characteristics of these best schools in terms of the six quality domains that we use in the inspections and judgement: What is learned in the school? How

is the school coping with the variation in pupils and their needs? How is the school educating 'taking responsibility'? How good is the learning and teaching? How good is the climate or ethos? How good is the development of the school and its leadership in serving that development? The reports also contain information from the bid dossiers of the 300 or so schools who present themselves at the start of the process. These contain a wealth of details about the history of innovation and improvement in schools. I do hope that researchers can discover this rich source of knowledge and experience of how schools have found their way to excellence. But, of course, there are also other sources, which yield similar knowledge. Ofsted, for example, published a fine report about twelve outstanding schools in difficult circumstances in 2009 (Matthews, 2009).

12 In most German Länder, school inspections started only in 2006 or later, but some of the schools have already been inspected.

13 In 2000, I gave a paper with the title, 'Inspection as an engine for school improvement' at a CIDREE-SLO conference in Enschede, the Netherlands (van Bruggen, 2001).

14 This movement to give more autonomy to schools and on self-evaluation is well known and visible in almost all Western countries.

15 This was on a voluntary basis because of the strong position of the denominational school boards in the Netherlands. Now a new law on governance of schools has been passed which enables the government and the inspectorate to take this type of tougher measures in a so-called 'intervention ladder'.

16 One of the most difficult coordinating tasks in schools – in particular in secondary schools with their system of subject teachers working with the same group of students in one grade – is the coordination of the progress in subject learning with the teaching of more general skills. This requires the intertwining, for example, of learning sequences in the formation of mathematical skills and concepts with such key skills as cooperation, planning and self-reflection. This is a difficult curriculum problem that has received much attention in professional curriculum institutes and has been the subject of two CIDREE programmes (Page *et al.*, 2005; CIDREE, 2008) Experience shows, however, that it is very complicated for such coordinated and integrative teaching to become part of the daily practice of all teachers involved in a school. Even in the already-mentioned 15 best German schools, I have seen very few schools that were keen on this difficult but important issue and were successful in realising connected learning sequences.

17 In the Netherlands, the Parliament did not want to accept this consequence and forced the minister to make sure that all schools are seen once in four years. For details, see the profile of the Dutch Inspectorate of Education.

18 Some inspectorates can only contract real experts for a few weeks per year or so. See Scotland, England, Wales and Hesse, and also the Netherlands that no longer does it but legally has the responsibility.

19 See the remark about the after-inspection meeting in Rhineland-Palatinate and the Dutch example of the six very weak schools.

20 There is more about this difficult and very sensitive issue in relation to inspections in van Bruggen (2007).

21 That does not mean that I propose the type of messages of Chris Woodhead, Chief Inspector in England in the nineties, who wrote and talked about 15,000 teachers who were bad and should be sacked. That type of message does not bring much cooperation or sense of shared responsibility.

# 6 Teachers in charge? Internal school assessment and evaluation in Europe

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# Teachers in charge? Internal school assessment and evaluation in Europe

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## Abstract

*Improving the quality of education is an issue of growing concern in all European countries. Over the last 30 years, the demands on schools have increased substantially. This concern has been translated into at least two complementary ways of action. Firstly, education systems have been transformed in order to be able to get better results from the existing resources. Decentralisation and increasing school autonomy are good examples of this trend, which can be easily perceived worldwide. Secondly, schools have been asked or pushed to revise their organisation and management in order to improve teaching practices and students' learning.*

*School evaluation is commonly considered to be one of the forces driving this process of improvement. If schools have to make progress, they need to reflect on their strengths and weaknesses, and to account for their outcomes. In other words, they need to become learning organisations.*

*Consequently, school evaluation has been prioritised and developed over the last 30 years following two main directions. On the one hand, a number of programmes for internal and self-evaluation have been developed in several European countries. On the other hand, external evaluation has been given a prominent role in this new process of accountability.*

*What has been the role of internal evaluation and what has been its impact? This article tries to answer these questions, exploring the promises and the reality of internal evaluation, on the basis of the experiences developed in Europe over the last three decades. It is organised into four sections, each one addressing a specific aspect of the subject. It starts by analysing the pressure put on schools to become accountable, follows by making the case for internal school evaluation, then moves towards recent European experience, and ends by identifying some innovative approaches to school evaluation. The headings of the four sections have been borrowed from the titles of outstanding publications or pieces of research in this field, even though sections are not limited to the topics or arguments of the corresponding work.*

## Schools under scrutiny

In the first half of the nineties, the Organistion for Economic Co-operation and Development's (OECD) Centre for Educational Research and Innovation (CERI) developed a project aimed at exploring and analysing the ways in which school inspection and evaluation were carried out in seven member countries: England, France, Germany, New Zealand, Spain, Sweden and the USA. The conclusion of the study was straightforward: schools were considered as key actors and central places for improving education and, consequently, they should be subject to public scrutiny. Two of the key messages emerging from the research, are of great interest in the context of this paper: objective external assessment and 'friendly' advice from professionals or peers, who know a school well; and the ultimate aim should be to build an unthreatening, but demanding, climate of self-review in schools, so that they become '*learning organisations*' capable of continuous improvement (CERI, 1995).

There are two significant factors underlying this demand for public scrutiny: the outstanding importance attributed to students' outcomes when assessing the quality of education and the wide acceptance of the differential effect of schools on students' outcomes. Indeed, schools exert an educational influence on their students which goes beyond what might strictly be expected on the basis of their sociological characteristics. If students' social background was the only variable determining performance, we would not expect to see major differences between schools serving the same population sector. And yet the data confirms that there are marked differences in performance from one school to another.

It is precisely this last observation which has grounded the emphasis on what is known as the '*school effect*', a phenomenon which recognises that some styles of institutional organisation and teaching practice may produce better academic results than others. Whether it be on a theoretical and research level, thanks to contributions from the '*school effectiveness*' movement, or in initiatives such as '*school improvement*' practices or '*accelerated schools*', many authors have insisted on the significance of this '*school effect*' and have helped single out some of the variables which explain it (Scheerens, 1992; Sammons *et al.*, 1995; Scheerens and Bosker, 1997).

This emphasis on the differing contribution which schools can make to their students' performance has combined with other current phenomena to place the spotlight increasingly on the internal dynamics of schools themselves. Among these factors is the pressure that the current social demand for information and accountability in the public sector is exerting on the education system – one of the most obvious consequences of which is a call for greater transparency. Moreover, the central role played by schools in any plan aimed at improving education should be underlined. From this point of view, the notion of a school

as a learning organisation has once again come to the fore and has been the subject of much interesting analysis (Fullan, 1993).

A number of different factors have, therefore, caused educational researchers, politicians and administrators to focus their attention on schools. Whereas for many years, schools were perceived as no more than the last link in the educational production chain, today they occupy a privileged place in the teaching and learning process and in the strategies aimed at educational change. One of the most visible and interesting consequences of their becoming the focus of so much attention is precisely the setting up of many different initiatives designed to evaluate them. From being an extravagance promoted by researchers and educationalists, school-based evaluation has now become one of the key components in modern-day education policy, especially where the development of strategies aimed at improving education is concerned.

School evaluation can be addressed from inside or outside the school itself. In the first case, we speak of internal evaluation, whereas in the second we should talk of external evaluation. In a more precise way, Scheerens has distinguished four main actors in any evaluation: contractors or promoters, evaluators, data providers, and clients or users. One can speak of internal evaluation when all these actors are placed within the institution. When only users or evaluators come from outside the institution, evaluation can also be considered as internal (Scheerens, 2002).

As remarked in the CERI study (CERI, 2005), internal and external evaluation should not necessarily be seen as opposite activities, as they have a number of connections and convergences. Nevo has repeatedly argued in favour of a dialogue between the two of them. He considers that internal evaluation can benefit from external evaluation in two ways: stimulating internal evaluation and expanding its scope. On the other hand, external evaluation can benefit from internal evaluation in three ways: by expanding the scope of external evaluation, improving the interpretation of findings, and increasing evaluation utilisation. This dialogue is even more advisable as "*everybody seems to hate external evaluation while nobody trusts internal evaluation*" (Nevo, 2002b, p. 14).

In the nineties, CIDREE developed a very interesting collaborative project on school self-evaluation. It resulted in a comprehensive, theoretical volume (Alvik, 1996), several case studies – from Austria, Norway, Germany, England, Belgium and Switzerland – and a methodological publication (Schratz, 1997). In the volume best describing the project, Trond Alvik distinguished three different kinds of possible connections between internal and external evaluations: parallel, sequential (normally the school conducts its own evaluation and then the external body uses this as a basis for its review) and cooperative (Alvik, 1996). Analysing the current situation of school evaluation in Europe, and explicitly quoting the CIDREE project, MacBeath (1999) concluded: "*The school improvement*

*evidence suggests that, as a school system matures, it moves in a progressive line from external inspection, through parallel evaluation, to sequential and co-operative models*" (p. 96).

## Schools must speak for themselves

From the previous analysis, we may conclude that current education policies tend to grant schools a major role in the process of improving education quality. And to realise this goal, schools need to act autonomously and responsibly. Adopting a term which has come into widespread use in management theory, we could say that schools have to become '*learning organisations*'. It is expected that critical reflection on its own organisation and performance by a school is integrated into day-to-day school life, rather than considered as an occasional audit or preparation for an external visit by inspectors. It is in such integration of self-evaluation into everyday school activities where the greatest strength and most powerful justification for evaluation lie.

This is the key argument for making the case for internal school evaluation. In fact, as MacBeath argued, the primary goal of school evaluation should be to help schools to maintain and improve through critical self-evaluation. Inspection visits and external evaluations usually fail to touch the real day-to-day experiences of students and teachers. Even the solution of complex problems like bullying or the observation of the most crucial indicator of school quality (that is, how pupils learn) tends to elude the external view (MacBeath, 1999). As a consequence, school members should be actively involved in all processes of institutional review and evaluation.

As mentioned above, researchers have tried to find the outstanding factors underlying school effectiveness. But, even though systematic efforts have been made to identify such factors, they cannot provide schools with a clear agenda for action. MacBeath argued: "*Sammons et al.'s eleven factors are likely to provide a fairly robust set of benchmarks for an effective school but they cannot tell the whole story*" (MacBeath, 1999, p. 11, citing Sammons *et al.*, 1995). And the use of the singular term '*school*' can also mislead, as there is not a single model of an effective school "*as if it were some kind of homogeneous entity*" (MacBeath, 1999, p. 11). Rather, there are very different effective schools – in plural. And even within a single '*effective*' school there are lights and shadows, both excellent and poor practices. This complex reality obliges researchers and school managers to be cautious when designing evaluation tools and improvement plans for schools.

Part of the case for self-evaluation is the concept of the school as the basic unit of change, and '*change*' considered as the activity of a professional community (Fullan, 1993). Internal or self-evaluation is based on the assumption that development and change come from within institutions. Teachers should then

take an active part in any exercise of internal evaluation, as well as parents and even students. It does not imply the need to adopt a simple approach, as organisational learning is the result of a process characterised by conflict, dilemma and ambiguity. But in the end: "*The essence of a successful organisation in this post-modern world is the search for improvement, and effective self-evaluation is the key for it*" (Barber, 1997, p. 137). The assumption underlying this principle is that feedback is critical to organisational development and improvement. As MacBeath *et al.* argued, it should be considered as "*an essential and integral element of good teaching, meaningful learning, effective leadership and evidence-based management*" (MacBeath *et al.*, 2000, p. 94).

These considerations led MacBeath to state that "*in healthy systems there is sharing and networking of good practice within and among schools on a collegial basis*" (MacBeath, 1999, p. 1). And we may agree with him that this approach is deeply embedded into the dynamics of change.

Simons argued that it is not only a question of health, but also of democracy: "*That evaluation of schools is needed in a democratic society is not in question. What is in question is the kind of evaluation that is needed for what purpose*" (Simons, 2002, p. 18). In her view, student achievement testing does not do justice to the complex processes of learning and teaching that go on in schools. Even if the contrary is often argued, practices such as the publication of performance tables are not a democratic exercise, because they do not provide citizens with complete and balanced information about schools. They are usually one-dimensional views and limited only to a certain type of school outcome. So, arguments about lack of fairness arise.

Simons presented four premises underlying the case for self-evaluation, based on her concept of a democratic evaluation (Simons, 1987). The aim was to find an appropriate balance between the public's right to know and an individual's right to privacy in the conduct and dissemination of an evaluation. Simons (2002) drew a number of conclusions.

- Teachers are in the best position to evaluate curriculum and learning changes at the point of need, responding to students they know well and whose progress they are continuously assessing.
- The quality of education can best be improved by supporting and strengthening the collective professional development of teachers, schools and school districts.
- Professional development is best achieved through the creation of a collaborative working culture in which teachers, schools and school districts can safely, critically and publicly evaluate their work and the conditions in which they work.

- Schools and districts which implement such a process of on going monitoring and self-evaluation of their policies and practices, and open this to public scrutiny, demonstrate their accountability to students, parents, the profession and the wider public.

As a consequence, Simons (2002, p. 23) defined school self-evaluation as:

> *"A process of conceiving, collecting and communicating information and evidence for three distinct purposes: informing decision making within the school, i.e. to facilitate a process of school development; ascribing value to a policy within the school or to the school itself; establishing public confidence in the school."*

## Self-evaluation in European schools

School evaluation has been developed in Europe in the last two decades. The 1995 CERI publication studied five European countries: England, France, Germany, Spain and Sweden. All these countries reported both external and internal evaluation as complementary exercises. Nevo (2002a) collected additional information about experiences in Norway, England, the Netherlands, Austria, Spain, Scotland and Germany, making explicit the existing connections between the two approaches. Perhaps one striking point is the limited development of internal evaluation in the USA compared to Europe. Scheerens (2002, p. 39) stated that, "s*chool self-evaluation does not to appear to be an issue in school restructuring in the USA*".

One interesting national case is that of the UK. MacBeath, in 1995, developed an interesting project of school self-evaluation in England and Wales, commissioned by the National Union of Teachers (NUT). It aimed to design a school-friendly but robust approach to self-evaluation. It was based on the experience developed previously in Scotland, in which MacBeath played a central role (MacBeath, 1999).

Scotland was, in fact, one of the first countries in Europe to introduce systematic school self-evaluation. In 1992, the Scottish Office Education Department decided to make public the framework and the criteria to be used for school evaluation and to ask teachers, parents and students to reflect on the quality of their schools, so exploring their expectations. It gave the schools the instruments for conducting a full institutional audit. The exercise proved positive and fostered a movement towards self-evaluation which developed in the nineties.

The afore-mentioned English research team decided not just to apply an existing self-evaluation model, even if some proposals were available and offered interesting possibilities. Its main objective was to learn from the experiences of schools: to explore the way in which teachers, parents, students and other school

community members could participate in the process and so build their own framework for evaluation adapted to real contexts and circumstances.

To develop such a model, the research team worked with ten schools from different levels, locations and contexts. Working with them allowed the team to explore the main dimensions of school life and actively consider the criteria for identifying a good school. Ten clusters were identified:

1. school climate
2. relationships
3. organisation and communication
4. time and resources
5. recognition of achievement
6. equity
7. home–school links
8. support for teaching
9. classroom climate
10. support for learning.

Five specific indicators were developed in each cluster, producing a set of 50 indicators covering the most outstanding features of a school. For each of them, qualitative and quantitative evidence was identified, as well as the most appropriate methods and instruments to gather and elaborate information.

The report, *Schools Speak for Themselves: Towards a Framework for Self Evaluation* (MacBeath *et al.*, 1996), collected and discussed the results of the research, and was publicly presented by the NUT in January 1996. It presented a framework for self-evaluation which could be used by schools and education authorities for quality assurance and school improvement. The framework included four key elements: an overarching philosophy, procedural guidelines, a set of criteria or indicators, and a tool kit.

The report provoked an interesting political and educational debate and received many expressions of interest, mostly from local education authorities. Even if the Office for Standards in Education, Children's Services and Skills (Ofsted) approach to school evaluation was not exactly the same as that in the research exercise, the NUT initiative fostered debate about and reflection on the possibilities of self-evaluation for institutional improvement.

But proposals, essays and debates were not restricted, at this time, to the UK and the other countries already mentioned. In fact, shortly after this the European Commission decided to finance a project oriented at promoting self-evaluation of

schools in European countries. It took the form of a Socrates project, with the title *Evaluating Quality in School Evaluation* (MacBeath *et al.*, 2000).

The project involved a total of 101 schools from 18 countries, heterogeneity being their main feature. They differed in structure, educational level, prior experience in self-evaluation, composition of the student body and institutional culture. But all of them agreed voluntarily to join the project. This combination of diversity and common will was one of the most interesting characteristics and the main strength of the initiative.

The project had three key operational features: a common self-evaluation profile; a set of guidelines and a repertoire of evaluation tools; and the support of a '*critical friend*'. The self-evaluation profile consisted of 12 key areas of school life grouped into four domains.

a) Outcomes: academic achievement; personal and social development; and student destinations.

b) Process at classroom level: time as a resource for learning; quality of learning and teaching; and support for learning difficulties.

c) Process at a school level: school as a learning place; school as a social place; and school as a professional place.

d) Environment: school and home; school and community; and school and work.

One of the most valued aspects of the project was the support offered by what was called the '*critical friend*'. The four main stakeholders participating in the self-evaluation were teachers, students, parents and members of the board. But they did work with an external support, a person appointed to or selected by the school. That person had the mandate of being a friend and critic of the school and supporting the school in its review exercise. Critical friends played a key role in helping schools to create a good scene for self-evaluation, select the appropriate data and tools, and interpret findings. Critical friends proved to be one of the most appreciated aspects of the project and contributed to its success (MacBeath *et al.*, 2000).

## Innovative approaches in school evaluation

These developments are just a sign of the ongoing changes produced in the field of school evaluation. As seen before, a significant number of European countries have implemented plans and programmes for school evaluation, some of them combining both external and internal approaches. Modalities of such combinations did vary from one country to another, but in general terms there was an explicit interest in sequential models.

As a result of these developments, the field of school evaluation has enlarged and incorporated new perspectives. Some schools became subject to external inspection visits, others initiated their own internal revision and many conducted both processes, more or less in parallel or sequential. In these circumstances, questions arose about the development of school evaluation and its future prospects. Many voices raised questions about what future trends could be envisaged and what kind of innovations introduced.

Between 1997 and 1999, a group of European researchers, composed of John MacBeath, Francesc Pedró, Jaap Scheerens and Sally Thomas, under the coordination of Alejandro Tiana, developed a Socrates project aimed at identifying and analysing innovative approaches in school evaluation in Europe (Tiana Ferrer, 1999). The project focused on four main dimensions of school evaluation: political and organisational, theoretical, methodological, and economic and material.

The project combined theoretical and methodological analyses with six detailed case studies selected for their innovative nature. Its final chapter presented the outstanding trends detected in answer to the main changes produced in the field of school evaluation at the end of the nineties.

The main trends identified were classified in four categories.

**Political and organisational dimension**

School evaluation is not neutral: it is right at the heart of current education policy in many European states. It is, therefore, not merely a technical exercise, but a complex reality with important political implications.

*i) A boost for school evaluation from educational authorities*

The first obvious tendency in school evaluation is the expansion of its use in recent years. An increasing number of countries have implemented systematic evaluation plans in their schools, even though the scope and objectives of these initiatives are very diverse. What these processes in different countries have in common is that they are largely the result of the explicit desire of education authorities to promote this practice, in keeping with a new style of education policy-making.

The evaluation plans which have emerged as a result of this new interest have adopted different forms and purposes. In some cases, the emphasis is on internal evaluation whilst, in others, external evaluation is the main priority. In some places, the chief aim of school evaluation is accountability, whereas in others it is organisational improvement and development. There are even cases where these different forms and aims are combined in diverse ways.

*ii) Perception of evaluation as an opportunity for institutional improvement*

The tendency analysed above is not a completely new one. Its novelty lies in the growing number of schools which have adopted a positive and constructive attitude towards this authority-imposed requirement, either precisely because they are finding themselves compelled to do so, or simply because they have become more enthusiastic about embarking on evaluation processes.

However, this positive attitude towards (self-) evaluation is clearly not a unanimous one. Evaluation is often perceived as a threat to school life, especially in those countries where schools enjoy considerable autonomy. Yet, while such reluctance does exist, there are also many schools which consider evaluation to be a powerful instrument for organisational learning and improvement.

If self-evaluation has to be seen as a contribution to improvement and schools have to be engaged in evaluation, it implies the revision of initial teacher training and ongoing professional development. Basic training on educational evaluation and research is necessary for all teachers and, consequently, should be incorporated into current teacher-training programmes (Eames *et al.*, 2006).

*iii) Emphasis on the participatory nature of the evaluation*

The importance attached to evaluation as a means of school improvement has resulted in attempts to ensure that it is a participatory exercise. If the school considers evaluation an opportunity for organisational improvement, it is only natural that it will encourage all of its members to take part in the process. This principle of action particularly comes into play when the school embarks on a process of self-evaluation. Put another way, self-evaluation makes no sense unless it is participatory, an approach which has become a matter of principle for many school evaluation programmes.

*iv) Networking as an approach to school self-evaluation, combining external and internal approaches*

One of the most interesting trends identified in the field of school evaluation is the combination of external and internal perspectives. Indeed, this is perhaps one of the greatest new developments in school evaluation. The connection between both approaches is seen as a relevant feature nowadays (MacBeath, 2006).

To date, the most usual type of external school evaluation is that in which the initiators and users of the evaluation are at least partially external to the school in question. The least common format is that in which the school itself acts as both initiator and user of its own evaluation, but where the process is actually carried out by an external team. Internal evaluation, on the other hand, consists of a format we could describe as self-evaluation in the strictest sense.

Currently, the main tendency in this field is the clear dissociation between these two types of external evaluation, with the second (where the initiator and recipients are internal, but the evaluators external) being nurtured to an ever-increasing extent. Although this latter format could be considered an external evaluation in formal terms, it nevertheless diverges greatly from the former. The fact that it is the school itself which promotes and initiates its evaluation process and which receives the information obtained, gives it a sense of ownership of the process. This often encourages a totally different attitude from that resulting from external evaluation. In fact, it is a format which comes very close to self-evaluation.

One of the major advances is the emphasis placed on networking in the development of school self-evaluation. Networking enables schools to open up the analysis and interpretation of their data to the outside world, without renouncing either their confidentiality or the full ownership of the process in which they are taking part. From a political point of view, networking enables 'top down to meet bottom up'.

**Theoretical dimension**

The second area of innovation in school (self-) evaluation involves the theoretical ideas underlying specific projects, the dimensions selected to study the everyday reality of school life and the analytical models developed to perform this task.

*i) Use of students' results as a quality indicator*

Recent years have witnessed major changes in the concept of school evaluation, with regard to the importance attached to students' results as an education quality indicator. Whereas the early models focused first and foremost on the analysis of internal processes, more recent examples emphasise the use of results as a key quality indicator.

However, students' results are not only being considered an important quality indicator; their improvement is also becoming one of the ultimate objectives of an evaluation. In addition to the discussion as to which results should be borne in mind in a school evaluation, the issue of how this data should be dealt with is also the subject of debate. As a consequence, the 'value-added' concept is gaining ground (Thomas *et al.*, 2000).

*ii) Opening up to new analytical dimensions and new indicators*

Although outcome indicators occupy an important place in current models of school evaluation, this does not mean they are the only ones in use. Both the initiators of the different projects of school evaluation and the schools involved in them are aware that evaluation requires the analysis of a variety of different

dimensions. If they are to be able to adopt plans for improvement, schools need to gain a comprehensive and balanced view of their real situation. They therefore need to be more receptive to new analytical dimensions and to construct new quality indicators.

Indeed, most of the school evaluation models used at present try to adopt a respectful approach to the complexity of school life and aim to integrate the diversity of its different dimensions. Diverse indicators are, therefore, constructed for this purpose, some of which are undoubtedly innovative.

**Methodological dimension**

In recent years, major innovations have also been taking place in the methodological domain. On the one hand, there has been considerable development in new quantitative and qualitative methods. On the other hand, these different methods are increasingly being put to combined use in many school evaluation projects. Furthermore, their application is opening the way for new evaluation opportunities which, until only a few years ago, were no more than good intentions.

*i) Pragmatism in combining quantitative and qualitative methods*

Whereas in the sixties and seventies, there were frequent and heated debates between the advocates of qualitative or quantitative methods of evaluation, such disputes have been less strident in recent years. What is new is that evaluators and evaluation initiators have adopted a more pragmatic and eclectic attitude towards the use of one method or the other.

Hence, quantitative and qualitative methods are not considered mutually exclusive. The decision as to whether to use one or the other is taken according to the purpose of the evaluation in question, the specific object to be evaluated, the resources available, and familiarity with one technique or another. Even in cases where one of the two paradigms clearly predominates, it is not unusual to find both methods combined in evaluative practice.

*ii) Development of new methods for fair comparison*

Evaluation frequently resorts to comparison as a means of analysis, and school evaluation is no exception. Indeed, evaluation usually entails a comparative operation, which can take place in three different forms: comparison with an ideal model or criterion; comparison with other similar situations; and comparison with oneself over time. The recently introduced practice of benchmarking between schools across Europe also implies a comparative operation.

In the last few years, there has been a tendency to use comparison of the results attained by schools as a fundamental element in their evaluation. Although this

approach is steadily gaining ground, it nevertheless continues to be the subject of considerable debate.

**Economic and material dimension**

The early models of school evaluation were often initiated by researchers who were interested in gaining an in-depth knowledge of the reality of school life and were anxious to cover the full range of internal variables. As a result, some of the models were extremely demanding on resources, time-consuming, or both. Once education authorities began to show an interest in turning school evaluation into a more widespread practice, concern for less costly models that would be simpler to implement became a priority.

*i) Development of feasible, low-cost models*

The recent expansion in school evaluation has led to the emergence of a growing concern for feasible, low-cost models. Evaluation is a costly process which demands time, resources and training. Not all schools are in a position to undertake self-evaluation processes of their own accord. This is why, in recent years, special attention has been focused on developing feasible school (self-) evaluation models.

As a consequence, simplified evaluation models have been devised which sometimes sacrifice sophistication and complexity in favour of affordability and applicability. This requires a clear awareness of their limitations. But once the limitations of such models have been taken into account, it must be acknowledged that they offer great potential, since they can facilitate straightforward, large-scale implementation. Other significant changes in this field have been the development of a range of different models based on economy of scale in order to cut the costs of individual implementation and the development of standardised evaluation, which allows multiple implementation at low cost.

Recent projects developed in this field have demonstrated that this kind of low-cost, school-based programme of self-evaluation can make a significant contribution to a school's improvement. Among the recent experiences in Europe, the Research-Engaged Schools project, promoted by the National Foundation for Educational Research (NFER) in cooperation with school and local authority partners and external advisors, should be highlighted (Sharp *et al.*, 2005). The project identified factors contributing to becoming a research-engaged school: school leaders valuing research and creating a culture within the school to encourage it, a commitment to reflect on practice, a willingness to form research partnerships, both within and outside schools, and having research at the heart of school policy.

The trends identified would appear to mark out the path that school evaluation is set to follow in the coming years. But we cannot rule out changes that may open up other routes, which we cannot as yet even imagine. We must not forget that we are dealing with a very dynamic reality and one that is subject to public scrutiny. School evaluation is a powerful incentive to institutional change and, at the same time, a support to facilitate this process. It is also a form of imposing accountability which is making its mark on other fields of human activity and a mechanism which provides the leverage that will help schools improve and develop into learning organisations. For all these reasons, it is worth following its foreseeable development carefully and closely in the years to come.

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# 7 The use of external assessments and the impact on education systems

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# The use of external assessments and the impact on education systems

*Olivier Rey*

## Abstract

*The development of assessing education systems through the performance of their students is a major phenomenon in recent years. At a national level, several European countries, that have not yet established such assessments, have developed standardised assessments to improve the measure of student performance and used these to infer the quality of schools and teachers. At an international level, The International Association for the Evaluation of Educational Achievement (IEA)[1] and Programme for International Student Assessment (PISA) results have become an essential tool for comparing education systems. Their results have launched significant reform movements in some European countries.*

*In the frame of New Public Management, this development marks a shift from steering by inputs to steering by outputs. It also responds to a widespread concern to monitor and improve the quality of educational services in Europe, in line with the Lisbon 2010 objectives.*

*While these external assessments are increasingly at the core of education policies, educational research has tackled questions about their usefulness, limitations and risks. Indeed, output assessments offer a set of information to establish a diagnosis of educational systems, identifying their strengths and weaknesses. Many debates, however, have stressed that the information may be incomplete, reflect only a part of learning, suppress socio-cultural diversity and suffer from some methodological bias. Finally, if output assessments become education's targets, or if they are used to legitimise reforms adopted for other reasons, the data gradually loses its informational value.*

*Allowing researchers to construct and analyse assessment data, according to scientific rules, therefore, is a current challenge in order to ensure their effectiveness in improving educational practices and policies.*

## Introduction

Continuous (formative) assessment is the traditional form of assessment used in compulsory education. It remains the most common form of assessment method used by teachers and involves assessing in-class activities using tests, observations, homework and oral questioning.

Continuous assessment is sometimes combined with summative assessment to assess the extent and quality of learning at a given point, often for the purposes of assessing student performance before a transition to the next key stage. It may take the form of a diploma.

The object of this article is to study a third form of assessment that involves assessing student results through a centralised system using methods aimed at generating comparative evaluations of student performance at a national, regional (in the case of federal states) or international level.

The methods used in this form of assessment generally involve standardised tests and are based on external assessments without any intervention by teachers involved in teaching the assessed students.

Standardised external assessments may relate to specific curricula or study programmes (as is generally the case in national assessments or IEA tests , or to specific skills (as illustrated by the Organisation for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA) studies).

External assessments are used for a number of reasons, including to provide teachers and education professionals with feedback and comparative evaluations; diagnose the state of the education system as a whole; provide objective information for school users; and assess the effective acquisition of learning by students.

One of the chief purposes of the current use of external assessment is assessing and steering education systems.

## The increasing use of external standardised assessments

The assessment of education systems on the basis of student results is a major feature of recent developments in education. A large majority of European countries now use external standardised assessments at a regional or national level.

Until the 1990s, only a small number of countries used national tests in compulsory education (primary and lower secondary education), either for the purposes of transition to the next year (Iceland, Portugal, Scotland, Northern Ireland, the Netherlands, Luxemburg, Denmark and Malta) or for providing diagnostic information about the education system as a whole (Ireland, France, Hungary, Sweden and the UK).

Ten other countries and regions followed suit in the 1990s including Spain, the French Community of Belgium, Latvia, Estonia and Romania.

Since the early 2000s, national tests have been introduced in the Flemish Community of Belgium, Lithuania, Poland, Norway, Slovakia, Austria, Germany, Bulgaria, Cyprus, Denmark and Italy.

According to the most recent Eurydice report (2009), only five countries have not introduced national student assessments: the Czech Republic, Greece, Wales, Liechtenstein and the German Community of Belgium.

The tests used before the 1980s were primarily designed to regulate student transition between levels or to assess key stages.

In the 1980s, the development of external assessments was primarily a result of decentralisation and the increasing autonomy of educational institutions. The assessment of results was the counterpart to a greater freedom for schools and education professionals.

Finally, since the 1990s, the process of decentralisation and increasing autonomy has been extended through an increased use of external assessment as part of a steering policy based on student results. National states seek to carry out more effective assessments of the quality and effectiveness of teaching using more rigorous and more incentive production indicators. In this way, assessment is used as a tool for monitoring education systems.

Different forms and methods of external assessment may coexist according to specific social, institutional or political circumstances.

France is a good case in point. It is the ancestor of modern standardised assessment, and the education system has a long-standing tradition of using large-scale external assessment at the end of higher secondary education (‘*baccalaureate*’) for qualifying and summative assessment (transition from secondary to higher education); and for assessing overall student performance.

The French Ministry of Education introduced the first ‘*modern*’ standardised assessments of student learning in the late 1970s at lower-secondary level as part of the introduction of the *collège unique* (comprehensive lower school) and in order to highlight the diversity of school performance levels.

Systematic diagnostic assessments have only been used since 1989, mainly at the end of primary education and at the beginning of secondary education. Their sole purpose is to generate information about the overall performance of the education system without any local details or indicators, partly because overall performance assessments are opposed by a number of teacher unions, which fear they may result in assessments of teacher performance.

Though annual and systematic large-scale diagnostic assessments are designed to provide teachers with an analysis of individual student difficulties, they are often used to determine the average level of students as a substitute for overall performance assessment.

Other types of overall performance assessment using samples (which tend to be more irregular) are designed for political and educational decision makers.

Finally, since 2007, the French government has increasingly sought to promote the use of standardised assessment methods for steering education, with an increasing reference to PISA results.

The succession of assessment methods, which differ over time and have distinct aims and objectives, suggests a chaotic history marked by frequent political and professional interference (Mons and Pons, 2006).

While past standardised assessments were designed to assess learning and focus on students, their current use has expanded considerably. Standardised assessments connect the educational realm (their traditional remit) with the political realm, where they are used as a piloting tool (Behrens, 2006).

## The influence of New Public Management on the development of standardised assessments

Education can hardly claim to be the only realm affected by the development of external and standardised assessments. Most scholars in the field agree that the introduction of these in education is the result of a transfer of the main principles of public policies since the late 1970s, referred to collectively as New Public Management (NPM), into education.

In the educational realm, four NPM principles have had a direct impact on the development of external standardised assessments at regional, national and international levels (Mons, 2009).

The production generated by public services (for example, education) is amenable to measurement.

Measurements must be carried out using specific instruments. The scientific rigour of these instruments is proven.

Public actors benefiting from increased autonomy, such as schools, are accountable for their actions to the managers of the system (management information model) and/or to citizens (democratic evaluation model).

Public organisation needs to be regulated by results (outputs) and not solely by procedural controls directed towards inputs.

Though initially apparent only in English-speaking countries, the new trend eventually spread to many other parts of the world.

In Europe, the implementation of NPM principles was particularly apparent in England, where reforms initiated since the 1980s had already encouraged using external assessments of student results at different educational levels and key stages. It quickly became apparent that the new standardised assessments were assessing individual school performance, which the new tests were designed to establish on the basis of the combined results of students.

Following the *1988 Education Reform Act* (GB Statutes, 1988), the principle of accountability was applied to schools individually on the basis that '*schools matter*' (GB Statutes, 1988). This occurred in the context of national tests generating crucial results for measuring individual school performance, which were quickly translated by the media into '*league tables*'.

In response to the lack of precision in the raw data, the notion of '*added value*' was introduced to measure success on the basis of the predicted success of a school population with identical average characteristics (age and social origin).

Measuring added value gained ground in the 1990s at an official level, entailing the need for richer and more detailed student data beyond that which a school might be capable of providing. The need arose for a system of data collection and centralisation at a national level, resulting, in 2002, in the Pupil Level Annual School Census (PLASC) (Schagen *et al.*, 2006).

At an international level, the external assessment of student results developed largely as a result of the PISA.

## The impact of international assessments on education systems: the PISA case

International assessments have become a major focus of national education policies. National governments can use the results of international assessments to carry out reforms aimed at resolving issues highlighted by the results of the assessments.

## The '*PISA shock*' in Germany

Germany is the most famous example of large-scale educational reform brought about as a result of PISA. Following the publication of the PISA results (for 2000 and 2003), the German education authorities engaged in a fundamental reconsideration of citizen perceptions of the German education system, and even of social and cultural values.

The PISA results showed that Germany was one of the countries in which educational success is most closely related to students' socioeconomic and immigrant background. In a country made up of regions that have a history of being fiercely protective of their local educational prerogatives, the '*PISA shock*' resulted in an agreement by all Länder (federal states) to introduce national standards at the beginning of the 2004–05 school year. The agreement on national educational standards and on an institutionalised structure to ensure that the new standards were observed would have been inconceivable without the impact of the PISA study (Ertl, 2006, p. 623). The reform was conceptually articulated in a report by Klieme *et al.* (2004) for the German Institute for Educational Research (DIPF). It recommended the introduction of standards for results.

International assessments have also had a significant impact on educational discourse and research in education. Here the emphasis is on research aimed at defining the most efficient educational practices and on empirical surveys. This goes against the grain of research and academic traditions that had previously focused on educational values and processes, leading some scholars to recommend a fundamental shake-up of the academic discipline of education in Germany (Bohl, 2004).

However, while the agenda of current reforms has tended to focus on specific issues (national standards, quality assessment and greater emphasis on skills rather than specific academic subjects), other problems have been overlooked. Problems that have yet to be discussed and debated include the highly sensitive issue of selecting higher-achieving students at the beginning of secondary education, and the absence of a comprehensive school system, identified by many observers as one of the main causes of German students' poor results in the PISA study.

There are many similarities between the German and Czech students' results in the PISA tests. While the differences of performance between the two countries and their education systems are not statistically significant, the perception of the PISA results has been markedly different.

In the Czech Republic, the PISA results were relatively well received and did not generate any major overhaul or large-scale reform. The policy of selecting higher-

achieving students introduced in the early 1990s was largely welcomed and supported by the elite, media and parents. In Germany, the '*PISA shock*' was significant and generated important reforms, though none of the implemented reforms concerned the policy of selecting higher-achieving students at secondary level.

In Germany and the Czech Republic, the real results of the PISA survey have, therefore, been largely ignored. The educational policies introduced in the two countries have tended to consolidate the use of a neo-liberal form of performance assessment and regulation. The new measures only refer to scientific data for the purposes of legitimising policies introduced for other reasons. As noted by the Czech scholar, Greger, there is no evidence-based policy (Greger, 2008).

Therefore, it seems that both countries drew particular and different conclusions from a seemingly common diagnosis, not only when the PISA results were considered as too '*low*', but also in other cases.

## Varying responses in different countries

In Hungary, the PISA results contradict the findings of previous IEA international studies. While previous IEA international studies (based on study programmes and curricula) showed an excellent level of student performance (confirming the elitist tradition of Hungarian education), PISA showed disappointing results in tests aimed at assessing the skills targeted by the OECD. All the conditions of a '*PISA shock*', comparable to Germany's, appeared to be present. Yet according to research, although they have entered public discourse on education in Hungary, the PISA results have not produced a political consensus over potential public-policy decisions or even an academic consensus over the best way to interpret them (Bajomi *et al.*, 2009). Since 2006, national assessment tests have, nevertheless, been carried out at various educational levels and key stages, and the national assessment of skills has gradually become a knowledge-based regulation tool.

A completely opposite challenge faced Finnish representatives in education: how to manage excellent PISA test scores? The excellent results obtained by Finnish students have, of course, only served to consolidate the Finnish education system, although it is important to note that a wide range of conclusions have been drawn from PISA by different education actors. Teacher unions have highlighted that good PISA results were the product of the expertise and quality of Finnish teachers. Government representatives have tended to view them as a consequence of the reforms introduced in recent years, including the development of a comprehensive school system, university teacher training, greater teacher autonomy and the decentralisation of education. Yet, while the PISA studies indicate that the excellent results obtained by Finnish students are a

product of the homogeneity of student outcomes (with just a small number of top performers), ministerial analyses have presented this as an issue by suggesting measures aimed at taking better account of gifted students (Rautalin and Alasuutari, 2009).

Although Portugal's 17th constitutional government did not have a '*PISA shock*' such as Germany's, PISA was used to justify a number of education reforms and to ensure a degree of '*international*' credibility beyond national controversies. Examples include the New Model of Teacher Assessment, the national programme for the educational promotion of Portuguese, and a national reading plan. PISA data was used to justify and strengthen arguments put forward by the government and to increase the government's decision-making capacities by consolidating the data generated by national assessment tools such as exams and assessment tests. The data has also fed into the government's discourse over the issue of repeating a year, which fails to improve student results (Afonso and Costa, 2009).

In the French Community of Belgium, PISA has also been much discussed in the media, parliament and public political debates. According to research (Mangez and Cattonar, 2009), the results of the PISA study are used as an argument to fuel debates that remain centred around pre-existing conflicts or traditional rivalries between different public policy options.

In other countries, PISA did not cause any injuries. In Denmark, for instance, IEA and PISA assessments have been the subject of many debates over the last 20 years and have fostered a culture of assessment (Egelund, 2008). Approximately ten national tests have been introduced on a range of themes and at different educational levels and key stages since 2007. According to experts, the emphasis on the acquisition of skills for life-long learning in the PISA studies has been well received because a high correlation between the objectives of compulsory education and PISA items was observed.

There has not been a '*PISA shock*' in France, in the sense of a converging and brutal shift of the public debate towards a widespread acceptance of reforms required following the publication of the PISA results. Until 2004, the debate surrounding PISA was primarily an insider affair, partly because the Ministry of Education anticipated the official publication of the results with a view to lessening their impact and channelling the public debate. Experts from the ministry underlined the methodological biases of the study, to the satisfaction of teacher unions and a wide range of education actors who claimed to have reservations about the very principle of an external assessment carried out by the OECD.

However, decision makers have made significant use of PISA 2006, not least the French Minister of National Education, Xavier Darcos, who was appointed by the

new right-wing president, Nicolas Sarkozy, elected to office in the spring of 2007. PISA 2006 marks a distinct break in France, with increased reference to PISA in political discourse and discussions of the survey in the French media. To this extent, a political change resulted in a cognitive change, and not the other way round (Mons and Pons, 2009).

In Romania, PISA generated very little discussion and had limited impact. Because the PISA results have not been taken up by key social or political actors, the results of the study are a topic of neither public nor professional concern (Rostas, Kosa, Bodó, Kiss and Fejes, 2009).

## PISA, a tool between the political and academic realms

Research on the impact of PISA in different European countries has shown that as a result of OECD reports, experts, scholars and policy-makers have discussed the data of the different PISA waves (2000; 2003; 2006).

The success of PISA may be unprecedented in as much as the resulting data appears to provide a common reference that connects academic research in education and the political realm of public policy (Barroso and de Carvalho, 2008). PISA operates as a mediator between different strands of knowledge from the realm of education and public policy.

In this sense, PISA is an example of a range of public policy knowledge dependent upon a chain of translation processes between different spheres. The use of PISA by national governments is also an example of the way in which external assessment is now largely used as a tool regulating education policies as part of what public policy researchers refer to as '*soft regulation*', with the OECD acting as a '*third-party evaluator*' to assess, classify and compare suppliers of educational services (that is, nation states).

Mangez and Cattonar (2009) even suggest that external assessment surveys provide the OECD with the academic credibility required to promote political orientations on educational issues. Under the appearance of a neutral and objective diagnosis of education systems, PISA might, thus, serve as a means of promoting specific orientations on curriculum issues (for example, promoting skills rather than the transmission of academic knowledge).

How do researchers use the data generated by large-scale external assessments?

# The use of external assessments in educational research

## *The impact of external assessments on the quality of education*

In educational research, school effectiveness and improvement research was the first to show an interest in indicators of student output (in the early 1970s). Outputs are seen as a means of addressing issues of school quality, focusing on the importance of reflecting the specific effects of teacher activity and the school's education team. The focus of this research is premised on the notion that the specific activity of a school may '*make a difference*'. This goes against the grain of a particular tradition in the sociology of education that argues that disparities and inequalities of educational success need to be understood in terms of specific social and political conditions (that is, the socio-cultural origins of students, system and state structures).

The issue is to identify the practices that may have a causal relationship with the best results obtained in the assessments, but also to use the dissemination of results as an information, motivation and mobilisation tool for education professionals.

The idea is that increased knowledge of the results of teacher activity on student learning (particularly among teachers) will encourage teachers to improve their practice. As summarised by Halasz (2006, p. 4):

> *"There seems to be an increasing consensus among both politicians and educational researchers that the best way to improve the quality and effectiveness of education is to combine school autonomy with strong incentives to schools to use the feedback they get for self-improvement."*

Online self- and external assessments can be combined to ensure that a reform in education is successful. Self-assessment helps school management and prepares students for external assessment, which gives an overall impression and can be used to confirm that it is in compliance with a reform's objectives. Feedback is the only way of enabling education actors to define their actions on the basis of the defined objectives (Zufanová, 2006).

The degree of flexibility governing the dissemination of external assessment results for the benefit of education professionals and decision makers varies in different models.

Some argue that a relatively stringent level of accountability, in which results are made public and have significant implications in an educational market, is the best way to improve the quality and performance of educational services (Schütz, West and Wössmann, 2007).

Others emphasise the mirror effect (Thélot, 2002). The idea is to view assessment as an alternative means of market regulation. Assessment should not be required to generate explanatory schemes of educational success but should make education professionals aware of the results of their actions. Teachers and education managers need to understand the results of their actions. If results are not in keeping with teachers' objectives or with the results that they are expected to achieve, education professionals will modify their practice accordingly. For example, diagnostic assessments aimed at evaluating skills in geometry in the first year of French secondary education (*sixième*) over several years was enough to reactivate an interest in this particular area of mathematics (Bardi *et al.*, 2005).

According to Mons (2004; 2007), the use of centralised exams or tests is related neither to the average level of student performance nor to the proportion of pupils who attained the highest (5) or lowest (1) level in PISA assessments. In other words, the introduction of standardised assessments fails to improve the overall level of student performance, reduce educational failure, or identify an elite group of students.

The use of national exams is correlated with high average results, though only if the level of economic development is not taken into account. National tests, therefore, have no specific impact. Overall, the relations between effectiveness and assessment mechanisms are neither uniformly significant nor automatic.

However, standardised assessments appear to have an impact on educational equality by reducing the impact of social origin on educational performance. This involves limiting practices that lower standards in schools with a significant intake of children from working-class backgrounds (Mons and Pons, 2006).

A large number of studies were conducted following the introduction of high-stakes testing in the USA in the 1990s. Initially, the test results obtained by schools improved significantly after the introduction of the tests, before eventually levelling out. More importantly, a number of studies highlighted significant differences between the results obtained in national external standardised tests and the results obtained in local tests used to assess schools. It appears, therefore, that teachers adapted their teaching to meet the specific demands and challenges of the new tests, thus obtaining results strictly limited to the prepared assessments – a process known as "*teaching to the test*" (Nichols *et al.*, 2006, p. 51).

In addition to intensive exam preparation, high-stakes external tests have also been heavily criticised on several other counts: teachers focusing on pupils likely to obtain results that improve the overall school's results in the short term and the curriculum being restricted to the content in the tests, are just two criticisms.

Research has also indicated that English teachers now view the transmission of knowledge and skills as a priority at the expense of personalised support and pastoral care (Osborn, 2006).

It is, therefore, generally agreed that standardised external assessments should comply with a number of conditions to preserve their informative value and not alter the learning processes.

The chief condition is that standards should reflect teaching and learning objectives but should not be focused on the content of teaching. Klieme *et al.* (2004) suggested that results standards should not be used in the context of school careers: the data generated in the context of these procedures should not be used for the purposes of transition to the next level or for passing or failing a student.

In a similar vein, Mons (2009) argued that it is primarily high-stakes testing that generates negative responses from education professionals and leads to the perverse effect of a negative impact on learning.

## What new information is likely to be generated by international assessments?

Since the early 2000s, there has been a renewed interest in studies that take account of the results of external assessments (both national and international) to carry out comparative analyses of different education systems and to produce better findings for the analysis and understanding of educational practices.

For example, Linnakyla *et al.* (2004) compared the small proportion of Finnish and Swedish students (7% and 12% respectively) who obtained below-par results in the PISA reading assessments with a view to identifying explanatory factors. The research identified the socio-cultural factors that schools struggle to act upon (for example, social origin and recent immigration) and factors that can be shaped by educational action, such as fostering greater self-esteem in failing students. It was concluded that strategies can be developed to support categories of students who demonstrate these '*risk*' factors.

In France, another example is provided by the combined results of the PISA and Progress in International Reading Literacy Study (PIRLS) studies, which highlighted specific characteristics of French students, and particularly obstacles or behaviours that compromise success in assessments because of the way in which students are exposed to writing. French students tend to be less exposed to learning activities aimed at developing textual understanding than the average student taking part in PIRLS studies. It was also found that French students

engaged in relatively unvaried activities often based on the same material (Rémond, 2006).

International assessments (particularly PISA) have also provided comparative views of different education systems and policies on an unprecedented scale.

As noted by Mons (2008), who highlighted long-term variations in student results according to the effects of public policies, the databases generated by large-scale international assessments provide a basis for developing typologies of education systems. In terms of the assessment of education policies, the resulting typologies enable comparative statistical analyses of performance indicators of different education systems and institutional frameworks, which are the product of political choices and decisions.

Countries constituting geographical, historical or cultural units tend to have similar levels of educational inequality on the basis of an analysis of the results of PISA 2006, as noted by Green (2008).

English-speaking countries, particularly the USA and the UK, and continental Europe have high levels of educational inequality, while Northern and Latin European countries and East Asian countries have low levels of educational inequality. Using a qualitative comparative approach to highlight the various features of education systems that may account for regional differences, Green (2008) argued that the group of countries with the lowest level of educational inequality have a relatively uniform standardised school system and rarely use tracking at lower secondary level.

## Methodological issues

The increasing popularity of external assessments, particularly at an internal level, has sometimes resulted in the use of raw data in public debate without any degree of methodological caution. The use of the same studies for both academic and steering purposes is particularly debatable. In addition to a number of methodological issues, this has given rise to a number of critical analyses in educational research.

Some researchers (for example, Tymms *et al.* (2004)) have complained that international assessments tend to focus on student results during or at the end of schooling irrespective of the progress made by students since the beginning of schooling. Longitudinal studies are, therefore, required to take account of the level of student learning at the beginning of schooling.

Though international comparisons may be relevant in terms of an overall performance assessment of different education systems, Wiliam (2008) argued that caution should be exercised when considering more detailed assessments.

It is impossible to draw specific conclusions concerning the quality of teaching. Assessments such as PISA are, like any standardised assessment, not particularly sensitive to the effects of high-quality teaching. There are three reasons for this.

- The rate of progress of individual students is very limited in comparison with the rate of success within a particular age class.
- Standardised testing methods tend to eliminate items that are particularly sensitive to variations in teaching.
- The use of differentiation items in PISA to identify and exclude items that are not comparable across different languages reduces the sensitivity of assessments to teaching.

Swiss researchers (Moreau *et al.*, 2006) questioned the adequacy of the model and statistical variables used by PISA to highlight local specificities, particularly the differences between cantons that cannot be reduced to socioeconomic or educational disparities. They demonstrated the effects of PISA on the revival of a harmonisation project using standards inspired by PISA skills by showing the virtues and limitations of the transfer. One such limitation is that PISA skills are defined universally and therefore independently of specific educational curricula. By contrast, in a project such as HARMOS, the variety of educational curricula is taken into account in cantons with distinct and varied histories, cultures and languages.

## Issues of translation and cultural context

International external assessments are invariably faced with the difficulty of using terms and concepts with different meanings in different languages. While a translation may be technically correct, the connotations and uses of the same term may vary from one country to another.

It is important not to underestimate the biases entailed by translations or different meanings of instructions in different languages and cultural areas (Rémond, 2006). For example, the French word '*style*' has a distinctly literary meaning (for example, the style of a writer), while the English word '*style*' also covers the style of an illustration or typography. French students face particular difficulties in cases where the expected answer requires a writing task that entails subtending meta-cognitive tasks. French students systematically seek to connect any question to routines and prefer not to give an answer if they have any doubt about the type of answer they are expected to give.

French scholars (Bautier *et al.*, 2006) carried out secondary analyses of the PISA 2000 literacy tests on over 800 French pupils and combined these with interviews aimed at providing a better understanding of the strategies adopted by students

in assessments. It was found that while PISA is presented simply as an assessment of reading and written comprehension skills, it also assesses more complex and more diverse skills involving, for instance, a mobilisation of varied spheres of reference extending well beyond learning objectives in reading and writing. The '*good*' or '*bad*' results obtained by a large number of students in certain PISA items depended on the contexts of interpretation and were less indicative of the level of student skills than the level attained in a range of meta-cognitive skills.

## Conclusion: external assessments, between research and policy

Politicians and school administrators are probably the most frequent readers of PISA reports, which may entail the use of confusing phrases and such terms as '*factors*', '*effects*' and '*causes*'. Investigations seeking causal factors will most often require methods other than surveys, such as qualitative in-depth studies and longitudinal surveys based on mixed quantitative and qualitative methods (Egelund, 2008).

Rochex (2008) warned against using PISA as a benchmarking tool and instrument of evidence-based education for conferring academic legitimacy.

However, while the collected data could justify the conduct of secondary or other more detailed surveys (extending beyond just the standardisation of the results in each country and in order to overcome the noted methodological limitations), international organisations and governments seem reluctant to encourage and fund research that requires academic autonomy.

On a more optimistic note, Gustafsson (2008), while acknowledging that international assessments are liable to be misused and misinterpreted, also argued that they offer possibilities for improving the quality of educational research because the high-quality data generated by these studies can be useful in research on causal factors within or across education systems.

Considering the debates about national and external international evaluations, it is evident that everyone now recognises the usefulness of these evaluations for both researchers and policy-makers. Some methodological points need to be considered, but the key findings from the comparative achievement surveys are widely shared in the research community, at least. For example, the positive impact of a common and democratic school on PISA scores in Finland, the negative impact of repeating years in France or the early selection in Germany can no longer be ignored. But does this mean that the '*right*' curriculum can't be designed from using the results of the PISA items? Does it mean that the

competences at the age of 15 are more important to consider than the level of attainment at 20 years old?

These are the strengths and weaknesses of external evaluations on the level of educational policy. They bring a huge amount of indicators and information on educational systems, but these don't necessary fit to on going reforms or government goals. Moreover, governments sometimes only use the ranking and superficial features of the international achievement surveys, not the more detailed analyses. Despite the fashionable trends in evidence-based education, one cannot be convinced that policy has to be driven only by numbers, with the risk that policy-makers have too much say in the indicators used.

The challenge, both for researchers and policy-makers, therefore, is to consider that the aim to improve the information on educational systems has to be pursued for their common interests. Comparative external evaluations may continue to be a key means of doing this, but there needs to be an acknowledgement that policy and research processes cannot always run on the same timescales.

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## Note

1 IEA is an independent, international cooperative of national research institutions and government research agencies. The most well-known reports published by the IEA include TIMMS (Trends in Mathematics and Science Study) and PIRLS (Progress in International Reading Literacy Study).

# 8 The role of educational research and innovation in improving educational systems: a CIDREE perspective

*Gábor Halász*

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# The role of educational research and innovation in improving educational systems: a CIDREE perspective

*Gábor Halász*

## Abstract

*This article is about the changing role of educational research in developing and improving educational systems from the perspective of the Consortium of Institutions for Development and Research in Education in Europe (CIDREE). The members of CIDREE are national educational research and development institutes, most of which are closely connected to governments. They find themselves at the intersection of research, policy and practice which, as we know, is a particularly challenging place. This is the crossing point of different interests and expectations, a place of conflicts, debates and value collisions. And, furthermore, being dependent on government and politics, this is also an unstable place to be. Our institutions are exposed to political pressures and the turbulence due to emerging new social needs. These are reflected in the frequent reorganisations we have witnessed in members during CIDREE's history.*

*Mediating between the worlds of research, policy and practice is both challenging and inspiring. All past and present leaders of CIDREE institutions have stories about conflicts between the demands of these three different worlds, but they also have success stories about creating a common language and enhancing dialogue. We all have memories of making our researcher colleagues understand policy-makers' perspectives; convincing politicians and government decision makers with evidence that comes from research; raising our academically minded researchers' interest in improving pedagogical practice in schools and showing practitioners the developmental potential of our research. Travelling between these three different worlds, building bridges over the gaps that separate them and putting forward new ideas inspired by their encounter, is probably among the best things that past and present leaders of CIDREE institutions can remember.*

*In the following essay, I wish to reflect upon two themes that I think are relevant not only for CIDREE and its members but perhaps also for the broader community of those actively involved in educational research, development and innovation. One theme is the challenges related to the changing relationship between educational research, policy and practice, and the other is the potential impact of emerging national and sectoral innovation systems on educational research. I close the article by formulating some conclusions from a CIDREE perspective.*

## The worlds of research, policy and practice

The relationship between researchers, policy-makers and practitioners has never been simple. When the United Nations Educational, Scientific and Cultural Organisation (UNESCO) published the final report of its large worldwide survey of educational research, conducted in the second half of the eighties, the '*friction between decision makers and researchers*' was mentioned as a key challenge and several earlier publications focusing on this theme were evoked. The report also mentioned the "*various difficulties of communication*" between researchers and teachers (Debauvais, 1990). A few years later, the Centre for Educational Research and Innovation (CERI) of the Organisation for Economic Cooperation and Development (OECD), in its synthesis report of a survey of educational research and development in the community of developed countries, talked about "*uneasy relationships*" and a "*crisis of confidence*" (OECD, 1995. p. 13). The CERI report revealed a significant deterioration in the policy-research relationship following decades of a positive climate that had been dominated by a naively optimistic idea of "*social engineering*" and a general belief in the potential of research to change and improve social systems and institutional practices. But, during the eighties, "*pervasive criticism*" about the relevance and quality of educational research emerged in several developed countries, with the "*lack of communication between the producers and consumers*" often mentioned as being at the heart of the problem (OECD, 1995).

Following this gloomy diagnosis that revealed the communication difficulties between the '*three cultures*', an intensive reflection started with the aim of understanding the specificities of the three different worlds. In 1995, the Dutch Ministry of Education, Culture and Science, together with CERI, organised a conference in Maastricht, called 'Knowledge Bases for National Education Policy-Making', which aimed to produce an input to the next ministerial level meeting of the Educational Committee of OECD.[1] The conference brought together '*knowledge producers*', '*decision makers*' and '*intermediaries between knowledge and action*'. The use of the terms '*knowledge producer*' (instead of researchers) and '*intermediaries*' (as a fourth, new category beyond the three mentioned in the title of this section) indicated a new way of thinking. This was, in fact, the language of new innovation policies, which is a field I shall come back to in more detail later in this article. A key issue debated was: how can the producers and consumers of knowledge develop a better relationship?

The Maastricht conference, in my view, symbolised a breakthrough in our thinking about the relationship between the three worlds of research, policy and practice. The debate focused on "*the problems created by the dual position of educational research as a scientific field of enquiry and as a servant of public education systems*" (OECD, 1996, p. 6). One of the key conclusions was:

*"There is a need for institutional structures that create a balance between rigour and usefulness, between long-term advancement of knowledge and attention to immediate problems."*

(OECD, 1996, p. 6)

The breakthrough was not the recognition of the duality, or that of the difficulty of mutual understanding. Rather, it wasthe comprehension of the need for institutionalised mechanisms of mediation between them, and, particularly, the acceptance of the complexity and the dynamic character of the relationship.

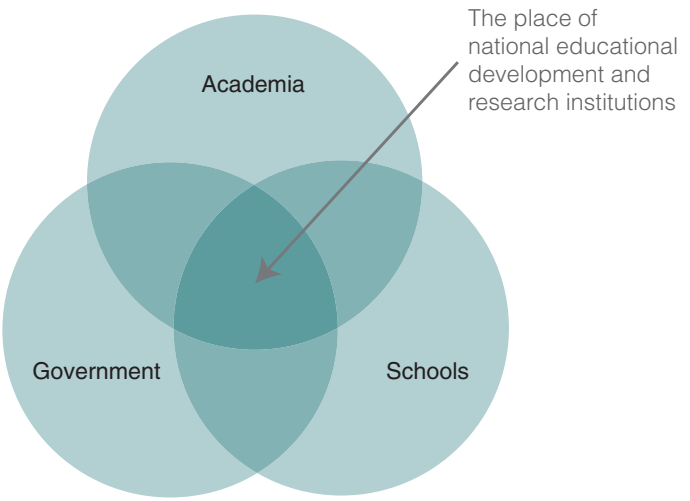
In our current way of thinking about innovation and change, we no longer think about the relationship between knowledge (created by research) and action (performed by governments or practitioners) as a linear process. We see the interactions between knowledge and action as iterative: we think knowledge is modified by actions, actions are producing knowledge and we see the borderline between knowledge and actions as being blurred. Furthermore, we accept that a large part of knowledge is tacit, and the most important part of it is contingent, that is, it can be expressed only in '*if*' or '*than*' statements. Scientific evidence is only part of the knowledge that is needed for good decisions, which are also shaped by values, interests and many other features, such as our capability to bear uncertainty or the resources we possess. Creating intelligent adaptive systems that are capable of learning and modifying their behaviour on the basis of complex feedback seems to be a better solution than trying to fix the way systems should behave in advance and by using scientific evidence.

When I was the head of one of the CIDREE member institutes in my home country between 1999 and 2006, our institute developed an organisational strategy which included the aim, among others, of positioning ourselves in relation to academia, government and schools. We imagined this position as being in the middle of a triangle with an equal distance from (or equal closeness to) the three poles (academia, government and schools) or as being at the intersection of three, partly overlapping circles.

Regarding academia, we thought we had to produce research that met academic standards as far as methodology or presentation was concerned. Regarding government, we accepted the duty to do research that is relevant for policy and to produce results that are easy for policy-makers to understand. Regarding schools, we thought our mission was to make school practice better and to communicate results that practitioners could understand and use. Our strategic goal was to keep a balance between the three different worlds: not to be captured by any of them or, to put this in a positive way, to serve them all equally at the same time. One way to visualise this is presented in Figure 8.1.

Keeping an equal distance from the three different worlds was sometimes easier than remaining open to their perspectives and well connected to all of them. In practice, this meant the development and cultivation of specific attitudes.

**Figure 8.1: The strategic self-positioning of national government-led educational development and research institutes**




Firstly, we had to make an effort to understand the world of politicians and show respect for the constraints under which they operate. This meant, for example, accepting that politicians often cannot wait until we produce relevant evidence and they have to act even if good research evidence is not available. Secondly, we had to open our minds to the language of practitioners and accept that we could give them knowledge as well as receive knowledge from them. We had to learn to listen instead of talking and make an effort to give sense to their words instead of questioning the meaning of them. We had to learn to appreciate practice-related and tacit knowledge, and to understand theories in action alongside scientific models and theories. Doing all this, we had to keep the highest scientific standards in our work. This was not, essentially, in order to please the academic community or to be respected by our peer researchers, but to be able to give the best quality service to our '*clients*', that is, the politicians and the practitioners. And, above all, we had to learn to live together with the permanent and unavoidable tensions that always characterise the relationships between the three different worlds.

Working in research and development institutions run by governments and having a mission to serve the improvement of pedagogical practice in schools, requires the development of a particular identity. This is not the identity of academics who are seeking truth and the recognition of their peers. This is, naturally, not the identity of politicians who are moved by the desire to win social recognition and popularity, and whose mission is to gain and keep power for improving society (at least in the best cases). And this is not the identity of the professional practitioner, either, who struggles every day to find good solutions for problems arising from frontline practice. Our identity is a mixture of all three and something more: that of the mediator or the translator who speaks several

languages and who uses these languages appropriately when functioning in specific situations.

Mediation and brokering have become key notions in our thinking about educational research. One of the originalities of the 1995 Maastricht conference mentioned earlier was the stress put on the '*importance of intermediaries who act as brokers between producers and users of knowledge*'. More than ten years later, when CERI published the results of its programme on evidence-based policy research in education, the brokerage function was already in the forefront of analysis. A whole section of the book presenting the results was devoted to the theme of "*mediating the research/policy interface: the role of brokerage agencies*" (OECD, 2007a, p. 26). Although none of the case studies presented in the book was from CIDREE member institutes and, probably, none of the latter would define itself as a '*brokerage agency*', the function of brokering has long been a key mission for all of them. Very few could define themselves as a pure research institution and, even if they did so, being run or financed by governments and having the mission of serving schools directly already put them into the position of brokering.

Most CIDREE member institutions have also been operating in what Gibbons *et al.* (1994) called the '*mode 2 of knowledge production*'. I remember when, a couple of years ago, I read the famous book written by Gibbons and his colleagues, *The New Production of Science*, I had the distinct feeling that I was reading about us. We had, in fact, been working in the context of application, unlike universities who are often more detached from practice. Most of our research work had been done in multidisciplinary teams and not by isolated individuals. Our research themes were determined by people in socially responsible positions and not by our own curiosity. Our research was much more subjected to social accountability than quality control by our academic peers, and the skills, competences and experiences needed for doing successful research had always been heterogeneous.

And, naturally, we also recognised ourselves in the similarly famous '*triple helix model*'. Although this model is about the dynamics between universities, governments and industry (Etzkowitz, 2008), it is not very different from the implication in Figure 8.1. They both imply a break with the old linear model, which assumes that researchers are producing knowledge which is then taken and used – perhaps with the help of knowledge mediators, brokers or translators – by practitioners. In Figure 8.1, we position ourselves, not only at an equal distance from or closeness to the three poles, but we also assume a non-linear way of producing and sharing knowledge. Being in the middle of a triangle, or being at the intersection of the three circles, may also mean that knowledge is both going out and coming in, and often we do not know with certainty any more who is producing and who is using the knowledge. Each partner can learn from the others: each of them has something to offer to the other.

If we follow the triple helix model, we find institutions doing educational research in a complex and dynamic ecosystem of actors producing and applying knowledge and we can see the emergence of a great variety of possible configurations. A typical CIDREE member institution may find itself both in the position of being the creator of knowledge and also in the position of being the applier of knowledge: sometimes teaching others, sometimes learning from others. There are no clear boundaries. Writing about the way users are influencing research in the Teaching and Learning Research Programme in England, Edwards *et al.* (2007) talked about "*boundary management*" and "*boundary work*", which is going beyond what we usually call knowledge mediation. They described '*boundary zones*' as:

> *"Sites for discussion, where people's own organisational priorities are recognised; where ideas can be shared, trust built and collaboration stimulated. Rather than places for one-way dissemination of research findings, they work as sites of mutual learning where knowledge flows in and out of projects, from and to the field of study."*
>
> (p. 652)

In this complex and dynamic ecosystem "*we can begin to picture a more fluid set of relationships*" where "*each specific expertise is valued and each participant is a resource for the other*". In the triple helix configuration, the sources of knowledge and innovation "*do not fit together in a pre-given order, but they generate puzzles for participants to solve*"(Edwards, 2005, p. 3).

## Educational research and the evidence-based movement

Educational research, in a growing number of countries, seems to have left behind the difficult decades with a lack of impact and recognition. This is partly due to the new concept of doing research and relating it to policy and practice as referred to in the previous section. Attention to, and recognition of, educational research is also enhanced by the impact of the '*evidence-based movement*', which combines practical relevance with the use of strict methodological approaches, and follows the models of sectors like healthcare or food safety (Hargreaves, 2000; OECD, 2004). The demand for evidence-based policy and practice has been a key element of the No Child Left Behind programme and the closely related Education Sciences Reform Act (2002) in the USA. A major investigation into the impact of educational research in 2000 in Australia revealed a "*strong interest in using the results of systematic educational enquiry, and of encouraging research and evidence-based policy and practice*" (DETYA, 2000, p. 198). The CERI programme on evidence-based policy

research, quoted in the previous section, has also presented a number of interesting initiatives in this area in OECD member countries.

From the perspective of CIDREE as a European research and development consortium, it is particularly important that the EU has also become active in promoting the use of research to improve education. During the German presidency, in March 2007, a European conference was organised on the theme of evidence-based education policy (DIPF, 2007). The Council of education ministers put the issue on its agenda a few months later (Council of the European Union, 2007); a related '*peer learning activity*' was organised in the framework of the Objectives 2010 programme (Rickinson, 2007); and the Commission of European Communities (CEC) published a detailed analysis on the theme (CEC, 2007). Following this, the Commission started supporting various programmes related to educational research, and some of them are worth mentioning here.

The Network of Experts in Social Sciences of Education (NESSE), coordinated by Institut National de Recherche Pédagogique (INRP), one of the CIDREE member institutions, is supporting the Commission in the analysis of educational policies and reforms. It has developed a mapping of educational research in Europe, making this area more transparent and supporting its Europeanisation.[2]

The Evidence Informed Policy in Education in Europe (EIPEE) project supports the establishment of links between research and policy-making in education, also operating with the participation of some CIDREE member institutions.[3]

The European Educational Research Quality Indicators (EERQI) project supported by the 7th Framework Programme for Research, aims to raise the visibility and competitiveness of European educational research and create a "*new basis for decisions on funding, hiring and evaluation*" in European research institutions.

All these initiatives clearly show that the field of educational research has started to move from being a neglected area at European level into a supported one. This, in fact, reflects a process that was started earlier in a number of member states. Among these, Finland and the UK are particularly interesting cases because educational research in these countries has received strong public attention and support, and has been exposed to high social expectations.

In the case of Finland, the relevance and quality of educational research, including safeguarding its practical orientation, seems to be guaranteed by connecting it as strongly as possible with effective, practice-oriented teacher training. In the dominant Finnish conception, teachers are seen as "*pedagogical experts*" and "*professionals who know how to improve learning*" (Laukkanen, 2007, p. 319) or creative "*problem solvers*" (Niemi, 2008, p. 190), trained to do practice-led research for their own professional needs (something well known in the world of healthcare). Teachers are expected to have competences for "*seeking*

*evidence from their schools and students' learning*", and doing action research is seen as an integral element of exercising the teaching profession (Niemi, 2008).

In the UK, several politicians have expressed strong views about educational research and have sent clear messages about its role in policy-making. A few years ago, one of them established a typology of policy areas, distinguishing between: (1) stable policy fields, (2) policy fields in flux and (3) inherently novel policy fields. He put education into the second category. The important thing, he stressed, was that these different fields needed different forms of research, and the problem was that in the second category research was often '*backward-looking*'. Typical research, he wrote, was not too useful in policy fields in flux: "*It may reveal the weaknesses of policy, but it is unlikely to give convincing evidence about what works*" (Mulgan, 2003, p. 4). The message sent to educational researchers was to go beyond the critical analysis of what exists and to try to make a step towards the future and show'what might work' in practice. This has become the philosophy behind some major state-financed research programmes in the UK, such as the Teaching and Learning Research Programme in England (Pollard, 2007) and the Applied Education Research Scheme in Scotland (Ozga, 2007). In these programmes, researchers get support only if they establish an intensive dialogue with teachers as the '*users*' of their product and accept being influenced by them.

## National and sectoral innovation strategies – new challenges and new opportunities

The changes to the meaning of educational research, its move closer to practice and the growing role of users in determining its orientations, are in accordance with the principles of emerging innovation policies in Europe and elsewhere. And, here, I arrive at the key message of this article: those who are involved in educational research, including CIDREE institutions, should follow as closely as possible the recent developments of current national and international innovation policies. Rapidly changing innovation policies, often led by ministries of economy or government agencies responsible for economic competitiveness, are creating a new environment for research, in general, and for educational research, in particular.

This environment appears conspicuously in the OECD's new innovation strategy, which was presented to its Ministerial Council at the end of May 2010. This strategy has stressed, first, the broadening of the scope of innovation: a move from a traditional, narrowly technological perspective towards a broader one including many forms of non-technological innovations such as those affecting organisational patterns and processes. Second, it has stressed the growing role of users (clients and consumers) in initiating, generating and influencing innovations. Third, it has put a major emphasis on the human factor: on people

who create and have to absorb innovations. Fourth, it has underlined the role of the public sector, not only as a generator and as a consumer of innovations, but also as the target of them. It is a sector in need of innovation for producing better quality and becoming more effective and efficient. Fifth, partnership with private sector players has been presented as an important source of energy for innovation in the public sector. And, finally, the education sector has been presented as not only enhancing innovation in other sectors but also as a sector which, itself, has to innovate (OECD, 2010a).

The OECD innovation strategy has formulated very clearly not only the priority of unleashing innovation in the public sector, but also the need for sectoral strategies with a strong emphasis on human resources. As its background document stressed (OECD, 2010b, p. 19): "*Comprehensive innovation strategies are needed for key public services, such as education or health, as are management practices and human resources policies that are conducive to innovation*." In the case of the education sector, this has been directly supported by the work CERI has been doing for many years in the area of educational research and innovation.

Public sector innovation has also become a central element in the EU's emerging innovation strategy. A business panel, established by the European Commission's Directorate-General for Enterprise and Industry, has formulated, for example, five policy propositions in its report published in 2009. The first of these propositions was "*broadening innovation: from business innovation to business and social innovation*" (DG Enterprise and Industry, 2009, p. 13). The notion of social innovation is particularly important for education because major changes in this sector cannot be imagined without it.

In most countries, national innovation strategies mention education only as a sector whose mission is to enhance innovation in other sectors. Innovation policies have traditionally supported university research because there is a hope that this contributes to technological development, which then enhances the competitiveness of national industry. In our current innovation thinking, naturally, education keeps this role, but it has to innovate even in this role. For example, if the capacity to exchange tacit knowledge in the workplace is seen as an indispensable condition of workplace innovation, this capacity – called "*mode 2 learning*" by Lundvall *et al.* (2008), p. 682 – has to be developed in schools. This cannot be done without major internal (pedagogical) innovations. But innovation is needed in the education sector, not only to make education more effective in contributing to innovation in other sectors, but also because without this major public policy, goals (such as quality, equity and effectiveness) cannot be achieved. Education, like other sectors, needs its own "*sectoral innovation system*" (Malerba, 2005) as part of broader national innovation systems.

An education sector innovation system can be conceived as the space where the education system and the national innovation system overlap (Schuller, 2010).

This is a public policy area that falls under the dual responsibility of ministers of education and ministers of innovation. Some countries have explicit strategies for this area, some have implicit strategies, and many have neither an explicit nor an implicit strategy. In its innovation strategy framework, the OECD suggested that countries should have specific innovation strategies for their education sector because: "*a good innovation policy in education is critical to improve learning outcomes, equity, cost-efficiency and student satisfaction*".[4] A number of relevant questions have been raised in connection with this.

> *"Could the traditional instruments of innovation policies be used more effectively in education and how – for example, promoting public and private investment in R&D, intellectual property rights, competition, etc?*
>
> *Would it be possible to foster the development of a strong pedagogical industry that could be compared to the pharmaceutical industry in the health sector?*
>
> *How to manage knowledge effectively to foster innovation and improvement in education – links between research and practice, incentives for networking and knowledge sharing within schools, etc.*
>
> *How to use and coordinate policy instruments such as assessment and accountability, teacher professional development, school organisation, parental involvement to promote innovation and improvement.*
>
> *What are the appropriate methods of evaluation for different types of educational innovation?*
>
> *How to measure innovation in education."*
>
> (OECD, 2007b, p. 2).

Some of these questions seem to be closely related to those raised earlier in this article. And these questions will have to be answered in the context of national innovation strategies for the education sector. This may also require the re-positioning of ministries of education, centres of educational research and schools, as well as those agencies connecting these three worlds.

## Implications and possible scenarios from a CIDREE perspective

The emerging new way of thinking about innovation in the education sector may have significant implications for CIDREE and its member institutions. Although this new way of thinking puts pressure on them to adapt, most of them will feel quite familiar in the new environment. The way of thinking about educational research and of conceptualising relationships between research and practice, as

presented above, has never been alien for CIDREE institutions. In fact, they are much better placed to play a key role in the emerging new national knowledge and innovation ecosystems than universities or educational departments of universities thanks to their position equally distant from, or close to, academia, government and schools.

However, their strength might be, at the same time, their weakness. Although they might desire to position themselves at a certain distance from governments, and this would certainly be advantageous for the development of educational systems, this is not possible in many cases. Most of them are founded, financed and supervised by national ministries and there are very few countries where national authorities would support or welcome a genuinely autonomous position for their '*background institutions*'. The price of being close to policy is being close to politics. Elected politicians in most European countries cannot resist the temptation to subordinate national educational research and development institutions for short-term political needs. They need this professional hinterland to be successful in parliamentary debates, to find justification for their changing political endeavours or, sometimes, simply to hide resources from parliaments.

In a positive scenario, however, education sector innovation systems might emerge and this would lead to a more stable environment for research and innovation in education. In this scenario, an increasing number of governments would adapt their national innovation strategies for the emerging new global and European trends. This would mean that they broaden their concept of innovation, start systematically including the public sector within their broader national innovation strategies, and, in doing so, they do not forget about innovation in the education sector.

The probability of this would, and this has to be stressed here, be significantly enhanced by a growing role of the private sector in education. The key players here would include not only schools and other public education institutions, but also non-public training providers, producers of various technology products for teaching and learning, and a number of new players from the world of lifelong learning. This would also make innovation in the education sector increasingly important, especially if educational services become important goods in both internal and external markets. In such a scenario, education ministries have a particular responsibility to create effective sectoral innovation strategies.

This would mean, and we can already see this in a number of countries, not only growing support for educational research, but also a change in its meaning and a new place for it in the broader education sector innovation system. This is certainly challenging for the entire educational research and development community and, within this, for CIDREE institutions. My assumption is that those who do research and development and work closely with their clients in governments and practice would particularly welcome this development.

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## Notes

1 It is perhaps worth mentioning in this context that Seamus Hegarty, who later became president of CIDREE, was one of the invited experts at this meeting.

2 NESSE website: http://www.nesse.fr/nesse

3 EIPEE project website: http://www.eipee.eu/Default.aspx?tabid=2478&language=en-GB

4 See the website: 'More about the Innovation Strategy for Education and Training' (http://www.oecd.org/document/56/0,3343,en_2649_33723_42380088_1_1_1_1,00.html)

# 9 Building bridges: how research may improve curriculum policies and classroom practices

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# Building bridges: how research may improve curriculum policies and classroom practices

*Jan van den Akker*

## Abstract

*Curriculum development is almost notorious for its weak relationship with research. Socio-political arguments usually dominate curriculum decision making (in most, including European, countries, with all their variety). Priorities for curriculum projects seldom arise from systematic monitoring and analysis of practices and outcomes. Available research-based knowledge is often insufficiently used during the development process. And empirical information about actual uptake and implementation of curriculum innovations is often lacking. Altogether, one may conclude that curriculum development is hardly an evidence-based enterprise, in contrast to much policy rhetoric nowadays. Probably, few people would argue for an overly strong evidence-based strategy of curriculum development – this would be in contrast to the often value-driven nature of most curricular decision making. However, many would like to experience a more evidence-informed approach to curriculum problems.*

*This article will explore how a better cross-fertilisation between educational research and curriculum development could strengthen the information base for curriculum policies and classroom practices.*

*After an effort to articulate our conceptualisation of curriculum and curriculum development (building on van den Akker (2003) and Thijs and van den Akker (2009)), the exploration's emphasis will be on the potential of curricular 'design and development research' (D&DR), a rapidly emerging research approach that combines three related goals:*

- *optimisation of curricular interventions and products (for example, curriculum frameworks and educative materials)*
- *curriculum design principles (as a contribution to the knowledge base)*
- *professional development (of all participants).*

*The role of research will be outlined for the various stages of curriculum development, with particular attention given to:*

- *quality criteria for curriculum interventions*
- *adequate research methods and procedures*
- *knowledge growth and generalisation issues.*

## The problematic fate of most curriculum reforms: could research help?

Curriculum reform has a dubious reputation, with more sobering than real and lasting success stories. One could even say, as a universal experience, that large-scale curriculum reform has a tendency to fail (Cuban, 1992; Fullan, 2007; Leyendecker, 2008). Hargreaves and Fink (2006, p. 6) put this succinctly: "*Change in education is easy to propose, hard to implement, and extraordinarily difficult to sustain.*" And it could be argued that curriculum changes belong to the hardest category.

Notwithstanding big investments in research and development, and in-service education, the target group of teachers often appears poorly informed about an intended innovation, while its practical application remains limited, and its impact on student learning is unclear. Simple explanations for innovation failures are inadequate, but a few gaps are often visible:

- weak connections between the various system levels (national, local, school and classroom)
- lack of internal consistency within the curriculum design
- insufficient cooperation between various actors in educational development.

The general pattern is that the worlds of policy, practice and research are widely separated. A crucial challenge for more successful innovations in education is to build bridges between many levels, factors and actors.

How could research help in addressing educational challenges? The kind of help usually varies across different types of research. Plomp (2009) distinguished various questions, aims and functions of research including to describe, compare, evaluate, explain, predict, design and develop. One may also discern various primary orientations of research: theory, practice and policy. Much policy-oriented research in education occurs through surveys, monitoring and assessment, and focuses on (descriptive) measures about actual practices and outcomes. However, the central orientation in this article will be on research that focuses on curriculum '*improvement and innovation*', under the label of D&DR.

D&DR in education is a relatively new approach, with its roots in the early nineties (for our own efforts in the curriculum domain, see van den Akker and Plomp (1993) and van den Akker (1999)). Since then, they are documented in a

number of special issues of prominent journals (for example: *Educational Researcher*, 32, 1, 2003; *Educational Psychologist*, 39, 4, 2004; *Journal of the Learning Sciences*, 13, 1, 2004; *Educational Technology*, 45, 1, 2005), and in a number of books (for example: van den Akker *et al.*, 2006; Richey and Klein, 2007; Kelly *et al.*, 2008; Reinking and Bradley, 2008; Plomp and Nieveen, 2009). For pragmatic reasons, the broader label of D&DR is used here, while recognising that there are a number of related and more specific terms used in the literature (see overviews in van den Akker, 1999; van den Akker *et al.*, 2006; Plomp and Nieveen, 2009).

The initial focus in this article is on summarising a set of concepts and perspectives that help to increase the transparency and balance of curriculum analysis, development and discourse. The focus will then shift towards curricular D&DR.

## Curriculum: what's in a name?

When there is a myriad of definitions for a concept in the literature (as is the case with curriculum), it is often difficult to keep a clear focus on its essence. In these cases, it often helps to search for the etymological origin of the concept. The Latin word '*curriculum*', related to the verb currere (running), refers to a '*course*' or 'track' to be followed. In the context of education, where learning is the central activity, the most obvious interpretation of the word curriculum is, then, to view it as a course, trajectory, or "*plan for learning*" (Taba, 1962). This very short definition (reflected in related terms in many languages) limits itself to the core of all other definitions, permitting all sorts of elaborations for specific educational levels, contexts and representations. Obviously, contextual specification is always needed in curriculum conversations to clarify the perspective.

Given this simple definition, a differentiation between various levels of the curriculum has proven to be very useful when talking about curricular activities (policy-making, design and development, evaluation, and implementation). The following distinctions appear to be helpful:

- international/comparative (or '*supra*' level)
- system, society, nation and state (or '*macro*' level) (for example, national syllabi or core objectives)
- school and institution (or '*meso*' level) (for example, school-specific curriculum)
- classroom (or '*micro*' level) (for example, textbooks and instructional materials)
- individual and personal (or '*nano*' level).

The supra level usually refers to international debates or agreements on aims and quality of education, and it is sometimes fuelled by the outcomes of

internationally comparative studies. Curriculum development at the supra and macro levels is usually of a '*generic*' nature, while '*site-specific*' approaches are more applicable for the levels closer to school and classroom practice. Moreover, the process of curriculum development can be seen as either narrow (developing a specific curricular product) or broad (a long-term, ongoing process of curriculum improvement, often including many related aspects of educational change, for example, teacher education, school development and examinations).

In order to understand problems of curriculum decision making and enactment, a broader description of curriculum development is often most appropriate. It is usually a long and cyclical process with many stakeholders and participants in which motives and needs for changing the curriculum are formulated; ideas are specified in programmes and materials; and efforts are made to realise the intended changes in practice.

Moreover, curricula can be represented in various forms. Clarification of these forms is especially useful when trying to understand the problematic efforts to change a curriculum. A common broad distinction is between the three levels of the '*intended*', '*implemented*', and '*attained*' curriculum. A more refined typology (van den Akker, 2003) is outlined in Table 9.1.

**Table 9.1: Typology of curriculum representations**

| | | |
|---|---|---|
| **Intended** | Ideal | Vision (rationale or basic philosophy underlying a curriculum) |
| | Formal/written | Intentions as specified in curriculum documents and/or materials |
| **Implemented** | Perceived | Curriculum as interpreted by its users (especially teachers) |
| | Operational | Actual process of teaching and learning (also, curriculum-in-action) |
| **Attained** | Experiential | Learning experiences as perceived by learners |
| | Learned | Resulting learning outcomes of learners |

Traditionally, the intended domain refers predominantly to the influence of curriculum policy-makers and curriculum developers (in various roles). The implemented curriculum relates especially to the world of schools and teachers. And the attained curriculum relates to students.

Besides this differentiation in representations, curriculum problems can be approached from various analytical angles. For example, Goodlad (1994) distinguished three different perspectives:

- '*substantive*', focusing on the classical curriculum question about what knowledge is of most worth for inclusion in teaching and learning

- '*technical-professional*', referring to how to address concrete tasks of curriculum development
- '*socio-political*', referring to curriculum decision-making processes, where values and interests of many different individuals and agencies are at stake.

Some might argue that this list is too limited as it refers specifically to curriculum issues for '*traditional*' planning for learning in schools, and does not include the more '*critical*' perspectives that are amply present in curriculum theory literature (for example, Pinar *et al.*, 1995). However, from a primary interest in curriculum improvement, the three perspectives seem useful and appropriate.

## The vulnerable curriculum spider's web

One of the major challenges for curriculum improvement is creating balance and consistency between the various components of a curriculum ('*plan for learning*'). What are these components? The relatively simple curriculum definition by Walker (1990) includes three major planning elements: content, purpose and organisation of learning. However, curriculum design and implementation problems have taught us that it is wise to pay explicit attention to a more elaborated list of components. Elaborating on various typologies, we have come to adhere to a framework (see Table 9.2) of ten components that address ten specific questions about the planning of student learning.

Table 9.2: Curriculum components

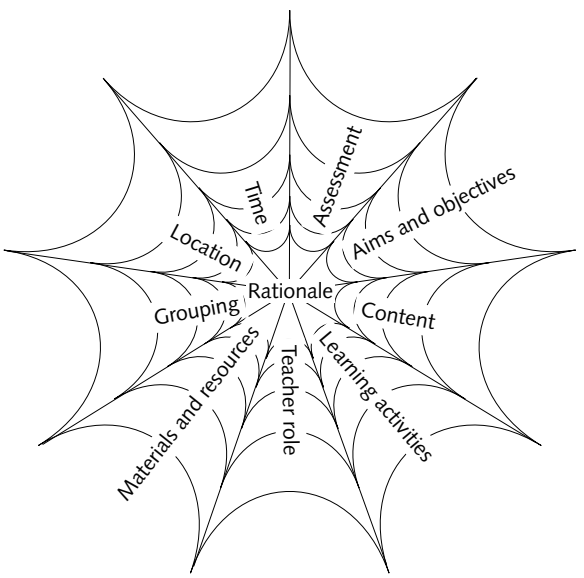
| | |
|---|---|
| **Rationale or vision** | Why are they learning? |
| **Aims and objectves** | Towards which goals are they learning? |
| **Content** | What are they learning? |
| **Learning activities** | How are they learning? |
| **Teacher role** | How is the teacher facilitating learning? |
| **Materials and resources** | With what are they learning? |
| **Grouping** | With whom are they learning? |
| **Location** | Where are they learning? |
| **Time** | When are they learning? |
| **Assessment** | How to measure how far learning has progressed? |

The 'rationale' (referring to overall principles or central mission of the plan) serves as a major orientation point, and the nine other components are ideally linked to that rationale, and preferably also consistent with one another. For each of the components many sub-questions are possible, not only on substantive issues (see the next section), but, for example, also on '*organisational*' aspects. For example, sub-questions concerning grouping, location and time would include:

- grouping
  - how are students allocated to various learning trajectories?
  - are students learning individually, in small groups, or in whole classes?
- location
  - are students learning in class, in the library, at home, or elsewhere?
  - what are the social and physical characteristics of the learning environment?
- time
  - how much time is available for various subject matter domains?
  - how much time can be spent on specific learning tasks?

Our preferred visualisation of the ten components is to arrange them as a spider's web (Figure 9.1), not only illustrating its many inter-connections, but also underlining its vulnerability. Thus, although the emphasis of curriculum design on specific components may vary over time, eventually some kind of alignment has to occur to maintain coherence. A striking example is the trend of integrating ICT into the curriculum, with initial attention usually on changes in materials, resources and location. Many implementation studies have exemplified the need for a more comprehensive approach and systematic attention given to the other components before one can expect robust changes.

**Figure 9.1: Curricular spider's web**



The spider's web also illustrates a familiar expression: every chain is only as strong as its weakest link. This seems to be a very appropriate metaphor for a curriculum as it points to the complexity of efforts to improve the curriculum in a balanced, consistent and sustainable manner.

## Perspectives on substantive choices

A classic approach to the eternal question of what to include in the curriculum (or even more difficult, as well as urgent, what to exclude from it) is to search for a balance between three major sources or orientations for selection and priority setting.

- Knowledge: what is the academic and cultural heritage that seems essential for learning and future development?
- Society: which problems and issues seem relevant for inclusion from the perspective of societal trends and needs?
- Learner: which elements seem of vital importance for learning from the personal needs, educational needs and interests of the learners themselves?

Answers to these questions usually constitute the rationale for a curriculum. Inevitably, choices have to be made involving compromises between the various orientations (and their respective proponents and pressure groups). Often, efforts fail to arrive at generally acceptable, clear and practical solutions. The result of adding up all kinds of wishes is that curricula tend to become overloaded and fragmented. Implementation of such incoherent curricula tends to lead eventually to student frustration, failure and dropout.

How to create a better curriculum balance? Easy answers are not available, but a few alternatives seem to have some promise. First, in view of the multitude of (academic) knowledge claims, it sometimes helps to reduce the large number of separate subject domains to a more limited number of broader learning areas, combined with sharper priorities in learning aims (focusing on basic concepts and skills).

Second, referring to the avalanche of societal claims, more interaction between learning inside and outside the school may reduce the burden. However, the most effective response is probably to be more selective when reacting to all sorts of societal problems. As Cuban (1992) phrased it clearly: schools should not feel obliged to scratch the back of society every time society has an itch.

And third, looking at the learners' perspective, worldwide, many interesting efforts are going into making learning more challenging and intrinsically motivating by moving from traditional, teacher- and textbook-dominated

instruction towards more meaningful and activity-based learning approaches. Obviously, ICT creates new challenges, but it also offers new opportunities for addressing the substantive dilemmas described.

## Development strategies

To sketch curriculum development as a problematic domain is actually an understatement. From a socio-political stance, it often seems more appropriate to describe it as a war zone, full of conflicts and battlefields between stakeholders with different values and interests. Problems manifest themselves in the (sometimes spectacular and persistent) gaps between the intended curriculum (as expressed in policy rhetoric), the implemented curriculum (real life in school and classroom practices), and the attained curriculum (as manifested in learners' experiences and outcomes). A typical consequence of these tensions is various frustrated groups of participants blaming each other for the failure of reforms or improvement activities.

Although such blaming games often seem rather unproductive, there are some serious critical remarks to be made about many curriculum development approaches worldwide. Firstly, many curriculum reform efforts are characterised by overly big innovation ambitions (especially those of politicians) within unrealistically short timelines and with very limited investment in people, especially teachers. Secondly, often there is a lack of coherence between the intended curriculum changes with other system components (especially teacher education and assessment/examination programmes). And lastly, but not least, timely and authentic involvement of all relevant stakeholders is often neglected.

From a strategic point of view, the literature has offered us many (technical-professional) models and strategies for curriculum development. Three prominent approaches are Tyler's (1949) '*rational-linear*' approach, Walker's (1990) '*deliberative*' approach, and Eisner's (1979) '*artistic*' approach. As it does not fit within the purpose of this article to explain these models in particular, the reader is referred to the educative text of Marsh and Willis (2003) and the overview of prominent approaches in Thijs and van den Akker (2009).

Obviously, the context and nature of the curriculum development task at hand will determine to a large extent what kind of strategy is indicated. It is noteworthy that we are beginning to see more '*blended*' approaches that integrate various trends and characteristics of recent design and development approaches in education (for an overview and a series of examples see van den Akker *et al.* (1999) and van den Akker and Kuiper (2008)). Some key characteristics of these are:

- Pragmatism: recognition that there is not a single perspective, overarching rationale or higher authority that can resolve all dilemmas for the curriculum choices to be made. The practical context and its users are in the forefront of curriculum design and enactment.
- Prototyping: evolutionary prototyping of curricular products and their subsequent representations in practice is viewed as more productive than quasi-rational and linear development approaches. Gradual, iterative approximation of curricular dreams into realities may prevent paralysis and frustrations. Formative evaluation of tentative, subsequent curriculum versions is essential for such curriculum improvement approaches.
- Communication: a communicative-relational style is desirable in order to arrive at the inevitable compromises between stakeholders with various roles and interests, and to create external consistency between all parties involved.
- Professional development: in order to improve the chances of successful implementation, there is a trend towards more integration of curriculum change and professional learning and development of all individuals and organisations involved.

D&DR is an approach that incorporates some of these characteristics, and it becomes even more promising when knowledge growth is added to it. D&DR can strengthen the knowledge base in the form of design principles that offer heuristic advice to curriculum development teams. It can do this, more than in common development practices, if deliberate attention is paid to the theoretical embedding of design issues, and empirical evidence is offered about the practicality and effectiveness of the curricular interventions in real user settings.

However, there are several persistent dilemmas for curriculum development that cannot easily be resolved, let alone through generic strategies. For example, how can aspirations for large-scale curriculum change and system accountability be combined with the need for local variations and ownership? The tension between these conflicting wishes can be somewhat reduced if one avoids the all too common '*one size fits all*' approach. More adaptive and flexible strategies avoid detailed elaboration and over-specification of central curriculum frameworks. Instead, they offer substantial options and flexibility for schools, teachers and learners. Although struggles about priorities for aims and content remain inevitable, the principle of '*less is more*' should be pursued. However, what is incorporated into a core curriculum should be clearly reflected in examination and assessment approaches.

The '*enactment*' perspective (teachers and learners together create their own curriculum realities) is increasingly replacing the '*fidelity*' perspective on implementation (teachers faithfully following curricular prescriptions from external sources). That trend puts even more emphasis on teachers as key people in curriculum change. Both individual and team learning is essential (Fullan,

2007). Teachers need to get out of their customary isolation. Collaborative design and piloting of curricular alternatives can be very productive (see, for example, Handelzalts, 2009), especially when experiences are exchanged and reflected upon in a structured curriculum discourse. Interaction with external facilitators can contribute to careful exploration of the '*zone of proximal development*' of teachers and their schools. Cross-fertilisation between curriculum, teachers, and school development is a *conditio sine qua non* for effective and sustainable curriculum improvement. The increasingly popular mission statements of schools to become attractive and inspiring environments for students and teachers can only be realised when such integrated scenarios are practised.

## The potential of curriculum D&DR

Various motives for initiating and conducting curriculum D&DR should be mentioned. A basic motive stems from the experience that many research approaches (for example, experiments, surveys and correlational analyses), with their focus on descriptive knowledge, hardly provide prescriptions with useful solutions for a variety of D&DR problems in education. Probably the greatest challenge for professional designers is how to cope with the manifold uncertainties in their complex tasks in very dynamic contexts. If they do seek support from research to reduce these uncertainties, several frustrations often arise: answers are too narrow to be meaningful, too superficial to be instrumental, too artificial to be relevant, and, on top of these, they usually come too late to be of any use. Curriculum designers do appreciate more adequate information to create a solid ground for their choices and more timely feedback to improve their products. Moreover, the professional community of developers, as a whole, would be helped by a growing body of knowledge of theoretically underpinned and empirically tested design principles and methods.

Another reason for curricular D&DR stems from the highly ambitious and complex nature of many curriculum reform policies in education worldwide. These reform endeavours usually affect many system components, are often multi-layered including both large-scale policies and small-scale realisations, and are very comprehensive in terms of factors included and people involved. These radical '*revolutions*', if promising at all, cannot be realised on the drawing table.

The scope of diverse needs is often very wide, the problems to be addressed are usually ill specified, the effectiveness of proposed interventions is mostly unknown beforehand, and the eventual success is highly dependent on implementation processes in a broad variety of contexts. Therefore, such curriculum reform efforts would profit from more evolutionary (interactive cyclical and spiral) approaches, with integrated research activities to feed the process (both forwards and backwards). Such an approach would provide more

opportunities for '*successive approximation*' to the ideals and more strategic learning in general. In conclusion: curricular D&DR seems a wise and productive approach for curriculum development.

## Features of curricular D&DR

Curricular D&DR is often initiated for complex, innovative interventions for which only very few validated principles are available to structure and support the design and development activities. Since, in these situations, the image and impact of the curricular intervention to be developed are often still unclear, the research focuses on realising limited, but promising, examples of these interventions. The aim is not to elaborate and implement complete interventions, but to come to (successive) prototypes that increasingly meet the innovative aspirations and requirements. The process is often iterative, cyclic or spiral: analysis, design, evaluation and revision activities are iterated until a satisfying balance between ideals and realisation has been achieved.

To what extent do these D&DR activities differ from what is typical for design and development approaches in professional practices? What are the implications of the accountability of researchers to the '*scientific forum*'? At the risk of exaggerating the differences, let us outline some of them based on what is known about routinised, standard patterns in curriculum development practices. Of course, a lot of activities are more or less common for both approaches, so the focus will be on those additional elements that are more prominent in design research than in common design and development practices.

### *(1) Preliminary investigation*

A more intensive and systematic preliminary investigation of curriculum tasks, problems and context is made, including searching for more accurate and explicit connections of that analysis with state-of-the-art knowledge from literature. Some typical activities include: literature review, consultation of experts, analysis of available promising curriculum examples for related purposes, and study of current practice case studies to specify and better understand the needs and problems in intended user contexts.

### *(2) Theoretical embedding*

More systematic efforts are made to apply state-of-the-art knowledge when articulating the theoretical rationale for curriculum design choices. Moreover, explicit feedback to assertions in the design rationale about essential characteristics of the intervention (substantive design principles) is made after empirical testing of its quality. This theoretical articulation can increase the '*transparency*' and '*plausibility*' of the rationale. Because of their specific focus,

these theoretical notions are usually referred to as '*mini*' or '*local*' theories, although sometimes connections can also be made to '*middle-range*' theories with a somewhat broader scope.

### *(3) Empirical testing*

Clear empirical evidence is delivered about the practicality and effectiveness of the curriculum for the intended target group in real user settings. In view of the wide variation of possible interventions and contexts, a broad range of (direct/indirect and intermediate/ultimate) indicators for '*success*' should be considered.

### *(4) Documentation, analysis and reflection on process and outcomes*

Much attention is paid to systematic documentation, analysis and reflection on the entire design, development, evaluation and implementation process, and on its outcomes in order to contribute to the expansion and specification of the methodology of curriculum design and development.

Typical questions for D&DR are:

- What are the essential features of successful interventions (for complicated challenges or '*wicked*' problems) (Kelly, 2009)?
- How do these interventions operate in real life?
- How can they be designed and implemented?

In view of its aim, D&DR is never a '*quick fix*' operation, but it usually takes a long trajectory, where the research is intertwined with continuous development activities, from problem formulation up to and including implementation.

More than most other research approaches, D&DR aims at making both practical and scientific contributions. In the search for innovative '*solutions*' for curriculum problems, interaction with practitioners (in various professional roles: teachers, policy-makers, developers, and the like) is essential. The ultimate aim is not to test whether theory, when applied to practice, is a good predictor of events. The interrelation between theory and practice is more complex and dynamic: is it possible to create a practical and effective curriculum for an existing problem or intended change in the real world? The innovative challenge is usually quite substantial, otherwise the research would not be initiated at all. Interaction with practitioners is needed to gradually clarify both the problem at stake and the characteristics of its potential solution. An iterative process of '*successive approximation*' or '*evolutionary prototyping*' of the '*ideal*' intervention is desirable.

Direct application of theory is not sufficient to solve these complicated problems. One might state that a more '*constructivist*' development approach is preferable: researchers and practitioners cooperatively construct and test workable

interventions and articulate principles that underpin the effects of those interventions.

Another reason for cooperation is that without the involvement of practitioners it is impossible to gain clear insight into potential curriculum implementation problems and to generate measures to reduce these problems. New interventions, however imaginative their design, require continuous anticipation of implementation issues. Not only for '*social*' reasons to build users' commitment and ownership, but also for '*technical*' benefits to improve their fitness for survival in real life contexts. Therefore, rigorous testing of practicality is a *conditio sine qua non* in D&DR.

## Emphasis on formative evaluation

As has become clear in the previous sections, formative evaluation holds a prominent place in curricular design research. The main reason for this central role is that formative evaluation provides the information that feeds the optimisation of the intervention and the cyclical learning process of curriculum developers during the subsequent loops of a design and development trajectory. It is most useful when fully integrated into a cycle of analysis, design, evaluation, revision, etc., and when contributing to a curriculum's improvement.

Thus, the basic contribution of formative evaluation is quality improvement of the curriculum under development. '*Quality*', however, is an abstract concept that requires specification. During development processes, the emphasis in the criteria for quality usually shifts from relevance to consistency, practicality and effectiveness.

'*Relevance*' refers to the extent to which the intended curriculum is perceived to be a relevant improvement to practice, as seen from the varied perspectives of policy-makers, practitioners and researchers. '*Consistency*' refers to the extent to which the design of the curriculum is based on state-of-the-art knowledge and how the various components of the intervention are consistently linked to each other (cf. the curricular spider's web). '*Practicality*' refers to the extent to which users (and other experts) consider the intervention as clear, usable and cost-effective in '*normal*' conditions. '*Effectiveness*' refers to the extent to which the experiences and outcomes resulting from the intervention are congruent with the intended aims. Also, issues of scalability and sustainability may be included in a broad interpretation of effectiveness.

The methods and techniques for evaluation will usually be attuned to that shift in criteria. For example, adequate evaluation of consistency can start with comments of critical friends on initial drafts and then move on to more systematic expert appraisal. Practicality is often tested via micro-evaluations and

try-outs in real classroom practices. Evaluation of effectiveness usually requires (more large-scale) field tests. In later stages of formative evaluation, methods of data collection will usually be less intensive, but with an increasing number of respondents (for example, an achievement test for many students at the end compared to an in-depth interview with a few experts at the beginning). See Nieveen (2009) for more elaborate explanations and suggestions for these shifts in formative evaluation.

Formative evaluation within D&DR should not only concentrate on locating shortcomings of the intervention in its current (draft) version, but especially generate suggestions on how to improve these weak points. Richness of information – notably salient and meaningful suggestions for how to make an intervention stronger – is therefore more productive than standardising methods for collecting and analysing data. Efficient procedures are also crucial. The lower the costs in time and energy for data collection, processing, analysis and communication will be, the bigger the chances of actual use and impact on the development process. For example, samples of respondents and situations for data collection will usually be relatively small and purposive compared to sampling procedures for other research purposes. The added value of getting '*productive*' information from more sources tends to decrease because the opportunities for '*rich*' data collection methods (such as interviews and observations) are limited with big numbers. To avoid an overdose of uncertainty in data interpretation, often triangulation (of methods, instruments, sources and sites) is applied. These arguments especially hold true for the early stages of formative evaluation, when the intervention is still poorly crystallised.

## Generalisation of curricular design research findings

The most practically relevant outcome of curricular D&DR is its contribution towards optimising the curricular product and its actual use, leading to better instructional processes and learning results. However, a major contribution to knowledge gained from D&DR is in the form of (both substantive and methodological) '*design principles*' for supporting developers in their task. These principles may be captured in (a growing set of) heuristic statements of a format such as:

- *If you want to design intervention X* [for purpose/function Y in context Z]
- *then you are best advised to give that intervention the characteristics* $C_1$, $C_2$,…, $C_m$ [substantive emphasis]
- *and to do that via procedures* $P_1$, $P_2$, …, $P_n$ [methodological emphasis]
- *because of theoretical arguments T1, T2, …, Tp*
- *and empirical arguments E1, E2, …, Eq.*

Thus, the design principles include not only statements about the (substantive) '*what*' and (methodological) '*how*' of the intended interventions, but also offer theoretical explanations and empirical underpinning to justify these knowledge claims. Obviously these heuristic principles cannot guarantee success, but they are intended to select and apply the most appropriate (substantive and methodological) knowledge for specific design and development tasks.

It is not uncommon in D&DR for such knowledge, especially the substantive knowledge about essential curriculum characteristics, to be partially extracted from the resulting prototype itself. That is one of the reasons that make it so profitable to search for and carefully analyse already available curricula to generate ideas for new design tasks. However, the value of that knowledge will strongly increase when justified by theoretical arguments, well articulated in providing directions, and convincingly backed up with empirical evidence about the impact of these principles. Moreover, these heuristic principles will be additionally powerful if they have been validated in the successful design of more interventions in more contexts. Chances for such knowledge growth will increase when D&DR is not conducted through isolated studies, but conducted within the framework of research programmes, because projects can then build upon one another ('*standing on shoulders*'). Such a strategy also increases the chances of achieving a sharper insight into the essence of successful interventions versus variations in other features.

Since data collection in D&DR, especially during formative curriculum evaluation, is often limited to small (and purposive) samples, efforts to generalise findings cannot be based on statistical techniques, focusing on generalisations from sample to population. Instead, one has to invest in '*analytical*' forms of generalisation (Yin, 2003): readers/users need to be supported to make their own attempts to explore the potential transfer of the research findings to theoretical propositions in relation to their own context.

Reports on D&DR can facilitate the task of '*analogy reasoning*' through a clear theoretical articulation of the design principles applied, and by reflecting on the results afterwards. Moreover, it is helpful to offer a careful description of both the evaluation procedures as well as the implementation context. This is particularly the case since a detailed description of the process-in-context may increase the '*ecological*' validity of the findings. Consequently, others can estimate in what respects and to what extent transfer from the reported situation to their own is possible. Another option, that may stimulate exploration of possibilities for (virtual) generalisation and transfer to various settings, is to organise interactive (network) meetings with experts and practitioners from related contexts to discuss the plausibility of the research findings and recommendations for related tasks and contexts.

In view of the rapidly growing, but still relatively modest, familiarity of (curricular) D&DR to the wider audience, it is wise to invest much in the '*transparency*', '*plausibility*', '*trustworthiness*' and '*reconstructiveness*' of its arguments and findings. Also at stake is the '*credibility*' (expertise in depth and breadth, and track record) of the research team and its partners.

Last, but not least, curricular D&DR may offer drafts of various relevant curriculum versions (with proven consistency and practicality) that can be compared in more quantitative, large-scale, (quasi-) experimental studies. Obviously, these more summative evaluations are best done by other independent researchers not previously involved in the design stage.

## Epilogue: knowledge growth through international cooperation in curricular design and development research

The previous section has already touched upon the promise of (programmatic) cooperation in (curricular) D&DR. The Consortium of Institutions for Development and Research in Education in Europe (CIDREE), with its strong focus on curriculum development and research, seems an excellent forum for international exchange and collaboration in this domain. All CIDREE member institutions have an interest in the high quality of their work and particularly in research-informed approaches for their curriculum activities. However, although there is not a systematic overview of the specific practices of the various institutions, it seems fair to say that, probably for all partners, there is quite some room for improvement in bringing the worlds of (curriculum) development and research closer together. Actually, on a broader level, it is realistic to note that in many countries the worlds of policy, research and practices in schools and classrooms are more separated than is desirable. There are no simple mechanisms to bridge all such gaps, but a few things would help to address some of these challenges. In particular, it would be attractive to invest in:

- creating a systematic overview of relevant D&DR (or related) approaches in curriculum development by CIDREE institutions
- exchanging these findings and stimulating capacity building on D&DR across CIDREE institutions through publications, workshops and seminars
- organising joint symposia within existing conferences; for example, in recent years the annual European Conference on Educational Research (ECER), in particular through its Curriculum Network, has already been used for several such meetings; the best example being a symposium on Curriculum Development Research in European Curriculum Institutes organised by Nienke Nieveen from SLO (the Netherlands institute for curriculum development), on 27 September, 2010 in Helsinki.

Thus, knowledge sharing and distribution through systemic partnerships and networks seems relevant. The impact of such efforts will grow if the cooperation between D&DR professionals is elaborated further (in specific projects or more in general) through the involvement and joint professional development of many other partners, notably teachers, school leaders and teacher educators.

The more these collaborative patterns become reality, the more D&DR will provide a very promising avenue for successful (effective and sustainable) curriculum improvement and innovation.

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# 10 Efficiency in education: 20 years of talk and no progress?

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# Efficiency in education: 20 years of talk and no progress?

*Stefan C. Wolter*

## Abstract

*This article will show, grounded on the different theoretical concepts of efficiency, where the problems in empirically measuring efficiency (or cost-effectiveness) in education lie. With each concept of efficiency, practical examples from the educational system will be cited, helping the reader to understand the difficulties that measuring efficiency present in reality. Thereby, a partial answer will be given to the claim in the title that says we have been talking about efficiency a lot, but we have not made much progress in empirically measuring it. The consequences of this are twofold. Firstly, educational policy-makers will not renounce making statements about the efficiency of the educational system and make decisions based on the assumed efficiency of the system in the absence of verifiable empirical observations. Secondly, therefore, and in the interest of the actors in the educational system, the system itself should make greater efforts in the future to collect data and allow researchers to measure the efficiency of the educational processes, even if some of the outcomes might be disappointing.*

## Introduction

'*Efficiency*' is a controversial but, nevertheless, more and more often-used term in educational policy-making. There is hardly a statement of educational ministers nowadays that does not stress the need for more efficiency in educational processes. However, one finds hardly any convincing analyses of efficiency in education in the empirical research literature. Simplifying this, one could say that the frequency of the use of the term '*efficiency*' in educational policy statements is inversely proportional to the frequency of research results on '*efficiency*'. This might be explained by the seemingly very easy to understand concept of efficiency on the one hand, and the many difficulties and pitfalls that one encounters when trying to apply efficiency concepts to the realities of educational processes, on the other hand. Efficiency measures the extent to which actions and measures (inputs) taken to reach established objectives (outputs) have an impact. In more specific terms, this means that efficiency is an indicator of the relationship that exists between the system inputs and outputs.

This article intends, therefore, to highlight the different concepts of efficiency and their suitability for educational questions. It looks at the difficulties encountered when trying to use these concepts empirically in the educational context. It also looks at the research and data needs that have to be met, if one really wants to progress in the measurement of efficiency in education. It is only if these difficulties are overcome that one can expect efficiency in education to become more than just a rhetorical tool for politicians.

## Why should efficiency matter in education?

In general, and in almost all countries, efficiency is not an official objective for education systems. It is not referred to, therefore, in most education laws and administrative documents. So why does efficiency appear more and more in policy statements of education ministers – not to mention those of finance ministers?

When allocating resources or introducing incentives into the education system, education administrations and researchers have, if anything, focused on whether the resources or incentives lead to the achievement of the established objectives. This is the so-called '*effectiveness*' educational measure. However, the effective use of resources does not always equate to the efficient use of resources and, as far as the education system is concerned, efficiency is essential for at least three reasons.

First, even the education system is subject to the imperative of achieving a maximum with a minimum of resources. This does not mean that the education system needs to emulate the private sector's profit motive. Since resources are limited everywhere, they must always be used carefully. The reason for the need for an efficient use of resources is the fact that the same resources (both time and money) used in education could also be used to address other social or individual needs. For example, if students in compulsory education are able to acquire pre-determined levels of skills in mathematics or foreign languages with a smaller number of lessons, then sufficient time will be available to educate them in music, sports and other disciplines as well. If pupils or students attain their competence levels in less time, more time is available for either more education or non-educational activities. These may not be undertaken if all the available time was inefficiently spent on achieving the initial goals.

Secondly, efficiency is an attractive proposition because the higher returns also have a positive effect on outcomes (either social or individual ones), at the same time as increasing outputs per resource unit. If the education system is able to produce more competent students using the given resources, the resulting improvement in skills will then have a positive effect upon other areas, such as health, social behaviour and many other areas besides.

Last but not least, bearing in mind the most recent research findings, one must be aware of the impact of the '*felt*' degree of efficiency in the educational system on the individual, and the collective willingness to finance education. In other words, the higher the subjective belief that the education system uses public resources efficiently, the higher the willingness to grant the educational system even more resources (and vice versa).

## Definition of the most common concepts of efficiency

The available literature draws distinctions between various concepts of efficiency and it is of the utmost importance to clarify these before talking about efficiency and which concept one has in mind. The results, for instance, could be the converse, depending on the concept one has used to determine efficiency.

The correlation between inputs and the specific outputs of the education system (for example, skills) is referred to as the '*internal*' efficiency. It describes the efficiency of the use of resources within the education system. The influence that education has on social (for example, economic growth) or individual objectives (for example, salary, health and social status) is referred to as the '*external*' efficiency. This describes the degree of efficiency in achieving these outcomes through the channels of education.

The result of efficiency calculations based on real inputs (for example, number of teachers and number of school hours or years) is referred to as the '*technical*' efficiency. The result of a monetary-based calculation of inputs (that is the multiplication of real inputs with cost prices), is referred to as the '*economic*' efficiency.

Education system performance is never achieved on the basis of a single input. However, combinations of inputs (such as teaching staff and teaching materials) are not rigidly defined and can be varied, and are, therefore, also a source of a more or less efficient combinations of inputs. This form of efficiency is called the '*allocation*' efficiency.

All of these efficiency indicators can be used to assess an education system's performance. Therefore, it is important to know which advantages and disadvantages are associated with the different concepts and also what interrelations might exist between them.

## Problems in determining internal efficiency

A major challenge to measuring efficiency in an education system is the fact that no unequivocal theoretical concept has been devised to determine how resources

(inputs) in the education process affect outputs (the imparting of skills). As no such conceptual framework exists, it is not possible to calculate a theoretical, maximum efficiency level. This means that the efficiency of the education system can only be assessed over time or by comparing education systems (or education providers). Such comparisons will then yield information only about the '*relative efficiency*' of a specific education system or education providers (for example, schools). Once this has been done, it then becomes possible to make statements regarding whether or not the system and/or providers are becoming more or less efficient over time. We can also gain insights into efficiency gaps between a given education system and the most efficient education system known (although, from a theoretical standpoint, other more efficient education systems may also exist).

If we examine our education systems in this way, it becomes immediately clear that the quality of an efficiency assessment hinges on whether both inputs and outputs can be recorded in a sufficiently standardised form to enable full comparability either over time or between individual providers. A problem is apparent when we realise that in order to compare the efficiency of resource use over time, it must also be possible for outputs to be compared over time. If student skills are defined as an output, then this presupposes, on a practical level, that skills determined on the basis of a variety of tests must remain comparable over long periods of time.

Finally, we must also take into account that any comparison of input–output relationships will only be meaningful or useful for policy-makers if the general conditions in which education is provided are comparable (the same holds true when assessing effectiveness and equity). Specifically, this means that in order to compare the efficiency of School A and School B, the general conditions must be roughly the same (for example, they should have the same resources and similar types of students and parents). In other words, for School A to be truly more efficient than School B, it would need to be capable of achieving greater levels of efficiency in resource use than School B under the conditions that the latter operates. Since equal conditions are usually not the case, extensive statistical processes, which are again conditioned on many assumptions, must first be applied to adjust the input and output of Schools A and B to ensure the comparison is valid. In other words, one does not compare the actual input–output relations between School A and School B. Rather the comparison is between the actual relation of input and output of School A to a hypothetical input–output relation of School B, had the latter been producing it under the same conditions as school A. As one can easily see from this example, even relative measures of efficiency are not as straightforward as many politicians, bureaucrats and journalists might like to believe.

## External efficiency and causality

A great many objectives that serve the interests of individuals and society (for example, good health, happiness and democracy) are at least statistically positively correlated to the levels of education of individuals or a whole society. If efficiency is to be transposed to education objectives (outcomes), it is important to understand that the mere existence of a positive correlation between the level of education and outcome does not necessarily mean that the outcome was actually caused by education.[1]

In some cases, considerable time has passed between the moment when an individual has completed his/her studies and the moment when the outcome manifests itself. This would be one reason for a limited causal relationship or no causal relationship whatsoever. If individuals who receive a good education actually live longer, so much more time will have passed between the provision of that education and the age reached by the individuals concerned that it would be extremely difficult to prove the existence of a direct correlation between education and life expectancy.

Problems of interpretation can also arise when factors that have a positive influence upon the outcome (in this case, a long life expectancy) also enable the same individual to remain in education and training for a longer period. In such cases, there may very well be a positive correlation between the increase in life expectancy and the level of education achieved. However, there will be no, or only a minor, causal relationship. Such considerations have a direct bearing on efficiency. If a causal relationship between education and outcome (and the same also applies to education system outputs) is overestimated, the efficiency of resource use will also be overestimated.

Finally, it is possible that education may also affect desirable outcomes in a number of indirect ways (for example, individual remuneration level). After all, if people on higher incomes can afford to pay for better healthcare and, therefore, remain in better health, there will be a positive correlation between their health and their level of education, as more highly educated individuals tend to earn more on average. In this case, the effect of the level of education on life expectancy would be an indirect one. As far as external efficiency is concerned, the additional question raised would, therefore, be: is education definitely the most efficient means of improving health or could the same effect be more efficiently achieved by means of social transfers to the needy?

## The important difference between technical and economic efficiency

When devising educational policy, it is important to draw a distinction between technical and economic efficiency. This is particularly important when deciding which sectors of the education system should be the target of efficiency measures. In analysing the technical efficiency in the teaching of mathematics, for example, the main focus is on determining whether students will acquire the same level of mathematical skills in all schools with the same number of mathematics lessons. In order to calculate economic efficiency, we would multiply the actual input quantity (in this case, the number of lessons) by the price (the salaries of teaching staff) and then perform our analysis. In this example, it is clear that the ranking of the most efficient schools or education systems is not always the same from a technical and economic efficiency standpoint.

If schools that achieve the highest skills in mathematics with a given number of mathematics lessons (and therefore the highest technical efficiency) also pay the highest salaries to their teaching staff, then these schools will not necessarily achieve the highest economic efficiency levels. If '*cheaper*' teachers prove to be less effective, then there is a trade-off between the technical and the economic efficiency, such that only one could be maximised at a time.

Details regarding technical efficiency are important because they enable us to determine which teaching staff, schools or education systems use the most efficient teaching methods and teaching programmes. But economic efficiency must also be taken into account when deciding whether the actual inputs provide good value for money.

Regarding economic efficiency, one important element for the correctness of the efficiency measurement is that input and output cover the same quantities. If the total quantity of the output is taken (rather than the corresponding input measure), this will lead to an overestimation of efficiency. A frequent example is the case where only the last observed input(s) are taken, but the output is a result of a stream of input(s) over time. For instance, if the competences of pupils of a certain age are determined only by taking the last educational spending, the fact that measured output is a cumulative result of a longer investment is neglected. In this case, only the difference of competences before and after the observed investment period should be taken into account. A similar problem arises if, for example, educational institutions have not had the same pattern of investments over time, but due to limited availability of data on investments, only the last measures would be taken as input.

Conversely, if the inputs are used for more than just the observed output, measurement errors and biases can arise. The classic example is the case of the Organisation for Economic Co-operation and Development (OECD) trying to measure the efficiency of educational systems, using (correctly) the cumulated educational expenditure per pupil until the time when pupils were measured at age 15, but using the PISA results as the only output measure. Even if one could assume that all the unmeasured parts of the curriculum have the same quality as the measured ones, the error in this case lies in the definition of the quantity of the output. Whereas the input covers quantitatively all inputs made, the output covers a varying part of the total curriculum. Consequently, countries that have, for instance, invested much of their inputs in the learning of foreign languages, are not comparable to countries that have invested the totality of their inputs in the measured competences. Assuming that the investments have been effective in all countries, the former ones will be penalised with a low efficiency result.

Distinguishing between economic and technical efficiency is also important when assessing efficiency trends over time. Empirical research has shown that a system's declining efficiency trend can largely be attributed to a rise in input costs at a time when output has stagnated (see, for example, Hanushek and Rifkin, 1997). Even if the number of teaching hours, teaching materials or infrastructure used – and hence technical efficiency – remained constant, economic efficiency would actually decline because the actual cost of these inputs increased. When examining the situation in Europe, distinguishing between economic and technical efficiency is especially important. If we were to view economic efficiency in isolation, it would be possible for the information to be misinterpreted, as input costs not only vary over time, they also vary considerably from one country to another.

## Inputs must be combined

All things considered, efficiency is not solely a matter of comparing the quantity and cost of inputs to output. It is also a matter of finding the right combination of inputs. Achieving an efficient mix of inputs (for example, teaching staff and teaching materials), and, thus, maximising allocation efficiency is just as important as the individual inputs themselves and the effect achieved by inputs in isolation.

To illustrate this point, let us consider a hypothetical situation where an education authority needs to decide whether to allocate additional resources to reduce class size (in effect, hire more teachers) or to purchase technical aids such as new learning software. Though the cost of each of the inputs (teaching staff and learning software) could be exactly the same, the available funds could well be allocated more efficiently if they were used, for example, to purchase more

learning software instead of hiring additional teachers. This basically means that it is the combination of inputs that plays a decisive role, and not the quantity alone.

Comparing the efficiency of education systems or education providers is not a simple matter since each operates on the basis of different quantities and combinations of inputs. From a technical perspective, analyses of this type can still be carried out, provided an appropriate method is used (in this case, the so-called data envelopment analysis (DEA)).

An additional factor that hampers any attempt to analyse allocation efficiency has to do with the potential interactions between individual inputs. In many cases, not enough is known about such interactions. It stands to reason, therefore, that the effectiveness of deploying learning software will depend to a considerable degree on the quality of training provided to the teaching staff in a given school, since such training will enable them to use the software in the optimal way. If such training is not provided, or is only provided to a limited number of teachers, then the large-scale deployment of learning software in the classroom will have only a limited impact. In other cases, however, the interaction between individual inputs may well be less obvious; and the state-of-the-art in empirical educational research cannot be judged sufficient to provide the insight necessary to draw the right conclusions from efficiency calculations using combined inputs.

## Efficiency is also a matter of perspective

Efficiency considerations can be applied at '*macro*', '*meso*' and '*micro*' levels within an education system. On a macro level, all inputs can be related to the overall output of an education system. On a meso level, this interrelationship can be established for individual entities (for example, schools). At a micro level, it is then possible to apply the same evaluation method to individual teaching staff or students. In addition, the efficiency of individual stakeholders within the education system can also be assessed.

With regard to specific objectives at the macro level, society itself must decide whether the resources used within the education system may be more effectively allocated elsewhere. At the meso level, schools and teaching staff are required to use the resources at their disposal in the most efficient manner and combination possible in order to ensure student success in the classroom. And, finally, at the micro level, the students themselves also consider the efficiency factor when allocating their time to different tasks and goals. Although students have little control over the main output-related factors within the education system (for example, the quality of teaching staff and learning resources), students are still required on a daily basis to think about how to use their time and the available

resources most efficiently. But, although education system performance also depends on the participation of students in the learning process, most efficiency analyses either fail to monitor student behaviour, or do so only in a rudimentary fashion.

## Averages and marginal analyses

Thus far, empirical analysis of the relationships between inputs and outputs has generally been limited to comparing averages of different systems or institutions. However, only rarely is the difference between two averages useful for demonstrating how the output would change, all other parameters remaining equal, if the input were to increase by one unit (marginal analysis).

If a school that uses twice the number of mathematics lessons than the average used by all other schools enables its students to acquire mathematical skills that are more than twice as advanced as those achieved by the other schools, then that school not only deploys the additional number of lessons in an effective manner, but does so with greater efficiency. But we cannot automatically conclude that a subsequent doubling of the number of lessons by this efficient school would once again give rise to a similar doubling of the skill levels attained. Most probably it would not because, when allocating inputs, we must assume that these generate an always decreasing additional return (the '*marginal return*'). For this reason, increasing the inputs often gives rise to a decrease in average efficiency, even if student output also increases as a result.

No firm pronouncements on this issue can be made, despite the fact that it is of crucial importance in terms of educational policy, since relatively few controlled experiments (which would be the only convincing empirical strategy) have been conducted with the specific aim of acquiring knowledge for strategic planning purposes. We can only assume that, in general, more of already efficiently used resources usually decreases the level of efficiency, while using other resources or using existing resources differently, has a chance to improve given levels of efficiency.

## A look into the future

The main argument of this article is that research has not been able to provide many convincing examples of efficiency analysis. This is due to the complexity of measuring efficiency, the scarcity of empirical data, the lack of trustworthy analyses of causality, and the variety of sometimes conflicting concepts of efficiency. As a result, bureaucrats and politicians should be very careful when using the term '*efficiency*'. Due to the difficulties in determining and calculating

efficiency, it is not possible to make either general pronouncements as to the efficiency of the system as a whole, or specific statements about individual education providers today. This, however, does not mean that efficiency, as one of the main criteria with which to assess the educational system, is useless because in the absence of scientifically proven measures of efficiency, it will be substituted by individual and collective subjective measures. Irrespective of whether or not these are wrong or right, these subjective measures will then influence policy-making and the general willingness of policy-makers to finance and support education.

Although it would be overconfident to expect scientifically valid measures of efficiency in a short period of time, this does not relieve us of the need to double our efforts and come up with some solid and valid measures. In the end, progress in the measurement of efficiency will be for the benefit of all stakeholders in education, and a lack of progress here is likely to hamper our room for manoeuvre as political and public pressure on educational spending increases.

## Reference

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## Note

1 Causality is essential for all concepts of efficiency. The reason for highlighting causality in the context of external efficiency is that the causal relation between input and outcome is, in general, much more difficult to prove than the relation between input and output in the educational process. However, the danger of calculating senseless measures of efficiency is also common in the context of internal efficiency, as this example for technical efficiency should highlight. Suppose that it is difficult to measure the real input in the educational production of a school and that, therefore, assuming that the richness of the school buildings is a good proxy for the real inputs, the researchers takes the number of trees in the school yard as the input. Technically, this is not a problem and the researcher will be able to calculate measures of efficiency using the number of trees as the input and the pupils' performances as the output. The nonsense of this procedure becomes apparent when realising that the results predict that by chopping down the trees the schools could improve their efficiency. This drastic example of possible mistakes in empirical efficiency analyses should demonstrate that every time a causal relation between the input and the output is only assumed but not proven, the derived efficiency measures are near to worthless.

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