Educational Research and Innovation

Education Governance in Action

LESSONS FROM CASE STUDIES

Tracey Burns, Florian Köster and Marc Fuster

Centre for Educational Research and Innovation

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Foreword

Delivering high quality, efficient, equitable and innovative education is a crucial issue for OECD countries. This is not a simple task, especially given the connected trends of decentralisation, more diverse societies and increases in the availability of data which have greatly increased the complexity of the system. Modern education governance now requires engaging diverse actors and stakeholders across multiple levels, and working within a complex and dynamic system. Under the umbrella of the Centre for Educational Research and Innovation (CERI), the Governing Complex Education Systems (GCES) project focused on identifying effective models of governance in modern complex education systems and the corresponding knowledge systems necessary to support them.

Over the course of its work the GCES project identified three essential themes that are crucial for successful education governance: accountability, capacity building and strategic thinking. *Accountability* addresses the challenge of holding different actors at multiple levels responsible for their actions. *Capacity building* focuses on needs and dynamics of implementation on individual, institutional and system level. *Strategic thinking* requires the development of a long-term vision and set of common goals for the educational system among a broad range of actors. It also involves aligning actors' perspectives and time-horizons to enable coordinated action.

This is the second volume in a series. The first was *Governing Education in A Complex World,* which was published in April 2016. The present volume, *Education Governance in Action: Lessons from Case Studies,* is based on six in-depth case studies, carried out over the course of the GCES project, which depict various approaches to reform and governance in complex education systems. Drawing on a common case study framework, each case study examines the entire process of a particular reform, from the genesis of the idea and goal setting to implementation and evaluation.

Education Governance in Action: Lessons from Case Studies presents a wealth of empirical material and features a new analytical model for understanding complex governance systems in education. It draws valuable policy implications for OECD member countries based on the analysis of the successes and challenges involved in governing educational reform. The chapters discuss themes that are vital for the governance of education systems, including complexity, knowledge production and use, priority setting and policy steering, evaluation, trust, accountability, capacity building and strategic thinking.

The volume is a useful resource for everyone interested in education, governance, reform and complexity. It will be particularly interesting to policy-makers, education leaders, teachers, unions, companies, parents and the research community.

Acknowledgements

The Governing Complex Education Systems case studies, spanning from 2013 to 2016, would not have been possible without the support of a large number of individuals and countries. First, we wish to acknowledge the countries and regions that took part in the case study work: Flanders (Belgium), Germany, the Netherlands, Norway, Poland and Sweden.

A special thank you to the researchers and authors of those case studies: Rien Rouw, Marc Fuster, Marlon Brandt, Tracey Burns (Flanders (Belgium)); Marius Busemeyer and Janis Vossiek (Germany); Mark van Twist, Martijn van der Steen, Marieke Kleiboer, Jorren Scherpenisse, and Henno Theisens (the Netherlands); Therese Hopfenbeck, Astrid Tolo, Teresa Florez and Yasmine El Masri (Norway); Grzegorz Mazurkiewicz, Bartłomiej Walczak and Marcin Jewdokimow (Poland); Patrick Blanchenay, Tracey Burns and Florian Köster (Sweden).

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Executive Summary

Today's education systems are increasingly complex as a result of multiple layers of governance and a greater number of stakeholders than ever before. Governing these complex systems requires models of governance that are able to balance responsiveness to local diversity with the ability to ensure national objectives. As a result, education systems are looking for examples of good practice and models of effective modern governance that they can adapt to their own needs.

Education Governance in Action: Lessons from Case Studies bridges theory and practice by connecting major themes in education governance to real-life reform efforts in a variety of countries. The publication synthesises lessons learned from six case studies of education reforms in Flanders (Belgium), Germany, the Netherlands, Norway, Poland and Sweden. The case studies are complemented by examples regarding the breakdown of trust in education systems and efforts to restore and sustain it. Together they illustrate successful approaches to education governance and reform as well as some continuing challenges. The publication focuses on accountability, capacity building and strategic thinking as essential components of modern education governance, highlighting the important interdependence between knowledge and governance.

Setting the stage: Governing complex education systems

Governing complexity relies on inclusive and efficient knowledge systems.

Part 1 explores the complex relationship between governance and knowledge, two essential components of modern educational governance. Chapter 1 sets the scene by introducing an analytical framework of the interplay between governance mechanisms and knowledge options. Using this framework as a focal point, the chapter highlights the complexity of modern governance and identifies three key themes at the heart of today's governance challenges: accountability, capacity building and strategic thinking. The chapter ends by introducing the case studies and trust briefs that provide the empirical material for the volume's analyses. Chapter 2 establishes the research context, surveying relevant literature from the social sciences, organisational and public management and public policy. It proposes a framework for how different models of governance work together with approaches to knowledge use and production.

Bridging theory and practice: Learning from the case studies

Successful governance relies on aligning pressure and support through capacity building and constructive accountability mechanisms.

Part 2 introduces the case studies which analyse real-life reform efforts in six education systems. It synthesises the findings from the individual cases to develop a series of lessons learned for education governance more broadly. Chapter 3 presents an

overview of each case study, with key findings and recommendations highlighted. Chapter 4 examines the entire policy process and discusses the consequences of complexity for policy making. The findings suggest that aligning support and pressure in policy design and implementation improve policy steering: successful reforms establish firm guidelines and objectives while still allowing local levels the broad discretionary powers and autonomy needed to adapt the policy to their context.

Chapter 5 examines the importance of accountability in education. Defining actors' responsibilities and assisting decentralised levels to identify and integrate stakeholders in accountability processes helps to build a legitimate and sustainable accountability system. The chapter highlights the need to clarify accountability demands to avoid confusion among stakeholders. A fair and constructive accountability system can nurture trust and collaboration without the fear of blame and thus take an active role in developing a culture of evaluation and improvement.

Chapter 6 analyses the importance of capacity building for successful policy implementation. It explores the interaction between policy making, system change and capacities, discussing drivers for change. The findings suggest that stakeholders must fully understand the objectives, content and implementation strategies of new policies. It is also important to proactively identify capacity needs and design strategies that address these needs rather than introducing them as an afterthought. Horizontal learning networks across teachers and across schools – and also networks across a range of stakeholders – are found to be effective means for capacity building as well as constructive mechanisms to hold governance actors accountable by allowing for knowledge circulation, peer-learning and distributed leadership.

Looking ahead: Trust and strategic thinking for smarter governance

Trust is an important component of good governance. Strategic thinking ties evidence, principles and everyday practices together to support a system-wide vision.

Part 3 of the volume returns to a broader perspective, discussing the implications of trust and strategic thinking for education governance. Chapter 7 complements the findings from case studies by analysing a series of trust briefs, each of which explores how trust in a given education system broke down and how the system actors were – potentially – able to restore it. Stakeholder engagement, accountability, capacity building and strategic thinking work together in a (ideally) virtuous cycle that continues to develop, reinforce, and sustain trust in a system. Of course, if not used properly or not used at all, they can and do work together to contribute to trust breakdown.

The volume's final chapter explores the essential components of modern educational governance: a focus on processes, flexibility and adaptability, alignment and whole system thinking, stakeholder involvement, open dialogue and building capacity. Strong governance keeps knowledge and evidence at the core while at the same time supporting a system-wide vision of education and progress. It connects the challenges in education with those of other public sectors and ends with a look at the future of governance more generally. The aim is to set the agenda for the inclusive and adaptable accountability and governance necessary for governing complex systems in today's global world.

PART 1.

SETTING THE STAGE: GOVERNING COMPLEX EDUCATION SYSTEMS

Chapter 1.

Effective education governance and reform

One of the most pressing issues for OECD countries is identifying effective models of governance in complex and dynamic education systems. Given that knowledge and governance processes are highly interdependent, research and policy must focus on ways that knowledge systems can better support governance processes. The chapter proposes an analytical framework that combines governance mechanisms and knowledge options in one ecosystem. Using this analytical framework as a focal point, the chapter then highlights three key themes at the heart of modern governance: accountability, capacity building and strategic thinking. It provides a summary of the work of the OECD in this area, highlighting a set of case studies and a series of trust briefs that provide the material for the analyses presented in the rest of this volume. The chapter concludes with an overview of the full publication.

Introduction

Societal discourses about the effectiveness and efficiency of the public sector, the role of the state, and what education can and should achieve have fundamentally changed education governance and approaches to reform. Over the last few decades, many OECD countries have decentralised control of their education systems, giving schools and local school authorities greater autonomy to respond more directly to citizens' needs. National and international data on education performance is now widely gathered and available to a broad range of actors, making the distinction between domestic and international policy less sharp (Colgan, Rochford and Burke, 2016). At the same time, stakeholders (such as teachers, parents, students and labour unions) have become more involved in decision-making about education policy; relationships among stakeholders and decision-makers have become increasingly dynamic and negotiable and diversity within school communities has increased.

In the context of these changes, ministries of education remain responsible for ensuring high-quality, efficient, equitable and innovative education. Therefore, one of the crucial questions for OECD countries is how their increasingly complex education systems can achieve national objectives. This has spurred work in both educational research and policy on governance issues, with a particular focus on the search for effective models of governance. As part of this discussion, there is a growing awareness that the increased complexity of education systems – and indeed public sectors systems more broadly – can no longer be overlooked. This requires not just an acknowledgement that with more levels and actors, the education system is more complicated and thus harder to grasp, but also an understanding that traditional models of policy and policy making will not be able to capture the dynamics of the system (see Box 1.1).

Box 1.1. Complexity theory and governance

Complexity theory posits that systems begin as collections of individual actors who organise themselves and create relationships. These relationships form in response to positive or negative feedback, as well as a degree of randomness. New structures and behaviours then emerge as the actors act and react to each other. A complex system has the following core components (Sabelli, 2006):

- Behaviour is not explained by the properties of the components themselves, but rather emerges from the interaction of the components.
- The system is non-linear and relies on feedback to shape its evolution.
- The system operates on multiple time-scales and levels simultaneously.

Analytically, complex systems pose several challenges as a particular system can no longer be examined in isolation. Rather, the study of complex systems requires a step back to look at how the various interconnections can form a coherent whole.

In addition, a complex system (e.g., an education system) will become subject to the phenomenon of emergence. This means that the system displays properties that are beyond those possible to anticipate based on the system's constituent elements alone. The governance of such a system is thus no longer possible with traditional linear models of planning and steering (Mason, 2016).

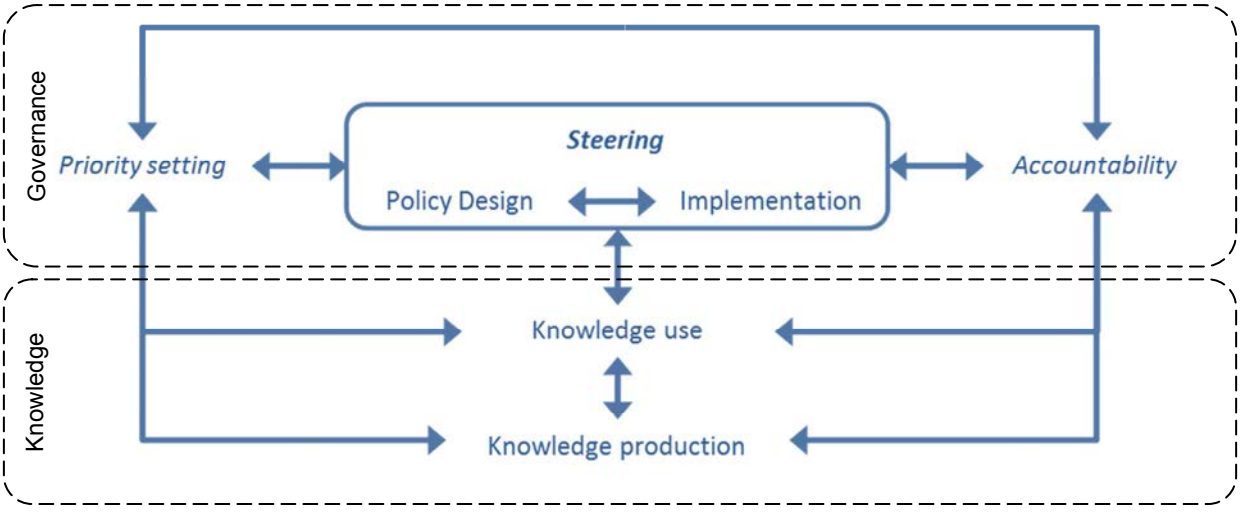
This chapter provides an overview of some key elements and challenges in modern educational governance. It starts by introducing the analytical framework that structures the work and analyses of this volume. In addition to standard elements of governance, the analytical framework looks at the knowledge systems that are necessary to support effective governance processes. This is a response to the growing recognition of the key ways that knowledge and governance interact with one another in complex multi-level systems, and a major conceptual contribution of this work. The chapter then introduces the three key themes that guide this analysis and the OECD case studies and trust briefs that provide the empirical data for this volume. The chapter concludes with an overview of the full publication.

The analytical framework

This work is built on an analytical framework that brings together two key elements: governance mechanisms and knowledge. Governance mechanisms include priority setting, steering and accountability. Knowledge options include the various approaches to both the production and the use of knowledge, including formal research knowledge, indicators, and the professional knowledge of teachers and practitioners as well as broader education stakeholders. Governance mechanisms and knowledge are highly interdependent and their interplay is crucial in governing complex education systems: knowledge use and production is crucial for governance; likewise, governance is indispensable for knowledge creation and dissemination (for a full discussion, see Fazekas and Burns, 2012; also Chapter 2).

Figure 1.1 provides a simplified illustration of the connections between governance mechanisms and knowledge. The elements are interdependent and connected by non-linear processes, and work together as a complex ecosystem for modern governance. Although the focus of this work is on education, this framework could also be applied to the governance of public sectors more generally, as the processes and challenges are similar.

Figure 1.1. Analytical framework of governance and knowledge



Source: Adapted from the GCES case study framework in OECD, 2015, "Governing Complex Education Systems – Framework for Case Studies", www.oecd.org/edu/ceri/GCES-Case-Study-Framework-2015.pdf.

Governance mechanisms

For the purposes of this publication, governance is defined as the process of governing societies in a situation where no single actor can claim absolute dominance. Governance refers to the dynamic processes involved in the implementation and monitoring as well as decision-making in a system. Among scholars, it is widely recognised that political and personal beliefs, combined with the complexity of the system and the volume of policy-relevant information, are the main forces that often push policy making away from a rational and structured ideal (Fazekas and Burns, 2012; Blanchenay and Burns, 2016).

As already mentioned in Box 1.1, increased complexity in the system, structures and stakeholders calls for a new approach to governance. Complex systems cannot be successfully governed with simple, linear mechanisms. Instead, strategies must be developed that take into account the dynamics and interdependency of the system. Simply devolving power to local authorities will not improve the functioning of the system unless it is also accompanied by attention to interconnections and space is made to use the constant feedback required to guide complex systems. However, in complex environments in which a multitude of actors are collaborating through formal and informal channels, the sheer amount of feedback and interactivity can seem impossible to navigate (Blanchenay and Burns, 2016).

While the three critical elements of governance – priority setting, steering and accountability – are interdependent and connected, the framework separates them for analytical reasons. The three elements and their dynamic interplay will be discussed in greater detail in Chapter 4.

Knowledge

As with governance, knowledge is a difficult analytical concept. To some degree, any thought can be conceptualised as knowledge, and distinguishing knowledge from action is not always clear-cut (Hochschild, 2006). The general definition of knowledge used throughout this volume follows that of Hess and Ostrom (2007): "*knowledge is assimilated information and the understanding of how to use it*" (ibid. 8). More specifically, this work narrows down the concept of knowledge to *policy-relevant knowledge*: knowledge that concerns policy issues and is shared by at least a subset of policy makers within or outside the state (Grin and Loeber, 2007).

Effective organisation and flow of knowledge are vital to the effective governance of complex education systems. Knowledge systems need to build on rich and nuanced, but ultimately usable, data. Effective knowledge management depends on descriptive data, such as student achievement and graduation rates, and on research findings that identify and explain effective practices. It also needs to incorporate both informal and formal practitioner knowledge for effective policy steering and successful implementation on the local level. The key to effective knowledge management lies in determining what knowledge will be relevant in any particular context (Fazekas and Burns, 2012). This is no easy task in complex systems, which are characterised by unpredictability.

Knowledge is indispensable to governance in both direct and indirect ways. Knowledge constitutes a direct input to the governance process and presents a resource for political decision-making. Knowledge feeds directly into governance as a critical resource in problem definition, identification of policy solutions, feedback and policy

implementation. It also indirectly affects actors' behaviours on an individual and group level (see also Chapter 2).

The analytical framework in practice

Knowledge and governance mechanisms interact to form an ecosystem that will affect and be affected by a number of other elements in any given context, such as culture, expectations, history and timing. The two main elements that will influence how this framework plays out in any given context, however, are the structure of the governance system and the stakeholders involved.

The structure of the governance system

In today's education systems, decision making powers can be distributed across multiple governance levels. Decision-making powers can sit with the national government and with state governments, with provincial and regional governments, with sub-regional, inter-municipal and local authorities as well as with schools or school boards or committees (OECD 2012a). Across OECD member counters, education decisions are substantially distributed across up to four levels of governance in the most devolved systems. In the most centralised, only two levels of governance share the main decision making power in education (Lassnigg, 2016; OECD 2012a).

In order to capture education systems' diverse governance set-ups in a single research framework, governance levels are defined in relative rather than absolute terms. The concepts of "central" and "decentralised" levels take the place of the common distinctions such as "national", "regional" and "local" levels. For example, across the OECD the most decentralised level of governance may refer to local governments while in others it may imply school boards or individual schools themselves. Similarly, in some contexts, the central level may refer to the national Ministry, such as in Finland or the Netherlands. In others, it refers to the regional or state government, for example the Spanish Regions, the German Länder, and US states and Canadian provinces.

The specific terminology of centralised and decentralised is used in order to compare governance arrangements across systems (see Wilkoszewski and Sundby, 2014). It is also done to allow for abstracting away from the *structures* of government in order to focus on the *processes* that underlie governance. This is an important distinction and a core element in the current analysis. In many discussions on governance the focus is placed on structures, for example, through attempts to identify the most efficient number of levels for a specific context or for education governance more generally. This approach is motivated by a belief that there is an ideal structure that, once identified and implemented, will help solve (or at least reduce) many of the current governance challenges.

However, this approach can take a lot of time and energy and distract from more fundamental issues for modern governance. In a complexity approach, understanding the processes is essential in order to explore how governance works. Focusing on processes can thus be more fruitful than looking at the structures in which they are housed (Burns and Köster, 2016, see also Chapter 8).

Stakeholders in education

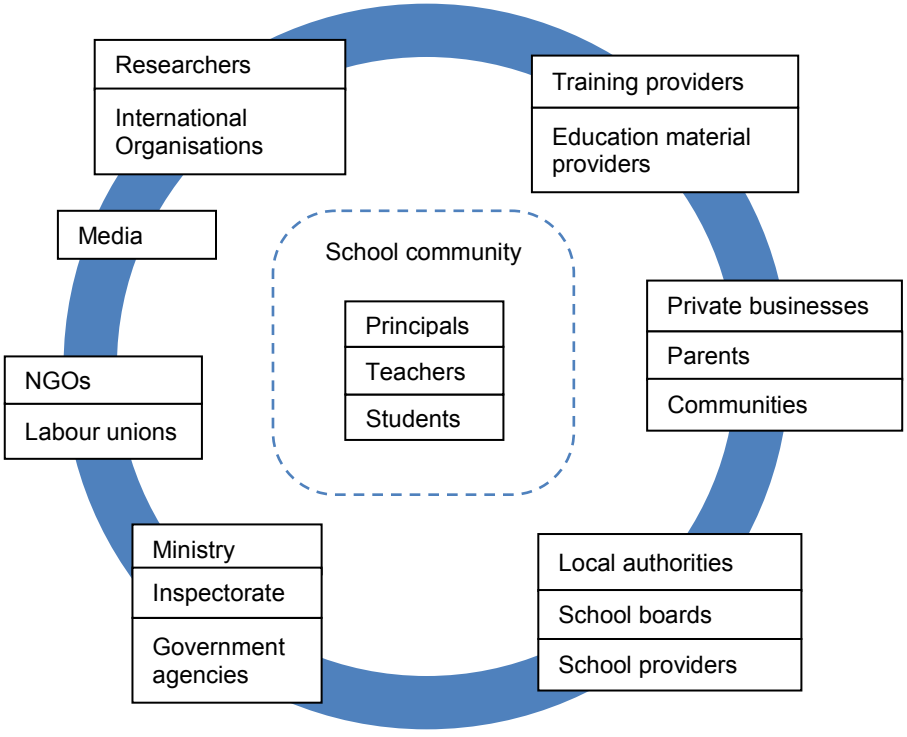
In today's education systems, government actors are not necessarily the main driving force in policy making and governance more generally. Parents have become more

diverse, individualistic and highly educated. Readily available evidence about school and student achievement empowers parents and other stakeholders to make their voices heard. The relations between governance levels and the relations between the numerous non-governmental and state actors have moved away from a hierarchical structure to mutual independence and self-regulation. Education systems are now characterised by multi-level governance processes, where the links between multiple actors operating at different levels are, to some extent, fluid and open to negotiation.

These trends have made relationships and interaction with stakeholders more important. In modern education systems, a wide array of established and emerging actors can be identified across all governance levels. Examples are teacher and other labour unions, councils and committees of parents or citizens, school inspectorates, and educational institutions beyond primary and secondary school. In addition, the complexity of education systems makes it important to further broaden what is understood by the term 'stakeholder' in governance. Within education, this would include actors such as the media, researchers, international organisations, textbook publishers and more (see Figure 1.2 for examples).

In addition, governing complex systems requires coordinated approaches across policy sectors (Burns and Köster, 2016). Stakeholders in a broader sense can thus include healthcare and social care agencies as well as police and justice departments, all of whom would be important to consider when thinking of whole-of-government solutions or the best way to coordinate and align service delivery across sectors (see also Colgan et al., 2016).

Figure 1.2. Potential stakeholders in education



Source: Burns and Köster (2016), "Modern governance challenges in education", *Governing Education in a Complex World*, http://dx.doi.org/10.1787/9789264255364-3-en.

On the level of the individual, leadership plays a pivotal role in successful strategies for change and in making reform happen. Having a champion of a particular goal or process facilitates its implementation and also serves to increase its legitimacy (OECD, 2009). Leadership provides an awareness of the local context and allows for mobilising support for strategic goals. This is especially crucial in complex systems where finding solutions to challenges requires moving beyond intellectual silos (Morrell and Hartley, 2006). These leaders can be brought together from different bodies and even from across sectors, to act as a "guiding coalition" that can work to develop and strengthen a shared agenda for the system (Levin and Fullan, 2008). They then serve as "leadership antennae which are able to envision future scenarios and issues both within and outside their sphere of influence, rather than just dealing with the status quo" (Colgan et al., 2016: 38).

Three key themes: Accountability, capacity building and strategic thinking

In addition to the complexity of systems, analyses of modern educational governance must take into account the major issues with which countries struggle. The OECD has worked on this in a number of different ways – through its surveys, country reviews, and the Governing Complex Education Systems (GCES) project (see Box 1.2). Using the analytical framework illustrated in Figure 1.1, the GCES project has identified three key themes that provide the biggest governance challenges for education systems: accountability, capacity building, and strategic thinking.

Box 1.2. The Governing Complex Education Systems (GCES) project

Launched in 2011, the OECD/CERI Governing Complex Education Systems project had the following three goals:

- Establish the state of research and evidence on governance of education systems and use of knowledge, and contribute to the knowledge base in the field.
- Explore current practices in OECD member countries through a series of thematic workshops, working papers and case studies.
- Build an international network of policy makers and researchers with expertise in this area.

To this end, the project organised a series of thematic conferences to build an international network and bring together relevant stakeholders from policy, research and practice. It produced a range of working papers exploring the conceptual issues around modern governance challenges. A series of case studies from Flanders (Belgium), Germany, the Netherlands, Norway, Poland and Sweden provided an empirical investigation of key issues in multi-level education governance. See Annex 1.A1 for a full list of conferences and papers.

The project's work culminated in two volumes: *Governing Education in a Complex World* (2016), which provides an analytical overview and exploration of key themes through invited chapters by leading international researchers and the OECD Secretariat, and the present volume, *Education Governance in Action: Lessons from Case Studies*, which compares and integrates the findings of the six case studies carried out over the course of the GCES project.

More information on GCES can be found at www.oecd.org/edu/ceri/gces.

Accountability

Accountability – broadly defined as who is answerable to whom and for what – plays a central role in the governance of complex education systems. Over the last few decades, many OECD countries have decentralised control of their education systems, giving schools and local school authorities greater autonomy to respond more directly to citizens' needs. Yet ministries of education remain responsible for ensuring high-quality education for all. Traditional forms of accountability, which are based on a vertical hierarchy between lower decentralised levels and central ministries, are increasingly being complemented by new forms of accountability that involve the voices of more stakeholders. The most successful systems are able to constructively combine the multiple sources of information to ensure adequate transparency and adherence to achievement goals as well as reflect broad societal aims for education.

Integrating local stakeholders into governance and accountability processes has the advantage of including broader knowledge in governance processes and helping hold private actors in education accountable. Stakeholders holding schools accountable for education outcomes beyond those measurable by indicators can contribute to a more holistic improvement of schools. However, including stakeholders in accountability processes besides the necessary accountability to the central level can produce tensions. For example, demands for adherence to national goals can conflict with pressures from local stakeholders who may desire a different focus in a school's work. In today's education systems, characterised by multi-level governance structures, accountability tensions can also arise through conflicting accountability pressures from different governance levels. The question of which actors at which levels should be accountable for which outcomes and how to resolve potential accountability tensions is a challenge for many education systems (see Chapter 5).

Capacity building

Effective policy implementation requires adequate capacity among all actors and stakeholders involved. In broad strokes, capacity can be defined as *"the ability of people, organisations and society as a whole to manage their affairs successfully"* (OECD, 2006: 12). Following this, capacity refers to the means to carry out a specific task and encompasses the elements of time, resources, governance structures and processes, and knowledge. Stakeholders require knowledge of policy goals and consequences; they need the resources and tools to implement the reform as planned while adapting policies to local circumstances within specified guidelines. Governance and knowledge processes need to support and enable actors in their efforts. Inadequate capacity for implementation leaves any policy at risk of failure at the level at which it counts to most: the classroom.

Capacity for successful policy reform and implementation – and for change in general – is needed by individuals, institutions, and systems as a whole (OECD, 2012b). At the level of individual actors, students, parents, teachers, headmasters and local policy makers require the capacity to deliver their responsibilities in the local context. They also require the capacity to manage complexity and change. However, individual capacity is also strongly influenced by institutional capacity, and vice versa. Institutional capacity refers to the ability of organisations to function effectively and efficiently in relation to their mission, which includes their capacity to learn and evolve when necessary. As institutions are embedded in a system and work in relation to each other, systemic capacity (how all pieces work together) is also crucial. Systemic capacity also

pertains to the alignment of institutions and processes, including societal actors. All three of these levels must be addressed when identifying needs and delivering capacity-building initiatives (see also Chapter 6).

Strategic thinking

Strategic thinking is needed to make informed decisions about priorities and balance immediate needs and urgencies with longer-term vision and system steering. Despite its importance, in many countries, the capacity to engage in and deliver on strategic thinking falls short of what is required, particularly outside larger cities (OECD, 2009; Blanchenay and Burns, 2016). The central level plays a crucial role in supporting strategic thinking at decentralised levels through providing capacity-building measures, information and frameworks. While countries have experimented with techniques of strategic thinking such as foresight, futures thinking and open consultations, processes are often complicated and time-consuming.

Thinking strategically in public policy is by no means restricted to the education sector. Economic and fiscal constraints in virtually all countries mean that the public sector is called upon to function with ever-increasing efficiency. The speed of change and expectations for quick government responses to demands and events can be at odds with these interactive and potentially iterative processes. Political and public pressure may push for prioritising the urgent over the important (Hallsworth, Parker and Rutter, 2011). However both a holistic vision and the flexibility to deal with change are vital in complex systems, making strategic thinking and adequate capacity building indispensable. In increasing the capacity for long-term policy design, considerations should be made for integrating different types and sources of knowledge and for facilitating collaboration and coordination between actors, as outlined in the framework and discussion above.

In facilitating collaboration and coordination, nurturing trust among the various actors is especially important (see also Chapter 7). When effectively communicated, a whole of system approach to policy steering that aligns policies, roles and responsibilities, can send a strong message in favour of collaboration and joint effort to improve public services (Colgan et al., 2016). By reducing overlap and conflict, such whole of system approaches can improve efficiency and contribute to trust and confidence in public services (see also Chapter 8).

The GCES case study series and country trust briefs

This volume is based on a series of in-depth case studies of education reforms and country examples of trust breakdowns in education reform. The country case studies provide an empirical analysis of the process of governance and reform in a specific national context. The trust briefs are intended to address concerns about declining levels of trust in public policy, which is an important theme for the OECD in education and across public services more generally.

The case studies

The GCES case studies examine the process of reform by focusing on one specific example in a particular education system. Case studies were conducted in Flanders (Belgium), Germany, the Netherlands, Norway, Poland and Sweden (for an overview of each case study see Chapter 3). Their foci range from the transfer of responsibility for decision-making in education to municipalities (Blanchenay, Burns

and Köster, 2014) to greater stakeholder involvement in formative school assessment practices (Hopfenbeck et al., 2013) and redesigning the school inspectorate system (Mazurkiewicz, Walczak and Jewdokimov, 2014). The case studies vary in scope from policies targeting specific schools to system-wide policies (Rouw et al., 2016); from direct interventions in underperforming schools (van Twist et al., 2013) to capacity building at the municipal level (Busemeyer and Vossiek, 2015).

While each reform is carried out in a specific context, each of the six case studies analyses the process of policy reform in decentralised education systems. An analysis and synthesis of the full collection of case studies builds on the individual cases to discuss strengths and weaknesses in core processes of policy-making. The comparability across case studies is facilitated by a common framework setting the analytical guidelines for each case study (OECD, 2015; see also Chapter 3).

The country trust briefs

In addition to its case studies, the GCES project also gathered trust briefs submitted by a number of OECD member countries: Austria, Chile, Finland, Flanders (Belgium), Israel, Japan, Korea, Mexico, the Netherlands, Norway, Portugal, the Slovak Republic and the United States. The briefs provide country-specific examples of education reform to restore and sustain trust after a breakdown of trust. Coming from a wide range of countries and diverse actors, including ministry officials and researchers, they build on a large variety of system contexts and cultures and cover a wide geographical range. The trust briefs form the basis for the analysis conducted in Chapter 7.

This volume

The volume is organised into three parts. Following this introduction, Chapter 2 establishes the research context, exploring the research on governance in relation to knowledge. The chapter surveys a wide variety of relevant fields, including political science, public policy and public management, sociology, institutional economics and education research. It also proposes an analytical framework that combines models of governance with types of knowledge use and production.

Part II provides an introduction to the GCES case studies and synthesises their findings to produce broader recommendations beyond the individual case studies. Chapter 3, *Case studies of governing complex education systems*, provides the background for the synthesis by presenting an overview of each case study. It summarises the reform, the case study findings and policy implications, and presents the research questions, methods and data sources which comprise the framework underlying each case study.

Chapter 4, *Priority setting, steering and policy learning in education,* examines the entire policy process from setting priorities, designing and implementing policies, to learning from evaluation and monitoring. The chapter discusses the consequences of complexity for policy-making and argues for improving policy steering by aligning pressure and support. The chapter identifies drivers and barriers to successful policy making that can be applied to modern education governance.

Chapter 5, *Ensuring accountability in education,* examines forms of accountability in education, including emerging forms of horizontal accountability. The chapter emphasises the need for clarification of accountability demands to avoid confusion among stakeholders. Defining their responsibilities and helping decentralised levels to

identify and integrate stakeholders in accountability processes can greatly contribute to the legitimacy and sustainability of an accountability system. It also stresses the importance of balancing trust and accountability and developing a culture of evaluation which seeks to improve systems and support actors to achieve their goals.

Chapter 6, *Capacity building in education,* discusses the importance of capacities for successful policy implementation. This chapter describes the interaction between policy making, system change and capacities, discussing drivers for change and the central roles of capacities and capacity building. The chapter argues that capacity building must ensure that stakeholders fully understand the objectives, content and implementation strategies of new policies, and highlights the importance of proactively identifying capacity-building needs. Horizontal learning networks – for example, across teacher peers, across schools, or across various stakeholders – are emphasised as effective means of capacity building as well as sensible mechanisms to hold governance actors accountable.

Part III of the volume returns to a broader perspective. Chapter 7, *When trust breaks down in education systems,* complements the findings from case studies by analysing the trust briefs. Each of the examples explores how trust in a given education system broke down and how the system actors were – potentially – able to restore trust. In synthesising the trust briefs, the chapter identifies aspects of policy reform that contribute to the erosion of trust. The chapter concludes with options for restoring trust and sustaining it in the long term.

The volume's final chapter, *Smarter education governance*, relates the lessons learned from the GCES case studies and the trust briefs to broader issues of educational governance. The chapter explores the essential components of modern educational governance: a focus on processes, flexibility and adaptability, alignment and whole-system thinking, stakeholder involvement, open dialogue and building capacity. Strong governance keeps knowledge and evidence at the core while at the same time supporting a system-wide vision of education and progress. The aim is nothing less than to set the agenda for the inclusive and adaptable accountability and governance necessary for governing complex systems in today's global world.

Annex 1.A1: Further outputs of the GCES project

In addition to the ***case study series and trust briefs*** that are the focus of this volume, the Governing Complex Education Systems project has produced a set of working papers and international conferences revolving around the key themes of the project.

Working paper series

- *Teacher Review between Purpose and Power - Professional Accountability and Trust towards Teachers* (Köster, forthcoming) adds an empirical dimension to the discussion of teacher professional accountability. The paper finds indications of a positive effect regarding teachers' perceptions about their profession when accountability mechanisms focus on professional development.
- *The Educational Roots of Trust* (Borgonovi and Burns, 2015) examines the association between education and levels of interpersonal trust, using data from the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC).
- *Steering from the Centre: New modes of Governance in Multi-level Education Systems* (Wilkoszewski and Sundby, 2014) explores innovative governance strategies for the central level in education systems. It identifies core features of multilevel governance and introduces a basic analytical categorisation of modes of governance.
- *Trust: What it is and Why it Matters for Education and Governance* (Cerna, 2014) analyses the centrality of trust for policy making and current governance issues. Trust enables stakeholders to take risks, facilitates interactions and co-operation, and reduces the need for control and monitoring.
- *The Simple, the Complicated, and the Complex: Educational Reform through the Lens of Complexity Theory* (Snyder, 2013) explores complexity theory and its applications for educational reform. After discussing the key concepts of complex adaptive systems, the paper defines the differences between simple, complicated and complex approaches to educational reform.
- *Exploring the Complex Interaction Between Governance and Knowledge in Education* (Fazekas and Burns, 2012) asks the question of how governance and knowledge mutually constitute and impact each other in complex education systems.
- *Looking Beyond the Numbers: Stakeholders and Multiple School Accountability* (Hooge, Burns and Wilkoszewski, 2012) analyses trends in accountability mechanisms and processes and argues that regulatory and school performance accountability can be usefully augmented by involving multiple stakeholders.

Conferences

- *Governing Education in a Complex World* (17-18 October 2016 in Brussels, Belgium) will be the closing conference of the Governing Complex Education Systems project and will serve as a platform for the launch of the GCES case study on Flanders (Belgium). The conference will present the project's findings and explore the governance dimensions of participatory governance, shared responsibility, accountability and professionalism in education.
- *Trust in Education* (7 December 2015 in The Hague, the Netherlands) focused on building and sustaining trust in education. It brought together state of the art research with country examples of the role of trust in education, with a focus on accountability, professionalism and responsibility.
- *The Use of Data in Educational Governance* (12-13 February 2015 in Tallinn, Estonia) focused on the use of data for education governance. The main themes included the challenges of the use of data in education, some strategies that have been applied to address these challenges and the kinds of support needed at different governance levels.
- *Understanding Complexity: The Future of Education Governance* (10 February 2014 in Oslo, Norway) revolved around the impact of complexity on education governance. Conference participants discussed the challenges of complexity for education, some of the approaches to cope with these challenges, as well as the identification of gaps in our knowledge base.
- *Effective Multilevel Governance in Education* (17-18 June 2013 in Paris, France) focused on two main themes in effective multilevel governance: transparency and trust. The conference was a joint collaboration between the OECD's Centre for Educational Research and Innovation (CERI) and UNESCO.
- *Effective Governance on the Local Level* (15-17 April 2012 in Warsaw, Poland) looked at the role of local stakeholders in the governance of complex education systems. The conference asked about the place of local authorities and schools in the governance process, how local authorities and schools can be ensured to have the capacity to govern their local systems and how local stakeholders can hold local authorities accountable.
- *Effective Governance from the Centre* (21-22 November 2011 in The Hague, the Netherlands) focused on the role of central government in complex, multilevel systems of governance. Even as regional, local and school levels receive more autonomy, the role of the centre is still crucial as it is held accountable for education outcomes and is in the best position to set priorities and ensure a common direction.
- *The GCES Launch Conference* (28-29 March 2011 in Oslo, Norway) contributed to defining the scope and direction of the project. The conference explored the governance mechanisms and knowledge options that facilitate effective steering of complex education systems by bringing together an international group of senior policy makers and researchers.

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Chapter 2.

The complex interaction between knowledge and governance

Governments in all OECD countries are facing a growing need for governance structures that can handle complexity and provide actors with the knowledge they need to make decisions. This chapter provides an overview of relevant research in public management, political science and public policy, sociology, institutional economics and organisational management, augmented with work from education and other social sciences. It also proposes an analytical framework that combines models of governance with modes of learning and types of knowledge, and provides preliminary empirical examples to support this framework. In the context of diverse social, economic and political environments of OECD countries, the interaction between two focal points – models of governance and types of knowledge – has become increasingly relevant to researchers, policy makers, and education stakeholders more generally.

Introduction

Governments in OECD countries are facing the challenge of governing increasingly complex education systems. As a result, there is a growing need for governance structures that can handle this complexity and which can provide actors with the knowledge they need to make decisions. This chapter analyses two focal points – governance and knowledge – and poses the question: *How do governance and knowledge mutually constitute and impact on each other in complex education systems*?

There is no readily available literature that discusses this question directly, as it has hitherto been addressed by different schools of academic and policy thought which look at various aspects of the relationship between governance and knowledge. As such, this chapter draws on a wide range of academic disciplines including public management, political science, sociology, institutional economics and organisational management. This research is supplemented by work by the OECD and other international organisations.

This chapter is structured as follows: first, we set the scene by defining and locating governance and knowledge in complex environments. This is a crucial step since both governance and knowledge are concepts used and misused in a variety of ways in both academia and policy circles. Second, the multi-faceted relationship between governance and knowledge is broken down and discussed in detail. Finally, an analytical model is proposed that lays out how the two elements work together, and the chapter concludes with suggestions for further research and discussion.

Setting the stage: governance and knowledge in complex environments

Complexity

Researchers and policy makers have been aware of the growing complexity of education systems for some time now (e.g. Halász, 2003; Hodgson, 2000) and have attributed it to a number of simultaneous factors:

- the growing diversity of stakeholders' preferences and expectations, which places greater demands on education systems
- more decentralised and flexible governance structures
- the increased importance of additional layers of governance at the international and transnational levels
- rapidly changing and spreading information and communication technologies (ICTs).

As public policy has become more uncertain and indeterminate in many respects, the difficulty of effectively governing societies in general, and education systems in particular, has grown. Education systems are complex, and thus are not easily governed by linear logic and processes (see Snyder, 2013), for a review of the literature). This complexity plays a major role in how, and in what ways, education might be effectively governed and how knowledge is produced and used by the system (Burns and Köster, 2016).

Governance

There are numerous definitions of governance. One, provided by Pierre and Peters (2005: 2-6), refers specifically to four key activities of the state: (1) articulating a common set of priorities for society; (2) providing coherence; (3) steering; and (4) accountability. Although the state has been the dominant actor in these activities for some time, it does not act alone. In some cases, societal actors have a stronger influence such as under participatory budgeting or industry self-regulation governance arrangements (Seller, 2011; Bell and Hindmoor, 2009). For the purposes of this chapter, governance is defined as the process of governing societies in a situation where no single actor can claim absolute dominance.

By implication, governance is understood as a dynamic process involving implementation and monitoring as well as decision-making. Linking this back to complexity, policy making is assumed to be neither logical-rational nor linear. It is widely recognised by scholars that political and personal beliefs combined with the complexity of the system and large amounts of policy relevant information available – itself impossible to adequately process given the bounded cognitive capacity of actors – derail policy making from a rational and structured ideal (Blanchenay and Burns, 2016). These issues will be picked up later and linked to modes of knowledge acquisition and organisational behaviour. The link between beliefs, complexity and volume of information is crucial as one central issue underlying this discussion is the lack of reliable policy relevant knowledge available to policy makers in a timely and easily accessible manner (OECD, 2007).

Knowledge

As with governance, knowledge is a difficult analytical concept. The essential problem is that every thought can in some way be conceptualised as knowledge and the distinction between knowledge and action is not always clear cut (Hochschild, 2006). Throughout this chapter, the general definition of knowledge follows that of Hess and Ostrom, who state that "knowledge is assimilated information and the understanding of how to use it" (Hess and Ostrom, 2007: 8). More specifically for this chapter, the concept of knowledge is narrowed down to policy relevant knowledge, that is, knowledge that concerns policy issues and is shared by at least some policy makers, either within or outside the state (Grin and Loeber, 2007).

Some authors organise different types of knowledge into a hierarchy where quantitative scientific knowledge in general, and randomised control trials in particular, are considered the most robust (Sackett, Rosenberg and Gray, 1996; Clarke et al., 2014). This is then followed in the hierarchy by knowledge obtained through quasi-experimental research, and then by that gleaned from qualitative study (e.g. case studies, focus groups, etc.). In this chapter, quantitative scientific knowledge is not the only type of knowledge considered as valid, and no explicit hierarchy of knowledge is used. As stated in OECD (2007): "…our basic proposition [is] that there is no single best method for or type of evidence-based policy research" (p. 24). The type of method required depends both on the type of question to be answered and what the data will be used for.

The existence of "communities of practice" (Wenger, 1998; OECD, 2015), creates a need for translating and situating knowledge generated in one context in order to make it meaningful and readily available in another. This translation (as well as dissemination) function is often discharged by brokerage agencies in education and other social policy domains, such as health (OECD, 2007).

Finally, it must be noted that the absence of knowledge – i.e. "non-knowledge" - can play as important a role in governance as knowledge itself (Clarke, 2006). For example, the absence of reliable scientific evidence may compel policy makers to rely on anecdotal evidence, or, similarly, a lack of data on outcomes allows for individual policy makers' opinions to take on the role of knowledge, while serving particularistic interests (Bajomi et al., 2010). This element is conceptually distinguishable from the misuse (intentional or otherwise) of available knowledge (Schildkamp, Karbautzki and Vanhoof, 2014), which is a separate discussion to which we will return later in the chapter.

The multi-faceted relationship between governance and knowledge

Governance and knowledge partially overlap and mutually constitute each other; nevertheless, they are analytically distinct concepts. Governance is not conceivable without a minimum degree of knowledge – collective action is impossible without agreement on at least some of the basic ideas by some of the actors. On the other hand, creating and sustaining policy relevant knowledge is impossible without some sort of governance structure, for shared understanding is unlikely to be sustainable without the structure to support it.

In order to analytically unpack the interaction between governance and knowledge, two questions are explored:

- What is the role of knowledge in the governance of complex education systems?
- What is the role of governance in knowledge creation, dissemination and utilisation in education policy?

These questions can be explored separately and according to different aspects of policy making (see Nutley, Walter and Davies, 2007). Table 2.1 outlines the main ways in which they interact.

Table 2.1. Governance and knowledge: An overview

Direction of interaction	Aspect of the link	Sub-aspect of the link	Relevant literature
Knowledge in governance	direct: as input, instrument and resource	problem definition	public policy and political science on agenda setting
		policy solution	"what works" literature
		implementation	public management on regulatory instruments
		Feedback	literature on evaluation and monitoring
	indirect: through actors	individual level: preference formation and goal attainment	policy learning and organisational learning
		group level: group formation	public policy and political science
Governance of knowledge	knowledge production	facilitating production	science and technology policy, knowledge governance
		direct production	sociology of knowledge, public management and 'what works' literature
	knowledge mediation	within the state and across the state-society boundary	knowledge management, knowledge translation and policy learning
	Knowledge utilisation	by key policy makers	knowledge management, knowledge translation and policy learning

Source: Fazekas and Burns (2012), "Exploring the complex interaction between governance and knowledge in education" *OECD Education Working Papers*, No. 67, http://dx.doi.org/10.1787/5k9flcx2l340-en.

Knowledge in governance

Knowledge plays both direct and indirect roles in governance. It is directly relevant as a crucial input to the process, a resource for political decision-making, and an instrument of policy implementation; it also plays an indirect role in influencing actors' behaviour on an individual and group level.

Knowledge's direct role in governance

As laid out in Table 2.1, knowledge feeds directly into governance as a critical resource in problem definition, identification of policy solutions, feedback and policy implementation.

Problem definition

Policy problems do not arise naturally; they must be recognised and identified as such by influential policy makers and, subsequently, put on the political agenda. This is considered to be an inherently political process (Birkland, 2007). Problem definition and identification in education policy have gone through a significant shift in OECD countries in the last two decades (see for example Box 2.1). Most notably, problems and challenges of national education systems are increasingly recognised in light of global developments as conveyed by international organisations such as the OECD or the EU and defined in terms of quantitative data (OECD, 2007; Ozga et al., 2011).

Box 2.1. OECD PISA and national problem identification and definition

A widely discussed example of how (new) knowledge plays a powerful role in problem definition is the case of OECD Programme for International Student Assessment (PISA) and its impact on national policy making. PISA is a standardised measurement of 15-year-olds' skills and competencies in reading, mathematics and science (OECD, 2014). It has been carried out every three years since 2000, providing rich evidence on countries' performance. PISA allows for comparing the performance of countries' (65 countries and territories in 2012) education systems based on students' test scores.

In a number of countries, PISA results have exerted a transformative effect on national understanding of educational performance and inspired a series of education reform measures: new problems were identified, previously neglected aspects of educational performance rose in priority, and, thus, new solutions were sought (Grek, 2010; Rubenson, 2009).

Germany is one of the most extensively studied countries where PISA transformed the understanding of problems underlying national education policy making (Niemann, 2010). Throughout the 1990s German education policy change can be characterised as a series of incremental adjustments.

The first PISA results (published in 2001) placed Germany well behind other developed OECD countries. These results "shocked" policy makers and the public, who reacted vigorously and demanded sweeping changes to secondary education. The underlying understanding of what constitutes good education performance and how well Germany scores internationally in these respects were both changed in the process. Interestingly, the "PISA shock" also allowed for more radical change to the system than the previous incremental steps already identified (Altrichter and Maag Merki, 2010).

Identification of policy solutions

Problem definition and the identification of policy solutions are not strictly separable because whether a problem is recognised as such often depends on the capacity of governance structures to tackle it (Jann and Wegrich, 2007). This interdependence is explicitly articulated in the "garbage can" model of policy making (Cohen, March and Olsen, 1972; Kingdon, 2010). By implication, the same knowledge that enters the process of problem definition is present in the policy solution and vice versa making the traditional distinction between problems and solutions obsolete.

Despite this, the identification and the development of policy solutions is of central concern in the literature on "what works?" and evidence-based policy making (e.g. Nutley, Walter and Davies, 2007). In this framework, knowledge is the driving force behind policy change and the key to continuous improvement of public services (Davies, Nutley and Smith, 2000). Accordingly, identifying the interventions that work (i.e. effectively delivering the expected results without too many unintended consequences) constitutes and should constitute the *modus operandi* of policy making and governance.

Although the use of research evidence in policy making has increased in the last decade in many countries, it is still not uncommon to see decisions made without taking relevant evidence into account (OECD, 2007; Blanchenay, Burns and Köster, 2014). Recent work suggests that the reasons behind this lack of research use have more to do with organisational dynamics than the presence or absence of formal reports, highlighting the need to pay more attention to interpersonal processes and structures in order to identify routes of effective reform (Levin et al., 2009; Cooper, Levin and Campbell, 2009). The key factors affecting the use of research in general are (Nutley, Walter and Davies, 2007):

- the nature of the research to be applied such as quality of findings and methods and timeliness
- the personal characteristics of both researchers and potential research users such as research users' education background and attitudes towards policy change
- the links between research and its users, such as physical access, the existence of knowledge brokers and personal contacts between researchers and research users
- the context for the use of research such as interests and organisational culture.

In analysing the use of knowledge, it is also important to recognise the capacity issues that arise (see also Chapter 6). While there is a flood of data (research, indicators, descriptive studies and practitioner knowledge) available to steer decision-making, policy makers of all stripes, and indeed all humans, do not have endless cognitive capacity. Humans frequently simplify the complex reality surrounding them by relying on cognitive shortcuts and heuristics (Kahneman, Slovic and Tversky, 1982) as well as by employing beliefs and ideologies (Grin and Loeber, 2007). On a meso-level, this means that organisations also frequently lack the capacity to learn and adapt to their complex environments adequately (Lindblom, 1959). This of course then translates into policy and practice throughout the system, and there are many examples of decisions being taken using traditional or heuristic methods rather than the available data (Blanchenay et al., 2014).

Feedback

Identifying what works means evaluating the policies that have been implemented, and is the clearest connection between governance and knowledge. In this process there are two essential points that should be noted:

1. Monitoring and evaluation are often the weakest link in the policy cycle, in the sense that it can potentially be skipped, and decisions on whether to fund/not fund certain projects are often taken before the evaluation is completed (OECD, 2009).
2. A diverse set of stakeholders in a local education system (such as unions, employer organisations, foundations, non-state education providers, and education practitioners) are important actors to include in monitoring and evaluation (Hooge, Burns and Wilkoszewski, 2012). They can also act to increase the sustainability of initiatives and help in their implementation (Busemeyer and Vossiek, 2015).

The main goal of monitoring and evaluation is to improve the factual basis for decision-making, both from a policy and a political standpoint. While the availability of factual data is a useful guide, in many systems the actual decisions are made within a political logic and reflect the dominance of values or coalitions (Busemeyer et al., 2015). However, the public availability of data, particularly performance data, can act as a catalyst and help to create consensus among stakeholders in support of reforms (Lijphart 1999; see also PISA example in Box 2.1).

Policy implementation

There is a rich literature within public management on information[1] as an implementation tool and policy instrument (Howlett, 2011; Vedung and van der Doelen, 1998). Knowledge as policy instrument implies either a positive or negative use of knowledge (Howlett, 2005). A positive use increases the amount of knowledge available for the actors and contributes to enhanced participation and transparency. Examples include the education of public servants, targeted information provision, and formal evaluation. A negative use of knowledge, which is much less studied, encompasses instruments that limit the knowledge available for actors or mislead them; for example, propaganda or information suppression.

Knowledge's indirect role in governance

Knowledge indirectly feeds into governance through both individuals and the formation of groups and networks of policy makers. It can shape actors' preferences and means of goal achievement, and determine group formation (e.g. Freeman, 2006). Knowledge, especially the acquisition of new knowledge, has an impact on policy makers' beliefs, preferences and instrumental knowledge (means of goal attainment). In turn, the revised beliefs, preferences and instrumental knowledge change how policy makers act and shape governance (e.g. Hochschild, 2006).

Policy beliefs as specific forms of knowledge are powerful mediums of governance, especially in a field such as education, marked as it is by personal experience (Burns and Köster, 2016). Beliefs of policy makers typically limit the range of alternatives and types of knowledge that policy makers are willing to consider (Campbell, 2002; Sabatier and Weibe, 2007). They can make some types of knowledge invalid and provide a cognitive frame within which new knowledge is interpreted, i.e. beliefs guide policy learning. Surprisingly, the study of this suggests that policy makers may act according to particular

logics, and beliefs may even override policy makers' own self-interest (Fazekas, 2010; Quirk, 1990).

Beliefs can also define policy subsystems, which can in turn modify how governance is conducted. This has been articulated most notably in scholarship on advocacy coalitions (Sabatier, 1988), issue networks (Heclo, 1974) and epistemic communities (Dunlop, 2009; Haas, 1992). While the theoretical frameworks relying on one or the other version of policy communities are useful analytical tools for researchers, these communities often play a crucial role in the international diffusion of ideas and policy change.

Most importantly, policy beliefs are "sticky" and subject to tradition, context and experience, implying persistent differences among countries and historical periods (Campbell, 2002). Beliefs are generally taken for granted, and there is little academic knowledge regarding how beliefs are formed, changed or preserved.[2] This makes them particularly hard to isolate and potentially influence from a governance perspective.

In the field of education policy research, three models of policy learning have been outlined by Raffe and Spours (2007) that can be applied to a range of education policies:

1. Rationalist: policy learning takes place within a rational process of structured and centralised decision making, e.g. following the classical policy cycle. Knowledge is explicit, declarative and universalistic. Learning and political contestation are separate, that is, first political goals and options are chosen and then the learning process determines the best available outcome and aids effective implementation.
2. Collaborative: policy learning takes place in a less hierarchical and well-structured process of policy making where the boundaries between private and public are blurred. Here, learning is inherently intertwined with political decision making and knowledge itself is contested, diverse, and often tacit and embedded in networks.
3. Politicised: policy learning also takes place in a centralised, hierarchical setting which is, in addition, highly personalised. Learning is dominated by political calculation and is ridden with conflict and confusion. Knowledge is diverse and contested on ideological and political grounds.

These models are revisited in the last section of this chapter, where a further model is added, *social learning*, which is about core beliefs and paradigms that are typically resistant to change (Haas, 1992; Sabatier and Weibe, 2007). The full list of learning models are then linked to governance models and brought together into an analytical model.

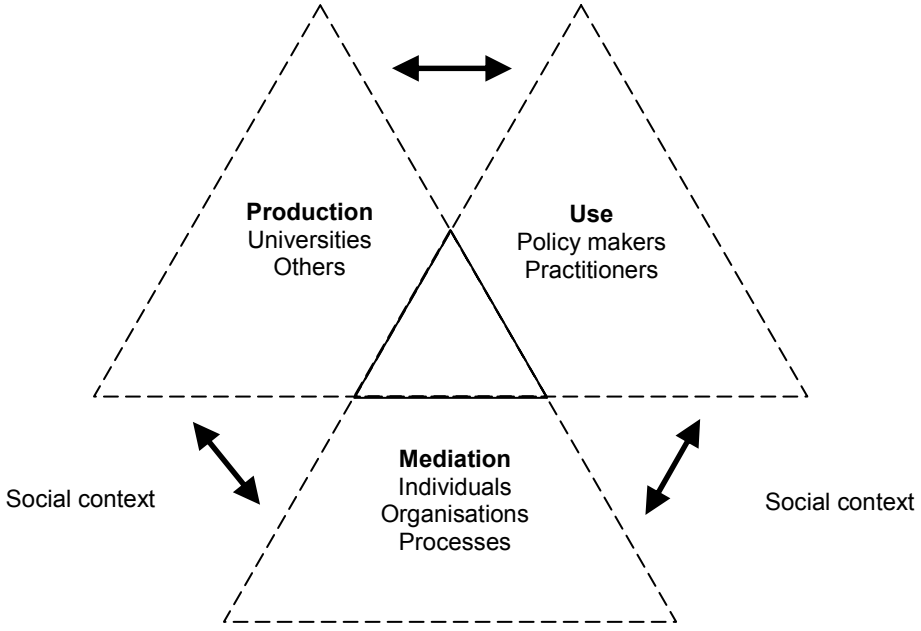
Governance of knowledge

Knowledge is a crucial resource in the governance of education systems as well as in the economy and society as a whole (Sörlin and Vessuri, 2007). Thus it is not surprising that specific governance arrangements are developed and implemented in OECD countries in order to have an impact on knowledge production, dissemination and utilisation.

Models of knowledge mobilisation and knowledge translation increasingly see effective knowledge utilisation depending on three groups of actors: knowledge producers, knowledge mediators, and knowledge users (Best and Holmes, 2010; Levin, 2011). These three actor groups are overlapping and individuals can be in more

than one group at any given time. Nevertheless, the categories are present in most governance systems and each category plays a discretely different role, as laid out in Figure 2.1.

Figure 2.1. Model of research knowledge mobilisation



Note: Triangles represent knowledge functions, which may not be reflected in structures. Individual actors may operate in multiple functions and social contexts. Arrows show interactions.

Source: Adapted from Levin (2011), "Mobilising research knowledge in education", http://dx.doi.org/10.1080/14748460.2011.550431.

Governance of knowledge can influence these groups of actors and their actions. Following the model above, governance's impact on knowledge can be divided into three parts:

- governance of knowledge production
- governance of knowledge mediation (dissemination, translation, etc.)
- governance of knowledge utilisation.

As already mentioned, individuals can be in more than one category or role, increasing the number of potential ways in which the three categories can be intertwined.

Governance of knowledge production

Governing knowledge production can involve facilitating knowledge production (either by non-state actors or through collaboration between state and non-state actors) as well as the direct production of knowledge by the state.

In the context of this review and its focus on policy relevant knowledge, the facilitation of knowledge creation and its direct production focuses on institutionalised forms of knowledge production (e.g. universities, research institutes, think tanks)

(Kogan, 2007). The key question is how public actors can steer research (e.g. defining go and no-go areas of research) and how the quality as well as the quantity of research can be enhanced. These questions are far from obvious, as the state and main research producing institutions are generally separated and, thus, issues of control and governance arise (Fuller, 2000).

There is a range of policy instruments in the hands of policy makers to steer research production. Traditionally this has involved grants and grant making (e.g. sponsorship) and modification of the institutional setting of main research centres such as universities (Kogan, 2007). As knowledge and research evidence in education have become commodified, the market of research producers and users has expanded accordingly. Government levers to steer education research production now typically target major independent research producers such as think tanks, independent research consortiums, and even some brokerage agencies (OECD, 2007). In addition to targeting independent research providers, governments can also sponsor research arms of ministries and other government affiliated centres that have more independence than ministries but less than independent research centres (in fact, government affiliated research centres lie at the boundary between direct state knowledge production and facilitation of knowledge production).

Providing funding and support is one of the most common steering mechanisms. External funding generally involves stronger or weaker restrictions on research questions and objectives, methods of enquiry and publication and dissemination. Sponsorship is typically embedded in varying institutional settings ranging from (1) the autonomous model where researchers can determine all major aspects of scientific enquiry, (2) the partnership model where academics and funders define the elements and boundaries of the research jointly, and (3) the managed model where the important characteristics of the research project are defined by the funder, either public or private (Kogan, 2007). The further one gets from the autonomous model, the more questions are posed regarding the impartiality and objectivity of the research and interpretation of results.

A clear area of tension lies in the different timescales of knowledge production (i.e. research) and governance and policy-making: while researchers take years to thoroughly investigate a particular question, governments are looking for immediate answers to practical policy questions. As a result, governments that are sophisticated users of research are increasingly funding and fielding calls for tender that provide rapid responses to their most pressing questions. The rise in the number of governmental research organisations and governmental organisations which engage in research is also part of this process. This co-determination and management of research projects can be and is often used as a policy lever (Wilkoszewski and Sundby, 2014), but it does raise the concern that the desired answer is provided with the question and that funding is used as a lever to "cherry pick" those research results which support a desired position. Thus as linking policy to research through funding and priority setting has become more popular among many OECD governments, thorny questions have arisen regarding the independence, impartiality and objectivity of scientific research especially under the managed model (Henkel, 2000; Moss, 2013).

The literature on the direct production of knowledge by the central public administration or other governmental organisations such as statistical offices or oversight committees is sporadic and lies within various disciplines. Three salient issues are identified:

1. Quantification and official provision of statistical data as discussed in the sociology of knowledge: It is firmly held that data collection, analysis and dissemination are effective means by which governments transform public dialogue, increase control over policy areas and eventually wield more power and extend their authority (Porter, 1995). The reliance on "hard evidence" lends legitimacy to public action and potentially increases trust (Cerna, 2014). Nevertheless, lack of data or limited public access to data can also lend more power to the authorities in that they can rely on their own expertise instead of objective data (Bajomi et al., 2010).
2. Performance measurement and target setting within the public domain as discussed in the public management literature: Performance measurement and management is often implemented from the centre of the government in order to increase control, bring about transparency and enhance the rationality of the policy process, either in actuality or rhetorically (Halligan, 2007). However, these systems are often contested, and there are concerns about the manipulation of the process ("gaming" the system or test) and the outcomes.
3. Experimentation in policy implementation such as pilots, which have become increasingly common in the last decade (Nutley, Walter and Davies, 2007; Blanchenay and Burns, 2016; Borghans, Schils and I. de Wolf, 2016). However, it should be noted that while pilots are typically requested by governments, the analysis is frequently done by external researchers. This element thus straddles the border between indirect knowledge production and direct production.

Governance of knowledge mediation, dissemination, translation

As knowledge is a key resource of governance and since knowledge production is several steps removed from knowledge utilisation, a range of governance structures have been developed to aid in knowledge dissemination, translation and, ultimately, utilisation.[3]

There is a wide range of policy measures for promoting dissemination and translation of knowledge in governing: (1) routines that enable personnel movement, (2) training, (3) observation, (4) publications, (5) interactions with customers and suppliers, and (6) inter-organisational alliances (Oborn, Barrett and Racko, 2010). These map roughly onto the three broad categories outlined as important to mediation in the Levin (2011) model: individuals, organisations, and processes.

Strategies for knowledge mediation on the level of the individual include personnel movement, training, and interactions with other stakeholders as outlined above. Individual commitment and the willingness to champion the process is also important (OECD, 2009; Busemeyer and Vossiek, 2015). Although key to the success of any knowledge mediation strategy, an overly heavy reliance on the individual contains an inherent weakness: once a particular individual has moved on, much of the knowledge and individual abilities for mediation go with him or her. Interventions focused at the individual level are thus vulnerable to organisational change and personnel mobility. However this limitation should not be taken as a reason for not pursuing these valuable and important strategies.

The organisational and process levels are the levels at which the greatest sustained impact and leverage can be obtained. Key organisational characteristics associated with effective knowledge sharing are high levels of trust among staff, absence of power games

and appropriate incentives (Willem and Buelens, 2007). Innovation aimed at improving knowledge dissemination can also tackle inter-organisational knowledge sharing: for example, organisations expressly created as knowledge mediators include brokerage agencies (OECD, 2007) in areas such as education, social justice, or health care. It should be noted that these agencies may also take part in knowledge production (e.g. delivering systematic reviews, for example the EPPI-Centre and CUREE in the United Kingdom, and the now defunct Canadian Council on Learning). Websites, newsletters, and other forms of interaction are key parts of the process and can be very effective mediation tools if they connect with the right stakeholders.

In spite of the growing popularity of knowledge mediation and an enormous increase in the processes and organisations dedicated to this, there is little empirical record of the effectiveness and impact of knowledge mediation efforts. A number of case studies, including work from the OECD (OECD, 2009), indicate that there is room for great improvement on all levels of dissemination and translation, and especially in research on these topics (for examples from the health sector, see Ellis, 2014; Murphy and Farfard, 2012).

Governance of knowledge utilisation

While the research on knowledge utilisation is often limited, there is a wide range of tools and policy measures for promoting the use of research in governance. Indeed, the concept of evidence-based policy, once a peripheral idea on the policy making agenda, has become imbedded into the political discourse.

The clearest and most wide-sweeping attempt to mandate the use of knowledge in education governance is provided by the No Child Left Behind Act of 2001 in the United States. Centred on improving school performance through increasing accountability, the Act requires schools to rely on research for developing programmes and teaching methods, and specifically restricts funding for educational reform to programmes that have proven effectiveness based on "scientifically based studies and evaluations of education reform strategies and innovations" (No Child Left Behind Act of 2001, 2001). The efficacy of this approach is under discussion and criticism has been levied regarding unintended negative outcomes (e.g. teaching to the tests and a general lowering of standards to ensure that schools and teachers are considered to be succeeding), but this is clearly a dramatic example of the governance of knowledge utilisation.

For most OECD countries, it has become clear that *promoting* the use of evidence in policy making is not the same thing as *ensuring* its use. A number of realities intrude, including the limited time and capacity of policy makers and practitioners, the need to build consensus and incorporate public opinion, and the interaction among different forms of knowledge when determining the best course of action (OECD, 2009; Burns and Köster, 2016; Moss, 2013). Limitations to the possible topics and scope of change due to the prevailing status quo are accompanied by limitations in the process of using knowledge itself. The distinction above between individuals, organisations and processes is an interesting way to analyse this issue.

On an individual level, policy makers' analytical experience and capacity is likely to be one of the main drivers of low levels of research utilisation even in countries characterised by high overall quality of policy making (Davies et al., 2000). In a high-pressure and time-pressed environment, it is a rare policy-maker who has the capacity to access and interpret the relevant research at the precise moment it is needed;

hence, organisational processes become crucial. The analytical capacity of organisations to use complex and multiple sources of information is likely influenced by institutional culture and the importance given to using research (including the role of media) (OECD, 2007). For example, if there is an individual and organisational requirement or organisational norm that research knowledge is used during decision-making and implementation, and if access and capacity are sufficient in the organisation, there is a much higher likelihood that it will be used. However these capacities and requirements are very rarely built into governance systems, and are often the first elements of the process to be skipped when under time or budgetary pressure (OECD, 2009).

Indeed a cynical corruption of the process does, unfortunately, occur: policy is formed, and then, with the expectation that it be based on research evidence, staff are tasked with finding the evidence that will support the already-developed policy. Although clearly subverting both the letter and spirit of the process, this behaviour makes clear that there are actually two discrete issues pertaining to the use of knowledge: 1) the use of policy knowledge in policy-making; and 2) the *appropriate* use of policy knowledge.

The appropriate use of data for decision-making requires that administrators and educators themselves become experts in interpreting data and transforming it into knowledge (see also Chapter 6). Schildkamp et al. (2014) identify three discrete categories of incorrect use of data: *non-use, misuse*, and *abuse:*

1. *Non-use*: data is not collected or capacity is lacking to allow for its use. This also includes actors choosing not to use data that is contrary to their argument or beliefs.
2. *Misuse*: data is poorly collected (quality concerns), incorrectly interpreted (analysis or capacity issues) or does not provide adequate answers to be useful for decision-making.
3. *Abuse*: sample or data are manipulated to yield particular results, or the data results in unintended consequences (for example, narrowing the curriculum to improve student scores on tested subjects).

From a governance perspective, there is an efficiency argument to supporting the appropriate use of data, and there is also an equity element at play (Blanchenay and Burns, 2016): wealthier districts are more likely to fully use available data, and similarly, upper and middle-class parents are more likely to use school achievement data to select the best-performing schools. Parents with lower incomes may often lack the capacity to use such data, or base their decisions on other factors, such as geographical proximity and the availability of public transport to access the school (Elacqua, Schneider and Buckley, 2006). These are serious issues, and ones that will only increase in prominence as the availability of data and research increases.

Box 2.2. Education league tables and performance indicators

One frequently discussed example of the use of data is education league tables and performance indicators. These are generally used to support education quasi-markets with the goal of increasing transparency in the system and empowering the consumers (i.e. the parents and students) by alleviating information asymmetries (Hood, 2007).

The challenge in this case is that when making decisions regarding which school to choose, parents typically rely on perceptions of reputation, informal networks and myths instead of thoroughly examining official performance data (Waslander, Pater and Van der Weide, 2010). This tendency is often inadvertently reinforced by barriers to using available data: official data, even if readily available, is not always presented in a manner that allows for simple interpretation. Thus, even if parents intend to use the provided performance data, they might misinterpret it or consider it too complex to use. Similar issues have been reported in the use of data by local decision-makers (Blanchenay et al., 2014).

An additional layer of the argument is that league tables are often criticised because they provide crude and imperfect measures of education quality at the same time that they are interpreted as precise and reliable measures by many users (Salmi and Saroyan, 2007).

Putting the pieces together: Towards an analytical model

This review has shown that knowledge is crucial for governance and that governance is indispensable for knowledge creation and dissemination. As complexity in education systems continues to increase, governance systems' capacity to learn becomes more and more crucial. Most institutions involved in education policy have become knowledge-intensive organisations whose success depends most critically on their ability to learn.

Indeed, interactions between knowledge and power/interests/beliefs appear to be at the heart of governance (see also Lassnigg, 2016). The definition of interests follows from what policy makers know and believe (Campbell, 2002; Hochschild, 2006). On the other hand, power and interests often determine the form, content and codification of knowledge through, for example, their influence on research funding and formal institutions of knowledge creation (Gordon, 1977). Government power can be strengthened by knowledge, especially its codified and trusted forms (e.g. natural sciences), but this effect varies by salience of the policy field, nature of the subject field, forms of knowledge and the perceived rationality and authority of knowledge (Kogan, 2007). In many domains including education, there is little reliable research that considers the interaction between knowledge and interests.

While there are very few common, core findings of the reviewed literature, it is possible to identify distinctive ways of interaction between characteristics of the policy process and types of knowledge. Distinctive policy processes tend to go along with specific types of knowledge: for example, the politics of agenda setting brings public knowledge (as represented by the media) to the fore compared to other types of knowledge (see e.g. Kingdon, 2010, for an example from the United States). In the next section, we focus on these interactions in order to construct an analytical model of the interplay between governance and knowledge.

The analytical model

The following section aims to go beyond partial and incomplete typologies by systematising some of the main findings in the literature. As a starting point we outline a small number of broad types of:

- models of governance; and
- modes of learning and types of knowledge.

Models of governance

The starting point is the widely accepted models of governance outlined by Pierre and Peters (2005). The use of these models allows for the generation of hypotheses regarding the state's access to knowledge and its analytical capacity. The five models outlined by these authors "constitute a continuum ranging from the most dominated by the state and those in which the state plays the least role and indeed one in which there is argued to be governance without government" (Pierre and Peters, 2005: 11). The models, in brief, are:

1. Etatist – where the government is the principal actor in governance and can take action unilaterally as well as decide whether some actors are permitted to exert influence. The state usually relies on a strong and professional bureaucracy for formulating and implementing policies (Campbell and Pedersen, 2008).
2. Liberal-democratic – where the state still plays a pre-eminent role and can choose which of the intensely competing actors it will grant influence to in governance. This system often has a weaker permanent bureaucracy and prefers to rely on parliamentary institutions instead.
3. State-centric – where the state is still the most dominant actor, but it also establishes institutionalised relationships with several of the most powerful societal actors, such as business associations and trade unions. A close to ideal-typical example of this model is the neo-corporatist system (Schmitter and Streeck, 1999), which displays a high degree of consensual decision-making. Often, strong state bureaucracy supports governance and the institutionally incorporated actors also possess considerable permanent organisations.
4. Dutch governance school – where the state relies heavily on social networks to govern. Among the many actors who take part in and influence governance, the state is merely one of the actors and not even necessarily the most powerful. Typically, there is no strong permanent state bureaucracy present, and actors decide based on widespread consensus.
5. Governance without government – where societal actors are more powerful and carry more legitimacy than the state itself. In this model, the state merely provides an arena where other actors come together to decide and implement policies (Rhodes, Weller and Bakvis, 1997). Bureaucracy tends to be weak and to lack powerful analytical capabilities; in addition, consensus is often required for collective action since no single actor can authoritatively enforce its will on others.

Modes of learning and types of knowledge

While there is no single source which would constitute a widely accepted view on modes of learning and types of knowledge, a small number of distinct models emerge

from the literature on policy learning (for an overview see Dunlop and Radaelli, 2011). These models are distinct in the sense that they are conceptually separate and empirically identifiable; however, they can operate simultaneously and by no means constitute an exhaustive list of learning mechanisms and processes. The learning modes that are often employed in the literature and the underlying knowledge types are:

1. Rational learning concerns the dissemination and internationalisation of explicit, declarative, formalised and transferable knowledge, most notably scientific knowledge (Bennett and Howlett, 1992). The learning process is not constrained to any particular group; however, those that benefit from it are mainly those who understand the formalised language of this type of knowledge.
2. Collaborative learning denotes learning that targets socially embedded knowledge, which is often tacit and procedural, and thus not readily transferable across contexts and accessible to outsiders (Raffe and Spours, 2007). This type of learning is often tied to policy and practitioner communities.
3. Politicised or symbolic learning concerns knowledge regarding actors' preferences, the policy making process itself, and ideas and symbols that mobilise political resources (Heclo, 1974). This learning mode is typically observed in actors who take part in a heavily politicised policy making process.
4. Social learning is about core beliefs and paradigms, which are typically resistant to change (Haas, 1992; Sabatier and Weibe, 2007). Core beliefs and paradigms are shared within policy communities and networks whose members acquire these knowledge types through socialisation.

The five governance models and the four learning modes can be combined in order to show how governance structures are generally systematically linked to modes of learning. Table 2.2 maps out the various links and the conduciveness and availability of knowledge of each combination. The links are established through a few basic explanatory factors, which relate both to governance and knowledge by encompassing their essential characteristics based on the above discussions; most notably who takes part in policymaking, using what knowledge, and how decisions are made and implemented.

Table 2.2. Governance models and learning modes

Governance model	Learning models			
	Rational learning	*Collaborative learning*	*Politicised/symbolic learning*	*Social learning*
Etatist	High	Low	Low	Medium/Low
Liberal-democratic	High/Medium	Low	High	High
State-centric	Medium	Medium	Medium	Low
Dutch	Medium/Low	High	Medium/High	Medium/Low
Governance without government	Low	High	High	Medium/High

Note: Cells denote how conducive a particular governance model is to a certain mode of learning, and, conversely, the type of knowledge at available in certain governance models.

The factors and mechanisms underlying the links between governance models and learning models are:

1. To actors and their knowledge (Campbell and Pedersen, 2008) as well as the degree of political contestation which in turn has an impact on the readiness of actors to learn and revise prior views (Porter, 1995). The inclusiveness and openness of the knowledge base determines how informed decision-making is, but it may also decrease or increase the likelihood of conflict among knowledge forms and stakeholders.
2. The degree of consensus required for policy formulation and implementation has an impact on how knowledge is shared among public and private actors and how broad shared understandings need to be for policy change (Lijphart, 1999; OECD, 2009). Consensual decision-making structures or their absence are ingrained not only in institutions, but also in attitudes and behaviours of policy makers.
3. Characteristics of the permanent bureaucracy, most notably its analytical capacity, determine, at least in part, the amount and quality of knowledge available for policy makers and the speed with which new knowledge can be created or mobilised for solving new policy problems (Howlett, 2009). This also includes the capacity of administrations to mobilise the range of learning tools necessary for informed decision-making, which can range from staff training to capacity to conduct experiments to support complex decisions. The quality of bureaucracy is often measured by how closely it reflects essential Weberian ideals – i.e. "weberianness" – which also plays a role in knowledge transfer within the public administration and the preparedness of public employees to analyse data (Evans and Rauch, 1999). Conversely, the knowledge commanded by a bureaucracy also determines how powerful it is and how well it can preserve its position.
4. The availability of knowledge, most crucially statistical and analytical knowledge, is determined by its production and the infrastructure for dissemination that goes beyond the knowledge produced by the state itself (Best and Holmes, 2010; Rueschemeyer and Skocpol, 1996).

How does the model work?

In the following section the logic of the model is spelled out by discussing each of the four columns (i.e. learning modes) and how they interact with the models of governance. Examples from country experiences are provided to illustrate key points. This section remains primarily theoretical and would benefit greatly from additional empirical research.

Rational learning is most prevalent at the *etatist* end of the spectrum in the state centric governance models, decreasing when moving towards society centric models. A strong state is likely to command formidable resources in terms of statistical data, analytical capacities and the capacity to fund scientific research catering to its needs (Pierre and Peters, 2005). There are numerous examples in education of this: Korea, for example, where the state is strong and centralised, has been putting an increased explicit emphasis on the use of rational learning to support policy making in education. Korea funds extensive collection of statistical data, education research bodies and centres, and has explicit research capacity in its ministries. Increasing accountability and high pressure to continue to excel at national and international benchmarking programmes have combined to keep the focus and drive in this direction, sometimes at the expense of other

forms of knowledge. Chile, Estonia and Poland have also used many of the same mechanisms.

An interesting example is provided by Switzerland, where the federal authorities have systematically and deliberately set out to increase the production, mediation, and use of rational learning modes and scientific evidence in particular in their vocational training sector (OECD, 2009). Mechanisms used include national dialogue and policy-making, support for research centres and knowledge dissemination, and funding for individual researchers, post-doctoral researchers, and graduate students to use empirical methodology to answer policy-relevant questions. This systemic and long-term strategy for building an explicit and empirical knowledge base in vocational training and education is rather different from the strategies and learning modes employed in other educational sectors, which are governed by the cantons of Switzerland, and is an interesting illustration of the interplay between governance model and knowledge type.

And lastly, the clearest and most sweeping attempt to mandate the use of rational learning modes is provided by the No Child Left Behind Act in the United States. By mandating the use of rational learning modes, the producers of such knowledge gained power and prominence and overshadowed other forms of learning. However there is some question about how deep this shift in paradigm reaches. This will be discussed more thoroughly below.

Collaborative learning is strongest in the governance without government model, and it decreases as the state becomes more dominant. The main reason behind this is that in open forms of governance where power is shared, the embedded knowledge of societal actors is an important element in decision-making. As in most cases when a broader set of actors results in a more varied set of knowledge types, there is rarely a single most dominant type of knowledge. Rather, *bricolage* and collective sense-making is dominant (Heclo, 1974). Here, shared power is matched by shared and diverse knowledge base. A good example of this comes from the Nordic countries, which use consensus as a primary mechanism to derive policy in education. In Denmark, for example, collaborative learning, including the expertise of practitioners, unions, parent organisations, and the students themselves, is central to the policy making process (OECD, 2009). Similar examples can be found in Norway (Hopfenbeck et al., 2013).

Politicised/symbolic learning is strongest in governance models without a strong and permanent public bureaucracy, i.e. in Dutch and "Governance without government" models. A strong public bureaucracy tends to limit the politicised nature of policy making and facilitates technocratic discourse as career bureaucrats' are less responsive to political turnover and the rapid change of political agendas (Heclo, 1977). Hence, *étatist* and state-centred models display low to medium levels of politicised/symbolic learning. On the other end of the spectrum, a marketplace for ideas and competition for the attention of the government typically facilitates politically inspired knowledge production and funding (see Campbell and Pedersen, 2008). For example, the United States is a widely recognised example where the state largely contracts out knowledge production and where partisan research institutes play a crucial role in the knowledge production landscape. This is met by the dominance of political appointees in public administration as opposed to career bureaucrats. Taken together, this has traditionally led to a strong presence of politicised learning in the system.

As already noted, however, this model was directly challenged with the introduction of the No Child Left Behind Act and its focus on rational learning. The Act thus not only mandated change in the processes of decision-making, it also attempted to modify the

knowledge production and learning nodes through a top-down, centralised (and national) process. As mentioned previously, there is some discussion about how deeply these modes have really changed, given the set of unintended consequences and criticisms that have arisen (e.g., teaching to the test, grade adjustment or inflation) (Smith, 2014). However, given that research funding and school resources have been tied to this process, it is clear that, on the surface at least, major shifts have taken place.

Another interesting example is explored by Raffe and Spours (2007), who suggest that policy making in the English secondary education and training system was dominated by politicised/symbolic learning even when the context was a strong rhetorical emphasis on the use of research evidence and an official alignment with rational learning. This was manifested in prioritising political (ideology bound) knowledge over academic and practitioner knowledge, constraining bottom-up innovation and aiming at greater control over education research (see also Moss, 2013, for a similar example from the UK). This suggests that there is the potential for interaction among learning modes, and that inherent tensions between them might be used to build legitimacy. This will be explored more thoroughly below.

Social learning: The capacity of governance structures to allow for paradigm shifts varies greatly with the consensual nature of policy making. The prominence of a strong, permanent bureaucracy typically represents continuity in governance, and thus *etatist*, state-centric, and the Dutch governance school models are likely to display a higher degree of "stickiness" of policy core beliefs and paradigms. Deeply engrained beliefs and paradigms characteristically fend off knowledge that is incongruent with prevailing views, sometimes even in the face of explicit counter evidence. One intriguing example of the strength of social learning in most OECD countries is the continuing strong resistance to increasing class size, for example, despite scientific studies demonstrating that it is not as important to student achievement as was previously thought (see Blanchenay and Burns, 2016). Strongly held beliefs (especially those learned through social learning modes) are very resistant to change. Interestingly, in the case of class size, the resistance can be as prevalent in policy makers as it is in practitioners, and is generally observed across all models of governance.

Interactions among learning modes

As can be seen from the previous discussion, there is a potential contradiction or tension among different learning modes within the same governance model. This implies that the presence of some learning processes inhibit the advancement of others. For example, it is hard to conceive that the same country would be high on rational as well as politicised learning. The two learning processes are likely to block or constrain each other as the nature of accepted knowledge forms, modes of reasoning, and actor relations are opposing by nature.

For instance, in the example discussed above of the English decision making in secondary education between 2003-07, policy makers made extensive use of rational learning rhetoric while the dominant learning mode appeared to be politicised/symbolic learning (Raffe and Spurs, 2007). In this case it appeared that a politicised or symbolic learning process was taking the form of rational learning to wield more legitimacy. The selective use of scientific evidence to support political agendas is of course in contradiction to basic notions of rational learning, but anecdotal evidence suggests that this would not be the first time this strategy was adopted (see, for example, the previous discussion on "cherry picking" those research results which support a desired position). In

these cases, whether it is an explicit manipulation of the learning mode or rather an incomplete understanding of how rational learning and scientific evidence could be used remains unclear.

Similarly, rational and collaborative learning modes follow opposing patterns whereby the dominance of one makes the presence of the other one less likely. An example of this is the implementation of the No Child Left Behind Act of the United States. As already explained, the use of explicit declarative knowledge and in particular of quantitative scientific knowledge, was the cornerstone of the policy and process. This was *intended* to weaken the use of collaborative learning. As funding for programmes developed with collaborative learning was radically cut, there was a need to shift the rationale and basis for various proposed reforms from practitioner knowledge towards a more scientific and formalised learning mode. As a result, the arguments that are levied in the policy-making process and the symbols invoked by practitioners have thus changed to become more aligned with scientific and methodological discourse. However the true measure of whether the fundamental learning modes have actually been changed still remains to be seen.

These are just two examples of many. As OECD countries push to use more rational learning modes in education policy-making and practice, the ways in which the other learning modes and types of knowledge are accommodated (or displaced) will vary depending on context and of course governance type. The tensions and interplay between the links in the model are a fascinating area for future study.

Conclusion

The key question posed in this chapter was: *How do governance and knowledge mutually constitute and impact on each other in complex education systems*? This chapter set out to answer these questions by defining and locating governance and knowledge in complex environments. This is crucial as both governance and knowledge are concepts used and misused in a variety of ways in both academia and policy circles. The chapter then explored the multi-faceted relationship between governance and knowledge and proposed an analytical model that lays out how the two elements work together.

The analytical model combines five governance models and four learning modes that are commonly discussed in their relevant literatures in order to show how governance structures are systematically linked to modes of learning. Certain learning modes, for example rational learning, are most prevalent with certain types of governance models, in this case the etatist and liberal democratic governance models. These rational learning modes are much less common in society centric models such as the Dutch model or the governance without government model. Conversely, political/symbolic and social learning modes are most common in society centric models and become less common in state centric governance models. In addition, some types of governance models seem to support almost all types of learning modes (e.g. liberal-democratic and governance without government), while others support only one or two (e.g., etatist models and the rational learning mode).

This is of course a simplified picture, and the discussion has already pointed out exceptions to these broad generalisations. One of the most intriguing patterns appears to be the use of rational learning modes and rhetoric combined with heavy evidence of co-existing political/symbolic and socialised learning modes. The examples provided here are from the UK and USA, but it is not hard to find other countries with similar stories.

There is an open question about the role of rational learning and the use of data in governance and the political process which extends well beyond education. It is not a new argument, but the explosion of available evidence and data in the last decade (from testing as well as system level data) has made this one of the most important modern governance challenges. This requires additional study to unpack fully. In addition, in education the role of teacher professional knowledge and procedural knowledge and how it fits in to all learning modes as well as governance models is also a pressing question that requires more research and discussion.

Governments in all OECD countries are facing the challenge of governing increasingly complex education systems. There is a growing need for governance structures that can handle this complexity and which can provide actors with the knowledge they need to make decisions. In the context of diverse social, economic and political environments of OECD countries, the interaction between these two focal points – modes of governance and types of knowledge – has become increasingly relevant to researchers, policy makers and education stakeholders more generally.

Notes

1. This literature mainly uses the term information in a synonymous meaning to knowledge as defined in this review. For reasons of consistence with the referred literature the original term is used here.
2. Probably one of the most notable exceptions to this statement is the concept of policy-oriented learning within the advocacy coalition framework (Sabatier and Weibe, 2007).
3. Knowledge dissemination, translation and utilisation can also be understood as creating new knowledge, thus blurring the distinction between knowledge's direct and indirect roles in governance.

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PART 2.

BRIDGING THEORY AND PRACTICE: LEARNING FROM THE CASE STUDIES

Chapter 3.

Case studies of governing complex education systems

The GCES case studies examine the process of reform by focusing on one specific example in a particular education system. Case studies were conducted in Flanders (Belgium), Germany, the Netherlands, Norway, Poland and Sweden. This chapter presents an overview of the full set of reports as well as a summary of each case study, describing the policy under study, findings and recommendations.

Overview of GCES case studies

The six GCES case studies study the process of reform in decentralised education systems. Their comparability is facilitated by a common framework setting the analytical guidelines and research questions (OECD, 2015; see also Chapter 1).

Table 3.1. Overview of GCES case studies

Case study	Topic	Description
Flanders (Belgium)	Attainment targets and stakeholder participation	The case study analyses the reform of the core curriculum, focusing on the process for defining attainment targets and developmental goals. While examining how well curriculum reforms have been implemented, this case study explores the overall context of multi-level governance of education in Flanders.
Germany	Building local capacity and promoting the use of data	This case study examines the use of educational monitoring at the municipal level in Germany. The analysis focuses on the use of data and its influence on education governance across system levels. A number of local factors are identified that influence the relative effectiveness of the implementation of the programme.
Poland	Implementation of a new school supervision system	The case study explores the strategies, processes and outcomes of an education reform in Poland which substantively changed the school inspection system. Implementation challenges to overcome included logistical and structural issues as well as a lack of trust. Building trust is particularly important in fostering a culture of evaluation focused on improvement.
Sweden	Devolution of decision-making to local authorities	The case study explores the consequences of education decentralisation reforms in Sweden. These reforms shifted almost all responsibilities for compulsory education from the central ministry to the municipalities. Implementation difficulties, mainly connected to the lack of local capacity building and the lack of a systemic vision, emerged early.
The Netherlands	Improving the performance of weak primary schools	This case study examines the effectiveness of policy instruments aimed at reducing the number of underperforming primary schools in a system with a long tradition of school autonomy. The study examines reform impact as well as the dynamics of the implementation process. The roles of media, parents, and other stakeholders are given special attention.
Norway	Implementation of formative student assessment programme	This case study analyses the Norwegian initiative to create better assessment for learning and develop a culture of evaluation in a system based on high trust. The study explores the dynamics of change and capacity building for teachers during large-scale implementation.

Flanders (Belgium)

Increasing alignment across the whole system

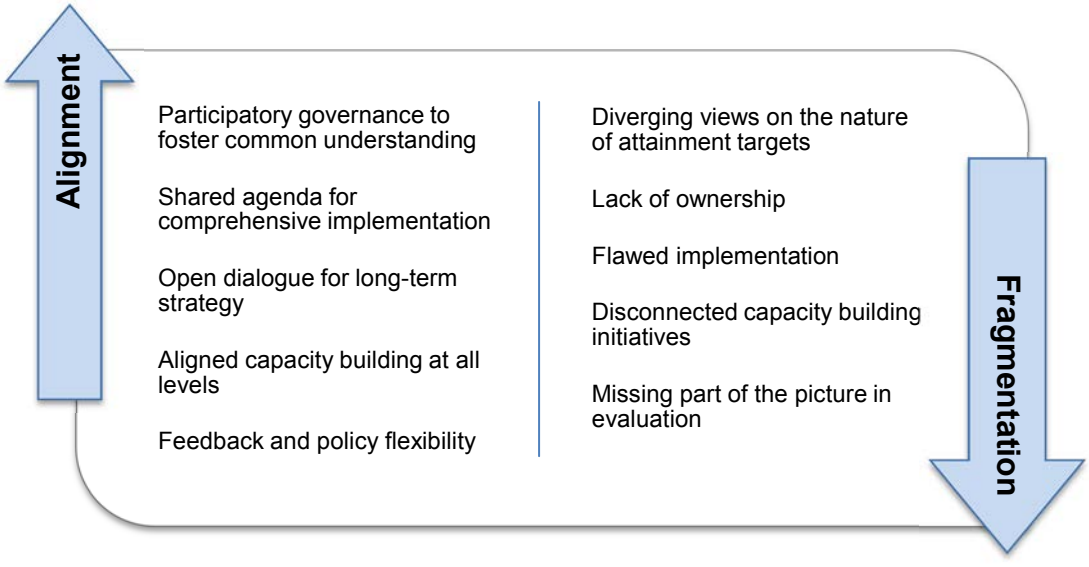
THE LESSON

A **whole of system approach** may be the best means of **aligning** multi-level systems. However, this requires developing a common understanding and vision for the system by actively engaging and sharing responsibility with all actors.

Overview of case study

- In 1991 Flanders introduced the use of centrally-set **attainment targets**. These are both cross-curricular and subject-specific goals which pupils need to meet in terms of knowledge, attitudes and skills.
- The attainment targets were designed as **minimum goals** and as instruments to **evaluate schools. Networks of schools or school boards** developed curricula and incorporated the attainment targets into their learning plans.
- This case study explores the role of attainment targets as means for **systemic quality assurance** in Flanders, an education system whose governance structures and processes are characterised by **high decentralisation** and the **participation of multiple actors**.

In complex decentralised systems, elements can work together to improve alignment or conversely, increase fragmentation:



For more information: *United in diversity: A complexity perspective on the role of attainment targets in quality assurance in Flanders* (Rouw et al., 2016).

Germany

Rewarding local efforts to build capacity

THE LESSON

Voluntary bottom-up approaches can be effective policy instruments to promote **change at the local level.** However, sustainable change requires adequate **capacity building** and a **strategic plan** tailored to the political, cultural and socioeconomic context.

Overview of case study

- "Lernen vor Ort" (LvO, "Learning Locally") was run by the German federal government between 2009 and 2014 in forty cities and districts. Participants were selected by a competitive process.
- Municipalities were **invited to apply** for funding in one of the following areas: (1) local education management (2) local education monitoring (3) education consulting (4) transition from one sector of education to another. The funding decision was based on the **quality and plausibility** of the proposals.
- Municipalities were required to partner with non-profit philanthropic foundations and demonstrate project sustainability.

In complex systems, the local level can be an important lever for sustainable change:

For more information: *Reforming Education Governance Through Local Capacity-building: A Case Study of the "Learning Locally" Programme in Germany* (Busemeyer and Vossiek, 2015).

Norway

Balancing trust and accountability

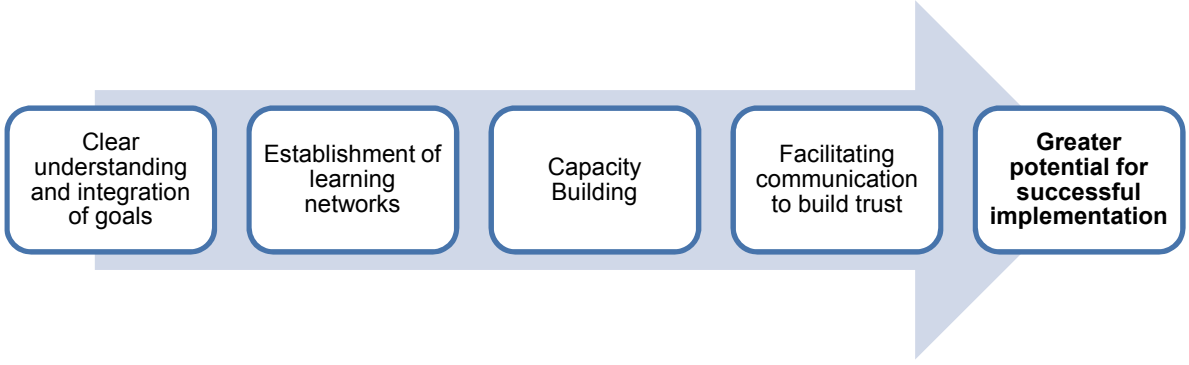
THE LESSON

Central policy programmes that have **clear communication** between governance levels**, leadership** and **high trust between stakeholders** lead to more systematised approaches to assessment within education systems.

Overview of case study

- *Vurdering for Laering* [AfL –"*Assessment for Learning"*] was launched in 2010 and aimed at improving **formative assessment** and strengthening an assessment and learning culture in schools.
- The programme involved 184 municipalities in **19 counties.** Participants had the **freedom to decide local design within certain conditions:** improve student understanding, self-assessment, and quality of student work; include measurable and realistic goals; provide a safe learning environment; involve participants at all levels and ensure local financial support.
- The programme also **included tools for sharing information**, such as conferences and learning networks to build capacity in schools and local administration. **Learning networks** also provided peer support in the implementation process.
- Building capacity is crucial, especially for smaller municipalities who reported being **overwhelmed by** the continuous stream of **policy changes** and struggled with **prioritising activities.**

Successful and sustainable municipal and school implementation depended on a series of steps:



For more information: *Balancing Trust and Accountability? The Assessment for Learning Programme in Norway* (Hopfenbeck et al., 2013).

Poland

Developing a culture of evaluation

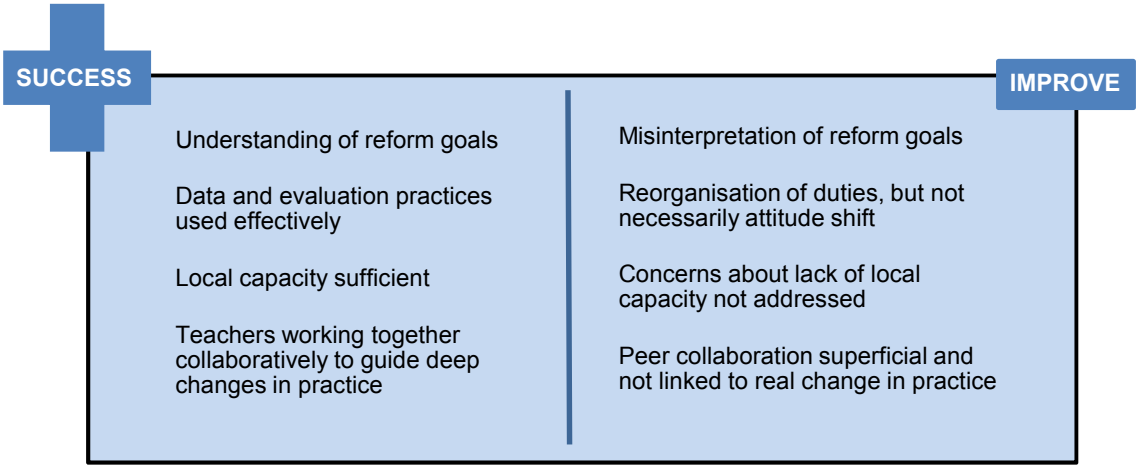
THE LESSON

Making reform work requires a strategic approach to **managing conflicts** in the **implementation and communication of reform.** Developing a culture of evaluation requires time, capacity, and the trust that inspections will be used to improve schools rather than punish.

Overview of case study

- In 2009, Poland introduced a new school inspection system to establish a **sustainable culture of evaluation** and cooperation among stakeholders. The prior school inspection system was marked by **inefficient processes, unclear roles and the lack of a coherent policy approach**.
- The reform combined **internal and external evaluation** and worked through monitoring school compliance with the law, supporting the work of schools and teachers, and evaluating education institutions.
- Some specific initiatives included **autonomous self-evaluations** conducted by teams of teachers, **external evaluations** by trained inspectors that considered local context and research tools.

Developing a culture of evaluation takes time and nuance. Some of the enablers and challenges to the process were:



For more information: *Implementation of a new school supervision system in Poland* (Mazurkiewicz, Walczak, and Jewdokimow, 2014).

Sweden

Aligning power and responsibility

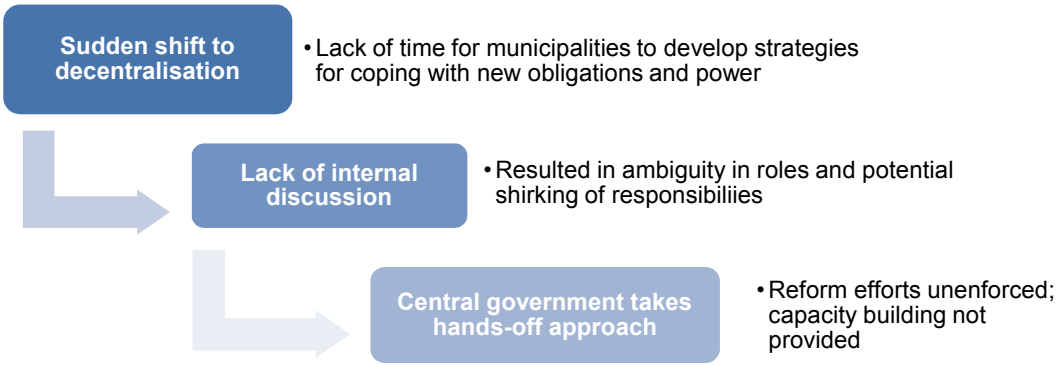
THE LESSON

Decentralisation is a complex process that requires **strategic vision and planning** to ensure education actors have the **necessary capacities and support** needed for their new roles. A lack of strategic vision can lead to **mismatches** in power and responsibility.

Overview of case study

- The Swedish government began to **liberalise schools and decentralise administrative responsibilities** to the municipal level starting in the 1990s. These reforms were meant **to increase local autonomy** and sensitivity **to local demands.**
- School funding changed from direct transfers by the central government **to lump-sum grants to municipalities**. School choice based on a voucher system was also implemented at the same time.
- The **new governance structure** meant that national goals were "steered" by the central administration while **decisions and responsibilities** on how to reach those goals were left with municipalities.
- Without explicit guidance on the process, a number of **ad-hoc governance arrangements emerged** on the municipal level.

The sudden shift meant that municipalities faced numerous challenges and had trouble adapting to their new autonomy:



For more information: *Shifting Responsibilities: 20 years of Education Devolution in Sweden* (Blanchenay, Burns and Köster, 2014).

The Netherlands

Intervening smartly through inspections

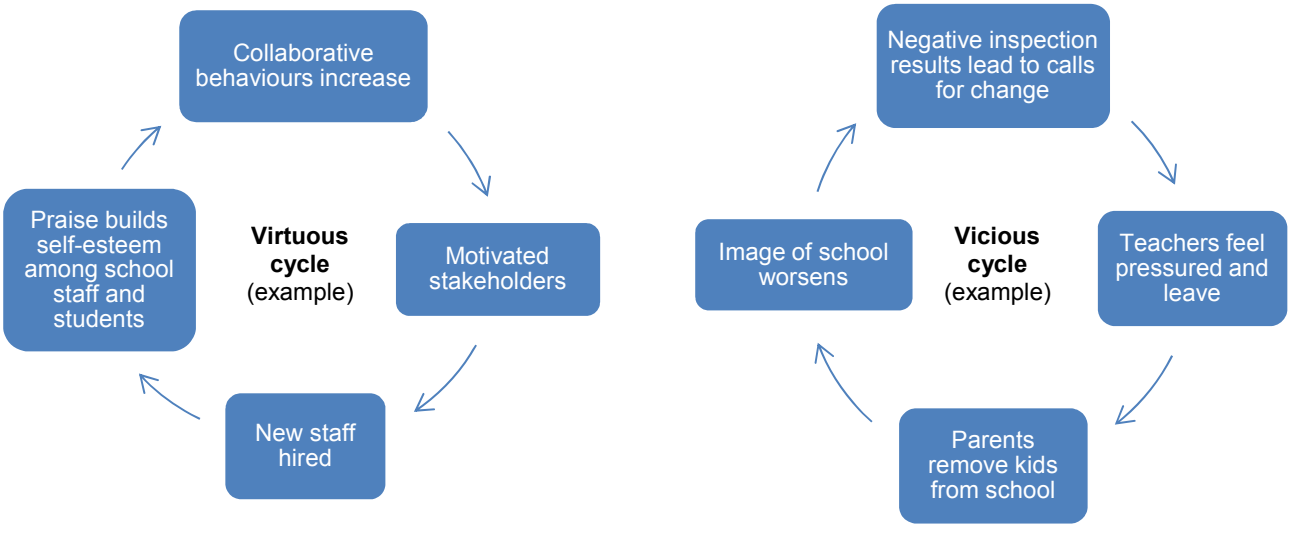
THE LESSON

Change in complex education systems cannot be understood through **linear cause and effect**. Rather, interventions create dynamic vicious or virtuous cycles, which can interact in **unexpected ways**. This is why some reform measures unintentionally backfire, while others quickly spread over the system.

Overview of case study

- In 2008, the Netherlands started a **'risk-based' inspection system**. The Inspectorate **assessed primary schools to monitor** the chance of an individual school underperforming.
- If a school is **deemed at risk** it receives inspection and is assessed as "normal", "weak" or "very weak". Weak or very weak schools receive more intense follow-up. Very weak schools have **one year to improve or be closed** (as of 2015; previously it was two years).
- During these two years, the Inspectorate provides more guidance and support, including so-called "**flying brigades**", which can be called in to support schools. This reform has been successful in reducing the number of very weak primary schools.

School recovery depends on the interplay between actors within the school and community, as expressed in the model of virtuous and vicious cycles:



For more information: *Coping with very weak primary schools: Towards smart interventions in Dutch education policy* (van Twist et al., 2013).

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Chapter 4.

Priority setting, steering and policy learning in education

Central to policy making in complex education systems is the question of what kinds of governance mechanisms are effective for sustainable change. In this context the policy process is approached as a cycle comprising priority setting, policy steering and policy learning while acknowledging the fluidity between the stages. The chapter examines challenges as well as drivers for successful policy design and implementation. It pays special attention to the role of knowledge in defining priorities and designing interventions, and the need for matching support and pressure to secure aligned action and common direction at the implementation stage. Equally central, the chapter highlights policy monitoring and evaluation as tools to improve education policies and eventually shape a sustainable culture of learning within our education systems.

Introduction

How do policy processes lead to effective reform in complex education systems? Using examples from six case studies conducted in Flanders (Belgium), Germany, the Netherlands, Norway, Poland and Sweden, the chapter identifies drivers of and barriers to successful policy making, and argues that applying both pressure and support and coherently aligning them can improve policy steering.

Policy making is often conceptualised as a cycle. It has been broken down in different ways (e.g. Hallsworth et al., 2011; OECD, 2009; Bovens, Hart and Kuipers, 2006) and with varying numbers of stages. It is commonly held, however, that the cycle includes (1) setting priorities, (2) selecting and implementing policy instruments, and (3) evaluating and monitoring policy and outcomes. Conceptualising policy processes as a cycle acknowledges both the iterative nature of the process and the origin of many policies, which tend to emerge from existing policies rather than developing entirely anew. The cyclic view also serves as a reminder that there is no specific start or end point to the process (Hallsworth et al., 2011).

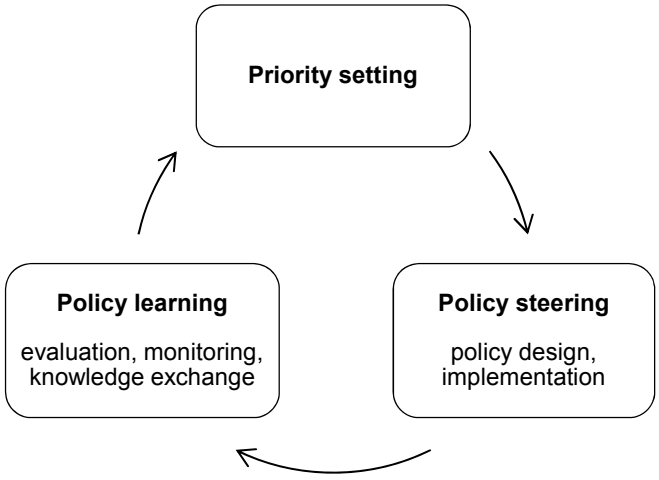
This chapter's first section discusses the three main elements of the policy process and how complexity affects policy making. Taking the GCES case studies as empirical examples, the second section develops an argument for aligning support and pressure in governance and for using "soft" governance approaches to cope with complexity.

Challenges of governing complexity across the policy cycle

It has rightly been argued that a simplistic policy cycle as described above does not represent the reality of policy making (e.g. Clay and Schaffer, 1984). The reality is that "policy making does not take place in distinct stages" (Hallsworth et al., 2011: 38). For example, policy evaluation often does not feed straightforwardly into new initiatives. Likewise, design and implementation are not necessarily preceded by priority setting but, rather, can constitute an immediate reaction to external events (OECD, 2009; Hall and Hupe, 2009; Nakamura, 1987). Also, "even policies which have the semblance of proceeding in stages actually consist of a series of reversals and repetition" (Hallsworth et al., 2011: 38).

The three-stage cyclic model of policy making, as depicted in Figure 4.1, can be considered a heuristic to guide analysis rather than a fully representative model of policy processes (Hall and Hupe, 2009). The arrows in Figure 4.1 illustrate the direction of the cycle, with policy learning feeding back into priority setting and improved policies. This section discusses in turn the policy cycle's stages priority setting, policy steering and policy learning.

Figure 4.1. Policy Cycle



Priority setting

Determining to which issues to respond is both a policy matter and a political matter (see also Burns and Fazekas, 2016). Actors who have influence over which issues make their way onto the policy agenda wield great power: as Tsebilis and Rasch (2011) describe, "agenda setting is of paramount importance in politics, because the agenda setter selects among the many possible alternatives the one that (s)he prefers the most" (p. 3). Importantly, there is rarely only one agenda setter in a political system; rather, agenda setting depends on both the "institutional features of a political system (e.g., who can ask questions and who is prevented from doing so) [and] the ideological positions and the cohesion of different actors" (ibid. p. 2). Considering the multitude of actors and factors in the priority setting process, the selected issue might then not be a "best" option but one that the greatest number of actors can agree on (OECD, 2009).

The role of complexity in priority setting

There are forces outside of the formal political process that wield influence over the process of setting priorities. Stakeholders play an increasingly active role, as does the general public, often through social media. New communication technologies are powerful forces shaping priorities in policy making and have made the political response to pressing topics more immediate and fluid (Wilkoszewski and Sundby, 2014; Fazekas and Burns, 2012; Castells, 2007).

As the OECD argued elsewhere, today "[e]ven extremely powerful leaders need to develop or capitalise on a common sense of urgency from other stakeholders and key actors in the system in order to set the agenda" (OECD, 2009: 221). While a sense of urgency can facilitate planned change, external events can generate a sense of urgency among actors and stakeholders that results in rapidly shifting priorities. In this, events in the public focus can emphasise the urgent over the important. Confronted with pressure to approach urgent issues, the government may further feel compelled to announce immediate actions involving policies with still unclear effects or insufficient time to design them properly. Even when a coherent overarching strategy guides policy, current events can easily overturn such strategic thinking.[1]

The role of knowledge in priority setting

Reliable knowledge mediation plays an increasingly important role in helping governance actors to define priorities proactively rather than reactively (OECD, 2007). In setting priorities, there are two aspects of knowledge that play important roles. First, knowledge is a resource that can improve evidence-informed decision making through mechanisms such as "technical assistance, short/long-term training, and specialist inputs (e.g. computer systems)" (OECD, 2002). Second, an effective flow of knowledge between actors ensures that adequate knowledge is available to make informed decisions and set appropriate priorities.

A successful policy process should thus facilitate knowledge flows across all governance levels and improve the capacity at each level to process information adequately. The priority setting process must accommodate the potentially conflicting goals of policy makers and the political discourse, including public opinion and media attention (Lassnigg, 2016; Fazekas and Burns, 2012; Hallsworth et al., 2011; OECD, 2009). For effective governance, Pierre and Peters (2005) highlight the state's need to stay in close contact with actors in society and "utilize social information openly and accurately" (p. 46).

Policy steering: designing and implementing policy

Steering policy involves the design and implementation of policy instruments as well as the mobilisation of resources. Supporting implementation with adequate resources, including both financial resources and human capital, is vital. The mobilisation of resources also pertains to legitimacy. In decentralised systems with many stakeholders, successful implementation depends on the efforts of stakeholders, whose co-operation depends on their belief in the legitimacy of the policy. Legitimacy is thus an important resource that must also be mobilised (Pierre and Peters, 2005; Wilkoszewski and Sundby, 2014).

Legitimacy of governance, including legitimate accountability mechanisms, can increase and reinforce trust. Trust is a main ingredient in governing modern education systems effectively and efficiently, as it facilitates collaboration and knowledge sharing (Cerna, 2014; OECD, 2013a). Importantly, trust, collaboration and knowledge sharing are mutually reinforcing: trust allows for collaboration and knowledge sharing, which generate further trust, as long as individuals display trustworthy behaviour, such as adhering to agreements and sharing knowledge freely (OECD 2013a; Cerna, 2014). In complex systems with little hierarchical enforcement, the sustainability of governance arrangements requires legitimacy and trust among actors and stakeholders who take ownership of the policy processes and goals (OECD, 2012; OECD, 2009; Kleiman and Teles, 2006; Christensen, 2006).

An additional challenge in policy design is that "policies need to be designed not just conceived" (Hallsworth et al., 2011: 42). Using the example of the United Kingdom, the authors describe that in the busy environment of political discourse, policies may be conceived by politicians without adequate counselling of the civil service and its policy professionals for proper design. Policy design should address a policy problem with a clear goal and should not follow preconceived solutions (Hallsworth et al., 2011).

Designing who is accountable to whom and for what

Policy steering also includes accountability mechanisms. Establishing who is accountable to whom and for what is an important element of policy steering. Importantly, accountability does not refer exclusively to reporting to the central level, but can take horizontal forms in which stakeholders hold other actors accountable for their practice; for example, the community holding schools accountable or teachers holding their peers accountable (Köster, forthcoming; Hooge et al., 2012). Chapter 5 takes a detailed look at issues related to accountability, such as monitoring, trust and autonomy while discussing new approaches and empirical examples.

Evaluation and monitoring for policy learning

Evaluation is indispensable for policy learning in that it is meant to identify elements that contribute to a policy's successes and failures and to inform future policy making. On the level of implementation, evaluation depends crucially on ownership and legitimacy. The process of identifying factors that contribute to failure can be interpreted as the figurative pointing of fingers (Burns and Blanchenay, 2016; Bovens, Hart and Kuipers, 2006). The evaluation process must be perceived as legitimate for those involved in order to move beyond the perception of blame and see the value of identifying the factors behind both successes and failures. Evaluation is unlikely to be useful in improving policy if it is not ingrained in the policy-making culture, or if evaluation results are not available in a timely manner (Hallsworth et al., 2011).

Policy makers do not normally have the possibility or time to design and implement policy in a disturbance-free environment where the effects of a policy are clearly attributable. This makes evaluation – particularly the attribution of causes and effects - challenging (see also Blanchenay and Burns, 2016). As a consequence, evaluations may produce findings only considerable time after the formal end of a policy and in turn may not readily translate into new or revised policies (Hallsworth et al., 2011; OECD, 2009).

Monitoring as a tool for accountability and policy learning

In decentralised systems, the central government faces the dilemma of being responsible for the performance of public policy at the same time as it has (in many countries) devolved decision-making powers to lower levels by increasing the autonomy of schools and districts. One approach that allows central government to deliver on their national goals in devolved systems is for central governments to monitor local education outcomes. Modern education monitoring relies on indicators for the purpose of providing information regarding where to direct attention and improvement efforts on the one hand, and as a means of holding actors accountable for their actions on the other (OECD, 2013b).

In recent years, monitoring has evolved from the simple use of student assessment to evaluate the education systems to the use of broad sets of integrated elements, including "external school evaluations, appraisal of teachers and school leaders, and expanded performance data" (OECD 2013b: 13). Monitoring informs decision-making at various levels and is increasingly used to measure processes and outcomes against educational standards revolving around "what students should know and what they should be able to do at different stages of the learning process" (ibid.).

Moving beyond hierarchical governance to cope with complexity

Work on complexity offers a helpful perspective on education governance by taking a step back and looking at the system as a whole. It directs attention to the connections among a system's elements, which create dynamics that cannot be anticipated by looking at the elements in isolation (Mason, 2016; Burns and Köster, 2016). Resolving the challenges related to the complexity of modern education systems – governing across multiple levels, accommodating a wide range of stakeholders, and using a variety of different sources of knowledge – requires governance mechanisms that move beyond hierarchical steering approaches utilising knowledge exchange and local autonomy in implementation (see also Chapter 1).

Challenges of complexity for policy making

Additional to complexity stemming from the multilevel character of many modern governance systems, challenges regarding the policy process revolve, first, around accommodating various stakeholders with different motivations, interests and time horizons. Education policy faces strong *a priori* beliefs, tied both to identity and personal experience. Stakeholders have often formed robust subjective sentiments about good and bad practices in education, and these opinions may not be aligned with research findings (Burns and Köster, 2016). For successful policy implementation, it is vital that all involved stakeholders assume ownership and perceive the policy as legitimate, both in the short- and the long-term (Christensen, 2006; Donahue and Zeckhauser, 2006).

Second, in complex multilevel systems involving various stakeholders, information is abundant and is produced by various actors in numerous locations and forms across the entire system. The exchange of information across levels and stakeholders is vital (Blanchenay and Burns, 2016; Blanchenay, Burns and Köster, 2014; Hopfenbeck et al., 2013; Pierre and Peters, 2005). As Pierre and Peters (2005) describe, "the state must be in close contact with society and utilize social information openly and accurately when governing" (p. 46). This is to accommodate, first, the issues of stakeholder involvement and, second, the interpretation of findings as well as attribution of causes and effects in complex systems (Blanchenay and Burns, 2016; Mason, 2016; see also Chapter 1).

Local evaluation to improve policy learning in complex systems

To improve the state's capacity to gather and process information (Pierre and Peters, 2005), Hallsworth (2011) proposes a shift in evaluation away from formal large-scale evaluations and moving evaluation closer to the local level. Monitoring should then move away from a predominant accountability function to putting greater emphasis on gathering and disseminating knowledge for learning:

> Central government is likely to have a more active role in learning and innovation than it will in monitoring. Greater adaptation and experimentation by those realising policies could lead to much greater information about what works. Central government could act as a repository of the evidence and ideas that these activities generate, or enable connections between actors - without mandating a particular approach. This vision depends on a more flexible, inquiring and independent breed of evaluation. Given the speed at which changes can occur in a complex system, the tactic of multi-year pilots followed by formal evaluation is unlikely to fit the bill. (Hallsworth, 2011: 42)

For such an approach to work – where local actors engage in continuous evaluation and policy learning – legitimacy, ownership, capacity and prudent accountability mechanisms are vital (Burns and Köster, 2016; Blanchenay and Burns, 2016; Cordingley, 2016; Köster, forthcoming; OECD, 2013b). Given a reduced role of constant monitoring as means of accountability, Hooge and colleagues (2012) argue that integrating stakeholders into accountability relationships – in addition to performance-based accountability to the centre – can improve both accountability and the integration of varied forms of knowledge.

Opening up governance to multiple sources of knowledge and integrating varied knowledge in decision-making processes contributes to the vital "*information* gathering and processing capacity of the state", as Pierre and Peters (2005: 46, emphasis in original) describe. The integration of stakeholders in accountability processes "takes into account different stakeholders' varying perceptions of the quality, effectiveness and efficiency of schooling. It can complement school performance accountability by looking beyond the numbers and also defining schooling in professional and democratic terms" (ibid. p. 18).

Soft modes of governance and ensuring common direction

Moving towards greater integration of the diverse stakeholders present in education systems, it is worthwhile to consider new approaches to governance, particularly "soft" governance. Soft approaches involve shifting towards less coercive and less tightly controlled, audited and sanctioned governance mechanisms (Hood and Margretts, 2009; Wilkoszewski and Sundby, 2012; Vabo, 2012; Radaelli, 2003; Windzio et al., 2005). These include for example lump-sum funding and "indirect tools such as policy programmes that provide a framework and enable the local policy makers to independently organise implementation (Wilkoszewski and Sundby, 2014: 11). Soft modes of governance cater to the gathering and processing of information (Pierre and Peters, 2005) and offer a number of advantages over traditional "hard" approaches to governance.[2] They can yield advantages in the accommodation of diverse stakeholders, facilitate exchange of knowledge, local experimentation and evaluation, and generate greater legitimacy by being non-threatening to existing governance arrangements (Abbott and Snidal, 2000: 423; also Lassnigg, 2016).

However, balancing open information gathering and processing – for example, by moving towards soft modes of governance and encouraging local evaluation – with "the *authority* of the state, meaning […] the capacity of the state to make and enforce binding decisions" (Pierre and Peters, 2005: 46, emphasis in original) is crucial for delivering desired results. While soft modes of governance have distinct advantages, they require greater attention to accountability mechanisms to ensure common direction and ample support for those exercising increased local autonomy. Catering to the state's ability to enforce binding decisions and ensure common direction (Pierre and Peters, 2005), soft modes of governance should be aligned with mechanisms applying careful pressure to nudge implementation in desired directions.

In relying on soft governance and aligning support and pressure, legitimacy of the policy again plays an important role: A policy that is considered legitimate allows for the application of softer forms of pressure, such as incentives, instead of direct forms of pressure, such as regulations and sanctions (Hooge et al., 2012).

Governance mechanisms in action across the policy cycle: The GCES case studies

The previous section laid out the challenges of policy making in complex systems and argued that aligning pressure and support, utilising soft modes of governance, and investing in dynamic knowledge exchange between actors can contribute to the success of polices in complex environments. This section explores what can be learned about pressure, support and soft governance across the policy cycle from the GCES case studies.

While the case studies face unique contexts, all six case studies analyse strengths, weaknesses and challenges involved in governing educational reform in highly decentralised systems. Table 4.1 presents an overview over the GCES case studies, looking at scope, focus, and the general subject of each study.

Table 4.1. Case study overview

Case study	Scope	Focus	Subject
Flanders (Belgium)	Comprehensive	System level targets for schools	Implementation of revised attainment targets as minimum goals for student learning.
Germany	Targeted	Municipalities	Support development of local governance networks and educational monitoring via capacity-building measures and ear-marked funding.
The Netherlands	Targeted	Schools	Targeted interventions to improve schools labelled as (very) weak by inspectorate.
Norway	Comprehensive	Schools	Introduction of new formative assessment system "Assessment for Learning".
Poland	Comprehensive	Regional school inspectorates, schools	Reform of regionally diverse school supervision system to increase policy coherence and school improvement focus.
Sweden	Comprehensive	Municipalities	Decentralisation of virtually all education decisions to municipal level to increase responsiveness of education to local demands and improve education.

Sources: GCES case studies, Flanders (Belgium): Rouw et al. (2016), "United in diversity –A complexity perspective on the role of attainment targets in quality assurance in Flanders: A GCES case study of Flanders (Belgium)", *OECD Education Working Papers* No. 139; Germany: Busemeyer and Vossiek (2015), *OECD Education Working Papers*, No. 113, http://dx.doi.org/10.1787/5js6bhl2mxjg-en; The Netherlands: van Twist et al. (2013), *OECD Education Working Papers*, No. 98, http://dx.doi.org/10.1787/5k3txnpnhld7-en; Norway: Hopfenbeck et al. (2013), *OECD Education Working Papers*, No. 97, http://dx.doi.org/10.1787/5k3txnpqlsnn-en; Poland: Mazurkiewicz, Walczak and Jewdokimow (2014), *OECD Education Working Papers*, No. 111, http://dx.doi.org/10.1787/5jxrlxrxgc6b-en; and Sweden: Blanchenay, Burns and Köster (2014), *OECD Education Working Papers*, No. 104, http://dx.doi.org/10.1787/5jz2jg1rqrd7-en.

The policy reforms in the case studies range from system-wide to targeted policies; from direct interventions in Dutch schools to radical decentralisation of the Swedish education system to capacity- building measures in German municipalities. Each case and each reform faces unique conditions pertaining to governance environment and policy goals, and timing and cultural context shape policy priorities as well as policy options. For example, the Netherlands demonstrates that legitimacy depends largely on the current public discourse (van Twist et al., 2013). A window of opportunity, for example created through a common sense of urgency, can legitimise an atypical intervention otherwise

likely to be unacceptable to relevant stakeholders at a different point in time. The scope, focus and subject of a policy shape the potential options of policy makers to ensure successful implementation. In the case of Germany, the targeted focus of the policy opened the unique opportunity to take advantage of self-selected participation: Municipalities voluntarily competed over ear-marked grants tied to prerequisites of capacity and strategic vision for the implementation (Busemeyer and Vossiek, 2015).

The preceding discussion dealt with the challenges of policy making in complex environments and identified a number of elements with regard to the policy process that should receive particular attention. Table 4.2 summarises the discussion and serves as the framework for the comparison of the GCES case studies over the following sections. Annex 4.A1 provides a full description of elements relevant to the policy cycle for each case study.

Table 4.2. Policy cycle and elements of analysis

Stage of the policy cycle	Elements of analysis
Priority setting	• **Actors** Which actors were involved in the reform's formulation? Did they have competing priorities? Who decided finally on priorities? • **Drivers** Which drivers of the reform can be identified: Was there a sense of urgency; a window of opportunity? Knowledge as a lever for change: Was the driving force proactive or reactionary?
Policy steering (design and implementation)	• **Instruments (pressure, support)** Which instruments were in place to advance the policy goals and which were in place to support the implementation? Did support and pressure match each other, or was one element dominant? • **Legitimacy and ownership** Which steps were undertaken to ensure legitimacy? Did stakeholders show ownership? • **Accountability** Who is accountable for what and to whom? • **Sustainability** Which elements increased the sustainability of the reform's impact?
Policy learning	• **Monitoring and evaluation** Are the reform's processes and outcomes monitored and evaluated? Were the results used as intended? • **Feedback and knowledge processes** What knowledge exchange processes are in place? How is feedback incorporated into the governance process?

Source: Adapted from the GCES case study framework (OECD, 2015)

Priority setting in the GCES case studies

What can be learned from the GCES case studies in terms of priority setting? As Hallsworth and colleagues (2011) describe, events have the potential to overthrow well considered strategies, leading to policies that may be ill-conceived and of symbolic character rather than thoughtfully designed. The capacity of the state to cope with external pressures at each level of governance is to a great extent dependent on knowledge processes, which allow following and adapting strategic vision pro-actively to cope with potentially conflicting goals (see Table 4.3).

Table 4.3. Elements of analysis: priority setting

Element of analysis	Details
Actors	• Which actors were involved in the reform's formulation? • Did they have competing priorities? • Who decided finally on priorities?
Drivers	• Which drivers of the reform can be identified: Was there a sense of urgency; a window of opportunity? • Knowledge as a lever for change: Was the driving force pro-active or reactionary?

Source: Based on Table 4.2.

Public pressure as a driving force of change

In the GCES case studies, public pressure was one of the main drivers for change: In Norway and the Netherlands, perceived crises in education drove change while in Sweden and Poland international discourse shaped priorities of the central level.

The Dutch case study describes an example of coping successfully with the influence of an external actor (here, the public) on the priority setting process. After a political decision to publicise the results of school inspection results – and thus creating the possibility for the public to identify underperforming schools – public pressure shifted the central level's approach from primarily safeguarding local autonomy towards exerting greater pressure to address agreed-upon priorities and to initiate comparatively hard interventions in underperforming schools. Drawing legitimacy from the public's sense of urgency, the central level successfully accommodated stakeholder pressure to change the school inspection policy to include more direct intervention in underperforming schools. As is discussed further in the following section, the central level managed to uphold the commitment to safeguarding school autonomy.

Windows of opportunity and knowledge processes

A window of opportunity and a sense of urgency can present major barriers to successful priority setting (OECD, 2009). Overemphasising political opportunities for reform can topple the strategic vision for the system and lead to changes that do not adequately consider the system's context, culture and process legacies – the case study of Sweden exemplifies this dynamic. The unsatisfactory outcome of the reform studied in Sweden is an example of preconceived notions shaping policy (see Hallsworth et al., 2011): The international and national political climate opened a window of opportunity for the newly elected government, which, in favour of free-market policies, pursued wide-ranging decentralisation and liberalisation policies throughout the 1990s. Given their long tradition of centralisation and social-democratic pursuit of equity, the liberalisation of education policy appears mal-adapted to the Swedish context (Blanchenay et al., 2014).

The Norwegian case serves as an example of national and international public discourse and knowledge mediation that created a window of opportunity for policy reform (the Assessment for Learning policy in Norway [Hopfenbeck et al., 2013]). The disappointing performance of Norwegian 15-year-olds in international tests created a sense of urgency (OECD, 2009; Hallsworth et al., 2011) for the introduction of quality assurance in schools. Much like Germany at that time (Busemeyer and Vossiek, 2015),Norway perceived – without any tangible evidence – that its schools were very good. The school system was highly trusted by politicians and the public and tight accountability was not considered necessary. Public debate in the 1980s and 1990s

revolving around the quality of education and measuring progress set the stage for decentralisation and increased the focus on education performance. The international comparison in OECD's PISA 2000 then marked the tipping point towards a national assessment programme (Hopfenbeck et al., 2013).

In the absence of knowledge exchange processes across schools and governance levels that could have brought together various sources of information, PISA came as a surprise to the Norwegian public, politicians and researchers. Knowledge exchange is as important in priority setting as it is for each of the other stages in the policy cycle. Developed knowledge processes can deliver early indications of issues such as insufficient performance in certain areas of the education system – instead of coming as a surprise as it did in the Norwegian case. This is not limited to international comparison through large scale assessments but can likewise pertain to broader feedback from all levels of governance. With suitable knowledge processes in place, knowledge can be a lever for strategic change and reduce the risk of reactionary responses to external pressures.

Improving policy steering by aligning governance mechanisms

The main focus of policy steering is the selection of appropriate instruments and their adequate implementation. Policy steering includes supporting implementation by mobilising financial resources, human capital and legitimacy. Establishing accountability relations is likewise part of policy steering. Aligning support for implementation with careful pressure to ensure common direction is crucial in policy design (see Table 4.4).

Table 4.4. Elements of analysis: policy steering

Element of analysis	Details
Instruments (support and pressure)	• Which instruments were in place to advance the policy goals and which were intended to support the implementation? • Did support and pressure match each other, or was one element dominant?
Legitimacy and ownership	• Which steps were undertaken to ensure legitimacy? • Did stakeholders show ownership?
Accountability	• Who is accountable for what and to whom?
Sustainability	• Which elements increased the sustainability of the reform's impact?

Source: Based on Table 4.2.

Matching support and pressure

As direct hierarchical steering to achieve policy goals becomes less viable in complex systems, modern education systems require matching a policy's instruments that exert careful pressure with mechanisms that support the policy's implementation.

The German reform (Busemeyer and Vossiek, 2015) exemplifies how competition over financial resources can enable the central level to ensure common direction while at the same time facilitating implementation and adaptation to local context. By communicating the extent of funding available, ear-marked funding creates a guideline for expenditure and reliable expectations at both the central level and among the potential recipients.

Clear communication of the goals of the policy and what is expected of the policy recipients as well as ensuring suitable capacity set the stage for successful implementation: In the German case, a limited number of municipalities competed over ear-marked grants with proposals on how to implement the policy. A list of mandatory elements to implement – with their specific implementation left at the discretion of the applying municipality – and guidelines for the policy's implementation ensured a common direction across participating municipalities.[3] The pressure exerted by the proposal's requirements screened out municipalities with inadequate capacity. The municipalities that were able to secure the programme's grant had a minimum level of capacity to effectively implement the full policy programme. Despite high baseline capacity, success in the German case was still to some extent dependent on previous experiences[4], highlighting the crucial importance of capacity building in implementation (see Chapter 6).

In today's education systems shortcomings in capacity are largely unavoidable due to the diversity of local circumstances, making implementation guidelines to exert pressure and capacity building to support implementation indispensable. A lack of capacity further risks failure to take ownership and responsibility for the implementation of the policy. In the Swedish case, many municipalities were overwhelmed and did not have the capacity to implement their new and radically different responsibilities. The resulting lack of ownership for the policy led many municipalities to set priorities across their responsibilities along traditional lines, sometimes at the expense of education[5] (Blanchenay et al., 2014).

While lump-sum funding provides municipalities with the autonomy to spend funds received from the central level across their budgeting responsibilities, its benefits depend substantially on capacity and political commitment to set priorities adequately. In a context of limited political commitment and shortcomings in capacity, ear-marking funds can provide suitable guidelines to ensure common direction while allowing local governance actors to consider local context in the policy's implementation. This observation moreover exemplifies the fluid character of the policy process across multiple levels: here, policy steering (implementation) on the central level influenced the priority setting process on a lower level of governance.

Aligning instruments

Supporting implementation has a further dimension in that aligning instruments can improve effectiveness and efficiency of a reform, as instruments may rely on the implementation of other instruments in reaching their full potential.

In Flanders (Belgium), attainment targets were introduced based on a political decision to exert prudent pressure over a highly decentralised system. Since their introduction attainment targets have been accompanied by changing political discourses around the nature and character of the attainment targets. The various discourses are based on the different values and interests of the various stakeholders (Rouw et al., 2016).

As the case study finds, attainment targets are unable unfold their full potential in ensuring common direction as they are not matched by supporting instruments – one example being the comparability of performance across schools in relation to attainment targets. Networks and individual schools measure their students' performance through self-developed measures of success and corresponding tests and the Inspectorate in turn holds schools accountable for reaching attainment targets based on information provided by the respective school. While the Flemish Ministry of Education developed validated

tests for schools to increase the comparability of school evaluations and system level achievement of attainment targets, for political reasons schools are not mandated use these tests. While aligning instruments with supporting instruments on a system-level have the potential to increase the effectiveness of policies, the decision to introduce such measures can be a decidedly political matter.

Mobilising legitimacy for policy design and implementation

In complex systems with a diverse range of stakeholders and greater involvement of the public, discourses tend to have a political dimension as multiple convictions and interests meet. Many issues are genuinely political in that they are concerned with core values and no hard evidence exists regarding their solution (so-called "wicked issues", see for example Vermaak, 2009). Outside such issues, trust, communication and stakeholder involvement, particularly in priority setting and policy design, can help mobilising legitimacy of policy steering processes. If actors understand and value the goals of the policy, they are more inclined to assume responsibility for its implementation, which can greatly help the policy to succeed. During the policy design and implementation phases, actors and stakeholders should be collaboratively engaged in adjusting the policy. This can facilitate implementation and capitalise on the knowledge created in the implementation phase to adapt policy in subsequent iterations.

The Flemish case study provides an example for stakeholder involvement in deliberation processes to build legitimacy at the beginning of a policy as well as in subsequent revision of the policy. The introduction of attainment targets applicable to all schools was hotly debated when first suggested as it was perceived to interfere with the guiding principle of freedom of education in Flemish education. To mobilise legitimacy, the design phase of the attainment targets included broad stakeholder consultation and expert input. As a further key measure to mobilise legitimacy against the background of the freedom of education principle, attainment targets were designed as minimum goals to reduce their impact on the autonomy of education providers to shape education (Rouw et al., 2016).

While soft forms of governance are generally meant to build acceptance, the legitimacy of a policy is often context-dependent (Donahue and Zeckhauser, 2006). A policy may be accepted as reasonable by stakeholders and even driven by them when a sense of urgency is widely shared, while it would not be considered appropriate under less pressing circumstances.

In an example from the Netherlands, the public pressure to reduce the number of underperforming schools opened a window of opportunity and lent legitimacy to an otherwise unacceptable policy approach. While the reform exerted great pressure on underperforming schools, the central level's approach was legitimised by public pressure and by the continued non-intervention in schools that were performing well. To increase legitimacy among school governing bodies, the Council of Primary schools was granted a role in the improvement of schools. Nevertheless, while exerting high pressure on underperforming schools – potentially leading to school closure – the policy never directly prescribed measures, safeguarding schoolboards' ultimate autonomy in decisions regarding school issues, thus ensuring legitimacy also among underperforming schools (van Twist et al., 2013).

Enforcing adequate implementation through careful accountability mechanisms

As described earlier, when deploying a soft governance approach to cope with complexity, some pressure to ensure common direction is nevertheless necessary, particularly through constructive accountability mechanisms (see also Chapter 5). In Norway, the education system put enormous trust in teachers with few accountability mechanisms in place. While trust facilitates the introduction of reform in complex systems, the authors of the case study found that "when the system relies wholly on trust and thus has few incentives (or sanctions) for the actors, long-term implementation in the face of resistance becomes problematic" (Hopfenbeck et al., 2013).

While to some extent mitigated by comprehensive communication of the policy's principles and goals, a substantial challenge in the policy implementation in Norway remained reform fatigue among teachers. As individual teachers were not held accountable for conforming to the established guidelines, teachers experiencing reform fatigue had little incentive to engage with the reform's principles and potential benefits. A major success factor for system-wide policies is a cultural shift in day-to-day practices, which relies on all stakeholders moving in a common direction. Here, an accountability system – potentially with horizontal elements (see Box 4.1) – is required to ensure implementation in the face of individual resistance to culture change.

Box 4.1. Horizontal accountability for common direction and capacity building in Germany

Accountability, discussed in greater depth in Chapter 5, does not necessarily mean a strictly hierarchical relationship where lower governance levels deliver an account of their practices and implementation of policy to the central level (Hooge et al., 2012). In the German case, the central level mandated the involvement of philanthropic foundations experienced in education monitoring and network governance. The involvement of these foundations and the creation of monitoring processes created a network of actors holding municipalities and other involved actors accountable.

The involvement of external civil society actors to help build capacity and hold local actors accountable is a very promising approach. A weakness in the approach is that the effectiveness of such horizontal governance networks is strongly dependent on governance culture and, if not already present, the political will to integrate this approach to governance in local decision making processes. For example, the German case study found that the role of the civil society foundations remained unclear in a number of municipalities. Government actors and the foundations themselves had different expectations regarding the foundations' involvement, creating some tension between the actor groups. Some municipalities did not integrate the foundations in actual decision-making, thus limiting the accountability function of civil society. Inclusion of civil society actors, particularly if intended to hold government actors accountable, requires clarity of roles.

Source: Busemeyer and Vossiek (2015),"Reforming education governance through local capacity-building: A case study of the 'learning locally' programme in Germany" *OECD Education Working Papers*, No. 113, http://dx.doi.org/10.1787/5js6bhl2mxjg-en.

The importance of carefully enforcing implementation guidelines is exemplified by the reform of the Polish school supervision system, which faced some initial resistance. The policy reformed school supervision and inspection in Poland to foster formative assessment and stakeholder involvement. The traditional perception of supervision as an

instrument of scrutiny and accountability, rather than a method for improvement, contributed to the anxiety and resistance to change provoked by the new policy. This was particularly true for actors with no prior experience in formative evaluation. Notably, once schools and other actors had experienced the new system of evaluation, anxieties and suspicion regarding the intentions of the reform were largely alleviated.

Both the reform fatigue observed in Norway and the anxiety and suspicion observed in Poland could not be overcome by support alone. Applying careful pressure by holding governance actors accountable for policy implementation within set guidelines can contribute to a change in culture by engaging all actors in working towards common processes.

Achieving a change in culture: sustainability

Deliberate efforts to ensure sustainability are crucial to successful policy implementation in the long term. Strategically important measures to actively ensure policy sustainability – beyond the formal engagement of the central level – was the weakest element across the case studies. Only Germany explicitly included a sustainability element. Here, reform was targeted to selected municipalities which competed for ear-marked grants over a fixed time-frame. The policy required grant proposals to include a plan to sustain the reforms beyond the active funding period. Despite this requirement, only the commitment of the municipal leadership sustained the reforms beyond the duration of the programme (Busemeyer and Vossiek, 2015). This raises important questions about sustainability. Can commitment to a sustainability plan ensure that reforms will be sustained in the long-term? Can long-term culture change be achieved without long-term incentives? (see also Chapter 5 and 6).

Policy learning

Regarding policy learning, it is important to consider how the reform was evaluated and monitored and how actors interact in terms of knowledge exchange and learning (Table 4.5).

Table 4.5. Elements of analysis: policy learning

Element of analysis	Details
Monitoring and evaluation	• Are the reform's processes and outcomes monitored and evaluated? • Were the results used as intended?
Feedback and knowledge processes	• What knowledge exchange processes are in place? • How is feedback incorporated into the governance process?

Source: Based on Table 4.2.

Monitoring and evaluation

Much of the adaptive capacity in policy making depends on the ability of the state to incorporate knowledge into the policy-making process (Pierre and Peters, 2005). Ideally, feedback from the policy is not only gathered during the evaluation stage, but is solicited throughout the entire course of the policy. As reported elsewhere by the OECD, evaluation and continuous monitoring are often the weakest elements in the policy process (OECD, 2009).

While all GCES case studies included some element of evaluation, the rigour with which evaluations were fed back into a policy learning process varied. Ongoing evaluations can steer policy during the implementation phase and adjust policy design as necessary to improve implementation. However, the impact of such evaluations depends on how well governance actors are able to integrate evaluations into policy steering and long term strategy. For instance in Sweden, a number of independent external evaluations identified shortcomings in the implementation early on, particularly in terms of actors' understanding of the policy and their new responsibilities. While these findings triggered efforts to address the problems – for example the central level "published a pamphlet […] intended to help municipal politicians understand and manage their new educational responsibilities" (Blanchenay et al., 2014: 16) – there was no change in the overall strategy guiding the reform, thus leaving the fundamental lack of capacity at the municipal level unaddressed. Importantly, shortcomings identified in evaluations only very slowly led to changes in policy design.

The case studies reveal that some policy designs suffered from a flawed approach to evaluation, limiting the usefulness of evaluation before any evaluation can be carried out. For example in Norway, despite an extensive four-year evaluation, the design of the policy made it difficult to assess impact as no baseline targets of effectiveness were set out during the design of the policy.

Feedback and knowledge processes

The dynamic exchange of knowledge between policy design and policy implementation is particularly important. When feedback is solicited from various governance levels, agencies and societal actors, the central level must manage this feedback and incorporate it into the governance process, particularly in adapting the design of instruments to the realities experienced in local implementation (Pierre and Peters, 2005). A positive example of iterative improvement of a policy integrating feedback from stakeholders is exemplified in the Flemish case study. The development and revision of attainment targets relies on deliberation in the framework and design committees consisting of stakeholder representatives. Additionally, attainment targets are discussed in the Flemish Education Council which comprises key stakeholders in education and is to be consulted before every legislative decision.

Successful knowledge management and dissemination which guided policy adjustments on an ongoing basis was observed in the German case study. The German LvO policy was conceptualised as a "learning programme". Different from the Flemish case study, where iterations of the policy are carried out periodically, in the German case an independent research institution "constantly monitored the evolution of LvO and gave feedback to localities and the central level" (Busemeyer and Vossiek, 2015: 36). This allowed the central level to gather information and incorporate feedback to improve policy design, while the municipal level had access to information beyond their local context and best practices from other municipalities. Integrating an institution bound by scientific rigour facilitated its role as a knowledge mediator. Municipalities acknowledged the institution's role in facilitating the exchange of knowledge rather than regarding it as an enforcement mechanism.

Monitoring via indicators without the support of flexible knowledge mediation between the central and local levels of government may not capture the complexities and nuances of the system (Hooge et al., 2012). This is exemplified by the Netherlands. Here, the policy to label underperforming schools based on hard output indicators was intended

to pressure schools to improve. For many schools the label of (very) weak assigned by the inspectorate came as a surprise (van Twist et al., 2013). This indicates that schools, while aware of the sanctions when not meeting performance standards, were unaware of the standards for adequate performance. This in turn highlights the need for dynamic and ongoing knowledge exchange and capacity building. Similar challenges were observed in Flanders (Belgium), where schools and particularly teachers were not always sure on which basis the inspectorate would evaluate the school, whether the inspectorate would focus on the more centrally set attainment targets or on the learning plans specific to a network of schools.

Building a culture of evaluation

Integrating knowledge mediation and exchange in governance processes is a cornerstone of governing complex systems. Systems that incorporate diverse knowledge in their governance processes and use knowledge for meaningful policy learning fare better in terms of successful implementation than those that do not. For example, in Germany and Norway local actors that engaged in knowledge sharing with local experts and peers were more successful in implementing reforms. Similarly, in Poland, schools that had previous experience in formative assessment and self-evaluation showed greater commitment to the reform than those who were traditionally exposed to less involved evaluation. All three cases revolved around building a culture of evaluation and improvement firmly resting on educational monitoring, a holistic view of knowledge and stakeholder involvement.

In building a culture of evaluation, the baseline cultural context plays an important role in determining the time and effort required to achieve a change in culture. In Poland, the implementation of a new policy raised anxiety about the benevolence of the new inspection system. Supervision and school inspection were in the past perceived as intrusive and a tool of potentially harmful scrutiny. In the context of limited trust in the central level, the intended culture change required more time and effort devoted to all the elements of support outlined above to reduce anxiety: communication, stakeholder involvement, and guided collaboration and knowledge exchange.

Conclusion and recommendations

This chapter argued that in pursuit of successful policy outcomes, the central level needs to balance the pressure it exerts to steer the policy with the support it provides to local governance levels in implementation and adaptation to improve policies. This includes facilitating the production and use of knowledge as well as managing information flows across all levels of governance and among all societal actors. Among the key enablers is an organisation of governance processes to be loose enough to enable actors to act according to local needs, but tight enough to ensure a coherent policy. Three broad themes for successful policy implementation can be identified from the synthesis of the GCES case studies.

Firstly, successful reforms established firm guidelines regarding goals and outcomes within which the local level was able to exert broad discretionary powers. By ensuring consistency of approaches, careful accountability mechanisms can improve implementation, for example, in the face of reform fatigue. Secondly, extensive capacity building and mobilising legitimacy and ownership support the exercise of local autonomy during policy implementation. Both knowledge exchange and collaboration for improvement across governance levels are important. Thirdly, a culture of evaluation

across all levels and across the policy cycle is vital for policy learning. Only when knowledge is produced and exchanged and consistently fed back into the policy process can genuine policy learning be achieved. The following section provides a series of recommendations derived from this chapter's analysis of the GCES case studies.

Establishing and aligning guidelines and supporting local self-sufficiency in implementation

The value of establishing firm guidelines and expectations is demonstrated by Germany and Norway. In Germany, a voluntary competition for ear-marked grants established the rules for the policy, as the grant proposals were required to include detailed plans for implementation. In Norway, the particular implementation of the reform was left to local actors. Supported by guidelines and principles, schools were required to report how they planned to ensure implementation and sustainability. That is, the guidelines were designed to be tight enough to ensure common direction and loose enough to adapt to local circumstances. In the Netherlands, the central level offered a variety of support mechanisms available on request from schools. While the policy increased the pressure on underperforming schools, these schools nevertheless remained at liberty to decide on the degree and type of support.

Recommendations

- Provide actors with adequate resources to enable them to focus on implementation adequate to local contexts.
- Build local capacity for self-governance. Disseminate support documents and examples of good practice to facilitate the effective and efficient organisation of governance processes at the local level.
- Guide and assist processes of local priority setting; provide guidance particularly to actors with a weaker starting point in terms of capacity to prevent overload and inefficiencies.
- Align programmes and initiatives to avoid competing priorities. Prioritise objectives and clarify how different policies work together to advance national goals and strategy.
- Align goal setting and knowledge production and use through clear lines of responsibility. Accountability processes need to match roles and responsibilities and rely on a rounded picture of performance.

Communication and capacity building to mobilise legitimacy and inspire ownership

Clarification of the purpose and goals of the policy through dialogue and communication played the most important role in inspiring ownership and mobilising legitimacy, though capacity building, horizontal knowledge exchange and stakeholder involvement were also important.

Legitimacy and ownership are key ingredients of successful implementation. The case of Norway demonstrated that overall approaches focusing on dialogue and communication promoted ownership and responsibility for the adoption of the policy's practices on the school level. In the Netherlands, the inspectorate's label of (very) weak assigned to a school was found to be more likely to trigger a virtuous cycle in cases where

the school's community took ownership and accepted a shared responsibility to improve the school. In this, the school's communication of the improvement efforts and processes were key factors. The Swedish case study identified insufficient communication of the policy's purpose and goals, but also insufficient assistance for collaboration and knowledge exchange as barriers to the success of the policy.

In Flanders (Belgium), the active involvement of so-called networks – which represent schools with the same mission (for example based on religious denomination) – in the design and revision of attainment targets was found to be a key factor in fostering understanding, ownership and legitimacy. However, despite these efforts on an intermediate level of governance, local stakeholders such as teachers and school leaders were less involved in communication efforts and participatory governance processes, and were found to lack a clear understanding and ownership of the policy.

Beyond these approaches to inspire ownership and legitimacy, implementation should be supported by careful accountability mechanisms, with respect to the sustainability of the policy, beyond the programme's formal duration. For example, the German case study revealed that implementation of the policy was largely dependent on political will at the local level with some municipalities failing to show continued commitment and ownership in the longer term.

Recommendations

- Facilitate collaboration and exchange of best practices by establishing fora for knowledge exchange, encourage use of existing platforms and promote networks of well-performing local actors and actors who struggle with the implementation of collaborative practices and knowledge exchange.
- Create knowledge exchange agencies – such as centres with expertise on assessment evaluation – to build system-level capacity. These agencies can work closely with practitioners to identify needs for capacity building and ways to integrate stakeholders in capacity-building processes (see also Cordingley, 2016; OECD, 2007).
- Promote exchange between schools and municipalities that already have experience with inclusive governance structures and less experienced local communities.

Creating a sustainable culture of evaluation

Sustained improvement depends crucially on a change in culture. This can involve overcoming legacies in evaluation and accountability traditions. In the Polish case, despite strengthening self-evaluation, school supervision reform was met with resistance as schools traditionally perceived inspection and evaluation as potentially disruptive to the school's work. In Germany, local stakeholders were accustomed to hierarchical accountability and local actors anticipated closer scrutiny as part of the new educational monitoring and horizontal accountability mechanisms. Overcoming these legacies takes time, direction and lasting incentives.

Recommendations

- Emphasise the development of tools and procedures for evaluation; create networks and mentoring relationships.

- Provide specific capacity building regarding the adequate use of achievement and assessment data.
- Change in the institutional culture needs to follow strategic vision and allow sufficient time to consolidate; support stakeholders in cultural change beyond the formal end of a policy, for example by nurturing new stakeholder coalitions.
- Combine quantitative data, education research and practitioner knowledge to utilise a broad base of knowledge. Support the development of a usage culture for quantitative data; link the contribution of evidence-based policy-making and monitoring to local dialogue about education reform.

Notes

1. Giving an example from the health sector in the United Kingdom, Hallsworth et al. (2011) describe a case where a guiding strategy of economic soundness of health policy was overturned in an influenza epidemic in 1999 to 2000. Numerous hospitals were financially overstretched, prompting politicians to promise to "significantly increase real investment in the Health Service" (p. 44). However, as a former government minister described, "we ended up giving this extra money to the Health Service over a three or four year period without any real view about how you would spend it" (p. 44).
2. On the continuum between "hard" and "soft" approaches to governance, Wilkoszewski and Sundby (2014) list the following as hard mechanisms: binding regulations, direct intervention by the central level, ear-marked financing and an approach to governance where ideas are uncontested.
3. While municipalities were free to decide the specific implementation, these strategies had to be described in the proposal and were subject to a jury evaluating the feasibility and potential effectiveness before funding was granted (Busemeyer and Vossiek, 2015).
4. Contributing to the policy's success, the central level provided workshops and knowledge exchange measures to improve policy implementation at the local level beyond the starting level of capacity. Nevertheless, previous experience in education monitoring – one of the main goals of the policy programme – proved to be a substantial facilitator of success in implementing the analysed policy (Busemeyer and Vossiek, 2015).
5. Education funds were merged into lump-sum funding based on a redistribution scheme to account for the economic circumstances of municipalities.

Annex 4.A1: case studies' full descriptions across policy cycle

Table 4.A1.1 Case Study: Flanders (Belgium)

Stages of the policy cycle	Elements of analysis
Priority setting	• **Actors** The revision of attainment targets is a political process with diverse stakeholders involved in multiple forums throughout the priority setting process. • **Drivers** Against the background of the freedom of every (legal) person to provide education based on individual educational approaches and teaching methods as well as free school choice (freedom of education), the government is mandated to ensure that "all children in the Flemish community have access to high-quality education regardless the part of the region they live in or the school they attend" (Rouw et al., 2016: 11); prompting the government to install attainment targets as minimum educational goals.
Policy steering (design and implementation)	• **Instruments (pressure, support)** Soft forms of governance are dominant. The ratification of attainment targets rests with the Flemish parliament to avoid partisan influence through changing majorities in government. The Inspectorate oversees the quality of education, resting its evaluation of school performance on information provided by the schools. • **Legitimacy and ownership** The development and revision of attainment targets relies on deliberation in framework and design committees and in the Flemish Education Council, where key stakeholders in education engage in discussion; consultation is mandatory before every legislative decision. • **Accountability** The Inspectorate oversees the quality of education, resting its evaluation of school performance on information provided by the schools. Faced with parents' free choice of schools, schools are intended to take responsibility for improvement and self-assessment, and make use of their autonomy to improve their processes. Local stakeholder involvement in various councils is mandatory under certain conditions and generally common. However, substantial involvement may remain limited in practice, particularly regarding students. • **Sustainability** The freedom of education principle and responsibility of schools to improve are ingrained in the Flemish governance culture. Attainment targets are in process of recurring revision in order to adjust them to the reality of changing demands to education. However, gaps in capacity of schools to engage in self-directed assessment and improvement in relation to the attainment targets impedes sustained implementation of attainment targets in teaching practice.
Policy learning	• **Monitoring and evaluation** Due to the freedom of education principle, which safeguards the autonomy of schools and networks, the Flemish system is characterised by diverse national standardised and individual local approaches to monitoring, which remain uncoordinated. • **Feedback and knowledge processes** The attainment targets are intended to be revised based on implementation experiences in processes involving a broad range of stakeholders. Pedagogical advisory services as a part of network organisations help schools to develop learning plans based on attainment targets and are closely involved in the revision of attainment targets themselves.

Source: Rouw et al. (2016), "United in diversity – A complexity perspective on the role of attainment targets in quality assurance in Flanders: A GCES case study of Flanders (Belgium)", *OECD Education Working Papers,* No. 139.

Table 4.A1.2 Case Study: Germany

Stages of the policy cycle	Elements of analysis
Priority setting	• **Actors** Central level • **Drivers** Continuing efforts to promote governance through local networks. The relatively small amount of funds involved together with the small scope (selected municipalities) contributed to broad support.
Policy steering (design and implementation)	• **Instruments (pressure, support)** Ear-marked grants were offered to a limited number of municipalities. Municipalities competed over funds based on a list of preconditions to ensure direction of the policy. Successful claimants were offered capacity building workshops and ongoing dialogue over the course of implementation. • **Legitimacy and ownership** Philanthropic foundations with expertise on educational monitoring and network based education governance were included and contributed to legitimacy. The policy "aimed at mobilising the political support of […] local government by allowing only local governments to submit proposals (and not other local institutions) with the aim of ensuring the sustainability of programme elements beyond the end of the official funding period" (Busemeyer and Vossiek, 2015: 10). • **Accountability** "The programme did not change the formal distribution of competencies between different levels of government, although it has supported reforms of structures within local administrations" (Busemeyer and Vossiek, 2015: 51). • **Sustainability** The "voluntary and bottom-up approach exemplified by LvO can be an effective policy instrument to promote change at the local level. Given the legal limitations and the limited budget of the programme, its effects on local governance structures are impressive." (Busemeyer and Vossiek, 2015: 8). The "bottom-up strategy of creating and supporting […] role models […] and then promoting the transfer of best practice models to other local governments is likely to be more successful and sustainable in the long run compared to hierarchical top-down approaches […] in the context of decentralised education systems" (Busemeyer and Vossiek, 2015: 51).
Policy learning	• **Monitoring and evaluation** A "significant scientific evaluation component […] constantly monitored the evolution [of the policy], and gave feedback to localities and the central level" (Busemeyer and Vossiek, 2015: 29). "The implementation [of the policy] was accompanied by a large-scale scientific evaluation of its effectiveness; and there was a feedback process between the academics […] and the policy-makers" (Busemeyer and Vossiek, 2015: 51f). • **Feedback and knowledge processes** Philanthropic foundations with expertise on educational monitoring and network based education governance were included and contributed to knowledge exchange. Feedback process between the academics in charge and the policy-makers. The programme was flexible and adjustable enough to take in new insights" (Busemeyer and Vossiek, 2015: 51f).

Source: Busemeyer and Vossiek (2015), "Reforming education governance through local capacity-building: A case study of the 'learning locally' programme in Germany" *OECD Education Working Papers*, No. 113, http://dx.doi.org/10.1787/5js6bhl2mxjg-en.

Table 4.A1.3 Case Study: The Netherlands

Stages of the policy cycle	Elements of analysis
Priority setting	• **Actors** Central level, media, public discourse. • **Drivers** The assessment of schools with the labels "normal", "weak" and "very weak" was initially intended for the school inspectorate only. After a political decision was made to publicise the results, media and public pressure created a sense of urgency for the central level to initiate interventions on weak/very weak schools.
Policy steering (design and implementation)	• **Instruments (pressure, support)** The policy "to assess and improve (very) weak schools is uncharacteristically top-down for the Netherlands" (van Twist et al., 2013: 22). Primary instruments are Inspectorate personnel assessing the school; ear-marked grants for improvement and school monitoring exert pressure. Support measures are available by a 'Flying Brigade' (external to the Inspectorate to improve legitimacy) and need to be requested by respective school. • **Legitimacy and ownership** The reform's legitimacy is addressed by limiting the reform's interventions to underperforming schools. To the same end, support measures to help schools improve are not mandated but subject to the school boards' request. They are designed as recommendations to be adapted to the schools specificities. • **Accountability and enforcement** Schools are held accountable based on output indicators. Persistent underperformance measured by indicators leads to flagging as a "weak school" and ultimately closure if performance does not improve within fixed time-frame. • **Sustainability** The policy can be considered successful as the majority of schools return to being labelled as "normal" in most cases after the set recovery period of two years and the total number of schools labelled (very) weak has been reduced.
Policy learning	• **Monitoring and evaluation** The inspectorate's mandate is limited to supervision to not interfere with school autonomy and as such has to refrain from recommendations and collaboration. The policy has been evaluated externally. • **Feedback and knowledge processes** The policy uses a fixed time-frame to re-evaluate the schools' labelling. As the label of "weak school" is tightly linked to close supervision measures affecting all activities of the school, student learning is reduced: "Even if the school improves well before the two-year time limit, children remain exposed to very poor levels of education for an extensive period of time" (van Twist et al., 2013:11).

Source: van Twist et al. (2013), "Coping with very weak primary schools: Towards smart interventions in Dutch education policy", *OECD Education Working Papers* No. 98, http://dx.doi.org/10.1787/5k3txnpnhld7-en.

Table 4.A1.4 Case Study: Norway

Stages of the policy cycle	Elements of analysis
Priority setting	• **Actors** Central level, public discourse • **Drivers** Public discourse over perceived crisis in education and the publication of the first iteration of OECD's Programme for International Student Assessment (PISA) led to a sense of urgency to reform.
Policy steering (design and implementation)	• **Instruments (pressure, support)** "Within the framework of the Assessment for Learning programme, a set of tools was developed that included an online platform where teachers and school leaders could access information on best practices. Smaller municipalities in particular reported that this tool helped them to implement the programme goals" (Hopfenbeck et al., 2013: 9). • **Legitimacy and ownership** "The programme was developed by the Directorate of Education and Training (DET) with a heavy emphasis on participation and dialogue, a strategy which can be seen as part of the Norwegian philosophy where all participants need to feel a sense of ownership of the approach to implementation for this to work in practice" (Hopfenbeck et al., 2013: 11). • **Accountability** The "system relies wholly on trust and thus has few incentives (or sanctions) for the actors [so that] long-term implementation in the face of resistance becomes problematic. School leaders must involve the teachers in the process of developing school cultures based on a real understanding of the intentions and principles of AfL. […] There is still a lack of understanding regarding the government's intentions and teachers have not developed a common understanding [of the policy]" (Hopfenbeck et al., 2013: 61). • **Sustainability** While the policy can be considered successful there is room for improvement particularly in terms of capacity (particularly regarding internal evaluation) and with respect to enforcement when facing resistance.
Policy learning	• **Monitoring and evaluation** While the programme sought to introduce internal evaluation as means for improvement, external evaluations showed "that the evaluation capacity of school owners needs to be strengthened so that evaluation can be used as a tool for quality improvement" (Hopfenbeck et al., 2013: 26). • **Feedback and knowledge processes** "The establishment of learning networks between schools aided the exchange of knowledge and provided peer support in the implementation process" (Hopfenbeck et al., 2013: 9).

Source: Hopfenbeck et al. (2013),"Balancing trust and accountability?", The assessment for learning programme in Norway: A governing complex education systems case study", *OECD Education Working Paper* No. 97, http://dx.doi.org/10.1787/5k3txnpqlsnn-en.

Table 4.A1.5 Case Study: Poland

Stages of the policy cycle	Elements of analysis
Priority setting	• **Actors** Independent education experts, the Supreme Chamber of Control (Supreme Audit Institution of Poland) and international organisations (e.g. OECD). • **Drivers** Public discourse between independent education experts, the Supreme Chamber of Control (Supreme Audit Institution of Poland) and international organisations such as the OECD.
Policy steering (design and implementation)	• **Instruments (pressure, support)** The main instruments in the reform were regulations to ensure intended implementation: "the reform encouraged teamwork, democratisation and transparency, exemplified by the evaluation method and inclusion of different groups. […] Usually […] changes concerned the administrative or legal regulatory level […] and were sometimes focused on work organisation. […] the reform forced the introduction of data-based decision-making procedures into the schools' daily reality (Mazurkiewicz et al., 2014: 8). Inspectors underwent capacity building to implement the policy. • **Legitimacy and ownership** While schools sometimes voiced concerns about the new supervision policy (particularly those with little experience in internal evaluation, which was one of the core principles of the policy), reservations mostly subsided after the respective school had had experienced the new supervision mode. However, the chief inspectors lacked ownership: "one possible explanation for the discrepancies reported in the perceptions of chief inspectors from those of the headmasters and inspectors might be that they [the chief inspectors] were not given the possibility for feedback in the early stages of the reform, and so thus felt less ownership of its initial design and aims" (Mazurkiewicz et al., 2014: 24). • **Accountability** "Transparency and comparability were guiding themes for the implementation of the reform. New processes of evaluation and their results were […] communicated to the stakeholders who were directly involved, such as headmasters, inspectors and teachers, but also to other actors in the school community (parents and students) and the general public and media. Thus, the reform introduced a new element of public accountability and social oversight to the system" (Mazurkiewicz et al., 2014: 37). • **Sustainability** The reform can be considered successful in that it triggered substantive changes in the intended direction. After initial reluctance among stakeholders, most schools perceive the new inspection scheme as fair and improved. However, the intended change in culture is still at its beginning.
Policy learning	• **Monitoring and evaluation** Central to the policy was "creating a nationwide system of monitoring the quality of the education system". • **Feedback and knowledge processes** Implementation of the new policy was accompanied by scientific institutions (Jagiellonian University in Krakow and Centre for Education Development). The chief inspectors "were not given the possibility for feedback in the early stages of the reform" (Mazurkiewicz et al., 2014: 24).

Source: Mazurkiewicz, Walczak and Jewdokimow (2014), "Implementation of a new school supervision system in Poland" *OECD Education Working Papers* No. 111, http://dx.doi.org/10.1787/5jxrlxrxgc6b-en.

Table 4.A1.6 Case Study: Sweden

Stages of the policy cycle	Elements of analysis
Priority setting	• **Actors** The central level initiated a decentralisation to the municipal level. • **Drivers** A change in government opened a window of opportunity for reform.
Policy steering (design and implementation)	• **Instruments (pressure, support)** Instruments are focused on support: Block-grants are distributed based on need to all municipalities. Lump-sum funds are to be freely distributed by municipalities across their responsibilities. The central level decided not to engage in capacity building to allow full autonomy of municipalities in handling their new responsibilities. Although school choice was introduced to exert pressure on municipalities to improve their education systems, it did not have the intended impact; parental school choice was predominantly based on factors other than performance. • **Legitimacy and ownership** Acknowledging the strong egalitarian traditions in Norwegian society, legitimacy of the decentralisation reform was ensured by foregoing sanctions if educational goals were not met by municipalities. Municipalities were found without taking ownership of their new responsibilities: "The decentralisation took place too quickly and without enough support from the central authorities. […] The lack of internal discussion within municipalities resulted in some ambiguity among municipal leaders as to what the new responsibilities really entailed, and how they would be divided internally among the various municipal stakeholders" (Blanchenay et al., 2014:12). • **Accountability** While municipalities were formally accountable for the achievement of educational goals, this accountability was not enforced to safeguard autonomy. • **Sustainability** The policy did not have the envisioned success; rather, education quality has further deteriorated.
Policy learning	• **Monitoring and evaluation** Lack of capacity and ownership resulted in underdeveloped monitoring systems in most municipalities (particularly smaller ones), who resorted to using truncated indicators. While national standardised tests are widely and frequently employed, they are underused as tool for comparison and improvement. • **Feedback and knowledge processes** Municipalities were intended to develop their own monitoring and evaluations systems and make use of other input to improve their local education systems. However, municipalities engaged in ad-hoc governance processes unsuited for knowledge exchange processes and peer learning across municipalities. Regarding knowledge processes on municipal level, "important decisions are often taken at the higher level of the municipal hierarchy […] with little input from head teachers and education experts, who may have a more appropriate knowledge of education in general and of the local conditions of the municipalities' schools" (Blanchenay et al., 2014: 35).

Source: Blanchenay, Burns and Köster (2014), "Shifting responsibilities – 20 years of education evolution in Sweden: A governing complex education systems case study", *OECD Education Working Papers* No. 104, http://dx.doi.org/10.1787/5jz2jg1rqrd7-en.

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Chapter 5.

Ensuring accountability in education

While many OECD education systems have been decentralised – giving schools and local school authorities greater autonomy to accommodate citizens' needs – ministries of education remain responsible for ensuring high-quality education for all. Setting up a system of accountability that productively reconciles tensions and conflicts in this environment is a challenge for many education systems, as they must simultaneously integrate diverse stakeholder demands and make evidence informed decisions. This chapter describes the various forms accountability can take and discusses deficits and tensions regarding accountability in education systems. Based on examples from the GCES case studies, the chapter addresses the crucial importance of capacity building for actors facing multiple accountability demands and emphasises the need to align accountability mechanisms to serve the purpose of systemic learning and improvement.

Introduction

In education governance, the central level is held accountable for ensuring that the system provides high quality, efficient and equitable education. At the same time, decentralised decision-making processes – introduced to enable better steering at the local level – make it important to ensure that the various elements of the system work toward achieving common goals. The need to incorporate more and increasingly diverse stakeholders, to base decisions on empirical evidence and to cope with system complexity also presents challenges with respect to maintaining a system-wide focus on common goals. The priorities of teachers, students and other (local) stakeholders may not always be in line with the regulatory demands of the central level, which can create tensions if stakeholders are to be integrated into accountability and governance processes (Hooge et al., 2012).

Accountability systems specify *who* is answerable *to whom* and *for what*. The central level develops an accountability system to ensure that decisions taken by other governance actors are in line with centrally set objectives and standards. Accountability systems are also developed at the local level to govern the work of schools and teachers and to ensure that labour relations and teaching practices adhere to established guidelines.

The chapter is structured as follows. The first section provides an overview of the forms accountability can take. It problematises inadequacies in accountability stemming from trends in governance and discusses the tensions that result when actors are answerable to multiple levels of governance and to various stakeholders. The subsequent section introduces the GCES case studies, which illustrate how accountability mechanisms can be shaped to address inadequacies and reconcile tensions. This is followed by a discussion on the importance of building a culture of evaluation and the role of accountability in facilitating improvement and learning. The final section presents policy implications.

Forms, deficits and tensions in accountability systems

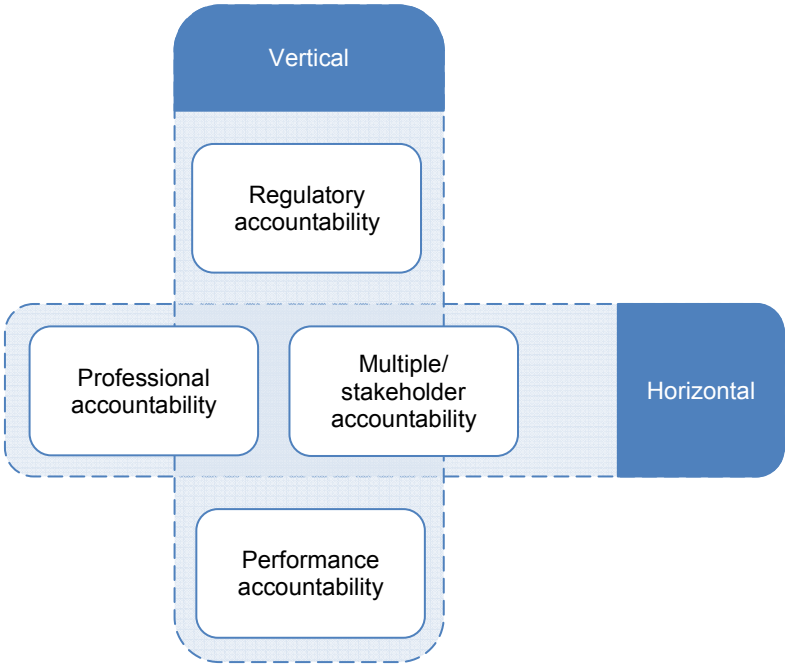
A well-aligned accountability system provides guidance regarding the expectations and responsibilities of actors. Accountability mechanisms can take different forms that are often used together in a mutually supportive fashion.

Forms of accountability

Following Hooge, Burns and Wilkoszewski (2012), accountability systems can broadly be categorised as vertical or horizontal. *Vertical* accountability is hierarchically organised and has two main forms, regulatory and performance accountability. *Regulatory accountability* aims to enforce compliance with government regulations and laws. *Performance accountability* is designed to improve performance by measuring the achievement of schools. Performance accountability has shifted in recent years from a reliance on summative indicators, provided primarily by student assessments, to gathering broader data (OECD, 2013). Today, monitoring systems aim to combine varied information, such as "external school evaluation, appraisal of teachers and school leaders, and expanded use of performance data" (OECD, 2013: 13). This shift has allowed for more broadly based monitoring of education and provides the information used for evidence-informed policy making.

These vertical measures of accountability are complemented by a second broad category of accountability, *horizontal* accountability, which is characterised by non-hierarchical relationships outside the government bureaucracy. Horizontal accountability pertains, for example, to teachers holding their peers accountable for their respective practices (*professional accountability*) (see also Köster, forthcoming), and the public and other stakeholders holding local education providers, such as schools, schools boards and private providers, directly accountable for education. Due to the direct and substantial involvement of numerous and diverse stakeholders, this approach is known as stakeholder accountability or, as such mechanisms are intended to work alongside vertical accountability mechanisms, as multiple accountability (see Figure 5.1. for an example at the levels of schools, see Hooge et al., 2012).

Figure 5.1. Vertical and horizontal forms of accountability in education



Source: Based on Hooge et al. (2012), "Looking beyond the numbers: Stakeholders and multiple school accountability", *OECD Education Working Papers*, No. 85, http://dx.doi.org/10.1787/5k91dl7ct6q6-en.

Deficits and shifts in accountability processes

In today's decentralised education systems, organising and aligning different accountability mechanisms has become increasingly important due to the increased involvement of a broader range of actors in education governance. While the inclusion of diverse stakeholders serves to strengthen community involvement and the legitimacy of the process, it also allows two accountability deficits to emerge, as outlined below.

A first accountability deficit: difficulties in holding non-governmental actors accountable

Decentralisation and a number of other governance trends, such as expanding school choice, have increased the autonomy of non-governmental actors in education

governance. For example, school governing boards tend to be made up of unelected stakeholders who cannot be held accountable through the electoral process. The *first accountability deficit* hence pertains to the legitimacy of private governance actors who are difficult to hold accountable by the public for their decisions or performance (Hooge et al., 2012; see also Theisens, 2016).

Decentralisation and increasing local autonomy create challenges for steering the education system as a whole. Coinciding with a widespread shift in focus towards improving education performance, accountability systems have shifted from focusing predominantly on regulatory compliance towards accountability based on measured performance.[1] Such performance accountability systems are now commonly used in a majority of OECD countries (Hooge et al., 2012). In such systems, central levels rely to a large extent on performance indicators to monitor, control, and steer the direction of education. These systems aspire to deliver relatively objective and clear comparisons across schools and other actors in the education system. While they mitigate the first accountability deficit to some extent, performance-based accountability systems lead to a *second accountability deficit,* as they often fail to capture the full range of outcomes education is intended to produce.

A second accountability deficit: measuring the full range of education outcomes

The drawback of school performance accountability is that standardised tests do not measure the full range of outcomes that schools strive to achieve, including social skills, social inclusion and preparation for the labour market (Hooge et al., 2016). As performance accountability mechanisms focus on *outcomes,* they create incentives for meeting specified performance goals. As such, they provide little incentive to explore processes of teaching and learning themselves, or the kinds of social and emotional skills which are also important for educational and life success.

On the level of teaching practice, Holmstrom and Milgrom (1991) argue that systems using rewards and sanctions based on measurable outcomes create complex and possibly undesired incentives. This is exacerbated by problems in measuring and comparing outcomes even of seemingly objective elements of education such as scores in standardised tests (see e.g. Baker, 2013; Papay, 2011). Teaching is characterised by a great variety of responsibilities in the classroom, which presents difficulties for identifying causes of successes and failures concerning student learning (O'Day, 2002; Darling-Hammond, 1997).

Integrating stakeholders' perspectives for a more complete picture of education performance

Integrating the public and local stakeholders in governance and accountability processes is a promising avenue for mitigating the accountability deficits described above and thereby improving education. The involvement of citizens can improve input legitimacy by providing a direct-democratic element to local governance (e.g. Gutmann, 1987) which can, to some extent, mitigate the first accountability deficit. The direct integration of stakeholders in combination with vertical accountability mechanisms can also mitigate the second accountability deficit by including perspectives beyond those measurable by performance indicators.

Governing bodies such as committees and councils that actively involve parents, students and other members of the community enable stakeholders to voice their needs and incorporate these in decision-making processes. Involving community members has

the advantage of integrating diverse knowledge and experience, potentially providing new insights that may have been previously overlooked by schools and local administrators (Hooge et al., 2012; Fung and Wright, 2001). The different limitations of horizontal and vertical accountability mechanisms call for efforts to integrate both. Integrating stakeholders into an accountability system can fill in the gaps of vertical accountability mechanisms, but this requires a coherent approach to accountability to manage contradictions and tensions (Hooge et al., 2012; see also O'Day, 2002).

From deficits to tensions in accountability

Developing a constructive accountability system that combines strong vertical measures of accountability with other forms of stakeholder feedback is necessary but not sufficient. A constructive system also deploys the various mechanisms in a coherent manner. Aligning the array of accountability pressures as well as ensuring adequate capacity to cope with accountability tensions on each level is vital. Hooge and colleagues (2012) describe three dimensions on which accountability tensions can arise:

1. Tensions within vertical accountability: tensions can arise between different levels of governance when actors face competing accountability pressures from different levels of government. For example, the municipal level and the national level may initiate different programmes with competing demands for which schools are held accountable. These accountability pressures are potentially conflicting if not aligned and if there is insufficient capacity on the local level to prioritise competing demands.
2. Tensions between horizontal and vertical accountability processes: tensions may arise when accountability pressures from hierarchical governance levels conflict with horizontal pressures from (multiple) stakeholders. For example, local stakeholders may favour school practices not compatible to system level goals for which the school is held accountable by the central level. Integrating stakeholder demands into local policy can produce tensions between accountability pressures from central levels and local levels (e.g., parents, community members, students and the public).
3. Tensions within horizontal processes between different stakeholders: tensions may arise when accountability pressures from different stakeholders come into conflict. For example, this may occur when the public's involvement in school governance processes is perceived to infringe on the professional discretion of teaching staff. Based on their specialist knowledge, there may be some areas in which teachers are better equipped than parents to shape school governance. This may make the integration of different perspectives in school governance decisions difficult and raise issues of power and trust (Hooge et al., 2012).

Managing accountability in practice: The GCES case study series

How can these tensions and deficits be resolved in the busy environment of real-world policy making and education? The six case studies produced over the course of the Governing Complex Education Systems (GCES) project can serve as important examples and provide valuable insights into how governance works in practice. The studies follow the entire policy process from the genesis of a reform to its evaluation.

Accountability plays an important role in each of these case studies. They range from the introduction of comprehensive educational monitoring in Germany to greater

stakeholder involvement in school assessment practices in Poland. Common to all is that the studies focus on governance reforms in highly decentralised systems, each of which has an accountability dimension (see Table 5.1 for an overview).

Table 5.1. GCES case studies and accountability

Case study	Focus	Background and accountability processes
Flanders (Belgium)	Schools	Fundamental to Flemish education is extensive school autonomy and free school choice. Schools are held accountable for adhering to attainment targets as minimum educational goals, which are periodically revised.
Germany	Municipalities	In a system based traditionally on vertical accountability, the reform introduced horizontal forms of accountability alongside comprehensive educational monitoring. The policy focused on voluntary participation and funding ear-marked for implementing educational monitoring.
The Netherlands	Schools	The reform gave more power to the Inspectorate to hold schools accountable for their performance; underperforming schools can be closed down if they do not improve within a given time period.
Norway	Schools	Within a culture of consensus in decision-making and high levels of trust in teachers, the reform introduced a new learning assessment system to increase the focus on improvement. Key points of the reform were the introduction of vertical accountability mechanisms based on student testing and the increase of formative assessment practices for students.
Poland	Regional school inspectorates, schools	The policy reformed school inspection and supervision to foster greater stakeholder involvement in school assessment practices and promote a culture of evaluation, including self-evaluation and reflection and formative assessment practices.
Sweden	Municipalities	The reform intended to increase local responsiveness through fundamental decentralisation accompanied by a liberalisation of school choice. While the policy included an extensive shift towards student testing to monitor performance, accountability pressures were minimal.

Source: GCES case studies, Flanders (Belgium): Rouw et al. (2016), "United in diversity – A complexity perspective on the role of attainment targets in quality assurance in Flanders: A GCES case study of Flanders (Belgium)", *OECD Education Working Papers* No. 139; Germany: Busemeyer and Vossiek (2015), *OECD Education Working Papers*, No. 113, http://dx.doi.org/10.1787/5js6bhl2mxjg-en; The Netherlands: van Twist et al. (2013), *OECD Education Working Papers,* No. 98, http://dx.doi.org/10.1787/5k3txnpnhld7-en; Norway: Hopfenbeck et al. (2013), *OECD Education Working Papers*, No. 97, http://dx.doi.org/10.1787/5k3txnpqlsnn-en; Poland: Mazurkiewicz, Walczak and Jewdokimow (2014), *OECD Education Working Papers*, No. 111, http://dx.doi.org/10.1787/5jxrlxrxgc6b-en; and Sweden: Blanchenay, Burns and Köster (2014), *OECD Education Working Papers*, No. 104, http://dx.doi.org/10.1787/5jz2jg1rqrd7-en.

The following sections highlight the approaches used in the GCES cases studies to address the accountability deficits and tensions described above while fostering sustainable innovation and improvement. Successfully achieving both accountability and improvement depends on three factors:

1. Aligning vertical and horizontal processes of accountability. Incorporating a broader perspective requires vertical accountability mechanisms to accommodate and encourage horizontal accountability demands. Compliance with vertical accountability should not be detrimental to horizontal engagement with local stakeholders.

2. Building the capacity of local governance actors to gather, use, and add to data by engaging with stakeholders and integrating local demands. Sufficient capacity is needed to avoid being constrained by particular interests (and groups representing particular interests) or by beliefs that emerge from limited experiences (for example, from one's own experiences as a student) (Hooge, 2016).
3. Aligning vertical accountability pressures (for example, programmes originating from different levels of governance) so they avoid competing with one another, which can lead to efficiency losses (Hooge et al., 2012).

Aligning vertical and horizontal accountability mechanisms

Two issues are of particular importance regarding potential tensions between vertical and horizontal accountability mechanisms: a potential ambiguity of responsibilities on the one hand and competing accountability pressures on the other. Vertical accountability mechanisms have the advantage of a relative clarity in the roles and responsibilities (although this is not the case in absolute terms, see Hooge et al., 2012). Introducing additional accountability mechanisms on the horizontal level may thus be accompanied by anxiety, and capacity building is often crucial to enable governance actors to cope with new pressures and set priorities regarding competing accountability demands.

Closely related to capacity building and alignment is the communication of responsibilities to ensure clarity of roles and responsibilities among stakeholders. Introducing new accountability mechanisms, particularly if they are notably different from previous methods, requires clear communication of goals, full understanding of new responsibilities and roles, and the capacity to manage different accountability demands. Accountability mechanisms that are not aligned with decision-making powers within and across governance levels provide the opportunity to shirk responsibility. Given the greater effort required, actors may perceive education issues as obstacles to be avoided instead of challenges that are to be engaged actively.

The Swedish case study (Box 5.1) exemplifies this issue: here, an increase in school competition and municipal autonomy to shape education policy did not translate into improvements in the demand sensitivity of local education. The reform increased municipal autonomy and devolved virtually all responsibility regarding education to the municipal governance structures. However, lacking a clear understanding of new responsibilities and roles to be played by local stakeholders, municipalities did not change their processes as envisioned. Instead, municipalities generated a variety of different structures and strategies for educational governance which inhibited mutual learning due to their lack of comparability and were often unsuited to internal evaluation and reacting to local demands. Smaller municipalities in particular tended to use only a subset of available data (for example, easily communicable rankings) instead of the broader set of system indicators and descriptive data, including school self-evaluations.

Box 5.1. Municipal responsibilities and under-enforced accountability in Sweden

The reform analysed in Sweden involved shifting decision making power to the municipal level. Accompanied by a liberalisation of school choice, the increased municipal autonomy was intended to improve responsiveness to local contexts. The reforms moved Sweden's traditionally centralised system, built on principles of equity, toward decentralisation, with virtually all decision-making power and responsibilities for education transferred to municipalities and local governance structures. Responsibility at the central level was restricted to setting national goals.

In Sweden, students undergo frequent standardised examinations, and large amounts of standardised data on student achievement are collected and published. While responsibility for achieving national goals and improving education rests with municipalities, this responsibility remains largely unenforced, suggesting that, although accountability through data collection is well-established, the organisation and enforcement of accountability mechanisms requires further attention in Sweden.

Source: Blanchenay, Burns and Köster (2014), "Shifting responsibilities – 20 years of education devolution in Sweden: A governing complex education systems case study", *OECD Education Working Papers*, No. 104, http://dx.doi.org/10.1787/5jz2jg1rqrd7-en.

Accountability culture and the role of leadership in reform

Tensions arise when new accountability mechanisms do not readily fit into the existing culture. This can occur with the introduction of vertical accountability in a culture characterised by predominantly horizontal practices, or when horizontal mechanisms are introduced into a culture of vertical accountability traditions. In the Swedish case, the sudden absence of clear vertical accountability led to confusion about new responsibilities. Aligning different modes of accountability depends on transparency coupled with political support and leadership to foster legitimacy of new accountability processes among governance actors, local stakeholders and the public. In addition to political support, capacity building measures are crucial in reconciling vertical and horizontal accountability pressures.

The GCES case studies underline the importance of leadership in the acceptance of accountability processes, in building political support and by extension, in facilitating change in accountability culture. Leadership played a key role in introducing new accountability mechanisms in a context that was previously based primarily on trust, for example, in Norway (see Box 5.2). In this case, the role of school leadership in fostering acceptance of new accountability practices was decisive: school leaders who focused on knowledge sharing among teacher peers, on dialogue and on "the integration of all teachers in the change process (e.g. by organising pre-planned visits to classrooms)" (Hopfenbeck et al., 2013: 50) were found to be more successful than their peers who relied on hierarchical implementation of the reform.

Other key elements vital to the acceptance of new vertical accountability processes included involvement and transparency. In addition, a willingness to adapt the implementation of the programme to the local context and to the needs of those carrying out the policy (e.g., in the case of Norway, teachers) was important in reducing resistance. A continuing dialogue on the change process was necessary to help overcome resistance and to improve the capacity and understanding of the actors involved (Hopfenbeck et al., 2013).

Box 5.2. Norway's approach to accountability and the Assessment for Learning (AfL) programme

Norway's Assessment for Learning (AfL) programme intended to place a stronger focus on education improvement by holding schools and teachers accountable for their practices. Measures of the programme included national assessments and new formative assessment practices in the classroom. One key feature was the involvement of students in their own assessment.

Up until the 1990s, Norway had a limited system of formal accountability in education and trusted schools and teachers to deliver quality education. The Norwegian education system, traditionally focused on equity, was widely believed to be very good – even in the absence of any supporting evidence. Politicians and the public trusted schools and teachers. Nevertheless, in the international discourse starting in the 1980s, influential voices in the media and among the public emphasised the importance of Norway moving towards a "knowledge society" and put education performance on the political agenda. Norway's poor results in the 2000 PISA test, which came as a surprise, then paved the way for the implementation of a national assessment programme – the Assessment for Learning programme.

While the AfL programme was generally supported, issues arose regarding the implementation of the abstract principles which constituted the basis of AfL. Teachers who lacked deeper understanding of the principles were found to fall back to old routines of evaluation. In the face of individual resistance, no accountability mechanisms were in place to enforce implementation, hindering a change in culture.

Source: Hopfenbeck et al. (2013), "Balancing trust and accountability? The assessment for learning programme in Norway: A governing complex education systems case study", *OECD Education Working Papers*, No. 97, http://dx.doi.org/10.1787/5k3txnpqlsnn-en.

In addition to smoothing the way for the introduction of new forms of accountability, leadership also plays a role in the acceptance of new approaches within existing accountability systems. In Germany, for example, local governance actors are well accustomed to a culture of strong vertical accountability along administrative hierarchies, with regular reporting on regulatory and school performance measures instilled as part of the culture. In contrast to the example of Norway, where accountability was overall less established, the challenge in the German system was to augment these well-established vertical measures with "new horizontal types of accountability between local stakeholders, including the public. Strengthening mechanisms for accountability and transparency in governance structures that lack this culture requires extraordinary political leadership" (Busemeyer and Vossiek, 2015: 53).

This leadership was especially important in managing human relations. The case study revealed that the "introduction of educational monitoring triggered anxieties among some stakeholders that their performance would now be judged more strictly by means of quantitative measurement" (Busemeyer and Vossiek, 2013: 53). In the absence of a culture of integrating horizontal accountability processes, political leadership needs to nurture such a culture and promote "evidence-based policy-making by creating political legitimacy among local stakeholders and the public in support of this process" (Busemeyer and Vossiek, 2014: 64).

Building capacity to reconcile multiple accountability pressures

The capacity to manage knowledge and data is vital in responding adequately to vertical accountability pressures from central levels as well as horizontally from local stakeholders. In fact, the use of data has been identified as one of the major challenges and needs for capacity building across most OECD systems, from the local levels up to and including central levels (see Chapter 6, this volume). In the GCES case studies, building capacity from the onset was a major enabler of success (for example, in Germany and Norway). The absence of an explicit capacity-building strategy was also identified as a barrier to setting up strong accountability systems, as seen in Sweden. Importantly, these processes did not change the governance structures within which they worked, but rather engaged in comprehensive capacity building to promote the use of new forms of evidence and accountability.

In order to build capacity, the measures offered to stakeholders included handbooks (Germany and Norway), trainings and consultations (Poland, Flanders (Belgium)), developing new online tools and programmes (Poland, Norway, and Sweden at a later date), and working with specific teams sent by the Ministries or Inspectorates (the Netherlands, Poland). These strategies ideally worked in conjunction with local and peer networks to strengthen capacity building and the implementation of the reform and acceptance of accountability mechanisms in the system. However, as already discussed, a number of factors such as lack of leadership, the absence of capacity or resistance from actors could all also contribute to flawed or difficult implementation. There is also a set of equity concerns related to the use of data for decision-making (Blanchenay and Burns, 2016; see Box 5.3 for one example with parents) which further reinforced the need for sustained and comprehensive capacity building for accountability purposes.

Box 5.3. Stakeholder capacity for horizontal accountability

The use of market mechanisms, particularly the strengthening of parental school choice, is common in many OECD countries. Among the GCES case studies, Sweden strongly relied on parents to hold local municipalities accountable for improving education (Blanchenay et al., 2014). Market mechanisms are intended to encourage competition across schools in catering to local demands, while at the same time incentivising increases in efficiency and quality (see Waslander et al., 2010; Faubert, 2009). With school choice, parents are meant to take the role of consumers, judging for themselves which school offers the best education for their children (Hooge et al., 2012). However, research shows important variation across families of different socio-economic status in exercising school choice, with parents of lower socio-economic status having considerably lower capacity for evaluating school performance based on available information (Goldring and Phillips, 2008).

This is closely related to the goal of offering more complete information on performance. Information about performance beyond rankings and individual indicators often reaches levels of complexity that pose difficulties for teachers and schools in managing and understanding this information. By extension, parents may lack access to more comprehensive information on which to base their decisions about school choice (Rosenkvist, 2010). This in turn makes sufficient capacity among governance actors necessary to enable schools to reach out and integrate parents in school processes.

Aligning vertical accountability pressures from different policies

Competing accountability pressures are not limited to tensions between vertical and horizontal accountability demands, but can also occur across different policy programmes, making a whole of system approach to accountability necessary. In complex multilevel systems, hierarchically subordinate governance levels, particularly the local level, are commonly subject to multiple accountability pressures originating from different levels in the hierarchy. This can pertain to accountability demands from the national level, the regional level, or in the case of schools, the municipal level.

Exemplifying this, in Norway schools reported difficulties in prioritising accountability demands to the municipal level and the national level. While the municipality required schools to focus on increasing test scores in reading, the policy programme Assessment for Learning (AfL) initiated by the national ministry focused on different elements of formative assessment (see Box 5.2). The competing demands on schools were in some cases found to be detrimental to the success of AfL. This was especially true for smaller schools with less capacity and less ability to prioritise competing policy demands.

Aligning vertical accountability pressures can contribute to the successful implementation of policies on the local level. Aligned accountability mechanisms prevent efficiency losses and overextending actors responsible for implementing policy – in the Norwegian case, the schools. Without coordination and other measures to align accountability, pressures can jeopardise the implementation of the competing policies.

Building a culture of evaluation

Resolving the tensions between potentially conflicting accountability pressures is only part of the answer to designing a successful accountability system. The accountability system plays an important role in nurturing improvement and innovation in education. However, innovation requires risk-taking, and thus the potential for failure. If not thoroughly considered, accountability mechanisms can inadvertently become obstacles to this process (Burns and Blanchenay, 2016; Brown and Osborne, 2013).

Less tightly controlled mechanisms of accountability – such as the integration of stakeholders in horizontal accountability processes – potentially promise greater innovation, as they do not discourage risk-taking to the same extent that tight-meshed monitoring might. However, such mechanisms depend crucially on a culture of evaluation and improvement, which includes avoiding the pointing of fingers, while focusing on improvement and building processes to learn from failure (Burns and Blanchenay, 2016).

The GCES case studies provide interesting examples of how the accountability system influences the emergence of an evaluation culture. Across the six case studies, accountability was found to affect the local evaluation culture in three distinct ways: in the Netherlands, the accountability system lacked the transparency and knowledge exchange processes needed for the local level to engage effectively in self-evaluation. In Sweden, a radical shift of accountability pressures towards relying on market mechanisms without adequate support and communication led municipalities to engage in blame games rather than focusing on improvement. The German case study provides an example of effectively augmenting administrative accountability with stakeholder accountability to nurture a culture of evaluation.

The importance of transparency for vertical accountability

An accountability system based solely on external monitoring via output indicators can hinder the emergence of a culture of evaluation at the local level, as sanctions tied to indicators do not necessarily encourage reflection on the processes leading to outcomes if external evaluation processes are not transparent. The Dutch case study (Box 5.4) exemplifies this. While the reform drew attention to the sanctions associated with underperformance, many schools were surprised by being deemed at risk of not meeting the Inspectorate's performance standards. Although schools were aware of the sanctions assigned to not meeting performance goals, they were often unaware of what appropriate performance entailed in terms of the indicators used by the Inspectorate.

This suggests first that a different set of indicators is used at the school level to assess performance, and second that the accountability system is not transparent in relation to the performance standards on which the system is based. The accountability system's indicators perform a summative function rather than a formative one. By divorcing external assessment from internal review processes, the accountability system for Dutch schools hinders the emergence of an evaluation culture at the school level. Putting greater emphasis on transparency and complementing performance indicators with ongoing knowledge exchange, including perspectives from stakeholders and the school community, appears a promising avenue to lessen the disconnect between external and internal evaluation processes (Hooge et al., 2012).

Box 5.4. Accountability based on performance indicators in highly autonomous Dutch schools

The Dutch case study revolves around accountability and school performance. The Dutch school system is characterised by high levels of school autonomy. The Inspectorate plays a key role in holding schools accountable for their performance and achievement of national goals through a system of risk-based school inspections. The Inspectorate uses a number of indicators – particularly focusing on education outputs – to evaluate the risk of an individual school underperforming.

If, based on output indicators, the Inspectorate considers a particular school at risk of not meeting performance standards, it will carry out a thorough inspection of the school. At the end of the inspection, a performance label is assigned and each label carries specific consequences for schools that do not meet improvement targets. Schools assigned a label other than "normal" (i.e., "weak" or "very weak") will be subject to subsequent inspections. Those labelled "very weak" are closed down if they do not improve within a specified time (two years at the time of the case study, one year currently). During this period, the Inspectorate works with the school board and supervises the implementation of improvement measures.

Importantly, school autonomy is reduced during the improvement period, as the Inspectorate takes on a supervisory, rather than merely advisory, role. Underperforming schools are provided specific advice and implementation assistance as requested by school boards. Such measures are subsidised by the Ministry, but carried out by third-party organisations outside the Inspectorate in order to maintain the general principle of school autonomy.

Source: van Twist et al. (2013), "Coping with very weak primary schools: Towards smart interventions in Dutch education policy" *OECD Education WorkingPapers*, No. 98, http://dx.doi.org/10.1787/5k3txnpnhld7-en.

A similar situation was observed in the Flemish case study. In Flanders (Belgium), the Inspectorate carries out its inspections on the basis of central level[2] attainment targets, which are conceptualised as minimum achievement goals. The multiple channels through which they shape classroom teaching affect the clarity of attainment targets. In turn, this lack of clarity produces issues regarding the accountability of schools to adhere to these targets (Rouw et al., 2016).

In theory, schools are meant to implement attainment targets by producing learning plans, which in turn inform teachers' lesson plans and teaching. In practice, however, learning plans are constructed by networks under which schools with the same mission (for example, those with the same religious denomination) are organised. Schools are found to operate predominantly on the basis of learning plans and their own assessment tools, and it is not always clear to them that the Inspectorate evaluates schools' performance on the basis of attainment targets, rather than learning plans. While learning plans are based on attainment targets, they are devised outside the school by networks, leaving teachers and schools with some confusion about the objectives for which they are held accountable. Adding to this confusion, particularly among teachers, the various publishers of educational materials produce textbooks and teaching handbooks which often accommodate multiple learning plans by different networks (Rouw et al., 2016).

Uncoupling monitoring from accountability to avoid blame games

Accountability systems can result in a blame game instead of a collaborative culture of improvement if responsibilities are ambiguous and ultimate accountability is not clear. Uncoupling monitoring from its accountability function and focusing on capacity building can improve its legitimacy and contribute to a culture of evaluation.

In the Swedish reform, municipalities were intended to be held accountable by internal systems within the municipal governance structure and by parents exerting school choice. To avoid competing accountability pressures between the intended horizontal accountability to local stakeholders and vertical accountability, the central level decided not to sanction municipalities for unmet national goals. Additionally, intending not to interfere with municipal autonomy, the central level refrained from supporting municipalities in defining internal accountability relationships and aligning decision-making powers within the municipal hierarchy. However, in a response unanticipated by the central level, municipalities did not take responsibility to improve education and failed to engage in self-initiated evaluation of their education systems and practices. Overwhelmed by their new responsibilities, municipal governance actors shirked their responsibilities within the municipal government hierarchy rather than accepting their accountability to the local community. While expected to exert pressure through school choice, parents rarely capitalised on this opportunity and remained uninvolved in school accountability processes. The accountability system thus failed to foster local demand sensitivity and the internal evaluation processes needed for in-depth changes to education.

In a more successful example, the German case study demonstrates how separating monitoring from accountability can encourage local evaluation and build respective capacity. By uncoupling monitoring from its accountability function, the German *Lernen vor Ort* (Learning Locally) policy avoided potential blame games within governance processes, which would have prevented the emergence of a positive culture of

evaluation – as demonstrated in the Swedish example above. Uncoupling the extensive monitoring envisioned by the policy was accomplished by establishing a scientific institution that provided capacity building through workshops and gathered data about the implementation of the programme in participating municipalities. This knowledge then was disseminated to the municipalities and used as a means of feedback to the central level. This greatly contributed to the legitimacy of the comprehensive educational monitoring intended by the policy, which some had feared would increase accountability pressure. The approach thus substantially reduced the tendency of accountability pressures to encourage risk-minimising behaviour, paving the way for sustainable local evaluation processes (Blanchenay and Burns, 2016). Additionally, the feedback by the scientific institution provided the central level with valuable information about local implementation to improve the design of the policy and, by extension, its impact. From the onset, the policy was designed as a "learning programme" that allowed for continuous evaluation and adaptation to the reality of implementation (Busemeyer and Vossiek, 2015).

Ownership, understanding and collaboration

Important in any efforts to foster a culture of evaluation and collaboration is an adequate understanding of the policy intended to do so and ownership among all involved stakeholders. If no culture of collaboration is yet present, a lack of clear understanding of the policy's goals may lead to abuse of local autonomy and local power struggles rather than a culture of evaluation. In the Polish example (Box 5.5), governance actors misinterpreted the reform's goals of fostering collaboration and self-reflection and misused their involvement in the new evaluation procedures. Local actors were found to engage into blaming and "strong-arming" other actors rather than focusing on improvement. Schools engaged in competition based on comparative school performance data, rather than using these data to exchange best practices.

Box 5.5. First steps towards a culture of evaluation in Polish school supervision

The Polish case study revolves around the reform of school supervision and inspection towards an emphasis on formative assessment, accountability to the public and stakeholder involvement. The new supervision system promoted a combination of internal and external inspection based on evidence. Extensive stakeholder involvement in evaluation processes and collaboration across schools were also important elements.

The reform focused on communicating new processes to those directly involved in evaluation (teachers, principals and inspectorates) as well as to the broader community, public and media. A public website centrally collected and published evaluation results. A two-year preparatory period preceded the policy's implementation, inviting stakeholders to provide feedback regarding the goals and proposed processes.

The policy can be considered a success in that substantial progress was made in fostering a culture of evaluation and broader involvement of school leaders, teachers, students and other local stakeholders. While the policy was initially met with some reluctance, most participants of the new inspection and supervision system came to perceive the new inspection scheme as considerably improved and fair.

Source: Mazurkiewicz, Walczak and Jewdokimow (2014), "Implementation of a new school supervision system in Poland", *OECD Education Working Papers*, No. 111, http://dx.doi.org/10.1787/5jxrlxrxgc6b-en.

Importantly, in the Polish example, the predominant institutional culture was one of mistrust. School inspection was traditionally seen as intrusive and potentially harmful to the functioning of the school, thus heightening the importance of communication and dialogue and of ensuring full understanding of the policy's goals as laid out below.

The role of trust in promoting a culture of evaluation

Building a culture of evaluation can be a lengthy and difficult process. It requires sufficient trust among actors, as the risk of laying blame over focusing on improvement is ubiquitous if actors within the same level and across governance levels feel they cannot trust each other. Trust is built through repeated interaction in which actors show trustworthy behaviour (Cerna, 2014).

The role of trust and trustworthy behaviour in everyday practices played out in a number of different ways across the GCES case studies. As touched upon above, in Poland, school inspection and supervision were traditionally perceived as a tool of scrutiny and accountability rather than formative feedback and improvement. In this system characterised by low trust, the introduction of the policy – intended to move towards a new system of supervision based on improvement and involvement of stakeholder in the processes – was met by many actors with suspicion. Anxiety and doubts regarding the stated intentions of the programme were prevalent. The anxiety was for the most part dispelled after experiencing the new system of evaluation, indicating that resistance was based on a lack of trust rather than on dissatisfaction with proposed approaches.

The emergence of a culture of evaluation takes time, even in systems characterised by high levels of trust – as was the case in the Norwegian education system. The Norwegian case study exemplifies the contribution of continued efforts in effecting sustained changes in evaluation practices and culture. In Norway, continued efforts among school leaders were required to ensure that the Assessment for Learning (AfL) reform, as a set of practices revolving around a culture of evaluation and formative student assessment, became integrated in everyday practice. Despite extensive communication of goals and guidelines, half of the municipalities faced difficulties in sustaining implementation in their respective schools (Hopfenbeck et al., 2013).

Conclusions and policy implications

This chapter highlighted successful strategies in building strong and constructive accountability systems. Based on practical examples provided by the GCES case studies, the analysis identified strategies to foster legitimacy of accountability mechanisms, sustainably implement reform and support innovation. Successful accountability systems are supported by the clear communication of roles and responsibilities, the alignment of accountability pressures within and across governance levels, and a focus on dialogue and transparency. The GCES case studies also demonstrated the role of accountability systems in the emergence of a culture of evaluation, highlighting how accountability can be either an enabler or a barrier to this process. The chapter's analysis identified a number of policy implications, which are laid out below.

Clarify and align roles and accountability demands

Clear roles and alignment of different accountability demands are vital for the success of any policy. Ambiguous or overlapping responsibilities and roles can lead to confusion,

and considerable effort may be needed to overcome initial misunderstandings and associated anxiety. Roles and accountability expectations should be made as clear as possible from the onset of any policy. Overwhelmed actors may default to traditional practices or implement a policy incoherently if presented with competing or conflicting accountability demands.

Accountability tensions can arise between horizontal and vertical accountability processes; within vertical accountability processes across different levels of governance or across different policy programmes; or across different stakeholders within horizontal processes. The various domains where pressures can arise make accountability tensions challenging to resolve and require different approaches.

Competing accountability pressures between different policy programmes with the same target – for example, schools being subject to both national and municipal policies –are primarily resolvable by employing a whole of system approach and aligning policy programmes across governance levels. Tensions between vertical and horizontal accountability mechanisms require alignment of vertical accountability processes with horizontal pressures. Capacity-building measures are also needed for local actors to prioritise accountability demands. And lastly, resolving tensions between local stakeholders (i.e., competing horizontal concerns) relies on the capacity of local governance actors to moderate and integrate stakeholder demands.

Recommendations

- Define responsibilities as clearly as possible. The distribution of responsibilities should be clear from the start of the policy to avoid unnecessary expenditure of resources and effort during reform.
- Encourage horizontal accountability and facilitate integration of stakeholders in accountability structures. Local politicians, such as officials from the municipal or district assembly, as well as parents and teachers, should be included in governing bodies.
- Help decentralised levels to identify and integrate local stakeholders in accountability processes. Promote inclusiveness so that diversity of stakeholders reflects all relevant perspectives.
- Avoid competing accountability demands between different governance levels and policy programmes by employing a whole of system approach.
- Build capacity to manage competing demands between horizontal and vertical accountability mechanisms.

Dialogue, transparency and leadership for sustainability

Policy success depends on developing a clear understanding of the policy's content and goals among all actors, particularly if changing previous accountability arrangements (for example, by introducing horizontal accountability mechanisms). Local leadership is a crucial component, as local leaders' capacity to maintain and generate trust in the system helps lead to sustainable implementation.

The case studies demonstrated that initial implementation does not guarantee sustainability beyond the formal end of the policy implementation. What is more, the case studies showed a lack of active measures to ensure sustainability such as a lasting web of

accountability mechanisms. Transparency and trust among actors are essential to inspire ownership and support sustained implementation and ultimately a change in organisational culture.

Recommendations

- Build leadership capacity at decentralised levels and support leaders in their role of fostering trust and understanding.
- Develop a coherent network of incentives and accountability to ensure sustainability beyond the policy's formal end.
- Build trust through ongoing dialogue, stakeholder involvement and clear communication of goals and processes.

Foster a culture of evaluation

Fostering a culture of evaluation requires capacity building and dialogue to enable understanding the goals and processes of accountability. Trust plays a vital role in this as it encourages actors to explore new practices without the fear of blame. Initiating a push towards innovation requires reconciling the ubiquitous tension in accountability of minimising risk with the opportunity to try out new practices and take risks. The move towards internal evaluation and improvement needs time and continued support to become a sustained culture rather than an externally enforced burden.

Recommendations

- Offer support and promote knowledge exchange to facilitate a change of culture towards local evaluation, one that moves away from laying blame and towards a trusting environment which revolves around improvement and learning.
- Provide stakeholders and actors with time and support to grow into evaluation and accountability practices. Make sure to engage in continued capacity building and dialogue to effect a sustainable change in culture.
- Develop the participation of parents and other local stakeholders through continued discussion of responsibility and public comparison of results with respect to guidelines. These evaluations should make use of all publicly available data and research. Integrate expert direction to ensure well-rounded evaluation processes.

Notes

1. See Hooge, et al. (2012) for a discussion on the shifting focus of accountability mechanisms in education over time.
2. In Belgium, the Communities take the role of the central level in education policy (here the Flemish Community).

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Chapter 6.

Capacity building for education reform

This chapter addresses the role of capacities as key facilitators in helping policies bring about change. By building upon the GCES case studies, the chapter analyses enablers and barriers for capacity building in relation to four main factors affecting change in complex systems: shared vison and common understanding, vertical capacity building and the role of the central policy level, networking as a horizontal form of capacity building, and policy flexibility and sustainability. Additionally, the chapter takes a special look at a central element for educational management and improvement: capacities for the use of data.

Introduction

Education policy formulation and implementation have grown increasingly complex as a result of the decentralisation of governance structures. Multilevel governance systems are characterised by the distribution of power and responsibilities among a diverse range of stakeholders at different levels of the system. This context calls for new governance processes that include vertical as well as horizontal dimensions; processes that allow for shared ownership and implementation mechanisms; and movement from governance based on hierarchical control towards new cultures of co-operation and continuous mutual learning.

Change in complex settings requires all stakeholders in the system to act jointly, which necessitates enhanced communication, knowledge and collaboration. Actors need a clear idea of the ultimate policy objectives and implementation strategies and must possess the means to move planned actions forward. This is to say that stakeholders need adequate knowledge of educational policy goals and consequences, as well as the tools to implement them in their particular contexts (Burns and Köster, 2016). Therefore, dealing with systemic change is about having a clear idea of what has to be changed and how to do it: possessing an idea of the envisaged change is as important as developing a strategy to make it happen (Fullan, 2007).

This chapter addresses capacity building as a key element of education reform and governance. The first section defines capacities and capacity building, discusses target groups and dimensions of capacity building, and addresses the central role building capacity plays in the relationship among skills, policy and change in public policy and the educational context in particular.

The second section builds on the knowledge gathered through the GCES case studies to explore drivers and barriers of capacity building for successful policy interventions. It addresses questions related to knowledge use and mobilisation, the relationship between capacities and accountability with regards to policy implementation, the advantages and obstacles of networks as forms of horizontal capacity building, and the importance of policy flexibility and learning as well as sustainability for successful capacity building.

The third section deals with one specific element of capacity building in education governance – and public policy in general – the use of data. Capacities for accessing, analysing and interpreting information are key to generating and disseminating knowledge for evidence-based policy making at all levels of education systems, from the central level to the classroom. This section discusses the non-use, misuse and abuse of data as main consequences of inadequate capacity for data collection and utilisation. The concluding section presents the main conclusions of this chapter and some policy recommendations.

Change, policy and capacity

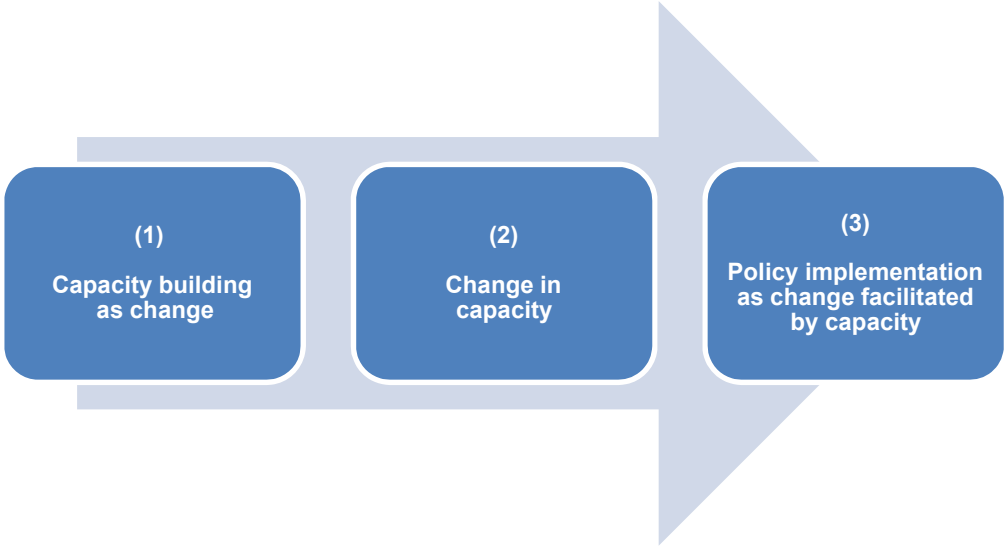
In the public sector, capacity can be defined as *"the ability of people, organisations and society as a whole to manage their affairs successfully"* (OECD, 2006: 12). Capacities are, in this sense, the necessary means to fulfil a task. Capacity encompasses time, resources, governance structures and processes, and training.

Capacity for successful policy reform and implementation is needed by individuals, institutions and systems as a whole (OECD, 2012). At the level of individual actors, it is necessary for students, parents, teachers, headmasters and local policy makers to have the

capacity to deliver their responsibilities in the local context. They also require the capacity to manage complexity and change. However, individual capacity is also strongly influenced by institutional capacity, and vice versa. Institutional capacity refers to the ability of organisations to function effectively and efficiently in relation to their mission, which includes learning and evolving when necessary. Additionally, as institutions are embedded in a system and work in relation to each other, systemic capacity is related to how all pieces work together, i.e. the overall policy framework in which individuals and organisations operate and interact with the external environment (UNDP, 1998). Systemic capacity emphasises practices in addition to individuals and organisations (World Bank, 1998). It looks both at formal and informal relationships taking place among them.

If policies are intended to bring about change, a key element of successful policy implementation is ensuring that stakeholders have sufficient capacity to meet the challenge of effecting change. In this sense, change X – successful policy reform – must be preceded by change Y – ensuring appropriate capacities are in place (Figure 6.1). Ensuring appropriate capacities may require a process of changing existing capacities and building others; it may even entail the elimination of capacities that stand in the way of change (Baser and Morgan, 2008).

Figure 6.1. The relationship among policy, capacity and change



Collective large-scale change occurs when there is a shift in the way political leaders, administration, practitioners and society understand the functioning of the system and the practices related to it. New values and behaviours appear as existing norms, structures and processes are replaced (Elmore, 2004). Certainly, change may occur when necessary capacities are already present, for example, when schools improve their assessment practices on the basis of teachers' own knowledge, skills and initiative. However, attempting to replace or establish new capacities will not necessarily bring change if the capacity building process is flawed or encounters barriers, such as competing values among the stakeholders (e.g. a new accountability system fails as a result of divergent views among administration and teacher unions). Capacities are understood here as elements of policy design and thus as prerequisites to change. In other words, changes in capacity do not necessarily secure change but have the potential to do so.

In this sense, capacity building can be defined as the process of providing actors with competencies, resources and motivation to access and continuously develop knowledge and skills (Fullan, 2010) in order to accomplish their tasks in a more effective and efficient way. This definition implies that capacities are not static, but can be modified. In fact, it suggests that the process of modifying capacities – capacity building – should be regarded as a conscious enterprise.

Capacity building can be vertical or horizontal. Vertical capacity building refers to interventions from one level of governance to another, for example, from the central level to the local, although it does not need to be a top-down process. Experiences at the local or school level may become sources of knowledge for rethinking policy design and implementation of policies on the basis of what works and what does not.

Horizontal capacity building refers to processes among different stakeholders within the same level, in which they address common challenges and share good practices. Peer-learning structures and processes encourage forms of horizontal capacity building that fit into the self-organising and emergent dynamics of complex systems (OECD, 2013). Networks are important because actors such as teachers are more likely to adopt new mind-sets and attitudes when the necessary information is conveyed through social interactions (Coburn et al., 2009) and shared among equals by means of enthusiastic engagement (Bennett et al., 2003).

Soft capacities (e.g. knowledge, interpersonal or leadership skills) are often distinguished from *hard* capacities (e.g. technical and financial resources, equipment). Some capacities are more amenable to capacity building than others. Increasing the budget or hiring new teachers, for example, is quite straightforward, but where lasting change is concerned, these types of capacities may not be sufficient. This distinction has also been referred to in the literature as first and second-order change. First-order changes include formal aspects such as structure or equipment, while second-order change involves the altering of mind sets, patterns of behaviour, processes, legitimacy, etc. (Baser and Morgan, 2008). Supporting people in doing things differently, learning new skills and generating more effective practices ultimately generates a cultural shift. Within schools, this shift is about individuals and their beliefs and actions rather than programmes, materials, technology or equipment (Hord, et al. 1987; Knoster, Villa and Thousand, 2000).

Different capacities are mutually influencing, through either a constraining or a catalysing impact. Having the best resources will be of little use if teachers, for example, are neither qualified nor willing to use them. The best teachers will not be able to reach their full potential in a difficult working environment. Conversely, interdependence of capacities can be an asset when capacity building in one area has positive spill over effects to others (Beaver and Weinbaum, 2012). For example, consider the development of peer accountability as a new organisational capacity for teachers: this can be doubly beneficial if this change contributes to increased collaboration and improvement of teaching strategies at the individual teacher level.

All stakeholders taking part in a reform process need to know how to implement the intended change. They need knowledge of the theoretical and practical assumptions underlying the change process and support to maintain focus over time. The participation of stakeholders throughout the development of a policy allows for the identification of their capacity-building needs with respect to the policy objectives. In this sense, capacity building is closely associated with time and strategic thinking. More specifically, it is

important for any policy to actively include capacity building measures in its early stages rather than as retroactive measures when policy implementation flounders.

Building capacities in complex education systems

Table 6.1 introduces the policy interventions covered by the GCES case studies and their main characteristics with regards to capacities and capacity building. This section then examines the factors that support or hinder capacity-building efforts and the impact they have on policy design and implementation.

Table 6.1. Capacity building in GCES case studies

Case study	Main goals of the reform	Types of capacities involved	Horizontal / vertical capacity building
Flanders (Belgium)	Setting minimum systemic attainment goals to guarantee education quality	Soft (Training and data rich environment for improving assessment and evaluation at school level)	Mainly Vertical
Germany	Improving governance through local networks	Soft (information for developing local educational monitoring tools) and Hard (software for educational monitoring)	Horizontal and Vertical
The Netherlands	Improving very weak primary schools	Soft (pedagogical analysis and support) and Hard (extra government funding managed by some provinces)	Vertical and Horizontal
Norway	Promoting 'assessment for learning' practices	Soft (tool to transfer knowledge of 'AfL', *i.e. an AfL website*) and Hard (financial support from school owners and the DET)	Horizontal and vertical
Poland	Reforming school supervision system	Hard (regulatory and organisational changes) and Soft (training)	Vertical
Sweden	Decentralising the education system	Hard (funding for municipalities) and Soft (Inspectorate and SALAR's performance data)	Vertical

Source: GCES case studies, Flanders (Belgium): Rouw et al. (2016), "United in diversity – A complexity perspective on the role of attainment targets in quality assurance in Flanders: A GCES case study of Flanders (Belgium)", *OECD Education Working Papers* No. 139; Germany: Busemeyer and Vossiek (2015), *OECD Education Working Papers*, No. 113, http://dx.doi.org/10.1787/5js6bhl2mxjg-en; The Netherlands: van Twist et al. (2013), *OECD Education Working Papers*, No. 98, http://dx.doi.org/10.1787/5k3txnpnhld7-en; Norway: Hopfenbeck et al. (2013), *OECD Education Working Papers*, No. 97, http://dx.doi.org/10.1787/5k3txnpqlsnn-en; Poland: Mazurkiewicz, Walczak and Jewdokimow (2014), *OECD Education Working Papers*, No. 111, http://dx.doi.org/10.1787/5jxrlxrxgc6b-en; and Sweden: Blanchenay, Burns and Köster (2014), *OECD Education Working Papers*, No. 104, http://dx.doi.org/10.1787/5jz2jg1rqrd7-en.

Shared vision and policy understanding

In centralised systems, policies are traditionally planned and implemented directly, top-down from the policy centre to the levels below—from the central to the local and the school level, and from the local to the school and classroom level. In contrast, decentralised systems are generally characterised by the participation of multiple stakeholders in governance structures and processes. In such contexts, policies have the potential to succeed as long as stakeholders understand the purpose and components of the reform and take action in alignment with common objectives.

All actors require a thorough understanding of the policy to effect deep and lasting change. As previously discussed, large-scale policy changes in complex education systems require the alteration of deeply rooted practices and mind-sets in schools, communities and administrations. If they do not fully understand a policy and its objectives, stakeholders may implement only superficial elements of the policy without substantially altering their daily routines. This was obvious in almost all of the GCES case studies. A clear understanding of the policy and continuous communication among stakeholders raises the potential impact of a reform (Hopfenbeck et al., 2013; Mazurkiewicz, Walczak and Jewdokimow, 2014).

Effective policy implementation requires a shared vision to avoid fragmentation, which calls for policy ownership and legitimacy (Knoster et al., 2000; see also Chapter 4, this volume). Acceptance and ownership that support all actors in moving in the same direction are key to successful policy implementation. For this to happen, a deep understanding of the policy is not enough. Actors must also accept the policy's plan and purpose. Acceptance and ownership of the process of change, however, largely depends on stakeholders' judgement of it. They are unlikely to be willing to accept any policy measure if it is perceived to run against their interests or experience. A lack of active engagement also acts as a passive barrier to change.

Building a sense of common direction among stakeholders with diverse forms and levels of experience can be an arduous and complex enterprise. For example, the 'Assessment for Learning' (AfL) reform in Norway attempted to build a shared vision and deep policy comprehension by planning introductory meetings and conferences over an initial span of 16 months during the implementation. "As a member of the Directorate [of Education and Training, DET] said, their involvement could either hinder or help implementation in some of the schools, depending on the teachers' view of the DET" (Hopfenbeck et al., 2013: 47). Stakeholders engaging in this process demonstrated that active participation facilitates common understanding, as suggested by the fact that teachers and school leaders who had less direct experience with the DET tended to have more negative attitudes toward the proposed policy plans.

In the Norwegian case study, the strategy of giving voice to stakeholders throughout the policy cycle helped to build policy acceptance and legitimacy, facilitating the implementation process. The DET adopted an attitude of partnership rather than a position of authority; a position expressing that "they needed to learn together with teachers and school leaders" (Hopfenbeck et al., 2013: 47) rather than controlling whether they complied with rules and instructions. Nevertheless, stakeholders have different needs and capacities, and an approach that works in one context may fail to succeed in another. Whereas a partnership approach generated very positive effects in some cases, some municipalities and schools with fewer resources expressed a need for a stronger leadership from the DET. The soft attitude adopted by the Directorate may have helped to address stakeholders' concerns, but this might have come at the expense of securing a comprehensive implementation of AfL in others.

Similarly, the implementation of a new schools supervision policy in Poland included a two-year preparatory period during which stakeholders were invited to provide feedback on the goals and proposed processes. Mazurkiewicz et al. (2014) note that actors taking part in the process eventually "knew, understood and accepted the justification and general direction of the reform" (p. 22). Nonetheless, the initial period of stakeholder consultation was not fully successful: internal reflection and self-evaluation efforts in many schools remained "superficial and restricted to symbolic actions" (p. 28). Again,

capacities and experience differed from one part of the system to another, and resistance may have emerged as a reaction to change. These examples do not necessarily show that an inclusive approach to policy implementation cannot work, but that a comprehensive strategy to communicate the reform's underlying concepts as well as time and implementation strategies adapted to the differing needs of stakeholders are necessary conditions for it.

Governance processes based on inclusive and structured dialogue foster consensus and are a fundamental to effecting change. Legitimacy, ownership and a common understanding emerge when policy design and implementation function as inclusive, cooperative, multilevel exercises in which stakeholders have equal status and take active roles. A shared vision may not exist at the beginning of the process, but it is something to be built throughout. It is an outcome rather than a precondition of quality change processes (Fullan, Cuttress and Kilcher, 2005).

In this sense, inclusive and participatory governance processes may strengthen comprehension on top of fostering a shared vision and common understanding. According to some of the researchers interviewed for the Norwegian case study, the DET adopted a simplistic approach to formative assessment in order to facilitate its implementation on the ground (Hopfenbeck et al., 2013). Formative assessment, however, is a complex issue and its related practices are subject to diverging academic views. Hence, spaces to bring researchers, policy makers and practitioners together can substantially improve capacity for understanding and interpreting research for educational improvement (Cordingley, 2016; Lassnigg, 2016). This serves policy-makers in need of reliable knowledge to inform evidence-based policies and supports local stakeholders in aligning their pedagogical activity with the policy goals (OECD, 2012).

Vertical capacity building and the role of the policy centre

The early stages of a change process can be difficult. Deeply rooted elements such as mind-sets, routines or regulations have to be left behind long before the benefits of doing so are realised. Accountability measures, such as targets and monitoring and evaluation mechanisms, are set up as means to verify that stakeholders carry out their responsibilities. This is particularly relevant in decentralised systems, in which educational competencies are distributed across different layers of the system but the central level is still seen as primarily responsible for overall quality assurance. Accountability measures act as incentives for stakeholders to develop policy plans thoroughly, facilitate alignment of actions across layers of the system and reduce potential sources of resistance or fatigue. Yet accountability measures alone cannot ensure that actors are capable of carrying out their responsibilities. Capacity building is meant to support policy implementation by adjusting those capacities that are not in line with policy objectives, either by modifying them or creating new ones. This makes capacity building as important as accountability for policy steering. An important aspect of any policy reform is thus finding a functioning balance between these forms of pressure and support (see Chapter 5, this volume).

For example, when the decentralisation and deregulation process of the Swedish education system began in the 1990s the overall responsibility for running schools shifted from the central to the local level. Since the process was grounded in the idea that "local authorities knew best", the shift was not accompanied by enforcement mechanisms, ear-marked funds, human resources or knowledge transfers (Blanchenay, Burns and Köster, 2014). As a result: 1) a mismatch between capacities and responsibilities

prevented local authorities from developing appropriate know-how to discuss educational performance in relation to national goals; and 2) improvement initiatives were often the result of external criticism rather than internal reflection as there were no consequences for not achieving national goals. As such, they often relied on elements attracting more political attention, such as rankings, rather than looking into more diverse and reliable information (Lewin, 2014; in Blanchenay et al., 2014).

The absence of accountability measures can be problematic because a system with few incentives or sanctions to monitor and align actors' actions might not be able to identify and overcome obstacles when they appear. In Norway, where traditionally there have been relatively few accountability mechanisms as a result of high levels of trust, comprehensive systemic policy implementation is a challenge – in fact, several municipalities do not follow up on centrally initiated regulations (Rambøll, 2013). Furthermore, as a former education minister points out (Hopfenbeck et al., 2013) a lack of top-down steering leads to (more) inequity in the system as a consequence of the above-mentioned divergence in capacities across local actors – municipalities, schools, teachers, parents, etc. In this sense, the Norwegian 'AfL' incorporates measures for monitoring and evaluation of its implementation (see Box 6.1) in line with the development of accountability measures for the whole Norwegian education system, such as the quality assessment system established during the 2000s.

Box 6.1. Balancing support and pressure: the 'AfL' programme in Norway

In their implementation of the programme 'Assessment for Learning', the Norwegian Directorate of Education and Training provided several documents, conferences and an online tool to support stakeholders. Documents included a *Base Document*, which described the aims of the programme and guidelines, roles and responsibilities for all participants; *invitation letters*, which specified the responsibilities, expectations and criteria for participation and financial support; *templates* to support school owners – counties, municipalities and private providers – in developing the implementation plan and evaluation reports; and *The Pupil Survey*, which surveyed assessment practice, with results available at national and school level. Additionally, the website *Vurdering for læring* [Assessment for Learning] contained support tools for headmasters and teachers such as academic literature from national and international scholars, articles and book suggestions, keynote presentations and videos regarding AfL practices.

Municipalities and counties received financial aid if a minimum number of schools in their territory engaged in the programme. Local authorities were free to adapt the AfL to meet their needs, provided that they adhered to its main objectives and included measurable and realistic goals and data sources for evaluation purposes. At the school level, school authorities were expected to produce two reports on the implementation process: a mid-term report and a final report. These had to include evaluation tools, plans for future work and guidance on further implementation strategies. The reports were intended to track policy implementation, showing its strengths and weaknesses and documenting knowledge for other municipalities, schools, and the Directorate –mechanisms for horizontal as well as bottom-up learning.

Source: Hopfenbeck et al. (2013), "Balancing trust and accountability? The assessment for learning programme in Norway: A Governing Complex Education Systems Case Study"*OECD Education Working Papers,* No. 97, http://dx.doi.org/10.1787/5k3txnpqlsnn-en.

However, introducing accountability mechanisms must be done carefully and while maintaining open communication. In the absence of this, they can be perceived by stakeholders as a sign of distrust, which can be discouraging, demotivating and cause for

resistance. Strong leadership can mitigate resistance and fatigue, but lasting incentives are necessary to secure comprehensive and sustainable policy implementation, whether they come in the form of accountability pressures or through new forms of more enduring leadership – as we discuss in the following section.

In fact, extensive reliance on accountability carries its own risks. Pressure, if not exerted carefully, leads to negative effects. In the Netherlands, a country with a tradition of strong school autonomy, the Inspectorate's policy of labelling schools was designed as a way for the central government to indirectly steer the school level and prompt (through public pressure) weak schools to improve. This approach has been successful in improving the overall performance of weak schools, but it has also caused anxiety and frustration in schools facing severe problems or lacking internal capacity to take action. This led to additional support measures such as analysis teams, flying brigades, twinning projects as well as extra funding for those institutions and local authorities that struggled the most (van Twist et al., 2013). It is thus important to take context into account and to provide means for capacity building when applying pressure. Otherwise, measures designed to incentivise appropriate functioning of the system (e.g. high stakes testing to improve students' performance) can contribute to its distortion (Smith, 2016).

Vertical accountability alone does not work in highly devolved power-sharing governance frameworks in which quality of education is a shared responsibility of multiple stakeholders. As seen in the Dutch case, pressure on schools was in fact exerted horizontally by local actors reacting to the assessments of the Inspectorate. Similarly, attainment targets in Flanders (Belgium), which were introduced as minimum systemic quality standards for schools, suffered from a non-comprehensive implementation at the level of schools as a result of diverging views on their nature and character and a lack of whole-system strategy for their development and revision (Rouw et al., 2016). Therefore, even when vertical accountability measures, such as inspection reviews, acted as mechanisms to increase system alignment, other capacities were still needed for effective and efficient implementation, e.g. mechanisms for inclusive participatory governance and collaboration, alignment of capacity building initiatives or effective data-use for feedback and improvement.

The central level plays an important role in providing support to other levels of the system and addressing systemic imbalances in capacities. One way in which they can do this is through guaranteeing sufficient funding for municipalities to manage their responsibilities, including education. Ear-marked or block-grants to local authorities can secure adequate municipal levels of educational expenditure (Fakharzadeh, 2016). Authorities responsible for school management and regulation can protect valuable resources for teachers and headmasters, such as time for pedagogical reflection and debate or professional training and development. The central level can also take systemic leadership by opening spaces for mutual dialogue and collaboration or providing with tools for enriched data use and evidence-based decision making – the 'Test for schools' in Flanders (Belgium), for example (Rouw et al., 2016). Strong leadership from the policy centre contributes to bringing alignment and momentum to capacity building initiatives. This is particularly important in highly decentralised systems, where central leadership can be exercised through soft modes of governance, i.e. seeking partnerships and building coalitions with other stakeholders across the system.

Support measures, however, must be sufficient and well-suited to their purpose. In Poland, for example, the training and resources provided for inspectors to implement a new school supervision system were insufficient, considering the inspectors' increased

workload. In Germany, the IT tool provided to support the development of local education monitoring was supported by a software platform rarely used in the targeted municipalities. The question of sufficiency and adequacy is especially relevant for smaller municipalities and struggling schools, which often need additional support to prioritise multiple programmes and accountability demands with fewer capacities (Blanchenay et al., 2014; Busemeyer and Vossiek, 2015; Hopfenbeck et al., 2013; Mazurkiewicz et al., 2014; also Chapter 5, this volume).

Finding a functional equilibrium between vertical accountability pressures and supporting measures is crucial to building capacity for reflection and improvement and for establishing lasting incentives for proper policy implementation. When equilibrium is achieved, accountability serves its purpose of guiding implementation and ensuring systemic quality while simultaneously contributing to stakeholder knowledge and practice.

Creating capacity and distributing leadership through collaboration

The inclusion of stakeholders such as researchers, private foundations and parents in governance processes and structures allows for new sources of input, potentially leading to innovative practices and a stronger foundation of knowledge. At the same time, an inclusive approach to governance works as a mechanism for horizontal accountability, allowing stakeholders to mutually apply pressure on each other to deliver successful policy outcomes (Hooge, Burns and Wilkoszewski, 2012; Busemeyer and Vossiek, 2015; and Chapter 5, this volume).

Horizontal capacity building is becoming increasingly important within complex education systems striving for educational improvement. Networks, as means for horizontal capacity building, are communities of practice (Wenger, 2000): groups of individuals or organisations facing similar challenges come together to develop specialised knowledge and enhance learning through joint reflection on practical experiences. Networks are support structures that rely on trust and collaboration rather than hierarchies and instructions, and in which participants become learners of their own teaching. Participants engage voluntarily regardless of their formal positions of authority, and leadership is distributed across participants based on their interactions (Smith and Wohlstetter, 2001; Bennett et al., 2003; Harris, 2001; OECD, 2013).

Networks for knowledge sharing and skill development are common among teachers, but other local stakeholders can also be included to engage in cooperative action and bring a wider range of knowledge and expertise. The GCES case studies provide several examples of inter- and intra-municipal and school networking. For example, at the municipal level, the German LvO programme promoted co-operation between administration and civil society actors and among civil society actors themselves to improve local educational monitoring. Most municipalities included foundations in their working groups together with other stakeholders such as Chambers of Industry and Commerce, employers' associations, unions and educational institutions. The involvement of stakeholders generated new knowledge, which informed the development of new networks to further improve local capacities (Busemeyer and Vossiek, 2015).

At the school and district level, peer-learning networks proved to be key facilitators of the AfL programme implementation in Norway (Hopfenbeck et al., 2013), and the central level – the Directorate of Education in this case – contributed to their emergence. Learning networks were not part of the official implementation strategy of AfL in Norway. However, the Directorate of Education created sufficient capacities for their

development by transferring knowledge (see Box 6.1 above) and requiring the appointment of a "resource person" in each school. This person was meant to support school authorities in running the programme locally by developing and supporting intra and inter-schools networks. This way, stakeholders could share experiences and reflection based on practice-based examples supported by theory and research.

Networks are effective when they articulate and maintain focus on a clear purpose and distribute quality information (Smith and Wohlstetter, 2001; Harris, 2001). In the absence of these elements, participants lack a common language to engage in collaboration and mutual learning. It is important to bring actors together and articulate shared objectives, but networks also need to develop the organisational capacity to maintain focus on their goals and on continuous improvement.

In the Norwegian case, teachers and headmasters reported that collaborative initiatives within and across schools were fruitful ways to better understand and implement formative assessment in theory and practice. However, focus and quality information distribution were not always achieved. Teachers reported that, in some cases, administrative discussions took up the time meant for common reflection. Some researchers noted that schools and municipalities were not always accessing high-quality information on the reform since materials provided by the DET itself and external consulting experts and companies were not always exhaustive. This type of superficial implantation of practice—that does not take into account the complexity of a desired change—could jeopardise a programme's success (Hopfenbeck et al., 2013).

Lacking previous experience with collaborative practice, many teachers were resistant to sharing their experiences with other colleagues in Norway (Hopfenbeck et al., 2013). Similarly, during the development of self-evaluation processes within Polish schools:

> *increased autonomy granted by the reform disproportionally benefited schools that already had a culture of co-operation among their stakeholders. […] while the new system formally requires teachers to engage in collaboration, observed collaboration to date proves to be rudimentary." (Mazurkiewic et al., 2014: 40)*

At their best, networks are spaces in which members take initiative on the basis of support and knowledge. But as networks are high-trust environments, ensuring their success and sustainability takes time. Consequently, they are generally facilitated rather than built (Mazurkiewicz et al., 2014). Networks and their participants need to be provided with sufficient support while developing the capacities and the collaborative culture that sustains them over time. The central policy level can contribute to a favourable environment for networks by providing direction and securing necessary resources, tools and expertise, such as time for reflection or training to understand, analyse and use data appropriately.

As forms of distributed leadership, peer-networks can also contribute to sustaining changes in culture and practices. Within these horizontal structures, participants are able to learn directly from other practitioners, and they begin to identify with larger parts of the system beyond their narrow interests (Barber and Fullan, 2005). By building trust and collaboration, networks lead to further capacity-building and, ultimately, to policy consolidation and sustainability (Barber and Fullan, 2005; Cerna, 2014).

Flexibility and sustainability

The dynamics of complex systems are dynamic and unpredictable, and it may not be possible to plan capacity-building measures in a linear manner. Nonetheless, there are key

factors which can significantly contribute to successful capacity building: adapting capacity assessment tools to the case at hand, following up on measures to understand the dynamics of change, choosing implementation measures carefully, and acknowledging that capacity building is a time-consuming policy tool.

Advancing policy design and implementation in complex settings requires securing appropriate capacities of participating stakeholders. Capacity building requires both persistence and flexibility. First, existing capacities may support or hinder policy implementation in different contexts, and these capacities vary from one actor to another. This is visible across the GCES case studies: different results of the same policy were observed for self-evaluation in Poland; AfL practices in Norway; horizontal networks for capacity building and accountability in Germany; improvement measures for weak schools in the Netherlands; municipal decentralised action to meet national education goals in Sweden; and capacities of schools, teachers and school heads to incorporate attainment targets into their daily work in order to improve teaching and learning in Flemish Belgium.

Furthermore, an action meant to have an impact on a specific element of the system or in a particular moment in time may generate virtuous or vicious cycles depending on the context[1]. A key lesson of complexity theory is that systems may react differently to the same intervention. Patterns of behaviour and certain dynamics may emerge as a result of potentially minor changes and generate unexpected and even undesirable results, which require policy flexibility to adapt (Snyder, 2013; Mason, 2016).

Policies can have varied and unpredictable effects. For example, among Dutch schools labelled as "very weak," the same intervention generated in some schools a sense of commitment and desire to improve shared by the whole school community, while in others it resulted in an exodus of students transferred by their parents to other institutions with higher ratings (van Twist et al., 2013). Responding to change often requires adjusting an approach in the face of the unexpected, evaluating information as it emerges and rethinking and adapting the policy plan. Being flexible in policy implementation requires receptiveness to change and adaptation to the situation at hand, adopting a position of further responsiveness to future events by becoming capable of learning along the way (see Chapter 4, this volume, on policy evaluation). Flexibility facilitates policy learning – moving from what does not work to more successful interventions – but learning requires time.

Second, capacity building can affect deep-seated factors such as routines, behaviours and mind-sets, but it is a time-consuming process. It may take years to observe any substantial change resulting from capacity building measures (Borman et al., 2003; and Smith, 2010), as observed in ambitious reforms such as the Polish reform of school evaluation or the system-wide introduction of formative assessment in Norway. Hence, rapid outcomes expectations and short policy cycles may hinder systemic ability for capacity building, leading to constant changes in priorities and eventually producing reform fatigue (OECD, 2009). Securing time for appropriate implementation is the only way to achieve lasting gains in return (Harris, 2011).

Box 6.2. Flexibility and sustainability through competition in Germany

The programme "Lernen vor Ort" [LvO –"Learning Locally"] offered ear-marked grants to a limited number of municipalities through a competitive process. The funding decision was based on the quality and plausibility of proposals, a convincing concept of how local stakeholders could be included, how the main goals of LvO would be implemented and a sufficient budget to ensure that local governments continue committing funding after the end of the programme period.

By adopting a competitive approach, LvO secured the political commitment of participating municipalities, ensuring that the programme's objectives were at the top of the local political agenda for education. This was reinforced by involving local civil society stakeholders that served as means of horizontal capacity building and accountability. In addition, LvO was a "learning programme". It constantly monitored the evolution of the implementation and gave feedback to localities and the central level, allowing for changes and adaptations after first experiences in the management of the programme.

LvO took advantage of those municipalities where capacities were more suited for successful and sustainable policy implementation. In spite of its relatively small size – the programme included 75 cities and districts – LvO promoted its objectives and main lessons beyond the participant municipalities through 'transfer agencies', the mission of which was to become a self-sustaining knowledge management structure transferring know-how at regional and federal level.

Source: Busemeyer and Vossiek (2015), "Reforming education governance through local capacity-building: A case study of the 'Learning Locally' programme in Germany", *OECD Education Working Papers*, No. 113, http://dx.doi.org/10.1787/5js6bhl2mxjg-en.

An analysis of capacities and measures for capacity building must be considered a central part of policy planning, rather than implemented as a reactive measure to failure. By adopting an open voluntary competition approach, LvO in Germany (see Box 6.2 above) capitalised on the potential of those municipalities with appropriate capacities to succeed, which helped to secure important levels of political commitment and legitimacy towards the policy objectives from the very beginning of the intervention. The so-called 'transfer agencies' were supposed to gather the experience of the programme to translate it into knowledge, and then transfer it to other districts and municipalities that did not initially participate. Contrarily, a whole-system approach was taken in Sweden, where the process of decentralisation of the education system brought about several negative impacts due to the lack of municipal capacities for an efficient use of resources – some examples of insufficient capacities for the use of data are discussed in the next section.

The capacity of the agents implementing a reform to adapt to existing circumstances is a key element for transforming resistance into acceptance and engagement, contributing to a cultural shift that can consolidate and sustain policy reform. Yet it is not easy and, as said, this takes time. In Poland, despite a general acceptance of the importance of evaluation for educational improvement, the reform of evaluation revealed the difficulties of moving from a culture of evaluation as supervision and control – even "oppressive" or "harmful" – towards a culture of open dialogue and co-operation among stakeholders, which "will be a process developing over years" (Mazurkiewicz et al., 2014: 40).

At the system level, mechanisms of experimentation to allow for testing and scaling up effective initiatives could be a promising way forward for successful policy design and development, as experimentation helps to reduce the uncertainty linked to complexity by relying on evidence about what works. The pilot projects included in the process of revising technology-related targets for primary education in Flanders (Belgium) exemplify this flexible, learn-as-you-go policy approach (Rouw et al., 2016).

At the school level, leadership is also more effective when it allows for adaptation. For example, focusing on peer learning and dialogue, the integration of all teachers in the change process and a willingness to adapt implementation strategies according to teachers' input resulted in greater effectiveness of AfL practices. A single teacher or school head can show great leadership by successfully pushing school reforms forward. However, lasting change entails sustainable leadership, which calls for involving the whole-school professional community in the reform agenda (Hargreaves and Fink, 2004).

Data use in education governance

Knowledge is related to governance as a fundamental capacity to define a problem, identify policy solutions, derive feedback and implement policy (Fazekas and Burns, 2012; see also Chapter 2, this volume). In this sense, capacity for data use is required to undertake any initiative for improving education governance and education itself. The capacity to produce, analyse and use relevant knowledge for systemic management and improvement is even more relevant given the enormous amount of education data available today. This section discusses capacities in the specific field of use of data, reflecting on the implications of a lack of capacities for policy implementation and results and providing relevant examples from the GCES case studies.

Education data encompass "any information that is collected to better understand a part of the education system. There are four categories of education data: input data, outcome data, process data, and context data. Table 6.2 lists the four different categories and gives examples for each.

Table 6.2. Categories of data in education systems

Category	Examples
Input Data	Prior test results, individual student socio-economic background indicators, teacher qualifications
Outcome Data	School inspection reports, national assessment results, classroom grades, measures of well-being, drop-out rates
Process Data	Curriculum design, time spent in class, days absent, teacher observations, money spent on educational resources
Context Data	Neighbourhood socio-economic data, the academic composition of the peer group within a school

Source: Ikemoto and Marsh, 2007, Yearbook of the National Society for the Study of Education.

The prevalence of data from student exams, school and teacher evaluations, and many other sources – outcome data – can significantly alter accountability structures in education. Although designed to increase transparency and accountability of education systems, existing research shows the various ways this process can be disrupted or not work as intended, and many of these elements were also observed in the GCES case studies. We can identify three categories of challenges associated with the use of data: *non-use, misuse*, and *abuse* (Schildkamp, Lai and Earl, 2013; Schildkamp, Karbautzki and Vanhoof, 2014).

Non-use

Non-use takes place when data are not collected or there is a lack of capacity to make use of data. This also includes actors choosing not to use data that are contrary to their argument or beliefs.

A lack of reliable data may compel policy makers to rely on anecdotal evidence and analogies instead of using data. A lack of data also allows for individual opinions to take on the role of knowledge (Bajomi et al., 2010). The so-called 'PISA shock' in Norway and Germany exemplifies this: both countries considered themselves to be among the top performers of the world in education before the PISA report was released for the first time in 2000, but after its publication it became clear that actual data did not match existing societal expectations (Hopfenbeck et al., 2013; Busemeyer and Vossiek, 2015).

Data can also be inadequate. Even when data have been collected, they cannot be used unless they are of sufficiently high quality. In the case of Germany, Busemeyer and Vossiek (2015) stated that difficulties in accessing and integrating different kinds of data distributed across numerous institutions arose particularly among districts that lacked statistical resources to compile data – mostly rural ones. If data are not easily accessible and cannot be linked to other relevant data and disaggregated at the appropriate levels, actors cannot use them to inform policy decisions.

Another problem may be that there is an overwhelming amount of data. Without capacity to interpret the various sources and potential conflicts between them, relevant data may not be used at all. Issues stemming from insufficient resources and capacity can not only hinder the analysis taking place within the data-use cycle (as discussed in the *Misuse* section below), but also the buy-in necessary for individual actors to enter the data-use process in the first place. In districts that operate with a small staff, hiring additional employees to perform data analysis can be costly. Due to the resource demands of data analysis, non-use of data is more likely to occur in small districts or in districts with insufficient resources or competing priorities. Smaller municipalities in Germany, Norway and Sweden are examples of this phenomenon (Busemeyer and Vossiek, 2015; Hopfenbeck et al., 2013; Blanchenay et al., 2014).

Even when data exist, administrators or teachers may choose to ignore them in favour of their existing knowledge, experience or intuitions. This may be due to time or tradition, for example, in the case of Sweden, where local decision-makers often allocated funding based on traditional patterns rather than on an analysis of available data (Blanchenay et al., 2014). It may also be due to political reasons or tensions between qualitative and quantitative researchers and distrust of the analysis (OECD, 2007). Teachers' resistance to change in the Norwegian and Polish case studies exemplifies such tensions (Hopfenbeck et al., 2013; Mazurkiewicz et al., 2014).

Misuse

Misuse refers to data that are poorly collected (quality concerns), incorrectly interpreted (analysis or capacity issues) or do not provide adequate answers to be useful for decision-making.

In terms of collection, the availability, quality and ease of use of the data often underlie their misuse. Breiter and Light (2006) note that the information needs at different levels of education governance vary. One aspect to be considered in collecting data for educational governance is the goal of the information because, otherwise, it is not possible to assess its validity and thus its utility for decision-making.

Even if consensus on what should be measured exists, it can be difficult to connect the chosen goal with an operationalised measure such as a particular learning outcome (Prøitz, 2010). Regarding the assessments of student performance, Mintrop and Sunderman (2009) warn that it can be often unclear what a given test actually measures. Tests may measure only the ability to perform on that particular test (Hutchings, 2015), or factors exogenous to teaching, such as pupils' socio-economic and cultural background.

Other research shows that even when a measurement instrument is valid, it can be inconsistent. This is particularly relevant for the comparative use of data across time in the educational context. Both the time when a test is taken and the specifics of the test administered can cause significant variation in assessment outcomes. The challenges arising from choosing a valid and consistent measurement instrument make it difficult to establish a data system that allows for making comparisons between data collected at different points in time and in different places (Papay, 2011; Baker, Oluwole and Green, 2013).

Misuse of data may be caused by undertaking an analysis relying on a narrow set of indicators. As a result of the relative abundance of student assessment data, the seemingly straightforward manner in which to tie it to improved learning outcomes, and the media's focus on these results, all too often assessment scores are the sole focus of not just data collection but also analysis. In Sweden, for example, certain forms of evidence – such as school rankings – often became most visible and most used. This often comes at the cost of strategic thinking aimed at developing the education system over the longer term (Blanchenay et al., 2014). Similar problems occurred at the school level in Poland, where the lack of appropriate capacities compromised schools' effectiveness in carrying out self-evaluation, one of the main objectives of the new schools supervision system. As Mazurkiewicz et al. (2014) explain, chief inspectors observed that the absence of a culture of reflection on self-improvement and development was hampering the in-school evaluation process, due to an excessive emphasis on comparisons and competition between schools based on their performance results.

Additionally, even a thorough analysis of data does not guarantee adequate use. Thus, in addition to analysis issues, another related challenge concerns synthesis and decision making. Knowledge gathered from data analysis only becomes useful when it is contextualised. While there is often much that can be learned from the results of data analysis, it may be the case that information does not meet scientific standards to warrant action (Floden, 2012).

Abuse

Abuse of data is when data are manipulated to lead to more favourable results, or result in unintended consequences.

Campbell warned many years ago that "the more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor" (1979: 85). Jennings (2012) finds that accountability systems shape patterns of data use in education systems, while Baker (2002) argues that accountability regimes based on incomplete measures of performance provide incentives that can distort behaviour. Under some circumstances, changes might be perceived as innocent changes of behaviour causing unintended consequences, while at other times policy recipients may cheat or knowingly exploit policy loopholes (Mintrop and Sunderman, 2009).

Tested subjects take a pre-eminent role when accountability relies heavily on student assessment indicators. In order to secure good results, schools can react to accountability pressures by narrowing the curriculum and shifting resources to tested subjects, which may come at the expense of non-tested subjects and skills as well as extra-curricular activities (Hooge et al. 2012; Rosenkvist, 2010; Hutchings, 2015). Furthermore, increased time dedicated to tested subjects often specifically targets test preparation and hence weakens the professional judgement of teachers regarding teaching strategies while not necessarily improving content-learning (Hooge et al., 2012). These problems may exacerbate the situation in schools operating with fewer resources, often assigned to meet additional accountability goals, by undermining their autonomy and potentially narrowing their capacity to develop tailored solutions to their local demands, as well as reducing their capacity to attract and retain good teachers and students (Mintrop and Sunderman, 2009).

Other problems related to the abuse of data are the targeting of students at the margins, manipulation of the pool of tested students by classifying some pupils as special-needs students to exclude them, or cheating and intentional misinterpretation of results by teachers or administrators (Rosenkvist, 2010). Selective publication of results allows a class, school or district to appear better than it may actually be (Blanchenay et al., 2014). Although the case studies did not reveal any specific examples of the abuse of data in governance, these issues appear frequently in research and the media and cannot be overlooked.

Conclusions and recommendations

This chapter discussed the central role that capacities play as key enablers for any policy reform, and thus, the importance of building capacities for change to happen. It presented main drivers and barriers for capacity building found in the GCES case studies by structuring them around four blocks related to change in complex systems: shared vison and common understanding, vertical capacity building and the role of the central policy level, networking as a form of building capacities horizontally, and policy flexibility and sustainability. The main messages of the work at hand are synthesised below along with their policy implications.

Shared vision and comprehension of the change process

Systemic long-term strategic thinking can be fostered through discussions and workshops with multiple actors. Involving stakeholders in the elaboration and communication of strategic goals and policy objectives helps to create a shared vision of the needs of the system. This is useful for accessing local knowledge regarding potential barriers and advantages for policy implementation in specific contexts. This inclusive approach also generates legitimacy and creates ownership of the policy objectives and planned actions among those implementing the policy. This approach can produce collaboration and trust rather than resistance to change and reform fatigue. Once included, stakeholders must develop a full understanding of the policy's goals to ensure they fulfil their responsibilities in the change process and avoid superficial implementation.

Policy implications:

- Include concerns of stakeholders when dealing with priority setting for a reform and engage in a continuous dialogue on how to address the problems that emerge

during the policy design and implementation process, paying special attention to capacity-related issues. Avoid superficial attempts that do not fully deliver on the promise of the processes as these tend to engender frustration and can lead to future resistance.

- Strengthen communication of the reform's vision and mission to make sure all stakeholders have an understanding of the goals and purposes of the reform and take aligned action.

Vertical capacity building and the role of the policy centre

Central leadership is essential for aligning implementation strategies across all governance layers, but leaders must provide support as well as applying pressure. Stakeholders' needs regarding capacities must be assessed and the means for capacity building must be considered from the very beginning, rather than as a reactive measure when something goes wrong. Capacity building needs vary considerably system-wide – in districts, municipalities, schools, teachers, etc. Capacity building must take these variations into account to ensure equity and efficiency across the system.

Policy implications:

- Clearly define responsibilities and ensure accountability and capacity-building measures before or at the start of a reform.
- Governance actors require training and support in the acquisition of knowledge to facilitate change. The central level must work closely with local authorities and practitioners and other stakeholders in order to identify needs for capacity building. Involving research institutions ensures that relevant knowledge is included in reform design and implementation. Ensure that stakeholders have the capacity to collect, access and integrate different kinds of data.
- Help smaller municipalities and schools to prioritise when they face competing programmes and initiatives. Communicate clearly how specific elements work together with other initiatives to form a whole.

Distributed leadership and horizontal capacity building

Collaboration and exchange of good practice among municipalities, schools and professionals had very positive effects on capacity building throughout the case studies. Processes and structures based on distributed leadership can foster enthusiastic engagement and enhanced learning, impacting positively on governance and professional practices and setting the stage for sustainable transformation and improvement. Inclusive and collaborative decision-making contributes to a culture of horizontal accountability and capacity building, shifting from mechanisms based on hierarchic control and supervision to a focus on improving teaching and learning.

Policy implications:

- Facilitate intra- and inter-municipal and school collaboration by establishing fora for exchange on education issues. This can involve networks of outstanding teachers, school leaders, schools and municipalities and those that struggle with change in order to overcome implementation challenges, build capacity and foster knowledge creation and dissemination.

- Incorporate the development of such networks in the policy planning process, including the means for their development and sustainability, and ensure they have a clear purpose and focus.

Flexibility and sustainability

Differing capacities of stakeholders may support or hinder effective change implementation across the system. Additionally, different actors in the system may react differently to the same policy intervention, generating either vicious or virtuous cycles. Systems must take these elements into account when planning and implementing policies and their related capacity-building initiatives; they must adapt to the context in which they are applied and flexible enough to respond to emerging unexpected phenomena and new knowledge. But being flexible is not enough. Capacity building is a time-consuming enterprise, and as such, it must be grounded in a strategic systemic vision that allows for sustainability over time.

Policy implications:

- Change of institutional culture takes time. Provide lasting support to stakeholders beyond the point of a reform's completion.
- Conduct a thorough analysis to identify those capacities that policy implementation may require, and plan capacity-building measures as a central part of the policy implementation, adapting to the specific needs of stakeholders across the system and guarantying their sustainability in time.
- Testing policy implementation strategies through experiments, either at the system level or in the school, may help to reduce uncertainty of policy results and thus provide input for policy learning and adjustment.
- Develop policy monitoring and evaluation tools to assess policy implementation and adapt policy planning for emerging aspects or unexpected effects that can have an impact on policy outcomes, further developing capacities when appropriate.

Notes

1. The GCES case study on the Inspectorate's policy of labelling schools in the Netherlands (van Twist et al., 2013) presents a thorough exposition of the effects of non-linearity and emergence phenomena in complex systems and the subsequent need for applying circular models to reduce risks of vicious cycles when designing and delivering policy interventions.

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PART 3.

LOOKING AHEAD

Chapter 7.

When trust breaks down in education systems

Trust is an important but complex ingredient of good governance and education reform. Existing literature has explored the nature of trust and the ideal 'virtuous cycle' of continuous trust building. However, much less is known about the more common phenomenon – when trust breaks down and is followed by attempts to restore and sustain it. In order to supplement the established literature on the topic, short trust briefs were collected from a variety of OECD countries. Each brief explored examples of how trust in education systems broke down and was (potentially) restored. This chapter discusses current research on trust and how it might pertain to education policy and reform. It synthesises strategies to restore and sustain trust observed across the briefs. The four main strategies may be broadly categorised as: stakeholder engagement, capacity building, accountability and strategic thinking.

Introduction

In decentralised, complex education systems, trust is an essential - if somewhat mysterious and little understood – factor in a successful policy reform. Defined as "an expectation, a willingness to be vulnerable and a risk-taking act" (McEvily et al. 2003: 93), trust is a dynamic, relational and *human* quality. It takes time to develop but can be broken in an instant (Reina and Reina, 2006).

Building trust is important during all stages of the policy cycle, from policy formulation, policy delivery to policy learning. It is a lengthy process which often does not fit into short political cycles. Yet it cannot be done without: trust is necessary if a government or school management wishes to reach consensus, particularly around a reform that may be uncertain and contested. Manoeuvring successfully in a highly dynamic policy area requires policymakers to build trust by strategically managing time and relationships with other stakeholders.

Trust levels naturally wax and wane. However, the 2008 financial crisis had broad effects on public confidence in institutions and citizen well-being (Borgonovi and Burns, 2015). Although there is still a higher level of trust reported in education (69%) than in governments in general across OECD countries (43%) (Gallup World Poll, 2015), a continued decline in institutional trust would have major ramifications for the reception and implementation of public policy and reforms as a whole. This is not limited only to the central level. The challenges associated with trust exist at all levels of education governance – including the regional, municipal, school, and individual (e.g. teachers, parents, administrators and students) levels.

While most would agree that trust is important, it is difficult to understand what exactly it entails, how it works and the ways it can be measured. Little is still known about the mechanisms of a breakdown in trust, and how it can be restored and sustained in complex systems such as education. The present chapter seeks to fill this gap. It draws on real-life policy experiences from a wide array of education systems and builds on existing work on trust (e.g., Cerna, 2014; Borgonovi and Burns, 2015).

First, the chapter provides key definitions and concepts relating to trust, including optimal levels of trust and the role of trust and trust breakdown in reform. Second, the chapter analyses the process of trust breakdown, rebuilding, and sustaining trust by weaving together the existing literature on trust with insights based on the information provided in a series of trust briefs. Finally, it concludes with a summary of policy implications and suggestions of areas for further research.

Trust: key definitions and concepts

Trust is a rather elusive concept. It can be an expectation, an interaction, a belief, an emotion or a social coordination mechanism. For the purpose of this chapter, we follow the Cerna (2014) proposal of a definition made up of three constituent parts: "trust as "an expectation, a willingness to be vulnerable and a risk-taking act" (McEvily et al., 2003: 93). More specifically, trust is an *expectation* that other members of the community will behave in a cooperative and honest way (Fukuyama, 1996; also Hoy and Kupersmith, 1985; Van Houtte, 2007), a "*willingness to be vulnerable* based on the confidence that the other party is benevolent, reliable, competent, honest and open" (Hoy and Tschannen-Moran, 1999: 189) and a dynamic process in which parties are

involved in a series of interactions which require some *risk-taking* or faith (Becerra and Gupta, 1999; Tierney, 2006).

There are a number of different types of trust. *Interpersonal trust* occurs at the individual or small-group level: one can choose to trust another person based on previous face-to-face contact and personal association, or if there is no direct information, based on mutual reliable credentials (Bahre and Smets, 1999). In education settings in particular, this type of trust occurs between principal and teacher, teacher and teacher, professionals and parents, and professionals and students (Cerna, 2014). *Organisational trust* consists of the positive expectations individuals have about an organisation; individuals experience trust differentially based on their own networks and experiences within an organisation. For example, the work of the school depends on the establishment of trust, as the complexity of tasks within this organisational context demands high interdependence among different groups of school members (Cerna, 2014; Van Maele, Forsyth and Van Houtte, 2014). Finally, *institutional trust* explains the degree to which individuals have confidence in institutions such as the government or the military, with a focus on the trust patterns of individuals embedded in a specific cultural and socio-historical context. In education specifically, the level of parents' trust in the school system can be investigated as an example of institutional trust (Borgonovi and Burns, 2015).

The complexity of trust underscores its importance for good governance, and specifically for education governance, in a number of ways. At its core, trust is highly sought after, because it allows for reliability and predictability. Individuals, organisations or institutions are trusted because they generally do what they are expected to do: to be fair, transparent and honest. They are also expected to react appropriately if there has been some misunderstanding: that is, to try to fix the situation. However, in education systems that are becoming increasingly decentralised and allow for greater local autonomy, there is a higher probability for *asymmetries of power and information*, i.e. inequalities of agency or access to knowledge, which may cause one side to promote vested interests through manipulation or use a favourable position to their own advantage (see Cerna, 2014 for further discussion).

When processes and interactions among stakeholders are underscored by feelings of co-operation, collaboration, fairness, transparency and honesty, such asymmetries can be prevented, or at least mitigated. These feelings can then manifest in actions, such as consistent engagement among stakeholders, more structured and clear monitoring and accountability procedures, and increased capacity-building efforts to help all actors meet expectations. Trust facilitates these harmonious feelings and actions, because it reduces uncertainty about opportunistic behaviour and increases the probability that all stakeholders will equitably invest their resources for a common cause. These phenomena are not only predicated upon the existence of trust; each element positively reinforces one another.

Therefore, trust is vital to robust negotiations and exchanges between stakeholders. These interactions take place within two contexts: systems of existing levels of sufficient trust, and systems in which trust has broken down. In the former, the main question is how to fortify and maintain a virtuous cycle of trust (see Figure 7.1 below). In the latter, which is more common but much less explored in the literature, the primary challenge is to strategically restore and sustain trust after certain actors may be dissatisfied and unwilling to be placed in a vulnerable position again. It is clear that in any governance context, some level of trust is important for healthy functioning.

Is all trust good trust?

It is important to note that trust levels should be appropriate to the context. The development of trust and a propensity to collaborate may be strongly influenced by intuitive and emotional reactions and sensitive to behavioural aspects such as demonstrated respect and concern (Kadefors, 2004). The literature has demonstrated that different levels of trust have different costs, benefits and risks associated with them (see Table 7.1).

Table 7.1. Profile of trust levels and associated costs, benefits and risks

Level	Costs	Benefits	Risks	Associated with
High trust	– Few options and alternatives – Limited monitoring ability – Costs of creating and maintaining relation	– Low agency and transaction costs – Preferred trading partner – High capacity for adaptation, co-operation and commitment	– Assessing betrayal – Betrayal – Divorce – Stifled creativity	– Strong ties – Interdependent relationship
Moderate trust	– Some agency and transaction costs – Some capacity for adaptation, co-operation and commitment – Some costs of creating and maintaining relation	– Significant options and alternatives – Some monitoring ability – Preferred trading partner	– Worst or best of high trust and low trust? – Reputation	– Weak ties – Moderately interdependent relationship
Low trust	– High agency and transaction costs – Low capacity for adaptation, co-operation and commitment – No preferred partner	– Many options and alternatives – Low cost of relationship – Great deal of monitoring	– Opportunism – Encouraging opportunism – Insufficient commitment	– Few or no ties – Independent relationship

Source: Wicks, Berman and Jones (1999), "The structure of optimal trust: moral and strategic implications", http://dx.doi.org/10.5465/AMR.1999.1580443.

Investing in trust must be done wisely, according to existing relationships, agendas and needs: Overinvesting in trust (trusting too much or investing in trusting relationships that have little value) may be misallocating precious resources and/or taking unnecessary risks that could have a negative effect on performance (Wicks, Berman and Jones, 1999). Underinvesting in trust (trusting too little or no investing in trusting relationships that have substantial value) may result in missed opportunities to create cost savings or building capacity (Wicks, Berman and Jones, 1999). Underinvestment bypasses opportunities for more efficient and mutually beneficial exchange between stakeholders and creates significant added risks (opportunism) and costs (monitoring), while draining human interaction of a morally desirable trait (Wicks, Berman and Jones, 1999).

Optimal levels of trust

Optimal levels of trust thus allow for the benefits that can be gleaned from trusting, while at the same time guarding against abuse and unnecessary risks. Marsh and Dibben (2005) dispute the widespread acceptance in the literature that trust is always a positive, and argue instead that *mistrust* (misplacing of trust)[1], *distrust* (negative trust)[2] and *untrust* (not enough trust)[3] can be useful. Active distrust (to be distinguished from simple lack of

trust or mistrust) may be a normatively appropriate response in some circumstances. Distrust as a part of institutional or professional routines has stimulated progress in scientific and medical domains over the last century: for example, hospitals review procedures after every incident (Cannon and Edmondson, 2005). Similarly, health professionals engage in active and intentional distrust of each other, leading to important advancements in medical practices. In short, trust should not be considered as an "either/or" matter as it varies along a continuum of intensity (Williams, 2001). One can both trust and distrust the same person at the same time (Lewicki, McAllister and Bies, 1998). Relationships unfold so that individuals continually update their decisions on whether or not to trust (Wicks, Berman and Jones, 1999).

This is not just a theoretical discussion. Trust can have both positive and negative consequences in the real world. Too little trust might lead to over-use of public services and inefficient allocation of resources: for example, based on findings in the health care sectors of three different European countries, Van der Schee et al. (2007) found that low levels of trust might mean that patients follow less therapeutic advice and ask for more second opinions. In education this is mirrored by parents questioning the expertise of teachers and school leaders and being less likely to follow their guidelines and suggestions.

Too much trust can also be dangerous, especially if it leads to superficial forms of collaboration, rather than actual, ethically sound engagement among stakeholders. For instance, trust based solely on shared identity can allow the development of a more transactional kind of "trust" that enables co-operation in pursuit of morally unworthy acts. Membership in a gang is one example of this (Gambetta, 1993).

A widespread danger is the abuse of power on the basis of trust (Warren, 1999). Trusting too much can enable exploitation, domination or conspiracy against others. This danger is well-demonstrated in health care due to the specific vulnerability of patients, particularly those from disadvantaged backgrounds (Gilson, 2006). People may trust blindly, which can be dangerous and exacerbate abusive behaviour (e.g. trusting too much, including not monitoring, can enable opportunists to steal with relative impunity) (Wicks, Berman and Jones, 1999; Hardin, 1996). Distrust is thus an important way of guarding against the abuse of power (Tibandebage and Mackintosh, 2005).

Wicks, Berman and Jones (1999) argue that there is an optimal level of trust in each situation, and that the more interdependence there is between exchange partners, the more trust is required in order to achieve efficiency and seize opportunities for improvement. Optimal trust is the golden mean between excess (overinvestment in trust) and deficiency (underinvestment) in human conduct (Wicks, Berman and Jones, 1999). It is operationalised as a function of the match between trust levels and levels of interdependence in organisation-stakeholder relationships. While many of the examples in the literature come from the health sector, these arguments also apply to education.

Trust and reforms

Optimal levels of trust are especially pertinent at times of a reform, since effective reform requires a willingness to make change happen. This generally requires trust in the intentions and expertise of both the designers and the implementers of a given reform. As policy reform is a political process (e.g. Williamson, 1994; Cerna, 2013), in order to succeed, policymakers need effective methods to analyse relevant political conditions and shape key political factors in favour of policy reform (Reich, 1995). In thinking about

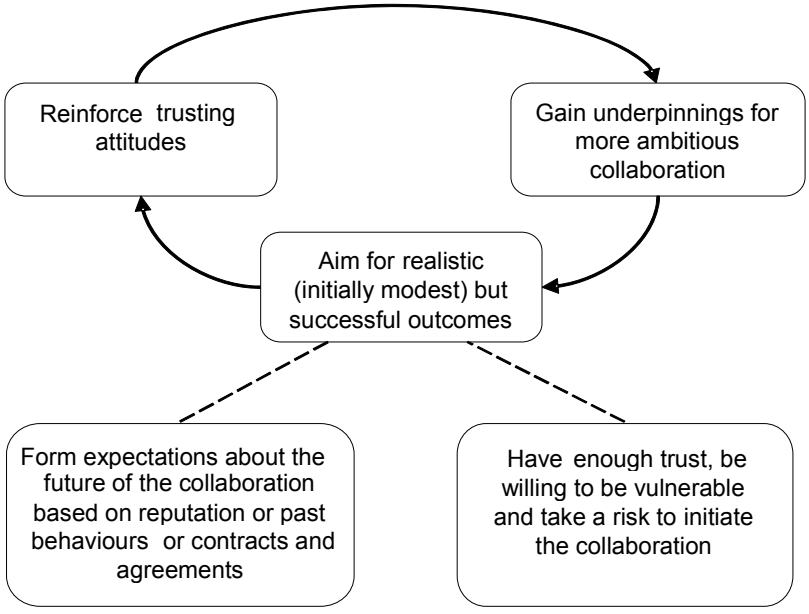
how trust and reform interact, it is important to distinguish building, restoring and sustaining trust from moments when trust breaks down.

Building trust

Trust building requires investments of time and strategic consideration of issues, such as power imbalances, the management of purpose, sharing of information and the need for leadership while not allowing anyone to 'take over' (Vangen and Huxham, 2003). Ideally, systems should engage in trust building, with the system starting out with neutral or positive levels of trust. This is a cyclical process: with each positive outcome, trust builds on itself incrementally, over time, in a virtuous circle (see Figure 7.1). In order to build trust, it is most important to facilitate open communication and co-operation (Das and Teng, 1998; Webb, 1991; Leifer and Mills, 1996; Nooteboom, 2010; Vangen and Huxham, 2003).

Building mutually trusting relationships creates flexibility, commitment, durability within the relationship, creativeness and strong social ties (Wicks, Berman and Jones, 1999). To build trust in institutions (such as governments), it is important to utilise the strategies mentioned in the previous section to minimise uncertainty in the economic, social and political environment, create more efficient and responsive public services, encourage citizen engagement and access to information, as well as to manage conflict of interest and ensure transparency of the policy-making process (OECD, 2013).

Figure 7.1. Cyclical trust-building loop



Source: Vangen and Huxham, 2003, "Nurturing collaborative relations: building trust in interorganisational collaboration", http://dx.doi.org/10.1080/03003930.2011.615837.

The breakdown of trust

As Dasgupta (1988: 50) argues, trust is a "fragile commodity", hard to construct and easy to destroy. Although trust building cycles are highly preferred, the volatility inherent to complex education systems, more often than not, results in breaches or full breakdowns of trust. This breakdown can directly or indirectly underlie the failure of many reforms. In a similar vein, Dalford and Drapeau (2003) argue that trust becomes threatened in tumultuous times, such as a crisis, reorganisation or reform because stakeholders consider how it will affect them and it creates uncertainty about the consequences. The prevalence of trust breakdown during reform efforts is highlighted by the trust briefs later in this chapter.

Analysing trust breakdowns is difficult since different contextual and cultural interpretations exist of what a breakdown means for stakeholders. In processes of change, breakdowns in trust can occur at any point, but may be particularly common around the issues of (mis-)understanding (what the change is about, and its purpose), performance (what behaviours and outcomes will be expected) and closure (how the success of the change will be assessed, and when) (Ford and Ford, 1995). Trust grows or is broken down according to "relational signalling": people interpret conduct as signals of underlying intentions and inclinations, and change their own behaviour on the basis of it (Ford and Ford, 1995).

Breakdowns in trust can have severe implications beyond the immediate consequence of disrupting change and reform. According to Welsh et al. (2005: 463), "the absence of trust can be taken as a sign of social breakdown." Teaching is considered an emotional form of work as it affects the feelings and actions of others with whom teachers work and form relationships (Hargreaves, 1998). Since people make emotional investments in others whom they trust, erosions in trust can be often emotionally damaging (Larzelere and Huston, 1980).

Furthermore, when trust breaks down between administrators and teachers, it can lead to suspicion and psychological withdrawal. One example from the United States highlights this point. There, reform programmes accompanied by a push to standards-based accountability have led to a decline in teacher trust in other school members and to an increase of teacher burnout levels (see Dworkin and Tobe, 2014). In the case of teachers and students, a breakdown in trust can result in a cycle of punishment and withdrawal or rebelling, which can hinder the cognitive and social-emotional development of students (Tschannen-Moran, 2014). These are all consequences that may be lessened or avoided altogether by sustaining trust.

Although the literature does not provide much information on possible factors for a breakdown in trust which would be applicable especially to the education system, some lessons can be learned from other sectors. In the health sector, for example, medical litigation seems to be on the rise (mostly cases of negligence involving injury and death of patients), likely as a result of a breakdown in trust between patients and doctors (Cusack, 2000). This has consequences in the form of negative effects on medical practice, the psychological health of doctors and patients, and on finances of the state. Overall, the consequences of a breakdown in trust can be quite severe for many stakeholders, whatever the policy area.

Restoring trust

Restoring trust must be differentiated from building trust as it requires more time, effort and revitalisation of relationships among stakeholders. Dietz and Gillespie (2012: 36) caution that "trust failures typically take years to resolve, and can be both debilitating and very costly…it pays to invest proactively in designing an organisational system that encourages and supports trustworthy conduct".

In general, the literature advises the use of strategies similar to those needed for building trust: improving capacity for strategic thinking and risk anticipation, and promoting stakeholder engagement at all stages of the policy cycle, and rebuilding by improving measures of accountability. This entails enabling open government (including budget transparency), improving the quality of regulation, reinforcing integrity and ensuring fairness in decision making (OECD, 2015). However, consideration of the psychological nuances and chronological differences that separate trust restoration from trust building is still lacking.

Restoration of trust may also be considered in terms of a process. One model worth adapting may be from Dietz and Gillespie (2012), who propose a four-stage process for restoring trust after trust has broken down in organisations:

1. An immediate response.
2. A thorough and systemic diagnosis of the causes and facilitators of the failure.
3. A comprehensive and targeted series of reforming interventions.[4]
4. Regular evaluations of progress.

Restoring trust requires attention to each stage of the policy cycle – priority setting, policy design, policy delivery (implementation and enforcement), and policy learning (monitoring and evaluation). For example, increasing the transparency of the tax system would build trust among citizens that policies are fair. This effort would include attention to policy design but also actions to address unfairness in the implementation, enforcement and compliance stages of the policy cycle. Specific actions can be taken to strengthen trust associated with particular features, such as competence, values and fairness (see OECD, 2015 for a more detailed analysis). This helps to identify who would be responsible for the action and how it can be put into practice.

Sustaining trust

Sustaining trust may be understood in education systems as the deployment of strategies and structures that foster and reinforce a long-term culture of trust among all stakeholders. This includes proactive leadership; judicious management and support for all levels involved in governance; an ability to keep learning from mistakes and to remain flexible; and a willingness to engage honestly and transparently with stakeholders to avoid future trust breakdown. Knowledge of the process of sustaining trust is limited to date, especially given the relatively short nature of political tenure of many education policymakers and the accompanying sudden shifts in policy direction.

Strategies and mechanisms for policy

This volume has analysed a series of case studies of reform efforts within the education systems of Flanders (Belgium), Germany, the Netherlands, Norway, Poland and Sweden. These have highlighted the need for a whole system approach to thinking

about successful governance at all levels. Part of a whole system approach is developing strategies and mechanisms that catalyse shared expectations of integrity, fairness and collaboration into meaningful action, and thereby increase feelings of trust throughout the policy cycle. These mechanisms are laid out below:

- **Stakeholder engagement:** this entails partnerships among diverse actors so that all stakeholders have a full understanding of reform goals and can also play an active role in shaping reform. Engagement strategies include building consensus around reform goals, creating ownership of the reform by stakeholders and engaging in collaboration with relevant actors to reach aligned action. In contrast, a lack of stakeholder involvement can result in weak dialogue, ownership and co-operation, all of which are integral to trust.
- **Accountability:** behavioural consistency and a willingness to tackle awkward questions and the prevention of the abuse of power are also important for reform efforts (Dalford and Drapeau, 2003; Nooteboom, 2010). Nurturing public trust in reforms means effectively addressing public concerns about fairness: who will be affected by a reform, in what way and to what degree? In addition to helping ease reform, measures to address potential distributional impacts are essential in order to ensure that policy does not exacerbate inequality, which is already on the rise in many countries and is a major impediment to trust. Hence, it is important to improve the understanding of benefits and costs of reforms (OECD, 2015), as well as build a constructive accountability system (see Chapter 5).
- **Capacity building:** stakeholders must also be provided with the tools needed to execute their role in a reform. Capacity building includes vertical and horizontal strategies of providing resources and knowledge. Functioning capacity-building initiatives may require or facilitate the building of trust, e.g. horizontal peer networks. At the same time, insufficient capacity-building efforts can result in dissatisfaction or lack of trust that a reform can succeed (OECD, 2013; see also Chapter 6 in this volume).
- **Strategic thinking:** many reforms involve sacrificing short-term results for longer-term gains, and require broad social and political consensus to be effective and sustainable. Policymakers should thus incorporate tangible plans and goals for stakeholder engagement, adequate support for the parties needed to implement the reform and clear feedback loops for accountability among all levels into reform efforts. While stakeholder engagement, capacity building and accountability contribute to increasing trust, proactive strategies are needed to ensure predictability and reliability of these efforts over the long-term. However it should be acknowledged: building trust through ambiguous goals with modest expectations is easier than having clear goals with high expectations (Butler and Gill, 1995). In the latter case, expectations are more likely not to be met, which hinders the building of trust.

Trust in action: The GCES trust briefs

In order to augment the available theoretical literature on the topic, a call for short briefs on trust was issued to OECD country representatives by the GCES project. Countries were requested to submit a specific example of an education reform directly related to a breakdown of trust, describe which efforts were undertaken to restore lost trust and how it could be sustained over time. Trust briefs were submitted by Austria,

Chile, Finland, Flanders (Belgium), Israel, Japan, Korea, Mexico, the Netherlands, Norway, Portugal, the Slovak Republic and the United States (see Figure 7.2).

This chapter incorporates the trust briefs into a broader context of systemic breakdown of trust, rebuilding and sustainability. The briefs are context-dependent and vary widely in terms of type of reform, stakeholders, the timing and reasons for a breakdown in trust, and policies to restore trust. Nonetheless, the patterns identified in the analysis provide a good start for further discussion on the complex nature of trust.

Figure 7.2. Map of trust briefs

General description of the cases

Proposal/reform

The trust briefs come from a wide range of education systems and diverse actors, including ministry officials and researchers. Drawing from the rich empirical evidence provided, breakdowns in trust could be broadly connected to the following: a lack of dialogue among the appropriate actors about what the reform entailed, insufficient capacity-building efforts concerning new responsibilities at the local level and a lack of accountability. The type of reforms varied widely across the cases and included:

- pension reform for teaching staff (Flanders (Belgium)
- granting more autonomy to schools in the preparation of curricula (the Slovak Republic)
- changes in teaching time (the Netherlands)
- additional support services for special needs students (the Netherlands)
- administrative and organisational changes in education (Israel)
- changes in teacher education programmes – moving them from universities to polytechnics (Finland)
- higher accountability (Austria, the United States, Norway)
- increased evaluation in higher education (Portugal)

- response to a breakdown in trust due to school-related scandals, crisis or widespread criticism of the education or political system (e.g. Chile, Finland, Japan, Korea, Mexico).

Main stakeholders

The trust briefs identify a variety of stakeholders, most commonly the government, teachers, teacher unions and parents, but also high-level administrators, principals, students, community residents, media, local authorities, industry, universities and university councils. Table 7.2 identifies the stakeholders in each system.

Table 7.2. Main Stakeholders

	Ministry of Education	Government (any level)	Administrators/ councils	Universities	Principals	Teachers	Students	Parents	Unions	Employers	Community	Media/ other
Austria	■					■			■			■
Flanders (Belgium)		■							■			
Chile		■		■			■		■			
Finland	■	■	■	■	■	■	■	■				■
Israel	■		■		■		■	■	■			
Japan		■	■			■		■			■	■
Korea						■	■	■		■		
Mexico		■	■			■		■	■		■	
The Netherlands	■	■				■			■			
Norway	■	■			■	■	■		■			■
Portugal		■	■	■								
Slovak Republic	■	■				■			■			
United States	■	■			■	■			■			

Note: blue = yes.

Timing and manifestation of trust breakdown

Breakdowns in trust can occur at different stages of the policy cycle from priority setting, to policy design, policy delivery and policy learning. Similarly, in the trust briefs, trust broke down at different stages of the policy cycle, including:

- priority setting (e.g. Finland)
- policy design (e.g. Flanders (Belgium), Finland, Israel, the Netherlands)
- policy delivery (e.g. Austria, Norway, the Slovak Republic, the United States)
- policy learning (e.g. Austria, Portugal).

It can be challenging to recognise when a breakdown in trust has occurred, and to determine whether it is truly a breakdown or simply a decrease in trust. While the line between a "decrease" and a "breakdown" are negotiable and context-specific, the trust briefs show that a breakdown in trust can manifest in different, more high-stakes ways:

- strike (e.g. Chile, the Netherlands, Slovak Republic)
- collapse in communication (e.g. Flanders (Belgium), Israel)
- resignation of teaching staff (e.g. the United States)

- escalating criticism leading to gradual erosion of trust (e.g. Austria, Finland (reform of teacher education), Korea, Japan, Mexico, Norway)
- strong criticism and response to scandals and tragedies, leading to a rapid erosion of trust (e.g. Finland (school shootings), Japan).

Factors contributing to a breakdown in trust

Breakdowns in trust can take place in a number of different ways. Small, subtle acts that fail to meet expectations accumulate over time can gradually erode trust and create a climate of betrayal (Reina and Reina, 2006). This is likely to be true for most types of trust: although breakdowns in trust might be the result of an explosive event, they are more likely to be the result of a series of small disappointments, each potentially unimportant, but adding up over time.

As already discussed, the literature has identified a number of factors that contribute to trust breakdown. Most notably inconsistent messages, misplaced benevolence (i.e. not addressing problematic behaviour of employees), inconsistent standards, false feedback from managers, failure to trust others (in order to delegate tasks) and lack of problem acknowledgement all harm trust (Dalford and Drapeau, 2003).

The trust briefs reveal that lack of stakeholder engagement, insufficient accountability and transparency and inadequate capacity building were the main factors leading to a breakdown in trust. First, a common pattern throughout the trust briefs was a *lack of dialogue with stakeholders*, which led to dissatisfaction and a breakdown in trust. Often, the central level proposed an ambitious reform but did not engage in consultation with various stakeholders before official launch or was not fully transparent about the way the reform would be implemented. The lack of appropriate forums to express concerns or ask questions contributed to reduced confidence in the fidelity of the system, uncertainty concerning the possible outcomes or reform and distrust among all involved.

Two examples, from Finland and Israel, underscore the impact of inadequate communication with stakeholders. In Finland, a reform sought to move teacher education programmes from universities to polytechnics, and to change teacher education from a master's programme to a bachelor's programme. Faculty in departments of teacher education opposed the reforms and felt that they reflected a lack of appreciation for their work and a lack of respect for their profession. A lack of communication about the proposed reform and the future of university education led to dissatisfaction, and therefore, distrust between stakeholders, primarily between university faculties and the Ministry of Education.

In *Israel*, the Dovrat Commission was appointed to make recommendations on how to reform the education system after the publication of disappointing 2003 PISA results. The report concentrated on administrative and organisational reforms and neglected pedagogical factors; teachers and their representatives were not partners in the committee, and their voices were not heard. The recommendations were interpreted as harmful to teachers, worsening their work conditions, threatening their professional autonomy and leading to a large-scale dismissal of teachers. The transfer of financial and pedagogic responsibilities to schools and principals was perceived as leading to greater inequality among schools and a reduction of teacher autonomy. The chair of the committee was an influential businessman, and this became a source of mistrust among teachers and among Ministry of Education officials who were not included in the committee.

Second, *insufficient accountability and transparency* was also a major factor in the breakdown of trust. In *Chile*, the brief describes how the higher education system was affected by scandals in business and politics: several private universities had bribed the authorities in charge of accrediting their academic and institutional quality. Some of these institutions circumvented laws that prohibited the existence of for-profit universities. This further led to a breakdown in trust, both in the government and its institutions, and had considerable consequences such as a doubling of delinquency rates of student loans and general unwillingness to fulfil social commitments.

Finally, *a lack of capacity building* at the local level to undergird reforms contributed to an erosion of trust. For example, the Slovak Republic adopted a New School Act in 2008. The implementing stakeholders (teachers) were not equipped sufficiently by the state in terms of information and guidance, resources and time, and thus lacked the necessary capacity. The redefinition of educational content led to an increased demand for new textbooks, contributing to shortages and complaints. In addition, teachers felt undervalued and underpaid – their workload increased as a result of the reforms, but they received no financial compensation. Systems must be mindful of the supports that the local level might need in order to carry out the goals set by the central level.

Similarly, in *Norway,* the introduction of national tests and standards was meant to increase the autonomy of teachers, schools and local authorities, who were free to support their students in meeting the national standards however they chose. However, local capacity to use test results as a tool for improvement varied widely across the decentralised system and the lack of capacity led to a breakdown in trust. Table 7.3 depicts all of the various factors contributing to a breakdown in trust across systems.

Table 7.3. Factors contributing to a breakdown in trust

	Lack of consultation/ communication with stakeholders	Lack of accountability or transparency	Insufficient capacity to implement reform	Other factors
Austria			■	■
Flanders (Belgium)	■			
Chile		■		■
Finland	■			■
Israel	■		■	
Japan				■
Korea				■
Mexico	■	■		
The Netherlands	■			■
Norway	■		■	
Portugal		■		
Slovak Republic	■		■	
United States		■		

Note: blue = yes; "Other factors" refers for example to scandals, tragedies, budget cuts.

Policies to restore trust

The trust briefs demonstrate several different strategies to restore trust (see Table 7.4). The most widely-used policies to restore trust focused on stakeholder engagement. This makes sense, as this strategy by necessity allows for the re-establishment of stakeholder ownership, investment and collaboration which disappear

or are significantly lowered after breakdowns in trust. Engagement strategies included specifically the encouragement of communication with and participation of stakeholders in consultations, focus groups, negotiations or other forums to voice concerns.

Table 7.4. Strategies to restore trust

	Encourage stakeholder participation	Adjusted accountability measures	Increased Capacity-Building efforts	Other
Austria				
Flanders (Belgium)				
Finland				
Israel				
Japan				
Korea				
Mexico				
Netherlands				
Norway				
Portugal				
Slovak Republic				

Note: blue = yes; "Other" includes for example supporting quality and equity in education.

For example, the Netherlands fostered consensus around reform by implementing a national education agreement between the ministry and other stakeholders on issues such as content and quality of education, supporting quality teachers, labour conditions, the relationship between the education sector and the national government and education governance. A Teacher's Programme was also developed by the Dutch Minister of Education and the State Secretary in consultation with teachers, principals, school boards and educators. In 2004, *Japan* strengthened collaboration with local communities and parents through the creation of a School Management Council system, in which parents and community residents were given some authority and responsibility in the management of public schools. In addition, Japan has expanded the discretionary authority of schools in terms of school management and budgeting. Similarly, *Mexico* introduced a collaborative work strategy and enhanced communication between stakeholders through a Technical School Council and School Boards of Social Participation. The country has also promoted initiatives in schools to reinforce peaceful existence among all community members. In all countries, these initiatives fostered renewed trust that the system values the voices of key stakeholders.

Increased accountability and transparency can also serve to restore trust. For example, in *Portugal*, several external studies were commissioned to review the university system and a system of quality assessment with added accreditation was re-launched; this was conducted by an independent agency with representatives from the government and the higher education sector.

A system could also *establish internal or external agencies* to increase accountability in the wake of a trust breakdown. For example, *Finland* established inter-ministerial commissions to examine the reasons for the breakdown in trust after a series of school shootings. The commissions also proposed policy recommendations in order to prevent future shootings and to help parents regain trust in their children's safety, students regain trust in school's safety and teachers regain trust in a safe work environment. The commissions recommended providing anti-bullying programmes in schools, enhancing safety and rescue planning in schools, and limiting access to firearms. They

also proposed themed events on school safety held by the Finnish National Board of Education in co-operation with provincial governments. An inter-ministerial committee was also established enhance school safety. All these measures fostered trust-building between stakeholders.

Capacity building by providing sufficient autonomy and providing professional development is also integral to restoring trust. *Austria* has embedded the process of assessing test results within a broader strategy for school quality in general education (SQA). It has the potential to mutually reinforce and harmonise different elements of the partnership and trust-based quality development in Austrian schools. Austrian policymakers also hired feedback moderators to help teachers and schools interpret assessment results and collaborate on ways to improve accordingly. *Finland* grants autonomy to schools by giving funding and rarely earmarking, supervising or auditing funds. Funding recipients make independent decisions regarding the use of government funds. Auditing is mainly limited to verifying and monitoring the basic information and cost data reported by the recipients as they enter their data in the system. The recipients have a duty to submit the data required to grant government funding.

Increasing professionalism among teachers may also be a key capacity building step at the school level. Both *Mexico* and the *Slovak Republic* have enhanced the role, status and remuneration of teachers at all school levels. In *Mexico*, the General Professional Teaching Service Law created and promoted clear rules that provide guidance to those who wish to enter the profession, stay and/or be promoted into management positions. The *Slovakian* National Institute of Education has guided teachers and provided them with examples of teaching methods for achievement of goals stipulated in the National Educational Programme. The Institute has also developed manuals for teachers on how to create School Educational Programmes. By demonstrating through action their commitment to teacher quality, education systems can build trust among teachers, who play a vital role in implementing many reforms.

Policies to sustain trust in the long-term

Restoring trust is not enough to sustain trust in the long-term. The synthesis of the trust briefs indicates that systems have introduced different measures and policies for sustainability, including creating/enforcing flexibility, transparency, representation of different stakeholders, stability and equal treatment of stakeholders. The analysis of the trust brief suggests that sustaining trust requires strategic thinking to build a combinatory approach: elements of stakeholder engagement, capacity building, and increased accountability must work in tandem in a complex education system so that a reform has a greater chance of success.

Strategic thinking around the future implementation of a reform – proactive planning around the communication of a reform, as well as feedback loops and supports needed to increase chances of success - can help minimise the uncertainty that some policymakers feel when considering whether to avoid risk or advocate for a reform. The steps carried out during attempts to restore trust should be taken with a long-term vision in mind so that trust will not only be restored, but maintained long enough to lead to a new culture of trust. In this way, systems can re-enter the "virtuous cycle" of a relationship of trust. While many systems have provided a variety of strategies for building and restoring trust, only time will tell if such approaches hold up over the long-term (see Table 7.5).

Table 7.5. Policies to sustain trust in the long-term

	Increased stakeholder engagement	Continuous capacity building	Increased accountability	Strategic thinking
Austria				
Flanders (Belgium)				
Finland				
Israel				
Japan				
Korea				
Mexico				
The Netherlands				
Norway				
Portugal				
Slovak Republic				

Note: blue = yes

One crucial strategy for sustained trust is the *stepwise approach to reform or transitional measures*. For example, *Norway* has focused on the phased implementation of national tests and has revised them regularly in order to address concerns of unions, principals and teachers about the goals of the tests. Instead of ranking schools and punishing teachers for poor results, the tests were meant to improve practices in schools. Systems could *establish a council or committee for long-term planning* so that there is one body devoted specifically to the vision required for strategic thinking. For example, *Israel* is considering creating a statutory National Council of Education that will be in charge of long-range policy and strategic planning. This is meant to introduce more (political) stability to the system as Ministers of Education change frequently.

Conclusions

This chapter provided four broad strategies for building, restoring and sustaining trust in a complex education system: stakeholder engagement, accountability, capacity building and strategic thinking. In an ideal situation, policymakers would consider best practices from all four areas and apply them to their contexts in a virtuous, cyclical, trust-building loop.

However, in the often volatile and tumultuous real-life policy cycle – in which trust breaks down and must be restored - some elements gain more importance depending on whether one is trying to rebuild or sustain trust (Table 7.6). This underscores the complexity and interconnected nature of trust within education policy, and also the importance of timing and process. For example, stakeholder engagement clearly emerges as a key element throughout the cycle of a reform, from its design to its implementation and evaluation. It is important to building and sustaining trust, as well as rebuilding trust after a breakdown. As communication is fundamental to the process, establishing collaborative and active channels of stakeholder engagement is necessary for restoring trust after a breakdown, and continued, reliable provision of these channels serves to sustain trust.

The briefs also showed that accountability and capacity-building strategies also played a crucial role in restoring and sustaining trust, because such measures provide an under-carriage of guidance and transparency which can help policy actors manage

expectations in a flexible but effective manner. They work hand in hand with each other and also with stakeholder engagement in a (ideally) virtuous cycle that continues to build, reinforce, and sustain trust. Of course, if not used properly or not used at all, they can and do work together to contribute to trust breakdown, as demonstrated in the briefs.

Finally, strategic thinking is particularly invaluable to sustaining trust: when trust is sustained, the expectations of all relevant stakeholders are understood, met or dealt with in a satisfactory manner. In order for this to happen on a consistent basis in a complex system, policymakers must invest the time and resources to plan and create such a system. This does not necessarily mean that strategic thinking is not necessary for building and rebuilding trust, or that a lack of it could lead to trust breakdown. It is clear from the trust briefs that a lack of strategic thinking was also a key cause of a trust breakdown, and it is more than likely that it is essential at all of the stages.

However, as demonstrated also in the case studies that make up the empirical evidence for the rest of this volume, strategic thinking is one of the most difficult elements of modern governance to get right. Not because it is inherently difficult, although a certain level of capacity is required and this is often absent or lacking, particularly for smaller municipalities (Burns and Köster, 2016). Rather, strategic thinking is difficult for a number of reasons, with the timing of the political cycle (which generally favours short-term solutions rather than long-term planning) being a main culprit (Blanchenay and Burns, 2016, see also Chapter 8, this volume).

Table 7.6. Mapping of country examples

	Stakeholder engagement	Accountability	Capacity building	Strategic thinking
Factors for trust breakdown	– Lack of consultations – Uncertainty about consequences	– Lack of accountability – Lack of transparency	– Insufficient capacity to implement reforms	– Lack of long-term thinking
Policies to rebuild trust	– (Formal and informal) consultations with variety of stakeholders about consequences of reform	– External evaluation and review – Ownership among stakeholders	– Greater autonomy of teachers, school leaders – Building capacity of stakeholders (e.g. training of evaluators)	– Stepwise implementation of reforms; piloting – School management council
Policies to sustain trust long-term	– Regular consultations with stakeholders	– External evaluation and review – Financial resources - funding	– Professionalisation of teachers; higher teachers' remuneration – No earmarking of education-specific funds	– National council for long-term strategy – National educational agreement between ministry and stakeholders

The chapter examined these elements in the context of existing literature of the nature of organisational and system-wide trust, as well as within the process of trust breakdown, restoring, and sustaining of trust. The trust briefs collected from diverse member countries emphasise the wide array of country and context-specific strategies falling under the four observed themes. However, despite the specificity of context and the situations described, by combining the research literature with a synthesis of the trust briefs it is possible to identify some elements that can be generalised across a broader context.

The analysed experiences suggest that it is important to allow sufficient time during the policy-making process in order to discuss proposals and reforms with the main stakeholders, consult them formally and informally, and discuss the key consequences of the reform.

It is also crucial to implement reforms gradually, such as with transitional measures or piloting, and offer regular evaluations by external independent bodies. Establishing an independent body to develop a long-term strategy is helpful in overcoming constraints associated with political cycles. Box 7.1 sets out a series of good practices that can be used to build, restore and sustain trust in complex education systems.

Box 7.1. Good practices to build, restore and sustain trust

The four underlying categories of practices for building, restoring and sustaining trust that emerge from the literature and the trust briefs include:

Stakeholder engagement

- Engagement in both formal and informal consultations with stakeholders.
- Fostering engagement and ownership among stakeholders.
- Encouragement of educational agreements between the ministry and stakeholder representatives.
- Motivation for collaboration among stakeholders.

Capacity building

- Gradual implementation of reforms (with transitional measures, piloting).
- Provision of capacity-building tools and resources for key implementers and stakeholders.
- Creation of dedicated forums/spaces dedicated to feedback and learning for capacity building.
- Support for the professionalisation of teachers and school leaders; offering of attractive remuneration to teachers.

Accountability

- Governmental support and leadership for reform/proposal.
- Sufficient autonomy and discretionary power to schools and the regional/local level
- Reliable sources of funding (i.e. no earmarking of education-specific resources).
- Implementation of a process of (external) monitoring and evaluation.

Strategic thinking

- Design of incentives and compensation for compromises.
- Explicit alignment of stakeholder engagement, accountability and capacity building measures designed to sustain an optimal level of trust.
- Establishment of a council/ body to provide a long-term strategy.
- Encouragement of educational agreements between the ministry and stakeholder representatives.

It should be noted that there are some limitations to this analysis and enduring gaps in our knowledge that require more research. The understanding of the mechanisms of trust breakdown and effective policies to restore trust is still limited. This is complicated by the fact that there is no common definition of trust and it is difficult to identify the exact

timing and manifestation of a breakdown in trust. The chapter has looked specifically at breakdown and rebuilding of trust in education systems, but further research should also analyse whether the findings are applicable to other sectors, such as health, tax and justice. This would allow establishing more general policies and good practices which could be applied across a variety of sectors.

Another promising avenue of research is to establish models and measures of an optimal level of trust that also take into account specificities of given contexts. Understanding that more trust is not necessarily always better is already a step in the right direction, but there is limited research on how exactly to determine this optimal level of trust. This would also help policy-makers across different policy areas to determine what level of trust might be most suited for particular conditions. In a similar vein, it would be useful to propose better models of 'the darker side of trust' (Marsh and Dibben, 2005: 30) since distrust, mistrust or untrust can also be useful in some contexts and under some conditions.

This chapter discussed current research on trust and its importance to education policy and reform. In addition to reviewing the established literature, the analysis included short trust briefs from a variety of OECD countries which explored examples of how trust broke down and was (potentially) restored. Stakeholder engagement, capacity building, accountability and strategic thinking were identified as key elements of building and restoring trust, and conversely a lack of them contributed to trust breakdown. Trust is an important but complex ingredient of good governance and education reform. Although difficult to define and measure, it cannot be ignored, as it is the glue that holds all governance processes together.

Notes

1. Mistrust can "tell an agent a lot more about who to trust next time, or what went wrong, when allied with untrust and distrust information" (Marsh and Dibben, 2005: 30).
2. Distrust is "a measure of how much the truster believes that the trustee will actively work against them in a given situation" (Marsh and Dibben, 2005: 20).
3. Untrust is "a measure of how little the trustee is actually trusted. If a trustee is untrusted, then the truster has little confidence in the trustee acting in their best interests in that particular situation" (Marsh and Dibben, 2005: 20).
4. Targeted interventions are important as a response to a trust failure, both to control distrust and to demonstrate trustworthiness again (Dietz and Gillespie, 2012). Interventions include new compliance procedures, revised incentives, an overhaul of deviant cultural norms and the removal of guilty or complicit parties. To demonstrate trustworthiness, interventions include apologies, paying penance, transparency and substantial investments in promoting trustworthy, ethical practice.

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Chapter 8.

Smarter education governance

As educational systems have decentralised, they are increasingly looking for ways to balance responsiveness to local diversity with achieving national goals. They must do so as efficiently as possible, given limited financial resources and the confines and pressures of time-sensitive political cycles. This chapter explores the five elements of modern governance for complex systems, which together operate to create a smart state, capable of solving modern governance challenges. They five elements are: a focus on process rather than structures, adaptability and flexibility, stakeholder involvement and capacity building, a whole of system approach, and the harnessing of evidence and research to inform policy and practice. The chapter links these five elements to the lessons learned from the GCES case studies and trust briefs, bridging theory and practice with real world examples from OECD education systems.

Introduction

Governing multi-level education systems effectively requires governance models that balance responsiveness to local diversity with the ability to ensure national objectives. This is a delicate equilibrium, and one that is difficult to achieve given the complexity of the education system in many OECD countries. As a result, governance issues have moved up on the political and policy agendas, and countries are increasingly looking for examples of good practice and models that they can adapt to their own needs.

This volume set out to address some of the key challenges involved in governing modern education systems. The six case studies provided an empirical analysis of the process of governance and reform in a specific national context. The trust briefs allowed for a closer examination of efforts to restore and sustain trust after a breakdown in relations within specific education systems. Although the analysis builds on specific examples, lessons can be drawn that apply to education systems in general and governance challenges in particular.

Governing multi-level education systems is not simple. Work on complexity theory reveals that a significant degree of complexity in a system – whether an education system or a school – leads to emergent properties beyond those predictable from initial conditions (Mason, 2016). As a result, the traditional policy cycle, which tends to frame planning and policy choices in a linear, reductionist manner, is no longer adequate (see Chapter 4 for a full discussion). Modern education governance must thus be able to be flexible and adaptive at the same time as it steers a clear course towards established goals. And it must do this as efficiently as possible, with limited financial resources, and also within the confines and pressures of time-sensitive political cycles.

These constraints have led to a series of governance challenges shared by many OECD countries connected to accountability, capacity building, and strategic thinking. The previous volume in this series, *Governing Education in a Complex World* (Burns and Köster, 2016), linked these key themes and challenges to state of the art research in the field. This volume builds on this analysis and adds the empirical examples from countries and regions generated through the Governing Complex Education Systems (GCES) project[1].

Together this work has allowed us to identify a series of key requirements that are essential for modern educational governance (Burns and Cerna, 2016: 229):

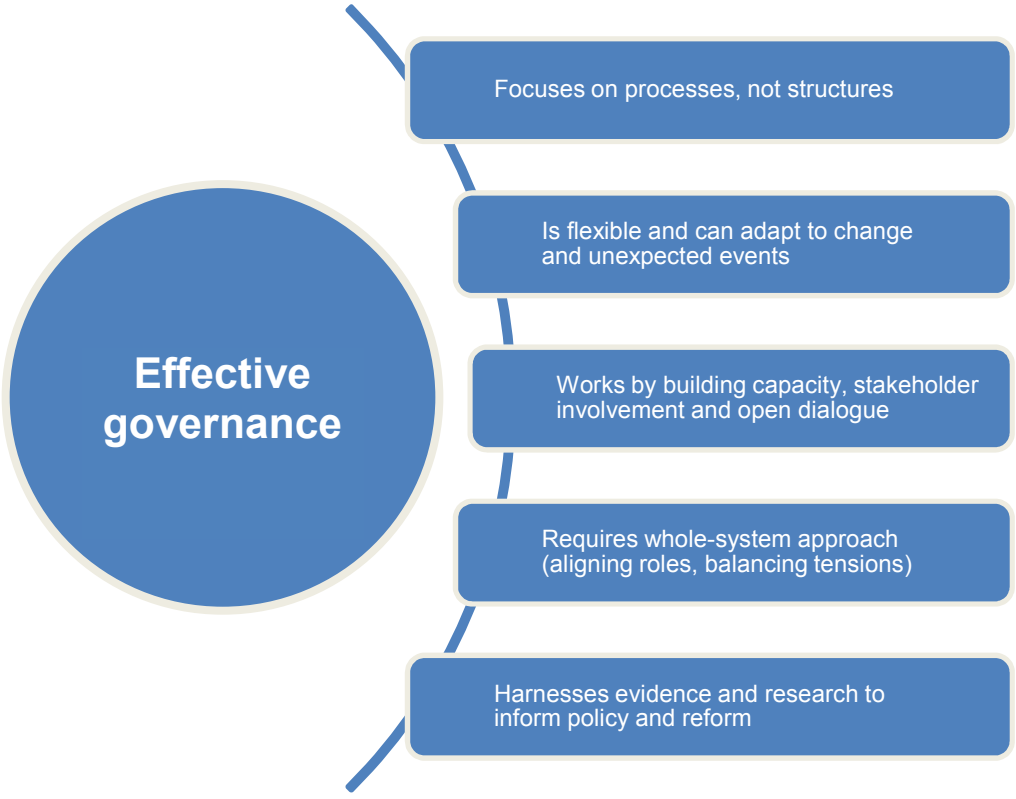
- Stakeholder involvement and ownership of agreed goals and principles.
- A whole of system vision that keeps the focus on processes and is flexible enough to adapt to change and unexpected events.
- Alignment of roles and responsibilities across the system as well as a way to address any potential conflicts or overlap.
- The ability to identify needs and develop capacity in a realistic and timely manner, based on a system vision and informed by research evidence.

Five elements of effective governance

The requirements set out above are essential in the governance of complex systems. They can be further developed into a series of five elements that together comprise the foundation of effective modern governance. The elements keep the focus on process and

allow systems to adapt and respond flexibly to complexity. They align actors and activities and build on dialogue and stakeholder involvement. They keep knowledge and evidence at the core while at the same time supporting a system-wide vision of education and progress, as laid out in Figure 8.1 below:

Figure 8.1. Elements of effective governance



Source: Burns and Cerna (2016), "Enhancing effective education governance", *Governing Education in a Complex World*, http://dx.doi.org/10.1787/9789264255364-13-en.

The following sections of this chapter examine each of these elements in turn, exploring how they play out in education systems and providing examples from real world education governance as generated by the case studies and the trust briefs. They also take a look at the challenges that remain the most difficult for countries to resolve. The goal is not to aim for a permanent government structure wherein all governance challenges will be solved. Rather, it is to embrace the idea of a *smart and strategic state*:

> It is not so much the size of the State which is at stake, but rather its governance. In other words, it is not so much a reduced state that we need to foster economic growth in our countries, but a strategic state. This idea of a strategic state that targets its investments to maximize growth in the face of hard budget constraints departs both, from the Keynesian view of a state sustaining growth through demand-driven policies, and from the neoliberal view of a minimal state confined to its regalian functions (public order, basic services) (Aghion, 2012, cited in Burns and Köster, 2016: 20).

The concept of a smarter state emerged as a way to address many of the weaknesses in the analytical frameworks and traditional economic models that became evident in the financial crisis of 2007-2008 (Burns and Köster, 2016). Although traditionally thought of in terms of innovation and industrial policy, this concept extends to all sectors of government and includes an emphasis on trying new approaches, learning what works, and building the systemic capacity of the government to improve policy design, steering, and implementation (Burns and Köster, 2016). In order to make this a reality, governance in education (and indeed in all public sectors) must be fundamentally revisited, moving away from traditional models and towards the five elements of modern governance portrayed in Figure 8.1. We turn to the first element now.

Focus on processes, not structures

When faced with calls to improve governance, the focus is often placed on structures, for example, through attempts to identify the most efficient number of governance levels for a specific problem or for the system more generally. This approach is motivated by a belief that there is an ideal structure that, once identified and implemented, will help solve (or at least reduce) many of the current governance challenges. A look at the GCES case studies reveals this bias towards this approach, both directly and indirectly. A direct focus on changing structures as a solution to governance challenges can be seen in the case of Sweden, where the central government deliberately chose to decentralise in order to improve the local responsiveness and (at least theoretically) performance in the system (Blanchenay, Burns and Köster, 2014). Indirectly, the focus on structures can be observed in a number of other case studies, for example in Poland, where a new school supervision system was introduced to address shortcomings in overall system performance and achievement (Mazurkiewicz, Walczak and Jewdokimow, 2014).

There is certainly a wide variety of structures to choose from. Across the OECD, most education systems have multiple levels of governance, with a general trend towards more autonomy and local decision-making. System-wide steering is done by national governments, state governments, provincial and regional governments, sub-regional, inter-municipal and local authorities as well as with schools or school boards or committees. Across the OECD countries, the most devolved systems have up to four levels of governance, while in the most centralised there are only two levels that share the main decision-making power in education (Lassnigg, 2016; OECD 2012).

Improving or changing governance structures in any given context can thus take many forms. In many OECD systems, it involves increasing local autonomy to allow for more responsiveness to local needs. In other, generally highly devolved systems, there is a push to recentralise certain functions or create regional bodies to improve the capacity on the local level. But this approach can take a lot of time and energy without necessarily yielding lasting strategies to improve the effectiveness of the system.

This is not to say that thinking through how systems are constructed and aligned is not important. On the contrary, this is still a crucial element of successful governance. However, thinking of structures in isolation without connecting them to the processes that they are meant to support will not provide the kind of systemic and sustainable approach to governance that is needed in a modern world. In a complexity approach, changes in structure must be accompanied by an understanding of the processes of modern governance and a plan to implement those processes under the new structure.

So what are some of the relevant processes that should be considered? Figure 8.1 provides some suggestions: flexibility, adaptability, capacity building, open dialogue,

stakeholder involvement, alignment and whole system thinking. In the examples provided above, decentralisation in Sweden was less effective than intended because it did not include capacity building for new roles or involve the stakeholders in an open discussion of whole system thinking (Blanchenay et al., 2014). In Poland, the new inspectorate structure took some time to establish both because of a lack of flexibility and open dialogue and also because it was not the structure of the system that was the problem per se, but rather issues of trust and legitimacy. Changing the structure without addressing the underlying processes hindered the implementation of the reform (Mazurkiewicz et al., 2014).

Of course, many of these lessons are easier to identify in hindsight. While structures are concrete and finite, processes are dynamic in systems where many actors interact. The temptation to focus on the concrete and (at least theoretically) controllable is understandable, especially if a government is looking for a quick win (see also OECD, 2009a). This raises interesting questions for the role of policy-makers and civil servants in such a context. Theisens (2016) brings together the work of several scholars to argue that policy makers are increasingly required to play a new role working together with other professionals across sectors and across society. In this context they have been called "boundary spanners" (Williams, 2010, cited in Theisens, 2016), simultaneously working within and between their own organisations and those of other actors. This requires balancing competing logics and hierarchies, as well as using both practical wisdom and improvisation when necessary. An interesting question is whether and how this translates across a devolved system to other levels of governance and other actors (see Chapter 1 in this volume for a discussion of actors in education).

A final note: the temptation to focus on structures is not unique to education. A recent review of the management of change in public organisations revealed that when analysing reforms, there was a general focus on the national, political and service environment (Kuipers et al., 2014, cited in Colgan, 2016). This is again a case of hoping for a simple solution to a complex problem. There is no magic solution, no ideal structure wherein all governance challenges will be permanently solved. Without looking inside the structures to the more fluid and dynamic processes, we are unlikely to find solutions to our most pressing governance challenges. We cannot arrive at a smart and strategic state using the models and frameworks of the past. This is a fundamental shift in thinking, linked to a complexity perspective. It will be further discussed below.

Flexibility and adapting to change and uncertainty

Increased complexity – in levels of decision-making, in the numbers of stakeholders, and in the availability and use of data for evaluation and accountability – calls for a new approach to governance. Education systems are in fact complex systems – that is, networks of interdependently linked actors whose actions affect all other actors, and which evolve, adapt, and reorganise themselves. Importantly, complex systems do not work in a linear manner but rather exhibit a series of well-defined characteristics: tipping points, feedback loops, path dependence and sensibility to local contexts (Bryne, 1998, cited in Blanchenay and Burns, 2016). These characteristics make a linear cause and effect approach to the governance of complex systems unsuccessful.

Complexity theory posits that systems begin as collections of individual actors who organise themselves and create relationships. These relationships form in response to positive or negative feedback, as well as a degree of randomness. New structures and behaviours then emerge as the actors act and react to each other.

A complex system has the following core components (Sabelli, 2006, cited in Blanchenay and Burns, 2016):

- Behaviour is not explained by the properties of the components themselves, but emerges from the interaction of the components.
- The system is non-linear and relies on feedback to shape its evolution.
- The system operates on multiple time-scales and levels simultaneously.

Working with complex systems is difficult as the elements cannot be examined in isolation, but rather must be considered as part of a coherent whole (Mason, 2016; Snyder, 2013). In terms of education governance, this implies that effective policy planning and reform will start from a whole of system approach that takes this complexity into account. In addition, the dynamic and emergent elements of the system mean that its governance must be able to be flexible and adaptive to change. Efforts to govern using traditional linear approaches to policy-making will no longer suffice (Hallsworth et al., 2011, see also Chapter 4 of this volume).

Flexibility and adaptability in education

How does this work in education? As demonstrated by the Dutch GCES case study, when a complex system (in this case, a school) undergoes a reform, there is potentially a wide variety of reactions to that change. Some schools will benefit from virtuous cycles (success breeds success), while others will be caught in vicious circles where difficulties bring about further difficulties (van Twist et al., 2013, see also Chapter 3 in this volume). Small initial differences in local contexts can therefore be exacerbated, creating a situation in which important discrepancies between schools or districts can persist and become hard to mitigate (Blanchenay and Burns, 2016). These discrepancies imply that careful attention must be paid to the particularities of each educational context, and that successful policy solutions must be prepared to adapt to this context and feedback. This is particularly important when thinking of how to make a reform process as efficient as possible, both in terms of cost effectiveness and also in terms of managing human time and energy.

This is of course one of the great challenges of educational governance: how to provide the guidelines and structure required when introducing a reform to allow for its goals to be reached, while at the same time allowing for local flexibility and professional discretion of teachers, school leaders, and local administration. The struggle to find the right balance between the two was evident in almost all of the GCES case studies, from the Norwegian experience when encouraging the development of formative assessment in the system (Hopfenbeck et al., 2013) to the German effort to build capacity for educational monitoring (Busemeyer and Vossiek, 2015). In many of the case studies, there were moments when something went wrong, for example, a misunderstanding in how to engage in formative (Norway) or self (Poland) assessment. There were also other examples of how allowing for local variability led to too many differences and potential quality, equity and capacity worries (for example in Sweden and Flanders (Belgium)). In those cases, the key was to have the kind of feedback systems necessary to signal these potential issues and allow for a flexible response or change in direction, as evidenced by the communication platforms and discussions created in Flanders (Belgium) (Rouw et al., 2016).

The aim of creating flexible and adaptable systems is to improve the sustainability of reform and governance initiatives as well as improve their efficiency. Strengthening a system's ability to learn from feedback is fundamental to this. It is also a necessary step to quality assurance and accountability, the cornerstones of ensuring educational excellence. As discussed in Chapter 4 of this volume, policy learning can identify drivers, barriers, and enablers of a reform and system-wide progress. Policy learning can take many forms and exists at all stages of the policy process. During implementation, for example, the role of monitoring and evaluation is crucial, as is ensuring ownership and legitimacy of both the policy and the assessment process.

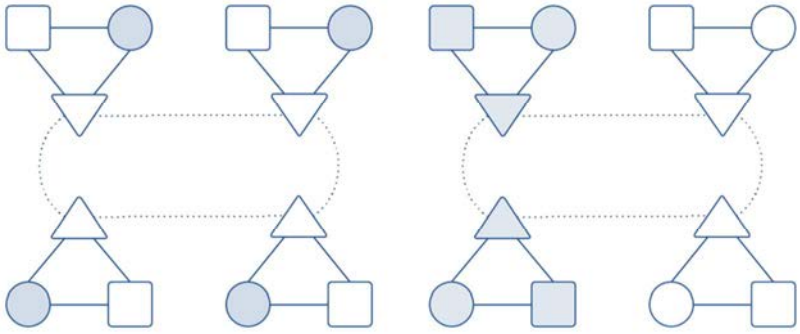
Policy learning is thus an essential element of flexible and adaptive systems. In order to work, it requires a strong and constructive accountability system (see Chapter 5) as well as the capacity to appropriately engage in the various forms of evaluation and interpret their results (see Chapter 6 and later in this chapter). Most fundamentally, the ability to learn from feedback and thus create a true culture of evaluation requires a willingness to identify potential weaknesses and failures. Without an honest and accurate assessment of both strengths and weaknesses, learning is as best incomplete, or at worst misleading. However, the process of identifying failure is risky, as it exposes vulnerabilities that can be difficult to manage on a number of different levels (Blanchenay and Burns, 2016). Truly effective policy learning is thus built on trust and is only as successful as it is allowed to be. As the work on trust breakdown in Chapter 7 demonstrated, this is no easy task. Building and sustaining legitimate trust is thus another component of a flexible and adaptive system.

Controlled change and policy experimentation

The challenge of complexity is acknowledging that while no perfect solution exists, it is possible to take small concrete steps to make a difference. Policy experimentation[2] can be an interesting opportunity to explore change in an education system in a controlled way. By directing the scale and design, risk and expenditure can be managed in a sustainable and ethical way. Policy experimentation also allows for adapting the policy cycle to reflect the dynamic nature and the intricacy of education systems. It ensures that, within the system, input from stakeholders is matched by a culture of constructive criticism that can identify both successes and failures (Blanchenay and Burns, 2016).

In previous work, we argued that *ecosystem experimentation* is the most efficient way to strengthen the flexibility and adaptability of processes (Blanchenay and Burns, 2016). Embracing ecosystem experimentation involves moving from the standard current practice in education, which is horizontal experimentation. In horizontal experimentation the tests focus on a certain type of node (e.g. changing the teaching method for reading in all schools) in order to determine whether or not a particular intervention (in this case, a reading programme) is successful or not. In contrast, ecosystem experimentation focuses on self-contained parts of the systems (i.e., natural ecosystems) when testing a particular intervention. Importantly, the intervention itself can still be the same (for example, the efficacy of reading programmes), it is the size and placement of the intervention that differ (see Figure 8.2).

Figure 8.2. Horizontal experimentation (left) versus Ecosystem experimentation (right)



Source: Blanchenay and Burns, 2016, Policy experimentation in complex education systems, in T. Burns and F. Köster (eds.), *Governing Education in a Complex World*, http://dx.doi.org/10.1787/9789264255364-10-en.

Note: Dotted lines denote weak links; solid lines denote strong links between elements of the system.

By using a controlled and scientific approach to reform and implementation, the quality and timing of the feedback can be strengthened. The process of reform is thus flexible and allows for ongoing tweaking to adjust to feedback loops and improve the tested intervention. However, care must be exercised in this process: experiments need to be sustained for long enough so that their effects have time to set in (Blanchenay and Burns, 2016). We will return to this last point later in this chapter.

Building capacity, open dialogue and stakeholder involvement

A key element of successful governance is ensuring that stakeholders have sufficient capacity to assume their roles and deliver on their responsibilities. Chapter 6 of this volume identified a number of key lessons emerging from the case studies in relation to capacity building. These include shared vision and common understanding, networking as a form of horizontal capacity building, and policy flexibility and sustainability.

In order to achieve a shared vision, actors need to develop a common understanding of educational policy goals and consequences, the ownership and willingness to make the change, and the capacity and tools to implement a reform as planned. This process can be led by the strategic support of a central level, and it can also be built and sustained through networks, distributed leadership and peer learning. Incorporating knowledge from diverse stakeholders not only strengthens policy options but also builds legitimacy and ownership. The development of a shared vision is an element of the *smart state*, in which the ability of the government to learn is based on trying new approaches and being able to use the feedback from what works and what does not to improve policy design, steering, and implementation. The most powerful feedback will come from a wide variety of actors in the system that are able to articulate and develop a joint vision for the system.

Even with appropriate knowledge and ownership, changes in roles and responsibilities generally also require explicit capacity building. For example, as schools become more autonomous, headmasters have been given new roles and powers regarding planning, budget, and staff. In some systems these are entirely new responsibilities and actors must be given the support they need to grow into them, as evidenced by the Swedish case study. Even when a role is not entirely new, teachers, school leaders and other local actors may still need capacity building to hone their practice, as was

demonstrated in Norway and Poland. Another example is the use of data: in all systems there are more data available from system-level indicators, evaluations, and test scores, and capacity must be developed in order to use and interpret the data correctly. The German case study underlines the importance of having explicit capacity-building measures for educational monitoring, particularly in smaller municipalities with fewer resources (Busemeyer and Vossiek, 2015).

It cannot be forgotten that strong capacity building is time-consuming. As discussed in Chapter 6 (this volume), stakeholders' needs must be considered from the very beginning rather than being introduced as a reactive measure when something goes wrong. Capacity-building needs vary considerably system-wide, and the types of challenges faced between and among districts, municipalities, schools, teachers, etc. can all vary. Capacity-building efforts must thus take these variations into account to ensure equity and efficiency across the system.

Stakeholder involvement and participatory governance

Participatory governance aims to improve shared vision and ownership, accountability, responsiveness, and transparency by involving a wide variety of stakeholders in the policy-making process. Opening up the policy-making process can yield a number of significant benefits (OECD, 2009b):

- **Better and more equal policy outcomes**: Co-creation can contribute to enhancing the quality of public policy by ensuring that it is in line with the needs and interests of stakeholders. Allowing their knowledge and expertise to enter the process can lead to more effective, equitable and efficient policies.
- **Better implementation**: Stakeholders' involvement in policy making helps them to understand and influence the stakes of the planned reform and enhances the perceived legitimacy of the policy. Stakeholder engagement can therefore improve ownership and facilitate the implementation of policies.
- **Greater trust**: Co-creation provides policy makers and stakeholders with the valuable opportunity to make direct contact with one another and engage in dialogue. Frequent interactions between government officials and stakeholders foster reciprocal trust and enable future collaboration and co-operation (Cerna, 2014). Furthermore, policies that are more responsive to stakeholders' needs generate credibility and reinforce trust in the government.

The strongest example of the use of participatory governance in the case studies comes from Flanders (Belgium). Participation of stakeholders in education governance is a long-standing tradition in Flanders, and the case study identified a number of elements in their development of attainment targets that demonstrated a strong commitment to the process (Rouw et al., 2016). By opening governance structures and processes to wide participation, stakeholders are expected (not just encouraged) to express their views and contribute to shaping policy with their expertise. The process works in a virtuous cycle that enhances knowledge mobilisation and allows for tailoring of policy design and implementation as a response to stakeholder needs. These processes strengthen common understanding and ownership, and also allow for unity in diversity (Rouw et al., 2016).

This is not an easy process, as it is difficult to engage the hardest-to-reach actors (Hooge et al., 2012). Even in a context with a long tradition of stakeholder involvement such as Flanders, the case study identified elements that could and should be strengthened, for example, the involvement of a broader range of stakeholders beyond the

education sector (e.g. employers and textbook publishers). Although necessary, broadening the types and numbers of actors involved also creates a set of other challenges that revolve around the role of expert knowledge. Worries about the voice of key stakeholders getting "blurred in the melee of opinions and their professional expertise undervalued" are very real (Rouw et al., 2016: 54).

These challenges go some way to explaining a commonly noticed disconnect between the recognition of the importance of stakeholder involvement and their actual prominence in policy making. Alemanno (2015) has argued that when stakeholder input is used, its application is often confined to small-scale local level policies in sectors with simple stakeholder structures and limited public and media attention. In larger reforms or those with more political or media impact, involvement of stakeholders is generally more limited. This was observed in the majority of the GCES case studies, which struggled to balance the aspirations of stakeholder involvement with the reality of the process. In many cases, the involvement of actors was restricted, either due to an unwillingness to become involved (in Poland and Sweden, for example) or some confusion about the appropriate processes and timing of participation (e.g., in Germany and Norway).

The struggles observed in the case studies fit neatly within the obstacles Alemanno (2015) has identified that make stakeholder engagement practices difficult to implement:

- **Lack of awareness**: Official notification systems are not always effective in spreading the information to individuals and small organisations. Engagement opportunities therefore frequently go unnoticed by these actors.
- **Low participation literacy**: Aside from lobbyists and other professional actors, many stakeholders lack crucial knowledge about the policy-making process. Even if they are aware of participation opportunities, they might be unwilling to engage due to time constraints, a lack of trust in government, or missing incentives.
- **Information overload and capture**: Many policy documents are difficult for non-experts and the process can be overly technical. This discourages broad involvement and privileges powerful stakeholders, allowing them to capture the decision-making process.
- **Cynicism due to past record**: Policy makers sometimes use stakeholder involvement to sell difficult decisions to the public or to legitimise decisions that have already been taken ("tick-box exercise"). This can lead to cynicism and unwillingness to participate.

The failure to consider these obstacles in the planning, design and implementation of stakeholder engagement practices gives rise to the risk of "missing stakeholders" (Alemanno, 2015: 135), which in turn causes efficacy and equity issues. Efficacy, because by failing to encourage the participation of all relevant stakeholders, co-creation practices fail at their main goal: to include a wide range of perspectives as input into policy making. And equity, because by failing to facilitate access for individual stakeholders or small groups, the policy is likely to dominantly reflect the views of only the most powerful stakeholders. Yet the input of these missing stakeholders can be among the most valuable for policy makers: small stakeholders often possess "situated knowledge", gained from personal experience on the ground rather than through theoretical models (Alemanno, 2015: 135). This was highlighted in the Flemish case study (Rouw et al., 2016).

One of the more interesting changes in the participatory governance landscape has been the evolution of new technologies, which allow faster and easier access to more people than ever before. Although providing a powerful opportunity to facilitate and encourage stakeholder involvement and participatory governance processes, they also come with challenges (see Box 8.1).

Box 8.1. Co-creation and new technologies

New technologies act as a driver and enabler of participatory governance. They provide the opportunity to reach out to a broader set of actors and to take their views and concerns into account, including those hardest to reach. Open public consultations on digital platforms were used in all the GCES case studies to encourage stakeholder involvement and also build capacity. Social media such as Facebook and Twitter are also some of the tools used by governments at all levels to engage a broader set of actors.

However, new technologies also come with new challenges. The opportunity for almost instant feedback means that parents and other actors are not inclined to wait and see what is effective; they expect the best education for their children and communities now. They can use social media to put direct and instant pressure on schools and officials. The danger is that expectations tend to rise faster than performance, and there is a temptation for elected officials to operate in the short-term even though research has demonstrated that the effects of a reform can take a significant amount of time to bear fruit (Burns and Köster, 2016).

Despite this, there is no going back: stakeholder involvement creates a shared responsibility that strengthens accountability in the system. It is through the involvement and engagement of a diverse group of actors that educational governance will be able to continue to evolve along with our societies and schools. There is thus a need for mechanisms to include all stakeholders and voices (not only the most vocal or technologically savvy) in the governance process, and to design ways to strengthen participatory governance mechanisms. This will also require working with less active or less confident stakeholders to build capacity and empowerment to enable them to take part in the process.

Source: Burns, T. and F. Köster (2016), "Modern governance challenges in education", in T. Burns and F. Köster (eds.), *Governing Education in a Complex World*, http://dx.doi.org/10.1787/9789264255364-3-en.

A whole of systems approach

In complex systems, nothing can be done in isolation, as it is the relationships between the parts that are essential. Simple solutions to complex problems are ultimately ineffective (Snyder, 2013). Education systems must resolve tensions between potentially conflicting forces such as accountability and trust, innovation and risk-avoidance, and consensus building and making difficult choices. Finding the right balance (or, perhaps more accurately, the right combination of mutually reinforcing dynamics that are designed to strengthen both accountability and trust, for example), will depend on the context and history of the system as well as the ambitions and expectations for its future (Burns and Köster, 2016).

A whole of systems approach works to align roles and responsibilities across the system, improving efficiency as well as reducing potential overlap or conflict. This approach is suggested by Fullan (2011), who welcomed the emergence of numerous intentional system-level reforms since the mid-1990s and advocated a multilevel approach to change that encompasses schools, regional subdivisions/districts and the central government. This is also the approach suggested by Mason (2008, 2016), who argues that change in complex systems must first overcome significant "inertial

momentum". Consequently, "*what it might take to change a school's inertial momentum from an ethos of failure is a massive and sustained intervention at every possible level until the phenomenon of learning excellence emerges from this new set of interactions among these new factors, and sustains itself autocatalytically*[3]."

So what would be required to make a whole of systems approach possible? In order to change policy and practice on such a fundamental level, there needs to be a general agreement among stakeholders that something must change. Part of securing a general agreement is developing the evidence base that allows for such a discussion, in order to gain a real understanding of the current state and strengths and weaknesses in a given system. In Swedish case study, this was provided by declining achievement coupled with increased inequality in a system that prides itself on inclusion (Blanchenay et al., 2014). In other case studies, for example Norway and Germany, it was the publication of the first set of PISA results in 2000 which constituted a wake-up call that prompted public discussion on education (Busemeyer and Vossiek, 2015; Hopfenbeck et al., 2013).

A shock of the sort created by PISA generates a window of opportunity that can allow for agreement on a more radical agenda for change (OECD, 2009a) that might otherwise be rejected at a different point in time. Other examples of this process include the public pressure to addresses issues of cyber bullying after high profile cases in Canada, Japan, and Korea, which served to place a previously little known issue at the top of policy and political agendas. The role of crisis as a catalyst for change echoes arguments made for instance by Lipton and Sachs (1990) about the transition of Eastern Europe to market economies in the 1990s. They argued that states should take advantage of their *état de grâce* to implement a "big bang" approach to (economic) reforms, sometimes referred to as "shock therapy".

Chapter 4 of this volume discussed how windows of opportunity might emerge in less dramatic circumstances. In the case of Germany, for example, municipalities had to volunteer to compete for ear-marked grants, which allowed policy makers to take advantage of a set of participants who were eager to be involved and committed to the process (Busemeyer and Vossiek, 2015). Similarly in Norway, school owners could voluntarily choose to take part in the reform of formative assessment. As a result, a group of expert and committed leaders was developed. This was then harnessed for system-wide change through networks, peer learning and support, although with mixed results (Hopfenbeck et al., 2013). Indeed, one of the big challenges in seizing on windows of opportunity is channelling the activity into a constructive and strategic vision, as well as sustaining the involvement and direction of the change. For this, ongoing system-wide leadership is needed.

Leadership and trust

A whole of system approach requires leadership and strategic thinking to create lasting change (OECD, 2009a). System leaders can come from any area of practice or policy and any governance level. The key is to bring a set of actors from different levels that can work to develop and strengthen a shared agenda for the system to act as a sort of "guiding coalition" (Levin and Fullan, 2008). The establishment of a guiding coalition increases the possibility of reacting more flexibly to challenges and opportunities that arise, and it also allows for the inclusion of a diverse set of viewpoints which can both increase the legitimacy of the vision and allow for a broader set of options to be considered.

Strategic thinking serves as a counterpoint to political and public pressure that often pushes for prioritising the urgent over the important (see Chapter 4, this volume), as it works to establish a system vision and identify and anticipate future challenges. It should also play a role in recognising unexpected and unintended consequences as well as new opportunities for improving education (Rouw et al., 2016). In most of the case studies, the involvement and leadership of multiple actors in strategic thinking and system vision was limited to primarily actors from education located in the main cities. In Norway, Poland and Sweden, smaller municipalities struggled with the capacity to engage in these efforts, and indeed to prioritise competing policy priorities (Hopfenbeck et al., 2013, see also Chapter 4 of this volume).

In order for distributed leadership to work, leadership capacity must be developed across the system and among a broad set of actors (Chapter 6). Examples of innovative ways to build capacity among diverse stakeholders at the local level come from the German case study (Busemeyer and Vossiek, 2015), in which local and regional foundations were able to support a broad set of actors to collect and use educational monitoring data. These actors included (but were not limited to) education practitioners, local administration, employers and labour force representatives and community groups. Flanders (Belgium) also relies heavily on stakeholder participation in their system, and has a long history of involving a wide set of actors. However, even in that system there is still room for improvement, and explicit capacity-building measures to achieve this are not in place (Rouw et al., 2016).

In the case studies it was the central level that most often provided the leadership for the system-wide vision. And indeed the central level can play a special role when considering effective delivery of reform as well as equitable access and outcomes for students across an entire system (Burns and Köster, 2016). It can be instrumental in developing clear guidelines and goals and providing feedback on the progress on those goals. But not only the central level can fill this part: In highly devolved systems with strong capacity, this role can be played by a coalition of intermediate level actors, of which the Ministry is simply one horizontal partner.

An important element in bringing a guiding coalition together is trust. Strong trust among actors allows for better communication and collaboration and can smooth the ground for bringing a group of diverse leaders together. When effectively communicated, a whole of government approach adopted on the national level can send a strong message in favour of collaboration and joint effort to improve public services (Colgan et al., 2016). This can then also contribute to trust and confidence in the public services. The trust briefs demonstrated the importance of leadership and system vision in restoring and sustaining trust (see also Chapter 7). With stakeholder involvement, constructive accountability and capacity building work together in a (ideally) virtuous cycle that continues to build, reinforce, and sustain trust in a system. Of course, if not used properly or not used at all, they can and do work together to contribute to trust breakdown, as demonstrated in the trust briefs and also in some of the case studies, notably the Netherlands, Norway and Poland.

The importance of time

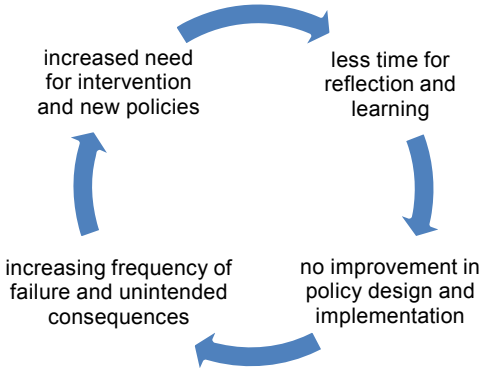
A whole of system approach thus necessarily includes a holistic long-term vision, but this is not easy to achieve. Increasing diversity of actors in the system comes with diversity in expectations, and different sectors operate on different time-scales. For example, elected officials have to operate on shorter time scales than civil servants, and

teachers might have different expectations for the time involved in change than parents and students. Researchers operate on a more deliberate time scale from almost all other actors. This can give rise to different pressures in the system which can systematically act against long-term strategic thinking. For example, quick-effect changes (e.g. providing students with electronic tablets) might be more appealing to elected officials as elections loom closer, while parents may favour longer-term less risky changes (e.g. reinforcing the teaching staff) and researchers may prefer more risky longer-term experiments (e.g. teaching a new reading method). Paradoxically, moving from appointed to elected officials as a way to increase local accountability in the education system, for instance in school boards, might result in an undesirable preference for more visible short-term solutions from those officials, given the requirements of the electoral cycle (Blanchenay and Burns, 2016).

Further complicating the issue, time interacts with actors and certain types of stakeholders might be more likely to be early adopters of a reform than others (Waslander, Pater and Wide, 2010). Impacts of a particular programme that are observed in the short term are thus likely to be qualitatively different, both in type and intensity, than those that emerge over a longer timespan (Blanchenay and Burns, 2016). This was observed in the Norwegian case study, as the system encountered a whole new set of challenges when it attempted to scale up from the eager first volunteers to a broader set of actors (Hopfenbeck et al., 2013). This is likely to also be the case in the German intervention, if the programme expands beyond the intial set of competitive volunteers to a broader group of municipalities who are potentially likely to be less motivated and do not have the capacities required.

Time is thus a key element of effective governance, yet it is one of the scarcest resources in a fast-paced political cycle. Chapman (2004) puts forward a model (see Figure 8.3) where the lack of time for strategic thinking and policy exploration results in fewer improvements to policy design and implementation, thereby reducing successes and increasing the need for new intervention and policies. This ultimately decreases the capacity for systems-based learning. A simple lack of time thus has a series of knock-on effects that translate into poor system capacity and a reduced ability to function and adapt. This all works against the ability to develop and sustain a whole of systems approach.

Figure 8.3. The knock-on effect of a lack of time on whole of system functioning



Source: Adapted from Chapman (2004), *System Failure – Why Governments Must Learn to Think Differently,* www.demos.co.uk/files/systemfailure2.pdf.

A lack of time also has an impact on how long programmes should be allowed to continue before a decision is taken on their effectiveness. Previous work on systemic innovation found that decisions about whether to continue to fund a particular initiative are often taken before results of a programme evaluation are available, and that the evaluation step is the most likely to be skipped or omitted if there are time or financial constraints (OECD, 2009a). Budget timeframes and grant agreements often are set to two to three year cycles, which research again suggests is not long enough to see the effect of a particular reform in its entirety.

One of the trickiest questions for education governance is when a reform is considered a success or failure. If there is no immediate success, is it better to end it, or to wait and see if it might produce results in a longer term? There is a scientific question here, regarding the effectivenss of the process. But there is also a political and ethical element involved as it is difficult to justify continued spending if short- term results are poor. However, it is also poossible that strong short-term results might not be sustainable, or (as mentioned above), representative. The results from an intervention with a set of early adopters, for example, might be different than with another set of actors.

In a fast-paced world, where expectations are likely to rise faster than performance, politicians and policy makers are scrambling to keep up with immediate demands for improvement. Long-term strategic thinking is thus often considered to be a luxury, or something to be engaged in when time frees up from the immediately pressing issues. And yet it is required for whole of system thinking, one of the essential elements of modern governance.

Evidence, knowledge, and the use of data

The last essential element of modern governance is harnessing evidence and research to inform practice and policy. The framework introduced at the beginning of this volume deliberately links the use and production of knowledge as essential components of governing complex systems. In this framework, each stage of the policy cycle is linked to and influences knowledge production and use (see also Chapters 1 and 2). This is a dynamic process: for example, evaluation uses existing knowledge while its conclusions expand the current knowledge base (OECD, 2009a).

There are many different types of knowledge. A strong knowledge system combines descriptive system data (on achievement, graduation, etc.) with research findings that can determine whether something is working, and why. It also includes the wealth of expert practitioner knowledge available, both formal and informal. Expanding the number and kinds of actors involved in the governance process thus also expands the types and amount of available knowledge. In developing a whole of systems approach, the key is to knowing what to use, when, and why (Fazekas and Burns, 2012; Burns and Köster, 2016, see also Chapter 2, this volume).

Education systems struggle with the best way to integrate the various kinds of research and knowledge in policy and practice. This is an ongoing challenge that was highlighted ten years ago in seminal work on evidence-informed policy in education (OECD, 2007) and observed more than a decade previous (OECD, 1995). The importance of this process has only increased in the twenty years since it was first identified: In fact, the increase in the availability of information has been one of the most dramatic transformations in our education systems. This explosion of evidence is fuelled by two concurrent trends: 1) the rise of standardised tests (both national and international, for example PISA) and the resulting proliferation of available evidence and greater emphasis

on testing and assessment; and 2) the increased access to information via the Internet and other technologies, which has enabled a multitude of actors to bring their own informed opinions to the discussion (OECD, 2007).

This abundance of data can pose challenges in an environment where different actors, with different needs, cultures and perspectives need to share information with each other. The importance of using knowledge for governance was observed in almost all of the case studies, in a variety of ways. The Netherlands, Norway, Poland and Germany were all concerned with strengthening their evaluation and monitoring systems. Flanders (Belgium) was concerned with balancing the information from assessments with other sources of evidence and the knowledge and expertise of a broad set of actors. In Sweden, one of the main findings was that the data were not being used by local administrators when making governance and funding decisions (Blanchenay et al., 2014). Across all of the work of the GCES project, developing a culture of evaluation and a constructive accountability system were identified as two issues at the heart of today's governance challenges (Burns and Köster, 2016).

Knowledge options in complex systems

So what is the way forward? Just as the traditional policy cycle can no longer capture modern governance processes (Hallsworth et al., 2011), models of knowledge mobilisation and transfer must also be adapted for complex environments. As Chapter 2 in this volume points out, for most OECD countries, it has become clear that *promoting* the use of evidence in policy making is not the same thing as *ensuring* its use. This is due to a number of different issues (Blanchenay and Burns, 2016):

1. Too much data can obscure information pertinent to decision-making or render it unusable by its sheer magnitude. As O'Day (2002) points out, the abundance of information may be counterproductive, as "teachers and schools may metaphorically and literally close the door on new information, shutting out the noise". This was observed also in local administrators in the Swedish case study, for example, and also to some extent in Norway.
2. Even for standard measures, important information might also be only partially collected (for example, reasons underlying student drop-out or issues with teacher retention). This was seen in Flanders (Belgium), where it was difficult to obtain information on the effectiveness of attainment targets due to both the structure of the evaluation system and difficulties in measuring the impact of abstract targets.
3. There might be few incentives for collected data to be shared widely, especially if there is a concern that it could be used in a negative manner (for example, in systems where there is strong competition for students between schools, the weaknesses of a particular school might be disguised or otherwise presented to avoid injuring the reputation of the school). In Poland, a lack of trust in inspections being used for improvement rather than punishment acted as a barrier to the effective collection and dissemination of school evaluation data.

This is a serious issue. Increasing the availability of data in order to increase transparency and accountability to a broader range of stakeholders has unexpectedly given rise to concerns about increasing inequity between advantaged and disadvantaged students. In most countries, upper middle-class and middle-class families (or parent(s) with higher education, higher professional positions and higher income) are the ones that are most aware of how to actively use the education system for their own interest and

benefit (Taylor, 2009). They are more likely to have the capacity to use school performance data to place their child in the best-performing schools. If changing schools is not possible, middle and upper-class parents are more likely to demand (and successfully lobby for) change in the system (van Zanten, 2003).

The equity issue also plays out administratively. Some districts or municipalities might be more likely than others to fully use available data – perhaps those that care more about education quality, or those that have better capacity to analyse and interpret such data. This was seen in almost all of the case studies, at different levels. For example, in Germany, Norway and Sweden, differences in the use and capacity to use data were observed on the level of the municipalities. In Flanders (Belgium) and the Netherlands, the differences were primarily seen on the level of the schools. In Poland, differences in capacity to use and interpret evaluation data were observed on all levels, including the level of the region (although this was also related to trust in the objectivity of the Inspectors). Chapter 6 provides a full discussion of these issues.

Finally, current data collections omit important (and potentially explanatory) variables on issues as diverse as student well-being, the role of non-cognitive skills in student achievement and motivation, teacher expectations, and a whole host of system-level variables (Blanchenay and Burns, 2016). Teacher expertise and practitioner knowledge are also often left out, or take a back seat to other, more quantitative data sources. While collecting some of this information will be useful, the goal should not be to continuously collect as much evidence as possible. The research and concrete examples from the case studies already provide a cautionary tale of what can happen when too much data is available to decision-makers.

Knowledge and evidence – in all their forms - can only lead to school improvement if they are relevant, available in adequate quantity, and properly interpreted (O'Day, 2002). One of the biggest challenges is how best to balance the various sources of information, especially if they are competing with each other (see Chapter 2, also Nutley, Walter and Davies, 2007). The case studies have identified a number of ways in which the use of knowledge can be improved: through building capacity at the local level in Germany, encouraging self-reflection and a culture of evaluation in Poland to developing user-friendly platforms to access data in Sweden.

Peer learning and networks can be a good way to build the capacity of the smallest municipalities and schools to use research knowledge and apply it in practice, as seen in Norway. And having a clear and easy way to communicate the effectiveness of a school or system is a very powerful way to motivate a broad set of stakeholders around a school or community, as demonstrated in the Netherlands. The Flemish case shows the potential of moving beyond performance metrics to develop a holistic evaluation of system progress. Despite the various challenges, it is important to get it right. Although the last element on the list in Figure 8.1, harnessing research and evidence in all its forms for policy making and practice is fundamental for successful modern governance.

Concluding note

This volume set out to bridge theory and practice by connecting major themes in education governance to real-life reform efforts in a variety of education systems. The publication built upon in-depth case studies of education reform efforts in Flanders (Belgium), Germany, the Netherlands, Norway, Poland and Sweden. These six case studies provided an empirical analysis of the process of governance and reform in a

specific national context. They were complimented by country examples of efforts to sustain trust in their education systems and to restore it after a breakdown. Although the analysis is built on specific examples, general lessons can be drawn that apply to education systems in general, and governance challenges in particular. Together they provide a rich illustration of modern governance challenges - and successes - facing countries.

The volume highlights the importance of the interdependence between knowledge and governance and focuses on essential themes of modern education governance: accountability, capacity building and strategic thinking. Governing multi-level education systems requires governance models that balance responsiveness to local diversity with the ability to ensure national objectives. This is a delicate equilibrium, one that is difficult to achieve given the complexity of the education system in many OECD countries. We have argued that effective modern governance keeps the focus on process and allow systems to adapt and respond flexibly to complexity. It aligns actors and activities and builds on dialogue and stakeholder involvement. It keeps knowledge and evidence at the core while at the same time supporting a system-wide vision of education and progress. Together these elements combine in a *smart state,* which is flexible, adaptive and focused on learning. Although traditionally thought of in terms of innovation and industrial policy, this concept extends to all sectors of government and includes an emphasis on trying new approaches, learning what works, and building the systemic capacity of the government to improve policy design, steering, and implementation

Creating the open, dynamic and strategic governance systems necessary for governing complex systems is not an easy task. This volume challenges our traditional concepts of education governance through work on complexity, change and reform and new modes of collaborative networks and decision-making. In doing so, it sets the agenda for thinking about the inclusive, adaptable and flexible accountability and governance necessary for governing complex systems in today's global world.

Notes

1. See OECD Governing Complex Education Systems (GCES) project website at www.oecd.org/edu/ceri/gces.
2. Policy experimentation can be defined as "a purposeful and coordinated activity geared to producing novel policy options that are injected into official policy making and then replicated on a larger scale" (Heilmann, 2008b, cited in Blanchenay and Burns, 2016).
3. Autocatalytic reactions are chemical reactions that produce the catalytic compound which enables the reaction to take place. This means that once they start taking place, they fuel themselves; Mason uses this metaphor to talk about dynamic changes in education systems that can sustain themselves once they have reached a critical threshold.

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Educational Research and Innovation

Education Governance in Action

LESSONS FROM CASE STUDIES

Governing multi-level education systems requires governance models that balance responsiveness to local diversity with the ability to ensure national objectives. This delicate equilibrium is difficult to achieve given the complexity of many education systems. Countries are therefore increasingly looking for examples of good practice and models of effective modern governance that they can adapt to their own needs.

Education Governance in Action: Lessons from Case Studies bridges theory and practice by connecting major themes in education governance to real-life reform efforts in a variety of countries. It builds upon in-depth case studies of education reform efforts in Flanders (Belgium), Germany, the Netherlands, Norway, Poland and Sweden. The case studies are complemented by additional examples of efforts to restore and sustain trust in education systems. Together they provide a rich illustration of modern governance challenges – and successes.

The volume highlights the importance of the interdependence between knowledge and governance and focuses on essential components for modern education governance: accountability, capacity building and strategic thinking. It sets the agenda for thinking about the flexible and adaptive systems necessary for governing education in today's complex world. This publication will be of interest to policy makers, education leaders, teachers, the education research community and all those interested in education governance and complexity.

Contents

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