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Education policy implementation: A literature review and proposed framework

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EDUCATION POLICY IMPLEMENTATION: A LITERATURE REVIEW AND PROPOSED FRAMEWORK

OECD Education Working Paper No. 162

By Romane Viennet and Beatriz Pont

This working paper was prepared by Romane Viennet (during an internship at the Education Policy Advice and Implementation Division June-December 2017) and Beatriz Pont, Sr. Policy Analyst at the OECD Directorate for Education and Skills. At the time of the internship, Romane Viennet was completing her master's degree in International Public Management at the Institut d'Études Politiques (Sciences Po) de Paris.

The paper is part of the OECD's work on education policy implementation and includes revisions following the first Education Policy Implementation Webinar with selected international and OECD experts (18 September, 2017). The purpose of this OECD work is to provide analysis and support to education systems for effective education policy implementation processes in the schools area. The paper is meant for education policy makers and practitioners and their cabinets at different levels.

This working paper has been authorised by Andreas Schleicher, Director of the Directorate for Education and Skills, OECD.

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Abstract

This literature review focuses on education policy implementation, its definition, processes and determinants. It aims to clarify what implementing policies involve in complex education systems to support policy work, building on the literature and country examples. An introduction delves into the reasons behind the need to update the concept of education policy implementation, which is defined as a purposeful and multidirectional change process aiming to put a specific policy into practice and which affects an education system on several levels.

The paper then analyses the determinants that hinder or facilitate the process and groups them under four dimensions which support effective implementation: smart policy design, inclusive stakeholder engagement, conducive context and a coherent implementation strategy. Based on these dimensions, the paper proposes a generic framework and a complementary set of questions and principles for action that can guide policy makers to design, analyse and carry out their education policy implementation processes.

Résumé

Cette revue de littérature traite de la mise en œuvre des politiques éducatives : sa définition, ses procédés et ses déterminants. Le but en est de clarifier ce qu'implique cette mise en œuvre dans des systèmes éducatifs complexes afin de contribuer au travail sur les politiques éducatives, en utilisant la littérature et des exemples de pratiques dans différents pays. L'article explique d'abord pourquoi le concept de mise en œuvre des politiques éducatives doit être mis à jour. On définit ensuite la mise en œuvre des politiques éducatives comme un processus de changement multidirectionnel établi dans le but de mettre en pratique une politique éducative spécifique, et qui peut affecter un système éducatif à plusieurs niveaux.

L'article analyse les déterminants qui empêchent ou facilitent le processus, et les rassemble en quatre dimensions : élaboration intelligente de la politique, engagement inclusif des parties prenantes, contexte favorable et stratégie cohérente de mise en œuvre. Sur cette base, l'article propose un cadre d'analyse générique et des questions complémentaires et principes d'action pour guider les décideurs politiques dans l'élaboration, l'analyse et la réalisation de leur processus de mise en œuvre.

Table of contents

OECD EDUCATION WORKING PAPERS SERIES 2

Acknowledgements 3
Abstract 3
Résumé 3
Executive summary 6

1. Introduction: Why study education policy implementation? 8

1.1. Education policy implementation: Setting the scene 8
1.2. Key challenges of implementation 10
1.2.1. Insufficient focus on implementation 10
1.2.2. Implementation as a change process 11
1.2.3. Enacting change in complex education systems 12
1.3. Methodology of the study 13
1.3.1. Research terms and process 14
1.3.2. Research results and framework for analysis 14
1.4. An overview of existing frameworks: A gap between theory and practice 16
1.4.1. Frameworks for analysing implementation 16
1.4.2. Frameworks establishing conditions for effective implementation 17
1.4.3. Actionable frameworks for policy makers 17

2. What is education policy implementation? 19

2.1. Education policy and implementation: Basic definitions 19
2.1.1. Education policy 19
2.1.2. Implementation 20
2.2. A range of perspectives on implementation 20
2.2.1. The policy cycle approach 20
2.2.2. Bottom-up theories 23
2.2.3. Recognising policy complexity 23
2.3. Towards a synthetic definition 25
2.3.1. A multidimensional and highly contingent process 25
2.3.2. A purpose: Bringing change to schools 25
2.3.3. Our definition of implementation: A purposeful and multidirectional process of change 26

3. Key determinants of education policy implementation 28

3.1. Design of the policy 28
3.1.1. Policy justification 28
3.1.2. Policy logic: Goals, targets and causal theory 29
3.1.3. Feasibility 30
3.2. Stakeholders 30
3.2.1. Identification 30
3.2.2. Belief systems, interests and motivations 32
3.2.3. Capacity 32
3.2.4. Responses and reactions 33
3.3. Context 34
3.3.1. Institutional setting 34
3.3.2. Policy complementarities 36

3.3.3. Societal trends and shocks 36
3.4. The implementation strategy 37
3.4.1. Task allocation and accountability mechanisms 37
3.4.2. Objectives 37
3.4.3. Policy tools 38
3.4.4. Communication and engagement strategy with stakeholders 38
3.4.5. Resources 39
3.4.6. Data, monitoring and accountability 39
3.4.7. Timing 40
3.5. Summarising the key determinants 41

4. Towards a framework for education policy implementation 42

4.1. A proposed framework on education policy implementation 42
4.2. Making the framework actionable 44

References 47

Annex A. Overview of theoretical frameworks on policy implementation 55

Tables

Table 4.1. Education policy implementation: The framework in action 45

Boxes

Box 1.1. Defining education policy implementation 10

Figures

Figure 2.1. The policy cycle theory 21
Figure 2.2. Deliverology: How to think about implementation 22
Figure 2.3. From policy development to enactment 24
Figure 3.1. Potential stakeholders in education 31
Figure 3.2. An overview of governance arrangements across OECD countries 35
Figure 4.1. Education policy implementation: A visual framework 43

Executive summary

This literature review provides an in-depth analysis of the concept of education policy implementation, its definitions, processes and determinants and proposes a framework for analysis and action. It aims to clarify what education policy implementation entails in complex education systems and support policy work building on the literature and country examples. The paper centres on school education. It specifically focuses on answering two questions: what does education policy implementation entail in theory and in practice? What are the determinants involved in the process of education policy implementation?

Education policy implementation is a complex, evolving process that involves many stakeholders and can result in failure if not well targeted. In fact, a range of reasons can prevent implementation from being effective, such as a lack of focus on the implementation processes when defining policies at the system level; a lack of recognition that the core of change processes require engaging people; and the fact that implementation processes need to be revised to adapt to new complex governance systems. It is therefore crucial to understand it, clarify its determinants and explore ways in which it can be more transparent and effective.

Education policy implementation does not only refer to the strict implementation process but needs to be seen in its broader context. Following an analysis of the range of definitions and frameworks on the topic, this paper defines education policy implementation as a purposeful and multidirectional change process aiming to put a specific policy into practice and which may affect an education system on several levels:

- Implementation is purposeful to the extent that the process is supposed to change education according to some policy objectives.
- It is multidirectional because it can be influenced by actors at various points of the education system.
- It is contextualised in that institutions and societal shocks and trends –i.e.in culture, demography, politics and economy- affect the education system and the ways in which a policy is shaped and translates in the education sector.

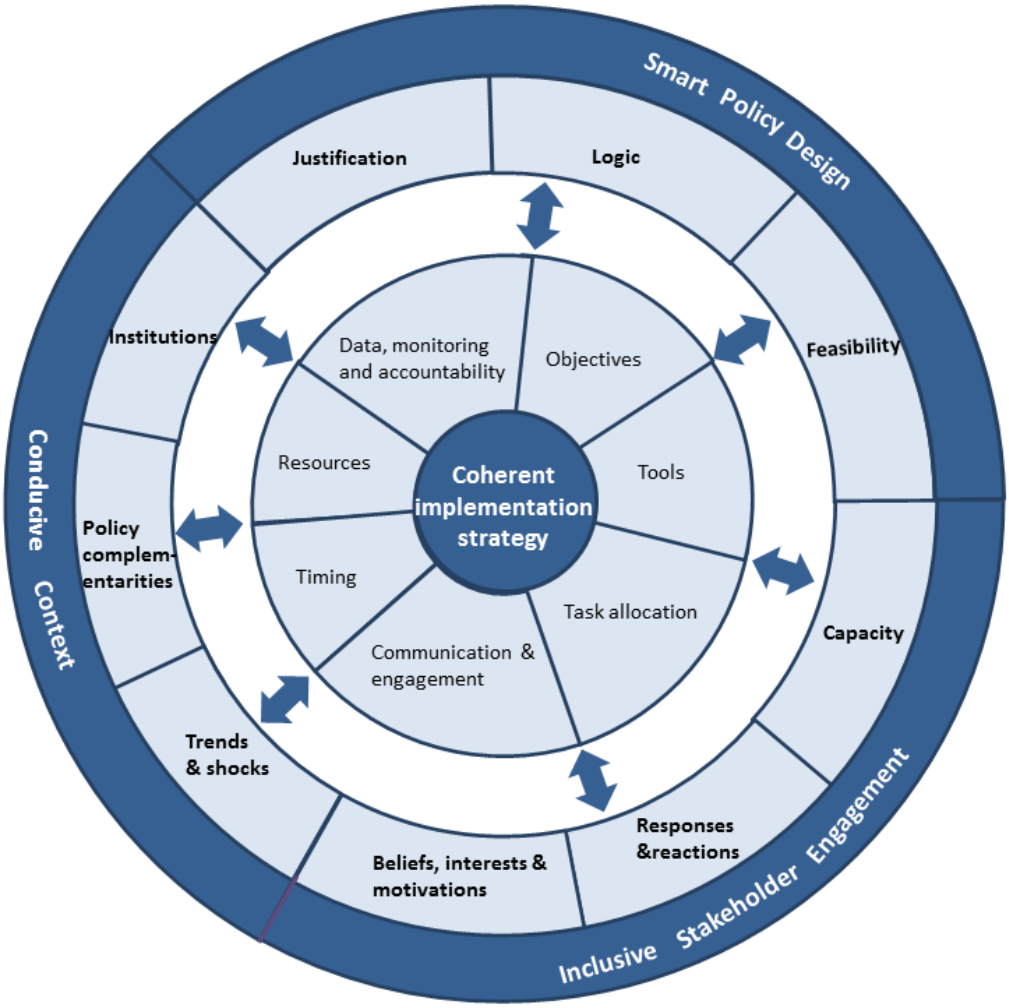
But to make it more concrete and valuable for policy makers, it is necessary to take this definition and make it more actionable, by analysing the range of determinants that hinder or facilitate the implementation process. From the analysis, this paper proposes a generic framework (Figure 1) shaping determinants around four dimensions, each of which should be taken into account for education policy implementation effectiveness:

- **Smart policy design**: a policy that is well justified, offers a logical and feasible solution to the policy problem, will determine to a great extent whether it can be implemented and how. For instance, if a new curriculum requires the use of high technology equipment which schools cannot afford, the policy may fail to be implemented unless some budget is available at the national or local level.
- **Inclusive stakeholder engagement**: Whether and how key stakeholders are recognised and included in the implementation process is crucial to its effectiveness. For example, engaging teacher unions in discussions early on in the policy process will have long-term benefits.

- **A conducive institutional, policy and societal context**: An effective policy implementation process recognises the existing policy environment, the educational governance and institutional settings and external context.
- **A coherent implementation strategy to reach schools**: The strategy outlines concrete measures that bring all the determinants together in a coherent manner to make the policy operational at the school level.

This framework is translated into a set of questions and principles for action (Table 4.1) to guide policy makers to think through, design and analyse their education policy implementation process.

Education policy implementation: A visual framework



1. Introduction: Why study education policy implementation?

While pressures on education systems grow to deliver high-quality education and the number of reforms increase, policy makers do not necessarily grant much attention to their implementation. Education policy implementation is a complex, evolving process that involves many stakeholders and can result in failure if not well targeted. It is therefore crucial to understand it, clarify its determinants and explore ways in which it can be more transparent and effective.

This paper builds on the literature to provide a definition of education policy implementation and its determinants, and proposes a framework to support education policy makers in the implementation process. This introductory Section sets the scene to explain why it is important to analyse this topic now, what are some of the main challenges, and it develops the two questions that underpin the study: what does education policy implementation entail in theory and in practice? What are the determinants involved in the process of education policy implementation? The Section then describes the methodology used for the study, and presents the different types of frameworks for policy implementation that exist and are used in this paper's analysis.

1.1. Education policy implementation: Setting the scene

OECD countries adopted no fewer than 450 education reforms between 2008 and 2014 (OECD, 2015[1]). Considering the fast-paced economic, social and demographic environments that surround education, efforts for education systems to adjust, improve and drive the future appear warranted. There is little evidence of whether education reforms have an effect, however, because educational impacts are challenging to assess and seldom evaluated. Even when reforms do have an impact, stakeholders are easily dissatisfied with the outcomes and they tend to hold policy makers accountable for them (Gallup, 2017[2]; Corbier, 2017[3]). Similarly, there is little knowledge about the actual processes that produce, or are supposed to produce the desired outcomes. These processes "between the establishment of a policy and its effects in the world of action" (O'Toole, 2000[4]) are commonly referred to as policy implementation, even if there is no consensus on the definition.

There is indeed a difference between passing a policy bill or a strategy and turning it into daily practices for teachers, school administrators and local communities. Implementation details may be left for administrations and educators to figure out, effectively leaving the reform process half-way through (Hess, 2013[5]). Observing that policies often do not get implemented as planned, or not with the desired outcomes, governments, experts and international organisations have come to acknowledge the need to focus more on implementation processes (Gurría, 2015[6]; Wagstaff, 2013[7]; Pont, 2008[8]; OECD, 2016[9]).

Challenges to implementing education policy include co-ordination issues, inadequacy of organisational resources, actors' capacity or reactions against reforms. But as the education sector has become more complex, the challenges of putting change into practice have also evolved. Education stakeholders are increasingly diverse and growing more vocal and ambitious about what education systems should look like. The use of technologies contributes as well to making education systems more complex. Interactions between actors and between the various levels of education

systems (national, regional and local) weigh more in the policymaking process. New questions are emerging about who is responsible to do what in the systems, how to hold them accountable and how the implementation process itself can contribute to enhancing education (Burns, Köster and Fuster, 2016[10]).

In fact, "education policy implementation" refers to different realities for different people: educators and students may consider policy implementation as the changes they bring to their everyday practices of managing schools, teaching, and learning. For national policy makers, implementation may refer to what needs to be executed to bring their new policy down to districts and schools. For regional or local policy makers, it may mean making choices about changing priorities, and use of resources.

The different definitions of education policy implementation found in the literature convey specific perspectives on the policy process (Datnow and Park, 2009[11]). Traditionally, policy makers see education policy implementation as a technical stage of the policy process in which the decision they have taken gets executed by the administration and educators throughout the system. Although they observe implementation failures, their solution is often to instigate more rational public management practices and monitor the implementation processes more closely.

This top-down perspective on implementation is challenged, especially in the case of more complex education systems. Scholars now tend to define implementation rather as an iterative, political process wherein actors influence the outputs and outcomes of the policy. Literature that focuses on "bottom-up" perspectives does not look at implementation *per se*, but at the policymaking process as one intricate political game. Such perspectives are essential to understand the complexity of implementation, but are challenging to integrate in practical advice for education policy actors, especially those making policy at the national level.

If policy makers and stakeholders want policies to be effective and improve education, they need to share a common understanding of implementation to be able to work together on the process. Between top-down and bottom-up approaches to policy making, this paper shows that education policy implementation is actually quite a complex process but "thorough implementation of policy change in education is actually possible", in spite of this complexity (Mason, 2016[12]).

This literature review aims to clarify the scope based on current theories and on the new complexity in education policy making at the primary and secondary levels. This section sets the scene by introducing the topic, presenting the challenges of implementation and an overview of existing research and frameworks. Section 2 elaborates a definition and section 3 analyses the key determinants of implementation processes in education. Lastly, section 4 proposes a framework that can serve policy makers to support their implementation processes.

Box 1.1. Defining education policy implementation

Education policy implementation is a purposeful and multidirectional change process aiming to put a specific policy into practice and which may affect an education system on several levels.

- Implementation is purposeful to the extent that the process is supposed to change education according to some policy objectives.
- It is multidirectional because it can be inflected by actors at various points of the education system.
- It is contextualised in that institutions and societal shocks and trends –i.e.in culture, demography, politics and economy- affect the education system and the ways in which a policy is shaped and translates in the education sector.

This definition is developed in Section 2, which provides the detailed analysis of what education policy implementation entails, and why we define it as such.

1.2. Key challenges of implementation

As our economies and societies have evolved from industrial to becoming knowledge based, education has become crucial for individual and social progress. Education systems are now more than ever required to provide high-quality education and competencies, in addition to new demands for well-being and values, to enable young generations to design and contribute to our fast-paced, global economy. But education policies may not reach the classroom, failing to achieve their intended outcomes, because of weak implementation processes.

The literature reveals a range of reasons preventing implementation from being effective. Among others, we can highlight a lack of focus on the implementation processes when defining policies at the system level, the lack of recognition that these change processes require engaging people at the core and the need to revise implementation frameworks to adapt to new complex governance systems.

These challenges call for the need to review current implementation approaches to see if they are adapted to education policy making in the 21st century and especially, whether they are able to support the development of professional processes that can contribute to success in the policy process.

1.2.1. Insufficient focus on implementation

Viewing education as a driver to develop highly-skilled youth and meet the needs of the knowledge society represents a paradigm shift from the beginning of the 21st century (Lessard and Carpentier, 2015[13]). This shift has caused policy makers and other stakeholders to pay more attention to schools' performance and to raise their expectations about the quality and the scope of the services delivered in schools.

Governments have undertaken reforms to respond to these expectations. The number of reforms for a given system can be impressive: in Australia for instance, 38 national reforms were introduced between 2008 and 2014 while Ireland led 23 reforms in the same period (OECD, 2015[1]). In one country, educators may for example have to deal

simultaneously with enhancing the equity and quality of educational outcomes, reforming the way teachers are trained and changing the way students are evaluated.

Whether formulated policies take effect "in the world of action" (O'Toole, 2000[4]) is not clear, however. Few studies actually document reform impact or can specify what factors contribute the policy's success. It is also challenging to measure policy outcomes in education because they take time to appear, and because it may be difficult to attribute learning performance outcomes to one specific policy.

For example, in the Czech Republic, reforming the school-leaving examination took 14 years of debating and testing various versions and ways to implement them, even after an initial policy was passed (OECD, 2016[9]). Analysing the effects of Comprehensive School Reforms in the United States in the 1990s, Borman et al. find that the strongest effects are found 8 to 14 years after a reform begins (2003[14]). Policy evaluation analysis in the United States in the 1990s showed nonetheless that assessing the outcomes without looking at the concrete processes that produce them did not provide a complete picture (Rist, 1995[15]).

In fact, it appeared that policy makers often do not give priority to implementation. In an article entitled "the missing half of school reform", education scholar Frederick M. Hess underlines how decision makers tend to focus their efforts on formulating the policy, with little or no follow-up on how to make the policy take effect in education. "In education, there is often a vast distance between policy and practice" (Hess, 2013[5]): educational policies seem to be developed with little consideration for the practical mechanisms necessary to their implementation. Questions such as "do teachers have the skills to teach this new curriculum?" are often overlooked. As a result, expectations concerning schools' capacity to implement often exceed reality (OECD, 2010[16]).

Although it is difficult to assess whether a policy failed because it was not effective or because it was not well carried out, this lack of focus on implementation can have serious implications. First, the public resources invested in that policy might have been wasted when they could have served for another project. Second, after a number of policies failing to be implemented, citizens may start losing confidence and patience with policy makers and other actors in the education system. Passing a policy that fails to be implemented is thus a risk for education policy makers. It is therefore necessary to ensure that when designing and introducing new education policies, policymakers focus and design strategies for the implementation process itself, taking into consideration that it is a complex change process rather than the execution phase of policymaking.

1.2.2. Implementation as a change process

Embedded within the concept of implementation is the idea that the policy that gets implemented brings about an effective change to the education sector. For example, implementing a new curriculum at the school level mostly implies changing schools and teachers' practices, their beliefs, and the materials used. On the other hand, a policy introducing new school funding formulas requires district leaders and principals to change the way individual schools and local education systems are managed and funded (OECD, 2017[17]).

Reforming education is no easy task, however. As noted in Hess (2013[5]) about the American public schools, "schools and districts do not go out of business" and follow

their everyday activities in teaching and learning. According to a study on public sector activities, there is an entrenched tradition for education to stick to the status quo and resist change in a number of countries (OECD, 2017[18]). Given the cost of reforms and the uncertainty about the outcomes, stakeholders may prefer sticking to the status quo rather than changing (OECD, 2016[9]).

As most policies aim to bring a change to how education works, implementing them requires facing multiple challenges in the process. These include among others, communication and co-ordination issues, problems with organisational resources, capacity and compliance of the policy operators and policy targets (Weaver, 2010[19]).

Different approaches to educational change or policy reform emphasise a range of challenges to implementation. Organisation theory and public administration literature for example emphasises the importance of overcoming resistance from stakeholders, to build support, to provide a plan and resources for change, and to find a way to embed the policy in daily routines to make the change sustainable (Fernandez and Rainey, 2006[20]). For instance, schools may lack capacity and resources to implement reforms –such as funding, training or technology. The political economy of reform looks at limited public budgets and resistance by interest groups, which policy makers must find a way to bypass in order to reform effectively. School change scholars suggest that unless teachers, school leaders and other actors in education understand and share the policy meaning, it is unlikely to get implemented (Fullan, 2015[21]).

Educational change cannot be reduced to the question of resistance to reform or the outcome of policy implementation, however. The process of implementation in itself is an opportunity to engage stakeholders, which can benefit them and the education system overall. For instance, during the implementation of the Race to the Top programme in Rhode Island between 2010 and 2014, district leaders developed problem-solving skills by learning from their peers while reporting to the State Agency (OECD, 2016[9]).

Studying education policy implementation is therefore closely linked with understanding what determines education systems' ability and actors' willingness to engage and change. Moreover, these change processes take place in education systems that are increasingly complex, and require more elaborate strategies than the traditional top-down policy making.

1.2.3. Enacting change in complex education systems

Recent developments in the literature have shown how education is taking shape in increasingly complex environments, which affects the way modern education systems are governed (Burns, Köster and Fuster, 2016[10]). Complex systems are characterised by new structures and new behaviours that emerge thanks to the interactions between multiple actors.

The number and type of actors that get involved with education policy have grown. Regional and local administrators, school representatives, principals, teachers, parents and other actors are keen to defend their own vision of education, based on deeply-rooted and largely personal belief systems. These actors engage in heated political debates about what priorities to give to education, and take initiatives to bring new policies into schools.

These evolutions have changed the relationships between the various levels of decision-making and execution. In some systems, decentralisation allows local and

regional decision makers, and district and school leaders to weigh more in the policymaking process, and to adapt policies to certain local priorities. More generally, education systems are moving from essentially top-down structures to more horizontal interactions in which negotiation and co-construction are in order. These systems are non-linear; they rely on feedback to shape their own evolution. They operate on multiple time-scales and at several levels simultaneously (Burns and Köster, 2016[22]).

These new dynamics create more challenging situations for policy implementation. Change programmes in public organisations tend to fail for reasons such as a lack of vision, incapacity to communicate, or failure to strike the right balance between marginal changes and structural transformations (Kotter, 1995[23]; Keller and Price, 2011[24]). The issue of building and maintaining trust for instance, is crucial in complex systems (Cerna, 2014[25]). New mechanisms must make it possible to hold different actors accountable for their actions, since central governments do not necessarily control all aspects of the policy process. At the same time, strong accountability should not hinder education systems' potential for innovation: OECD countries find ways to use accountability as a tool for improvement and innovation at the classroom, school, local and national levels (OECD, 2013[26]; Burns and Köster, 2016[22])

The complexity of education governance also affects a system's disposition for implementation. In decentralised systems, multiple levels of governance can result either in many layers in the implementation channels, or in different reforms or programmes to implement in similar places for instance. This crowded policy space may create reform fatigue and confusion in those that have to implement it (Honig, 2006[27]).

Implementing a new policy, bringing a change to the way education works in this environment is becoming more complex and challenging than in more hierarchical organisations (Van Der Voet, Kuipers and Groeneveld, 2015[28]). Reform initiatives and reactions to these changes no longer come from decisions made from the top down; rather, they result from more intricate interactions between multiple actors at various levels in the system. Central governments still play a decisive role in the policymaking process, if only to guarantee a coherent education system. Policy makers thus need to understand and to take into account the new challenges that complex education systems imply for policy implementation.

Overall, the research literature reveals a range of reasons preventing implementation from being effective, including a lack of focus on the implementation processes, the challenges of engaging people effectively in change and the new complexity in education governance. These call for the need to review current implementation approaches. Our main interest in analysing the existing frameworks for implementation is to assess whether they are adapted to education policymaking in the 21st century, and if they can support the development of professional practices that can contribute to effective implementation.

1.3. Methodology of the study

An analysis of the current situation and challenges in education policy implementation leads us to pose two central questions to guide our analysis: What does education policy implementation entail in theory and in practice? What are the determinants involved in the process of education policy implementation? Answering these will

allow us to understand the field and explore the possibility of developing a framework to support education policy implementation.

To answer the questions, the paper follows a traditional literature review and qualitative research approach, which includes the review and preselection of the most relevant literature on the topic and its analysis based on a common analytical framework. To analyse the various theoretical approaches of education policy implementation, we compare the approaches and draw some conclusions on how to build a basic framework.

1.3.1. Research terms and process

To analyse education policy implementation, the search process focused on finding relevant literature that addresses issues in and determinants of the implementation of social policies (in education and healthcare, mainly). It encompassed the search for general theories of the policy process when they included specific reference to implementation; the search for OECD publications offering a conceptualisation of education policy implementation and documentation on country practices in education policy implementation and empirical studies. To ensure international coverage, the search was undertaken in English and French. Most of the sources found were in English, and from Western schools of thought.

The search terms used in the review of the literature were *education policy implementation*, *education reform implementation* and *policy implementation*. In French, the equivalent searches included: *mise en oeuvre politique éducation/éducative, mise en œuvre reforme éducative/éducation, mise en œuvre politique*. Following the initial search, further references were found in key articles' bibliographies.

The literature selected was peer-reviewed or referenced by authorities in the field. If less reliable sources contributed interesting points, their qualified references were analysed, before being integrated to the literature review if relevant. The initial date for the literature search was 1970 to cover initial policy frameworks, but we analysed each approach taking into account recent updates of the different theories or frameworks, either by their original authors or by later contributors.

The literature on country practices was selected irrespective of whether there was information on their outcome. Countries' operational documentation (*e.g.* action plan) was reviewed if the policy was considered as implemented, or in the process of being implemented. Empirical and qualitative studies were considered when they identified specific strategies and concrete measures used to implement policies

The search for references initially yielded several million results and was refined through the use of key words and concepts. After skimming around 2 500 abstracts, over 150 items of interest were selected based on the terms detailed above. These were analysed more thoroughly based on their contribution to the two main questions of this paper: what does education policy implementation entail in theory and in practice? What are the determinants involved in the process of education policy implementation?

1.3.2. Research results and framework for analysis

The search resulted in the identification of 18 frameworks or models related to education policy implementation, presented in a table in Annex 1. The frameworks

aim to make sense of implementation by studying what factors influence the process and determine its outcomes. Some frameworks are focused on public policy implementation more generally –such as Sabatier's Advocacy Coalition Framework (Jenkins-Smith et al., 2014[29]), while others focus on education policy implementation (Bell and Stevenson, 2015[30]; Haddad and Demsky, 1995[31]). Fullan's approach links implementation to the issue of educational change (2015[21]). But each adopts a specific perspective on implementation, which we analysed.

Six of the 18 frameworks come from OECD projects on education reform implementation (OECD, 2010[16]; OECD, 2011[32]) and system governance (Burns and Köster, 2016[22]). Their comparative perspective spans various types of education policies, governance models and implementation practices, which make them instrumental to this paper's analysis. OECD studies also contribute a share of the country cases reviewed.

In addition to the 18 frameworks, the review included a range of theoretical approaches to education policy implementation. These were reviewed in terms of their definition of education policy implementation, the challenges and issues they emphasise, their explanations of specific determinants of implementation, and the policy and country cases they used (if any).

More than 20 publications reviewed present country practices and strategies. We reviewed the type of education policy implemented, the country or governance level concerned (*e.g.* a regional or local jurisdiction), whether the policy was effectively implemented (when known), the factors identified for success or failure of implementation, and whether an implementation strategy could be identified. The publications include mostly narrative studies, although empirical studies were reviewed whenever available.

Altogether, the frameworks and the complementary literature are the core knowledge which we explore to analyse how education policy implementation is defined, and to study its determinants and how they are organised. To undertake the analysis in a systematic fashion, after having reviewed different approaches, we select and adapt the methodology used by Nilsen (2015[33]) in a study of the various theoretical approaches to implementation in the healthcare sector.

More concretely, Nilsen reviews the different theories, models and frameworks in implementation science[1], with the aim to translate research into practice. He suggests that while there is interest in the use of theories, models and frameworks to understand implementation mechanisms, there are difficulties in choosing the most appropriate ones. He concludes that many models do not identify or structure determinants of policy implementation associated to success and that one of the key issues is to find a clarifying taxonomy for the analysis.

[1] Implementation science is a field of research on professional practice (especially developed in healthcare) that aims to explain and tackle the issues associated with using research findings to form and implement evidence-based practices (Nilsen, 2015[21]). It is close to policy implementation research in that both look to understand and address the challenges that arise when attempting to translate intentions (policy goals or best practices) into desired changes (policy outcomes and daily practices) (Nilsen et al., 2013[23])

To undertake his analysis, Nilsen provides a classification of determinants in the different health care policy implementation frameworks: characteristics of the implementation object, characteristics of the user/adopters, characteristics of the end users, characteristics of the context, and characteristics of the strategy or other means of facilitating implementation. The taxonomy appears relevant to the analysis of education policy implementation. In fact, there have been indeed parallels made between policy implementation studies and implementation science (Nilsen et al., 2013[34]).

An initial examination of the education implementation literature shows that there are similarities between the categories in education and health implementation processes. The authors therefore adapt and refine the implementation science taxonomy to analyse the process of policy implementation in education, resulting in the following categories: policy design, actors involved, context and the details of the implementation strategy. These will be applied to analyse the determinants of education policy implementation.

1.4. An overview of existing frameworks: A gap between theory and practice

The literature on education policy implementation is substantial and offers a wide range of perspectives on the issue, contributing significantly to education policy analysis. This part presents the frameworks according to their focus, whether they are more analytical, normative or action-oriented. Detail on the 18 frameworks is provided in Annex A.

1.4.1. Frameworks for analysing implementation

Some of the frameworks selected in this review set the stage for researchers to develop knowledge about policy implementation. We have categorised them in this paper as analytical frameworks. They attempt to deepen the knowledge and to give coherence to the academic field, by describing the process and its different determinants. For instance, Nakamura and Smallwood (1980[35]) analyse implementation as one of the three functional environments that make up the policy process. In their view, implementation cannot be understood out of its relationships with the processes of formulating and evaluating policies, since it is affected by the events occurring in these processes as much as it influences them. This stance leads the authors to analyse the complex mechanisms allowing the different actors to communicate within and across the three policy environments, thus influencing implementation outcomes.

Other examples of these analytical approaches include Malen (2006[36]), which suggests that implementation outcomes are determined through political games. The framework is a descriptive tool, offered as such for policy analysts to make sense of the political dynamics influencing the implementation process. Bell and Stevenson propose a model to explain the multidirectional interactions between the development stage of a policy and its "enactment", in which the policy shapes educational institutions down to the local level, while being influenced itself by local dynamics (2015[30]). It is important to note that these frameworks always include external factors that shape and influence the implementation process as an integral part.

1.4.2. Frameworks establishing conditions for effective implementation

Another type of frameworks tends to define or establish the conditions for so-called "successful" or "effective" implementation. These conditions concern the general context of implementation on one hand such as committed implementers, active political support for the policy being implemented, policy coherence and stability of socioeconomic factors over time. On the other hand, in these frameworks, researchers acknowledge the impact of a well-designed policy on its own implementation. Ingram and Schneider, for instance, establish the characteristics of "smarter policy statutes" (1990[37]). In Mazmanian and Sabatier's framework, implementation is considered successful when the goals established in the policy statutes are achieved (Sabatier and Mazmanian, 1979[38]; 1980[39]).

There is disagreement nonetheless on whether achieving a successful implementation means the policy remains faithful to policy makers' initial intent and specific directives, or if some unexpected but beneficial outcomes can be considered a success (McLaughlin, 2006[40]). Ingram and Schneider, for instance, define successful implementation as "progress on problems, increased knowledge, and increased support" (1990, p. 85[37]), acknowledging that implementers can add value to the goals initially set in policy statutes. Others study the role that "street-level bureaucrats" could play in facilitating implementation (Lipsky, 2010[41]; Tummers and Bekkers, 2014[42]; Honig, 2006[43]; McLaughlin, 2006[40]).

Normative frameworks provide policy makers with advice on how to build these conditions for success. One possibility consists in designing the policy statutes so that the chances to achieve the policy goals are maximised given the local context (Suggett, 2011[44]; Ingram and Schneider, 1990[37]; Sabatier and Mazmanian, 1980[39]).

Cerna, following a review of the different approaches to education policy implementation suggests that a one-size-fits-all model of implementation is not feasible (Cerna, 2013[45]). Most authors insist on is that the implementation plan be flexible enough to adapt to issues that policy designers may not foresee (Haddad and Demsky, 1995[31]; Barber, 2008[46]). Other frameworks such as the OECD's guiding principles for high-performing education systems also recommend investing in schools and in the administration and engaging stakeholders throughout the policy process to develop education systems' capacity to implement (OECD, 2010[16]; 2011[32]).

Although normative frameworks aim to advise policy makers on how to implement policy more effectively, the conditions for success they offer may lack concrete practicality. While they provide information on considerations, policy makers may requires more elaborate development of frameworks than a set of conditions for success.

1.4.3. Actionable frameworks for policy makers

Some frameworks are trying to guide policy makers and designers on which concrete actions to take to tackle the various determinants of implementation in an effective way. This is the case of some public policy scientists, which are recently aiming to draw practical lessons for policymakers from complex policy theory (Cairney and Weible, 2018[47]). The rationale behind such efforts is to make academic knowledge on policy implementation useful for practitioners (O'Toole, 2004[48]), who often lack the time to refer to research for guidance. Yet, there are few fully-fledged, action-oriented models that aim to help policy makers adopt more effective implementation practices.

It may be because the contextual factors to each country or education system are specific and unique, and not easily transposable.

The literature review has found shows that there is one such action-oriented framework. The deliverology approach (Barber, 2008[46]) developed in the United Kingdom aims to guide policy makers to design and carry out an effective implementation plan, by creating a unit at the level of prime minister's office that promotes a focus on implementation.

The OECD has also analysed and considered the focus of policy implementation, given its mandate which aims to promote "better policies for better lives". As part of this remit, the organisation has explored the role of implementation, or the political economy of reform and how to "make reform happen" (Wurzburg, 2010[49]; Gurría, 2015[6]; Pont, 2008[8]). Selected education projects tackling implementation include support on education reform implementation in Mexico (OECD, 2010[16]; OECD, 2011[50]), Norway (OECD, 2012[51]) and in Wales (OECD, 2017[52]), and work on the governance of education systems (Burns and Köster, 2016[22]; Burns, Köster and Fuster, 2016[10]). To date, implementation projects have been developed *ad hoc*.

From the analysis of the different types of frameworks, there appears to be a gap between theory and practice that is important to bridge. It appears that while there is much research and literature, some of this academic literature may not necessarily reach policy makers or educational leaders. On one hand, the literature review shows that a one-size-fits-all model of implementation is unfeasible given the political nature of reforms, the context and the actors. However, this paper suggests that there is space and possibilities to develop more systematic approaches to implementation while allowing flexibility to adapt to local context. More concretely, for policy makers at the national level, it appears helpful to develop a framework that can contribute to analysis and operationalise education policy implementation.

The analysis that follows aims to develop an overarching framework from the research that is systematic and actionable to help policy makers and educational leaders in the policy implementation process. Section 2 reviews and proposes a comprehensive definition of education policy implementation. Section 3 reviews the range of factors that determine success in education policy implementation. Section 4 ends the paper by proposing a generic framework and a set of questions to guide the education policy implementation process from a system perspective.

2. What is education policy implementation?

In the field of education, "implementation" is a complex term which has different meaning for different people. The lack of consensus on the definition is noticeable among scholars. The term "implementation" itself may convey a limited approach to the concept. Yet analysis suggests that the term may require taking into consideration a large variety of factors including the policy making process itself, in addition to context and the actual policy. Alternative terms from educationalists include "delivery" (Barber, 2008[46]), "enactment" (Bell and Stevenson, 2015[30]) "realisation" (Donaldson, 2015[53]) or educational change (Fullan, 2015[21]).

This Section proposes a definition of education policy implementation based on a review of the literature. While we use the term "implementation", as it is the most widely used by policy makers who are the focus of our analysis, the paper aims to give it a more comprehensive meaning. It aims to provide an understanding of what education policy implementation entails that can then be used to define its determinants. It first provides a description of relevant definitions, reviews the debates around them, and proposes a definition that aims to be meaningful for policy makers.

2.1. Education policy and implementation: Basic definitions

2.1.1. Education policy

Education policy can be formally understood as the actions taken by governments in relation with educational practices, and how governments address the production and delivery of education in a given system. Admittedly, some promote a wider understanding of education policy –*i.e.* acknowledging the fact that private actors or others institutions such as international and non-governmental organisations can originate educational policies (Espinoza, 2009[54]).

However, this paper focuses on the education policies generated by public authorities (be they at the central, regional or local level) for the delivery of public education. In this respect, the definition given by Rayou and van Zanten (2015[55]) is enlightening: education policies are programmes developed by public authorities, informed by values and ideas, directed to education actors and implemented by administrators and education professionals.

Education policies cover a wide range of issues such as those targeting equity, the overall quality of learning outcomes and school and learning environments, or the capacity of the system to prepare students for the future, funding, effective governance or evaluation and assessment mechanisms, among others (OECD, 2015[1]).

Although education policies may refer to programmes affecting the education system from kindergarten to tertiary education (Van Zanten, 2014[56]), the analysis in this paper is limited to policies at primary and secondary education. Implementation presents similar contexts and challenges at primary and secondary levels, while the issues differ significantly in vocational, higher and continuing education.

In addition, it is important to point out that in this paper, we may use education "policy" or "reform" interchangeably, following the analysis in Pont (2017, pp. 36-37[57]), which elaborates on what is education policy and the differences with reform.

According to some analysts, it could be just a semantic difference, as reform refers to change in the current education policy, bringing together the policy with the process of change or reform. As stated in the previous Section, a perspective central to this paper is to study implementation as a change process and therefore, the focus is on policies intending to bring a change to education, generally referred to as education reforms.

2.1.2. Implementation

The concept of implementation in education is not clear, as it can take on a range of meanings that include the strict concept of implementation or a much broader conceptualisation that refers not only to the process but embraces those factors that surround it. .

Entries in both Cambridge and Oxford dictionaries define *implementation* as the act or process of putting a decision or plan into action, specifying it is like "starting to use something" (Cambridge English Dictionary[58]), and synonym of "execution" (Oxford Dictionary[59]). The entry of the French equivalent *mise en oeuvre* in the Larousse dictionary gives the same sense of starting to put something into effect, of organising elements with the purpose to use them (Dictionnaire de français Larousse[60]). "Implementation" thus suggests a direct object to action, be it a plan or decision.

An interesting question is whether the education policy that gets implemented is the same as the one formulated by policy makers. The following distinction drawn in Adams, Kee and Lin (2001[61]) allows for some reflection:

"Rhetorical policy refers to broad statements of educational goals often found in national addresses of senior political leaders. Enacted policies are the authoritative statements, decrees, or laws that give explicit standards and direction to the education sector. Implemented policies are the enacted policies, modified or unmodified, as they are being translated into actions through systemic, programmatic, and project-level changes." (2001, p. 222[61])

If the "implemented policies" correspond to "enacted policies, modified or unmodified", then the implementation process can hardly be limited to executing a decision. More complex mechanisms seem to be at play, which will be analysed thoroughly in the following Sections.

2.2. A range of perspectives on implementation

The idea that implementation refers to the execution of a policy conveys a specific view of the policymaking process, where a policy is first formulated and designed by a central authority, then implemented across the system under this same authority. This perspective has dominated the literature on implementation, but is contested by other approaches for which implementation refers to a much less linear process. Looking at both perspectives can contribute to a comprehensive analysis of education policy implementation.

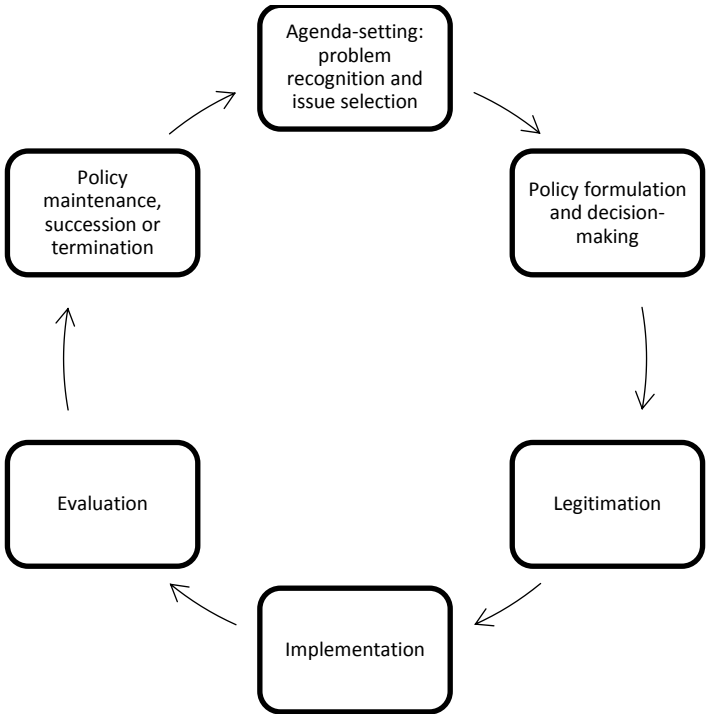
2.2.1. The policy cycle approach

A major issue in defining public policy implementation is the following question: where does implementation start and what role does it play in the policy process? Pressman and Wildavsky (1984, p. xxii[62]) emphasise the tight links between a policy and its implementation: "we can work neither with a definition of policy that excludes any implementation nor one that includes all implementation". The distinction that is sought here is how to distinguish the object (the public policy) from its

implementation process. Defining the relationships between the two depends on the perspective one has of the policy process.

One of the most influential approaches among analysts is the policy cycle approach, which splits the policy process into discrete and chronological stages, with one of them being implementation (see Figure 3.1). This approach has been used in a number of frameworks (May and Wildavsky, 1978[63]; Jenkins, 1978[64]; Brewer and DeLeon, 1983[65]), and is the one used conceptually by many policy makers and implementers to think through the policy process. In this traditional perspective, a policy decision necessarily comes first, before the implementation process starts.

Figure 2.1. The policy cycle theory



Source: Adapted from Werner, J. and K. Wegrich (2006) "Theories of the Policy Cycle", in Fischer, F., G. Miller and M. Sidney (eds.), *Handbook of Public Policy Analysis* and Cairney, P. (2013), *Policy Concepts in 1000 Words: The Policy Cycle and its Stages*, https://paulcairney.wordpress.com/tag/stages-heuristic.

A policy usually proposes a vision to achieve, sets goals to meet, and may even spell out the means to reach them. In such a case, top-down implementation often refers to the process of executing what the policy mandates, to reach the goals stated and with the means outlined in the policy statutes. For instance, Mazmanian and Sabatier define implementation as:

> *"the carrying out of a basic policy decision, usually incorporated in a statute but which can also take the form of important executive orders or court decisions. Ideally, that decision identifies the problem(s) to be addressed, stipulates the objective(s) to be pursued, and in a variety of ways, 'structures' the implementation process. The process normally runs through a number of stages beginning with passage of the basic statute, followed by the policy*

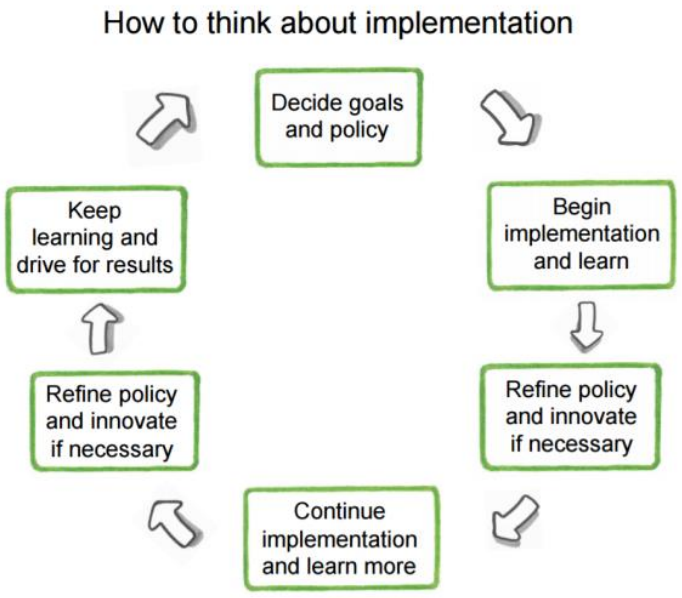
> *outputs (decisions) of the implementing agencies, the compliance of target groups with those decisions, the actual impacts – both intended and unintended – of those outputs, the perceived impacts of agency decisions, and finally, important revisions (or attempted revisions) in the basic statute" (Sabatier and Mazmanian, 1980, p. 540[39])*

The policy cycle approach remains in use –albeit with some adjustments (Hill and Hupe, 2002[66]), because it is considered the most straight-forward way to present an analysis and recommendations to policy makers (Cairney, 2013[67]) and because it may be more simple to make actionable.

An example of a modern top-down approach to implementation is Prime Ministers Delivery Unit (PMDU) developed during Blair's government in the United Kingdom. "Delivery" explicitly conveys the PMDU's top-down perspective on implementation: the Unit's primary mission was to "ensure the delivery of the Prime Minister's top public service priority outcomes by 2005" (Cabinet Office, 2005[68]).

Termed "deliverology", this methodology structures the PMDU's approach to delivery, and is based on pragmatic project management methods applied to policy implementation (Barber, 2008[46]). The delivery staff ensures that clear priorities are set, each associated with a limited number of specific, measurable and ambitious targets. The implementation plan is necessary for effectiveness, but does not have to be on point from the beginning. It remains flexible to accommodate the lessons learnt by the implementation team throughout the process. Delivery is thus tightly linked with regular data collection, monitoring and analysis, thanks to which it informs the implementation team and decision makers (see Figure 2.2).

Figure 2.2. Deliverology: How to think about implementation



Source: Barber, M. (2015), "How to run a government so that citizens benefit and taxpayers don't go crazy", Conference at Stanford University, 09 April 2015, http://cddrl.fsi.stanford.edu/download/file/218617.

Deliverology had some success among central policy makers, especially because it aims to diffuse management practices in public administration. The approach sees implementation as a highly iterative process, and a fully-fledged component of policymaking. It is considered top-down to the extent that it focuses mostly on central government's leadership, and on administrative performance overall. "Effective implementation" from the deliverology standpoint is implementation that "get things done", *i.e.* that achieves the government's goals (Barber, 2015[69]).

Critiques of the deliverology are concerned with the approach's lack of consideration for issues other than its administrative performance. Whereas implementing education policies talks to teachers, school leaders and students and their parents in the first place, deliverology does not necessarily consider ways of collaborating with these key stakeholders (Devarajan, 2013[70]).

On a more general note, the policy cycle approaches have been criticised for ignoring the complex interrelations between the various stages, and the role individual actors may play at several steps of the process (Werner and Wegrich, 2006[71]). This complexity is at the roots of bottom-up approaches,

2.2.2. Bottom-up theories

Bottom-up approaches see implementation as a "*process of interaction and negotiation, taking place over time, between those seeking to put policy into effect and those upon whom action depends*" (Barrett and Fudge, 1981, p. 4[72]).

The main contribution of bottom-up approaches to public policy implementation is their normative stand: what matters is not how policy makers at the top get their will executed but the reactions of those on the ground at the end of the line whose reactions shape the implementation process, and the policy itself (Lipsky, 2010[41]). Lipsky explains that the real question in policy implementation is how to support civil servants so they do not have to resort to routines that help them meet the pressure but decrease the quality of their service to end users of the policy.

Another important contribution of bottom-up theorists is their highlighting the role of politics in implementation. Similar to the political economy of reform, authors such as Barret and Fudge (1981[72]) insist on the continuous negotiations that take place throughout the policy process. Compromising and getting actors on board with the policy does not stop with the formulation, which makes implementation just the continuation of political debates. However, while bottom-up scholars bring new knowledge on the power relations down the policy-making process, they do not provide clear responses on how to tackle the challenges they identify.

2.2.3. Recognising policy complexity

Some approaches attempt to blend contributions from top-down and bottom-up approaches to make the knowledge they produce useful to policymaking. While many of these are general approaches, they are relevant to education policy.

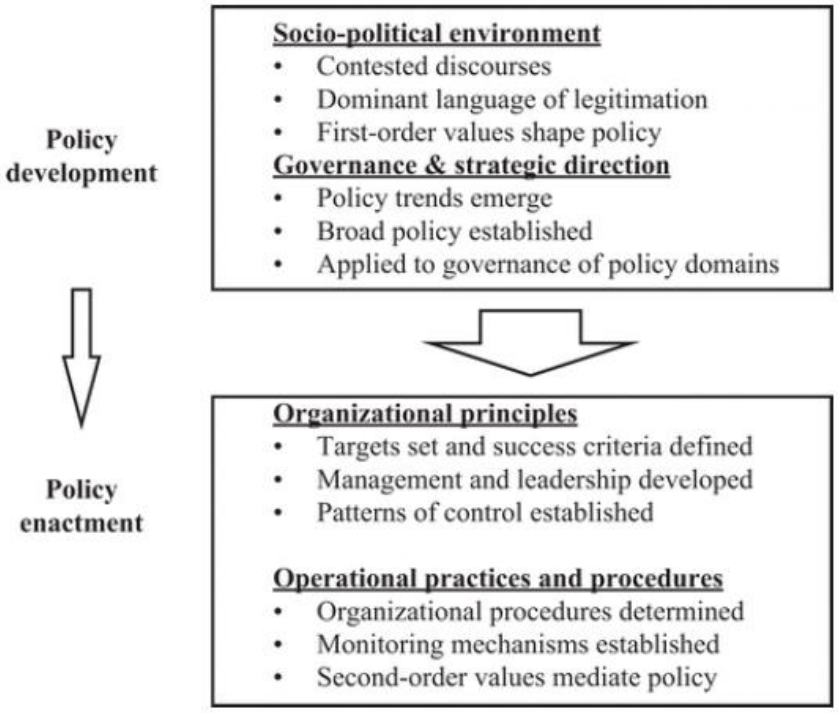
Frameworks have been developed as alternatives to the policy cycle approach, aiming to better clarify the complexity of policy making. Among them we can highlight Paul Sabatier's Advocacy Coalition Framework (Jenkins-Smith et al., 2014[29]), which makes a fundamental hypothesis about policy change: for a major policy change to occur some kind of perturbation, negotiation and policy-oriented learning has to happen, along with a change in the coalition in power or a shift in the ideas successful

with the coalition in power in the subsystem. A description of alternative frameworks can be found in Cerna (2013[45]).

Synthesising approaches include a wide range of influential contributions (see Hill and Hupe (2002[66]) for a detailed review). Many of these recognise that change is an organic process that needs to engage those on the ground. A significant approach uses the concept of networks to analyse policy implementation. Based on the concept of "mutual dependencies" (Rhodes, 1992[73]; Pfeffer, 1981[74]), they emphasise the role of networks because in complex policy systems, actors do not yield resources to implement a policy by themselves (Klijn, 2008[75]). This situation is seen especially in modern education systems, where multiple actors must interact and co-ordinate with each other, governments included.

In their framework for education policy implementation analysis (Figure 2.3), Bell and Stevenson confirm the precedence of the policy decision on the implementation process (which they call "policy development" and "enactment", respectively). Yet they emphasise how the "enactment" phase shapes the policy and its outcomes, rather than simply execute the policy. From their perspective, education policy implementation should be understood as the web of processes through which policies are interpreted, translated and reconstructed, rather than a simple process of execution (Bell and Stevenson, 2015[30]).

Figure 2.3. From policy development to enactment



Source: Bell, L. and H. Stevenson (2015), "Toward an analysis of the policies that shape public education: setting the context for school leadership", *Management in Education*, Vol. 29/4, pp. 146–150, https://doi.org/10.1177/0892020614555593.

The debate between different perspectives, including top-down, bottom-up perspectives and synthetic approaches structure the study of policy implementation. Approaches such as Bell and Stevenson's synthesise the lessons learnt from top-down and bottom-up theories to get a better understanding of the implementation process. Yet, the growing complexity of education governance and its greater importance call for clear definitions and concrete tools to for policy makers to enact policy in this new policy environment.

2.3. Towards a synthetic definition

As research in education policy implementation progresses, attempts have been made to give a definition that captures the complexity of the concept. The frameworks analysed are built on definitions which influence what determinants they look at. Given that this paper aims to develop a determinant framework on education policy, it first needs to provide a definition that encompasses the factors and determinants that are important for policy makers and recognises the complexity.

2.3.1. A multidimensional and highly contingent process

Many of the theories and frameworks recognise the fact that the implementation process is highly contingent on exchanges among a range of actors at different levels. For instance, Honig defines education policy implementation *"as the product of the interaction among particular policies, people, and places*" (p.4) (2006[76]). This definition encompasses the complex relationships between education policy, the site where it is implemented ("place") and the actors involved with the policy ("people").

Education policy implementation is depicted as a multidirectional process of constant negotiations (Datnow, 2002[77]) from the bottom up as well as from the top down. It involves a cognitive process of sense-making for the implementer, based on what she knows, what she understands of the policy, and what she believes the course of action should be (Tummers, 2012[78]). Implementation happens at multiple levels, and thus in multiple socioeconomic, cultural, political contexts. Therefore, implementation outcomes do not flow mechanically from policy design (McLaughlin, 2006[40]).

2.3.2. A purpose: Bringing change to schools

Fullan defines education policy implementation as *"the process of putting into practice an idea, program, or set of activities and structures new to the people attempting or expected to change. The change may be externally imposed or voluntarily sought; explicitly defined in detail or developed and adapted incrementally through use; designed to be used uniformly or deliberately planned so that users can make modifications according to their perceptions of the needs of the situation"* (Fullan, 2015[21])

Two features stand out from this definition. First, implementation is about changing schools and the education system "in the direction of some sought-after change" (Fullan, 2015[21]). Orchestrated by public authorities, the process is thus expected to serve their purpose (*i.e.* bringing a desired change to education). Second, the author explains how policy implementation at the classroom level comes down to changing curriculum materials, pedagogical practices and beliefs or understanding about learning processes. As such, it also acknowledges that end users of the policy such as

teachers can shape the policy at their level, and that they may do so in a way that aligns with policy makers' goals –or not.

Very few definitions consider the role of implementation in translating policy in schools' daily practices. These changes on the ground are what really affect education outcomes, however, and as such they deserve a central place when studying implementation. National policy makers for instance may refer to implementation as what needs to be executed to bring their new policy down to districts and schools. Teachers and school leaders may see reform implementation as yet another government initiative they need to learn about and embed in their teaching, or in their daily management of the school. For some local decision makers, implementation may imply a political and technical exercise to adapt a national policy to local challenges and resources.

2.3.3. Our definition of implementation: A purposeful and multidirectional process of change

The previous analysis has shown that there are some fundamental features to education policy implementation. Fullan's definition refers to the purpose of implementation that is supposed to bring desired change. Honig (2006[76]) completes Fullan's perspective, underscoring that implementation is a construct of multiple processes, and that the context also influences how implementation unfolds.

An additional issue to analyse is the effectiveness of a policy, as implementation is expected to produce some outcomes, if not an impact. "Effective policy implementation" also raises definition issues. Depending on the perspective one adopts on the policy process, the effectiveness of implementation can be measured differently. One way can be to measure how faithful the implemented policy remains to its original design (top-down perspective).

Another way is to consider implementation effective when it reaches policy goals that are shared widely, when it harnesses the influence of various actors throughout the education system to do so, and when it remains sensitive to its context (Datnow and Park, 2009[11]). Bearing this in mind, this paper calls "effective implementation" the process that changes the practices and structures of education systems in concrete terms, in the direction of some shared goals and that are adequate to the context.

A final issue to consider is that the policies and changes formulated may not be for the better, and "making them effective" may not result in improving education. We suggest that the proposed framework is used for education policies that contribute to improve equity and quality in education (OECD, 2015[1]).

Bringing this all together, we provide a definition aimed to help policymakers actually improve education by turning policies into daily practices in schools and school administration. For this purpose, we provide a definition of education policy implementation that adopts a broad perspective.

We thus defined education policy implementation as a purposeful and multidirectional change process aiming to put a specific policy into practice and which may affect an education system on several levels.

- Implementation is purposeful to the extent that the process is supposed to change education according to some policy objectives.

- It is multidirectional because it can be inflected by actors at various points of the education system.
- It is contextualised in that institutions and societal shocks and trends – i.e. in culture, demography, politics and economy - affect the education system and the ways in which a policy is shaped and translates in the education sector.

3. Key determinants of education policy implementation

This Section presents and reviews the key determinants of education policy implementation for clearer understanding of the process. The aim of the analysis is to have the elements to develop a determinant framework on education policy implementation.

In determinant frameworks, "each type of determinant typically comprises a number of individual barriers (hinders, impediments) and/or enablers (facilitators), which are seen as independent variables that have an impact on implementation outcomes, i.e. the dependent variable" (Nilsen, 2015, p. 4[79]). In this Section, we identify a set of key determinants, or independent variables that either hinder or enable implementation outcomes. Four dimensions are crucial to take into account when approaching education policy implementation:

- **The policy design**: the way a policy is debated and framed, the logic it suggests between the policy problem and the solution it offers and the feasibility of the latter determine to a great extent whether a policy can be implemented and how.
- **The stakeholders and their engagement**: education policies are implemented by individuals and organisations, making them central to the implementation process both because of their own characteristics and thanks to their interactions with other determinants.
- **The institutional, policy and societal context**: the institutional setting comprises the formal and informal social constraints that regulate the implementation process in a given education system. The other policies in place in education and other sectors also need to be taken into account because they may facilitate or hinder the implementation process.
- **The implementation strategy**: the implementation strategy refers to the operational plan that guides the process to make the policy happen in effect.

These dimensions are reviewed and described in the following parts.

3.1. Design of the policy

In our concept of the policy implementation process, the design of the policy is understood in a narrow sense, as the object being implemented. It consists in the theoretical solution that policy makers design to answer an issue on the policy agenda. The nature of a policy solution, and the way it is formulated influence the "enactment" of a policy (Bell and Stevenson, 2015[30]). The core attributes of a policy, the issues that were not raised during its formulation phase carry over to the implementation phase and may alter it (Fullan, 2015[21]). Several factors linked to the policy itself should be considered in terms of how they influence and determine implementation.

3.1.1. Policy justification

A policy may respond to a need, or to the perception of a need which must be outlined clearly to facilitate the formulation, legitimacy and implementation of a solution. At any level of an education system, the number of issues actors must tackle forces them to prioritise, in which case the policy needs that seem the most urgent, the clearest or

the better justified may get implemented first (Fullan, 2015[21]). Ideally, the analysis of the issue and the resulting choice of policy options should be based on evidence and on a good knowledge of the education sector, of the socioeconomic, cultural, demographic and political contexts, and of the mechanisms of change in a policy system, such as actors and their bargaining strategies (Haddad and Demsky, 1995[31]).

However, a policy does not always originate in the identification of a need. It can be brought forward because of approaching elections or because the coalition in power pushes through the agenda. Clarifying the reasoning behind a policy, the characteristics of the issue it is supposed to address, and the way policy makers analyse these issues help make sense of implementation and can contribute to bringing stakeholders on board to support the policy reform. In addition, it is important that the justification present a clear idea of the expected results from the implementation of the policy for it to move actors and supporters forward.

3.1.2. Policy logic: Goals, targets and causal theory

One of the three key dimensions of policy design, the goals define specific challenges, scope and time horizon for the policies, drawing some constraints for the implementation process (Honig, 2006[27]). For example, as part of France's large-scale public school reform (*Refondation de l'Ecole de la République*), the programme Path to excellence (*Parcours d'excellence*) in 2014 aimed to enhance equity with two main goals: improving success rates at the end of secondary school and increasing access to higher education for students from disadvantaged background (Ministère de l'Éducation nationale French Government, 2016[80]).

The clarity of the policy goals (Ingram and Schneider, 1990[37]) and their order of priority in the policy statutes impact the operational stage in the implementing agencies (Sabatier and Mazmanian, 1980[39]). Even further, different actors may have different interpretations of the policy goals (Spillane, Reiser and Reimer, 2002[81]). Whether desirable or not, there is a possibility that actors may interpret and implement a policy differently because they do not understand nor comply with its spirit (Mclaughlin, 1987[82]).

An education policy is usually directed towards specific target groups of users and beneficiaries. Curricular reforms for instance can change the content and the pedagogical methods to enhance the quality of teaching and the learning performance. In this case the policy has two targets: teachers and students. Labelling targets often comes down to creating a group that was not consciously perceived as such. This may generate unexpected attitudes from the group itself or from other stakeholders, thus creating challenges to implementation (Honig, 2006[27]). Therefore, for reform implementation to be successful, policy goals and targets must be clear and concrete.

In addition, the causal theory (or theory of change) underpinning the policy is essential, because it tells the story of how and why the policy change takes place, and can contribute to get engagement and guide those involved (Fullan, 2015[21]). Mazmanian and Sabatier emphasise the importance of having a valid theory linking the policy problem to the behavioural changes policymakers expect to cause in the groups targeted by the policy (1980[39]). Overall, concrete goals, targets, and causal theory of an education policy are crucial to understand the challenges to implement, the shape the process takes and the results from implementation.

3.1.3. Feasibility

When formulating a policy, decision makers face several constraints, among which the necessity to pass the bill, which may encourage them to focus more on what is doable politically than practically (Fullan, 2015[21]). Several concerns raised are that the resources or technology to make the policy work may not be readily available. A lack of practicality creates situations in which policy planners and implementing agents are asked to put a policy into action in ways that may not be possible (Comfort, 1982[83]). At the level of implementation, an arbitrage may be necessary between respecting the policy logic and making it happen.

The literature observes that several elements of the policy initially developed by decision makers determine the implementation process to some extent. The origin and rationale of a policy, and the extent to which decision makers take into account the practicalities of implementation all affect whether and how a policy gets implemented.

3.2. Stakeholders

Education policies are implemented by people, making them central to the implementation process, both because of their own characteristics and thanks to their interactions with other determinants. It is widely acknowledged that stakeholders display some agency, which contributes to shaping the process and the outcomes of policy implementation. In the different determinant frameworks analysed, "stakeholders" or "actors" may refer to individuals or collective entities, both formal (e.g. labour unions, implementing agencies) and informal (e.g. parents, political coalitions). Determinants relate to entities or actors (individual or collective) using or not their skills and resources to contribute or react to the implementation of the policy.

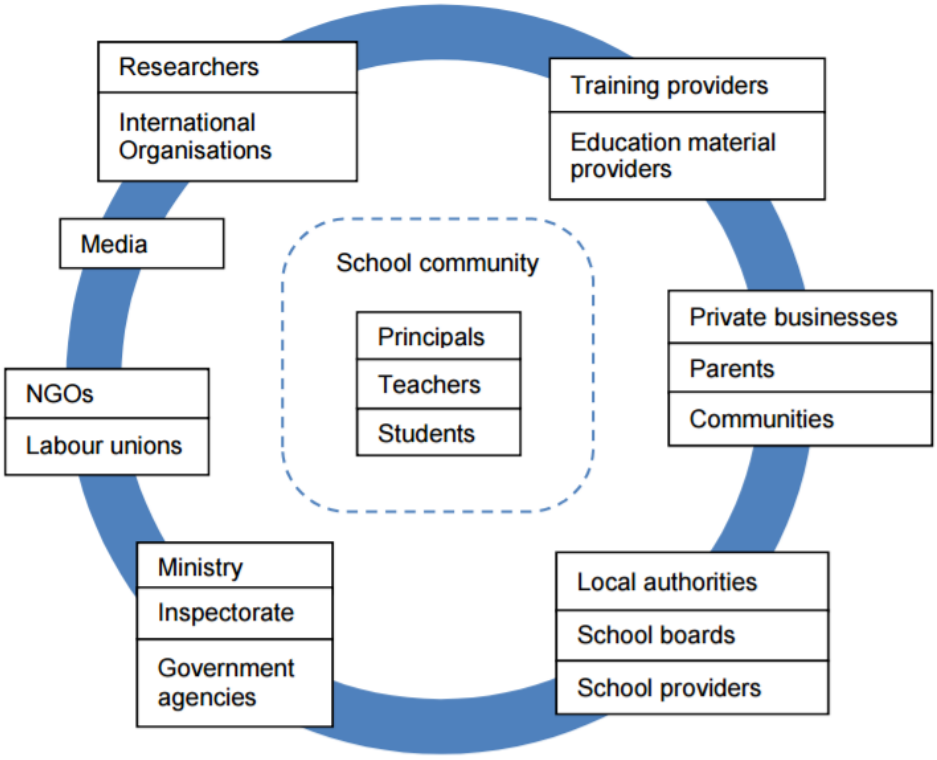
3.2.1. Identification

Multiple actors may exert some political leverage over education policy, even if they are not directly related or targeted to the policy. Nakamura and Smallwood (1980[35])distinguish between policy makers, formal implementers benefiting from an official mandate to implement, intermediaries or providers involved to deliver the effective service, lobbies and constituency groups, recipients and consumers of the policy, the media, and even policy evaluators.

In schooling, key actors are found at the school level (*e.g.* principals, teachers, students and parents), and the local levels (*e.g.* school boards, school providers, local authorities and community, at the regional or national level, also including training institutions and education material providers).

The national government also has relevant institutions, such as evaluation, inspection or improvement agencies, research agencies, teacher training institutions, national leadership or teacher institutions, ministries of education and their staff and unions. Figure 4.1 provides an overview of potential actors with stakes in education, which are usually called stakeholders.

Figure 3.1. Potential stakeholders in education



Source: Burns, T. and F. Köster (eds.) (2016), *Governing Education in a Complex World*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264255364-en.

In both centralised and decentralised systems, crucial actors yield influence from arenas far removed from the local school: Burns and Köster identify the ministry, inspectorate and government agencies on the one hand, and influencers such as labour unions, NGOs and the media, or researchers and international organisations (see Figure 4.1). Although Fullan does not count actors as a category of determinants in itself, teachers, principals, the community and various levels of government are central to his implementation framework (Fullan, 2015[21]).

Key actors in implementation may vary depending on what policy is at stake, even within the same education system. For example, the German Federal Ministry for Education and Research initiated the "Lernen vor Ort"[LvO –"Learning Locally"] programme to strengthen local education governance. All participating municipalities followed the same model: a governing circle set the goals and priorities for local education management, a steering group was in charge of concretising the goals and planning the implementation, and working groups carried out the various projects.

The actors involved at each level varied from one municipality to the next: in Leipzig for instance, the governing circle gathered the Lord Mayor, five mayors, and representatives of the school authority, one trade union, the employment office, the city job office, three different higher education institutions and two foundations as advisors. The steering committee was composed of the Mayor and deputy mayor for education, and representatives of the administration, the school authority, the

employment office, the adult education office and the additional personnel subsidised through the LvO programme. The working groups gathered members of the administration, educational institutions and civil society that were active in one the topics picked by the municipality (e.g. monitoring, educational transition or family and parental education) (Busemeyer and Vossiek, 2015[84]).

A different example comes from Norway, with the Assessment for Learning initiative aimed to promote formative assessment and reinforce the culture of assessment and learning in Norwegian schools. The Directorate of Education and Training, a government agency in charge of implementing K-12 education policies, initiated and steered the national four-year program from 2010 on. The programme used foreign academic resources for its implementation strategy. The Directorate provided financial support to participating municipalities and counties, and held them accountable for planning and effectively implementing the policy. Municipalities and counties were expected to develop capacity-building plans for schools and teachers, and to co-operate with school leaders, parents and other actors to diffuse the programme more effectively. (Hopfenbeck, Florez Petour and Tolo, 2015[85])

Identifying and investigating the views, interests and capacities of actors is necessary to understand education policy implementation, for their perception of education, their motivation and skills, and their reaction to the policy widely influence the enactment of the policy.

3.2.2. Belief systems, interests and motivations

Actors may have a formal role assigned to them in the implementation process or they may just feel concerned by education policy. In both instances, the policy to be implemented interacts with actors' interests, aligning or not with them and determining actors' understanding and support of the policy –or lack thereof (Spillane, Reiser and Reimer, 2002[81]). Malen defines actors' interests as "the complex web of values, views, orientations, dispositions, preferences, and convictions that shape their perceptions of public problems and the policy solution that may be attached to them" (2006, p. 87[36]).

Actors' interests may be in competition between individuals, between interest groups, and sometimes between individuals and the organisation they belong to. Competing interests may affect a policy's implementation process by creating ongoing conflicts between stakeholders. The Advocacy Coalition Framework for example sees governmental programmes as translations of coalitions' policy-oriented beliefs (Jenkins-Smith et al., 2014[29]) which can differ from and misalign with other actors' belief systems. Norway's Assessment for Learning reform shows that the dialogue between the ministry and stakeholders was facilitated because a large majority of the actors sitting at the table shared common views and experience of education (Hopfenbeck, Florez Petour and Tolo, 2015[85]).

Actors' interests thus affect implementation primarily through political games and tensions, leaving some room to arbitrate and decide which policy elements and tools to favour in the implementation process.

3.2.3. Capacity

Actors display some agency in the way they perceive the policy and act on a daily basis. They may influence other determinants to curb the implementation process.

Therefore one major element to assess is this capacity to affect a given policy. Malen (2006[36]) suggests this relative power is measured by the actors' resources (such as prestige, connections, individual attributes) and their skill and will to make these resources a tool for political influence.

Considering the staff of formal implementing agencies, Ingram and Schneider stress the importance to consider the various components of this capacity, including political authority, material resources and expertise (1990[37]). Studying the factors facilitating the implementation of a new curricular reform in Hong Kong, Cheung and Man Wong find that teachers' professional development and principals' leadership skills both significantly affected effective implementation (Cheung and Man Wong, 2012[86]).

Experts have been advocating for governments to invest in their educator workforce (OECD, 2010[16]; Wurzburg, 2010[49]; Hargreaves and Fullan, 2012[87]), including in developing school leaders and teachers' skillset, but also their capacity to implement reforms. Stakeholders' capacity can be built both in the medium term (*e.g.* teachers' and principals' skill set) and on a more punctual basis, thanks to policy-specific training. Hopfenbeck et al (2015[85]) found that schools in which teachers understood the logic of the Assessment for Learning policy were more likely to implement the policy effectively.

The capacity of organisations such as schools and implementing agencies is determined by their staff on the one hand and by their organisational setting, on the other. Bell and Stevenson (2015[30]) show how organisational principles, the corresponding structures and internal procedures shape the way organisations react to a given policy. Procedures and rules define the implementation process in operational terms: funding, for instance, can either be earmarked to specific implementation activities or part of a larger budget that an implementing agency has to allocate. The effectiveness of internal procedures also determines organisations' capacity to react quickly to a new policy, and defines to a great extent the implementation timeline (Nakamura and Smallwood, 1980[35]). In the United States, schools' leadership, management and culture deeply affected their readiness and capacity to implement and sustain Comprehensive School Reforms from 1995 to the early 2000s (Datnow, 2005[88]).

3.2.4. Responses and reactions

Taken together, interests and capacity form a capital which determines the way actors react to a policy. Reviewing the literature, Malen recalls the wide array of political strategies available to actors (2006, p. 88[36]). The chances that a policy gets effectively implemented increase significantly when service providers, teachers, principals and parents are on board with the reform as opposed to protesting it (Pont, 2017[57]). Policy advocates thus look for ways to get these key actors to agree with the policy and to implement it.

Looking at the school level, Coburn (2006[89]) underlines how the way in which principals chose to frame reading comprehension methods determined how teachers understood and implemented them between 1995 and 1998. Malen describes how the superintendent of an education district in the United States phrased the reconstitution programme to be implemented in a more acceptable way and spent time in one-to-one discussions with key stakeholders to gather political support for its implementation (2006[36]). Nakamura and Smallwood (1980[35]) explain that the formal implementer usually has the responsibility to co-ordinate the different actors, but does not

necessarily yield enough authority and has thus to negotiate and compromise throughout the implementation process.

Sabatier and Mazmanian suggest implementers' strategies once known can be powerful tools for policy designers who can identify the implementing agencies that are most likely to adopt the policy goals, and adapt the implementation process accordingly (1980[39]). Actors' response strategies and their capacity is essential for policy designers to take into account throughout the implementation process

3.3. Context

The contextual determinants refer to the elements that constitute the environment in which education policy implementation unfolds: the institutional settings, existing policies and the events originated outside of, but connected to, the implementing system. A number of the frameworks selected distinguish between at least two levels of contexts -"local" and "external" in Fullan (2015[21]), "inner" and "outer" in Aarons, Hurlburt and Mccue Horrowitz (2011[90])) to grasp issues relevant to the multi-level, multi-focus and multi-actor nature of policy implementation (Hill and Hupe, 2002[66]).

3.3.1. Institutional setting

The institutional setting comprises the formal and informal social constraints that regulate the implementation process in a given education system, which may be considered as fairly stable parameters (Jenkins-Smith et al., 2014[29]). Constitutions, laws, rules, conventions, norms or habits, they determine the speed at and extent to which a policy gets implemented (Pont, 2008[8]). Such norms that drive actors' daily activities at the local school and district levels include for instance teachers' pedagogical practices and collaborative methods, and principals' managerial techniques. In Cheung Man Wong (2012[86]), teachers and principals claimed that principals' leadership and the culture of collaboration in schools was among the most significant factors of effective implementation of a new curriculum in Hong Kong, from 2001 to 2011.

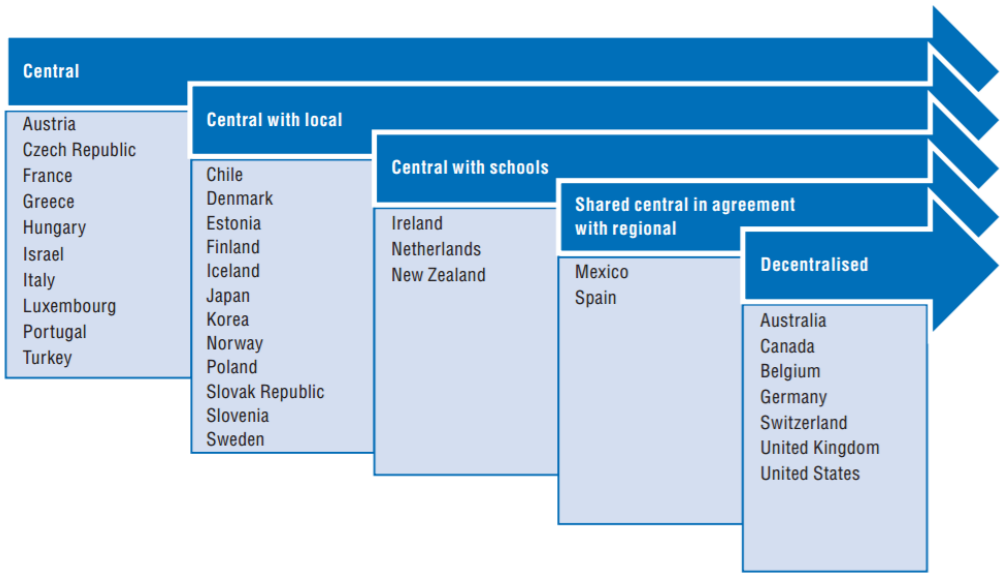
The institutional structure of the decision-making and implementation levels beyond local (e.g. at the national, state, federal or regional levels) also have influence on the way education policies may be implemented (Fullan, 2015[21]). Changes in the institutional context changes the rules of the game; thus, leaving the implementers to adapt their practices.

Variations at a given level of the education system can nevertheless be mediated because of local institutions. For instance, Datnow (2005[88]) finds that Comprehensive School Reform models in the United States were more likely to have stabilised by 2000 in schools where leadership at the district and state levels remained stable over time. Yet variations could be mediated in some schools depending on their experience with reform and the staff's skills in change management.

Institutional factors include the mechanisms linking the various levels of governance. The governance model can be considered the formal institutional setting of an education system. It "refers to the dynamic processes involved in the implementation and monitoring as well as decision-making in a system" (Burns, Köster and Fuster, 2016, p. 18[10]). Looking at the type of governance is particularly relevant to education policy implementation, given the large number of actors that claim authority in the sector.

The OECD distinguishes five such types of governance among its member countries' education systems. Figure 3.2 gives an overview of these governance arrangements. .

Figure 3.2. An overview of governance arrangements across OECD countries



Source: OECD (2015), *Education Policy Outlook 2015: Making Reforms Happen*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264225442-en.

In centralised systems, the state and / or the Ministry of Education play a major role in defining and delivering the policy for most educational issues. Other systems work around a central with local dynamic, where a central ministry guides the policy which authorities at the municipal level are responsible to deliver. In countries such as the Netherlands of New Zealand, the schools themselves are responsible for delivery while the national ministry defines and supervises the policy overall.

In Spain and Mexico, the central government defines the policy in agreement with regional governments which are in charge of delivery. Decentralised systems span an array of models in which different institutions support policymaking at several levels of the education systems. For instance, the 16 German Länder are mainly responsible for education, but share some responsibilities with the federal, state and local authorities. Co-ordination and dialogue are facilitated by a Standing Conference between the Ministers of Education and Cultural Affairs from each Länd.

Nakamura and Smallwood (1980[35]) look at the various types of linkages that the policy process entails between policy formation and implementation. They claim that the reasons for implementation failure depend on how much control policy makers retain over the implementation process, as compared to how much discretion is granted to the implementers. Taking stock of stakeholders' agency and its influence on the implementation process, several countries have established venues to facilitate dialogue with actors, and grant more discretion to some representatives.

In Ireland for instance, the Teaching Council –the entity regulating the teaching profession- is composed of teachers, staff from teacher-education institutions, school-management organisations, ministry nominees and other stakeholders such as parents

and industry and business representatives. Spain continuously engages with stakeholders at the school level through a number of well-established entities: the School Council gathers the leaders and staff, teachers, local authorities, parents and members of the community to formulate general guidelines for the school's orientation, while the teachers and principal co-ordinate pedagogical content, student assessment and counselling through the Teachers' Assembly (OECD, 2016[9]).

3.3.2. Policy complementarities

The number and variety of policies to be implemented in a given system make education a crowded policy field, with the possibility for two policies to contradict or misalign with each other. This misalignment can arise from a contradiction in educational practices the policies advocate for (Porter, 1994[91]). Desimone (2002[92]) notes that the degree of consistency between policy efforts at the school-, district-, and state-level can lead to significant variations in the implementation processes and outcomes, which is confirmed in Datnow's study of Comprehensive School Reform implementation processes in various United States schools (Datnow, 2002[77]).

Selected work on effectiveness of reforms underlines that implementation is affected by the compatibility among educational policies between themselves, and with other policy areas (OECD, 2010[16]). If enough policies align in a favourable environment, then it becomes possible to change complex systems such as the education sector (Mason, 2016[93]; Pont, 2017[57]). Complementarities between policies are thus instrumental in understanding implementation outcomes and their sustainability (Desimone, 2002[92]).

3.3.3. Societal trends and shocks

The implementing environment is also shaped by the societal trends and events that may have repercussions on the education policy sector, be they of political, social, economic, or demographic nature. On one hand, societal trends define the issues that arise in the education sector, and the way they are perceived. Changes in social, economic and technological conditions affect the possibility for a policy to be implemented according to its statute's objectives (Sabatier and Mazmanian, 1980[39]). In Hong Kong, the declining student population and poor employment opportunities for teachers in the 2000-2010 decade were among the factors that slowed down the implementation of the new curriculum (Cheung and Man Wong, 2012[86]). Observation of OECD countries reform actions has shown that that the pressure from different countries' performance in education or economic growth was a powerful lever for reform in its member countries (Wurzburg, 2010[49]).

Societal trends also influence the way actors perceive the education system and related issues. Lessard and Carpentier explain how the welfare state and rising support for equality of opportunity between 1945 and 1973 gave way to democratic education systems for the masses. In comparison, the New Public Management movement from the 1990s transformed schools into production systems responding to the economies' demand for knowledgeable and highly-skilled professionals (Lessard and Carpentier, 2015[13]). In Bell and Stevenson's framework, the socio-political environment "shapes the context within which policy is framed and enacted" (2015, p. 148[30]). Malen also posits that the sociocultural forces define the values prevailing in a given system, and therefore contribute to filtering the educational issues and policy solutions that are acceptable socially (2006, p. 89[36]).

The institutional and societal contexts therefore have a mediating effect on politics of implementation, because they define the issues that can arise and the policy solutions offered, they shape and constrain actors' strategies as well as the implementation plan.

3.4. The implementation strategy

The implementation strategy can be assimilated to the policy's theory of change, *i.e.* the operational plan explaining *how* to make the policy happen in effect, while the policy design included mostly its theoretical underpinnings (the policy's theory of change). Some authors blend the implementation strategy with the policy itself, because they are considered parts of the policy statute -*i.e.* the document or decision(s) that frame the goals or objectives, tools, rules and targets, and structural relationships between agents for a given policy (Ingram and Schneider, 1990[37]; Honig, 2006[27]; Sabatier and Mazmanian, 1980[39]).

The policy may provide a vision the implementations strategy has to realise, but the latter is more action-oriented, and ought to be flexible enough to cope with the unexpected (Fullan, 2015[21]). Differentiating between the two is useful, because it highlights strategic determinants of the implementation process that could be overlooked otherwise. Five elements of the implementation plan were identified across several of the selected frameworks: task allocation and accountability, objectives and tools, resources, timing, and communication and engagement strategy with education stakeholders.

3.4.1. Task allocation and accountability mechanisms

A policy needs some clarity and visibility regarding who is supposed to implement what, and who is responsible in case a given step of the implementation goes wrong. The distribution of tasks and responsibility is determined first by the institutional structure in place in a given education system. Each educational policy may nevertheless require some details on who implements what.

The implementation strategy usually identifies key stakeholders and their corresponding responsibilities. Sabatier and Mazmanian (1980[39]) suggest that the policy statute can assign roles to implementing agencies based on their disposition regarding the policy –*e.g.* whether their decision rules are favourable to the policy goals. In most technical views of the policy process, the policy statute determines how much discretion key implementers may have –*i.e.* how much change they can bring to core elements of the policy (Ingram and Schneider, 1990[37]). In instances when countries have and publish implementation strategy documents for their education policies, key stakeholders are usually identified, with their tasks and responsibility mechanisms (see for instance the Action plan for Education 2017 in Ireland ([94]) and the *Plan de mise en place* of France's *Parcours d'excellence* for the 2016 school year ([80])).

3.4.2. Objectives

The overarching goals and logic (or vision) of a policy need to be refined in operational terms. Theorising "deliverology", Barber insists on the importance of defining and prioritising among targets (*i.e.* objectives tied to figures) for effective implementation (2008[46]). Because a strategy usually involves several goals and

initiatives to reach them, attention must be paid to its overall coherence and to its priorities.

The OECD finds that successful implementers have in common to have established "*a small number of clear, high-priority, measurable, ambitious but feasible goals focused on student outcomes, which do not distort practices within the school system (e.g. teaching to the test)*" (OECD, 2010[16]). In Ontario, Canada, setting three common priorities for the Energising Ontario Education initiative (in 2004 and 2008) helped the province harness implementation efforts towards achieving its vision of a high-quality, equitable and attractive public education system (OECD, 2010[16]).

3.4.3. Policy tools

Multiple policy tools have emerged since the 1990s, creating more options for policy designers or implementers to put education policy into effect. As the education sector became more complex, so did the instruments: top-down mechanisms of command and control (*e.g.* a mandate given by the Ministry of Education to an implementing agency) were complemented by more elaborate tools such as capacity-building or school-community partnerships to achieve the policy objectives (Honig, 2006[27]).

Choosing one policy instrument over another affects the dynamics of implementation. It may require hiring consultants; training staff, providing financial or other incentives; or testing several tools in case actors are highly uncertain about the way to go. In the United States, Desimone finds that the Comprehensive School Reform models that were more specific about the means to reach the policy goals in the late 1990s in the United States determined the fidelity of implementation, *i.e.* how well implementation outcomes fit the policy goals (2002[92]). In a different setting, being too specific about the tools might hinder implementation: Suggett (2011[44]) suggests that in a context where there is high uncertainty and lack of consensus on the means to reach the policy goals, such as improving educational outcomes for all, consulting practitioners and experimenting may be a more effective strategy than specifying the tools right away.

3.4.4. Communication and engagement strategy with stakeholders

The language of a policy may not necessarily be understood by the actors who are expected to implement it (Hill, 2006[95]). A policy must gather political support among actors and across implementation levels if it is to be implemented (Datnow 2000). With a large number of vocal stakeholders in the education sector, policy designers are encouraged to plan for engaging stakeholders as early as possible in the process of policy making (Haddad and Demsky, 1995[31]) and also to communicate clearly on the goals, objectives and processes required for the policy.

Engaging stakeholders in the design process may serve several purposes: making sure the key message and logic of the policy are transmitted correctly to actors, build consensus around the objectives, tools and other means to achieve the policy goals (OECD, 2010[16]; 2011[50]). By doing so, it can build support for the policy, thus limiting the number of actors that may oppose the policy throughout the implementation process (Sabatier and Mazmanian, 1980[39]).

Engaging with stakeholders is also a way to heed the reality of practitioners' daily activities throughout the process, which allows for avoiding obstacles or changing courses if some measures do not align with local needs. The Rhode Island Department of Education for example successfully engaged with district leaders to monitor the

implementation of the United States' Race to the Top programme across the state from 2010 to 2014: a collective of district leaders would meet and produce reports regularly, based on which the State's Agency would adjust its implementation strategy. The process facilitated dialogue between the State's Agency and the districts' leaders (OECD, 2016[9]).

3.4.5. Resources

The inputs necessary for education policy implementation consist mainly of the funding, technology and knowledge available to the actors, as well as their capacity to use them (see 2.2). The amount, quality and distribution of these resources allocated to implementation determine to a great extent whether and how a policy is implemented (Wurzburg, 2010[49]; OECD, 2010[16]). A recurring issue with resources is not only about whether they are available for implementation, or in sufficient quantities, but how they are used, and what for (OECD, 2015[1]), *i.e.* what the resource strategy is.

Funding issues relevant to education policy implementation include whether there is enough funding, where it comes from, whether it is earmarked and who decides how to allocate it. According to Mazmanian and Sabatier (1980[39]), there is a threshold level of funding below which implementing institutions (e.g. governmental agencies) will not be able to achieve the implementation goals they were allocated. In a descriptive study of the funding strategies for School Wide Positive Behavioural Interventions and Supports (SWPBIS) being implemented in the early 2010s in the United States, Gage et al. (2014[96]) find that the states where large-scale implementation was particularly effective had a common approach to using multiple funding sources for implementation. A World Bank comparative study on funding formulas in Eastern Europe showed that a determining factor of early implementation was whether the authorities set additional funding for specific measures of the policy – *e.g.* for teacher redundancy packages in Armenia between 1997 and 2008 (2011[97]).

Information and communication technologies are considered a powerful lever for educational change (UNESCO, 2011[98]) and create opportunities and threats for implementing education policy. Fullan (2015[21]) explains how technologies are a powerful means of accelerating "change in practice", but not an effective driver of educational change by themselves. ICTs underpin some new educational programmes in countries such as Korea's SMART initiative started in 2011 (Grzybowski, 2013[99]), and are otherwise increasingly in use in schools' daily life for communication with parents, homework and school reports. Education policies thus count with or are based on such technologies that need to be functional and mastered by implementers –and especially by teachers and school staff, which creates potential obstacles to implementation.

3.4.6. Data, monitoring and accountability

Knowledge constitutes a valuable implementation instrument that informs decision-making, improves the dialogue with actors and contributes to process transparency. Knowledge is "assimilated information and the understanding of how to use it" (Hess and Ostrom (2007), cited in Burns, Köster and Fuster (2016[10])). There are various types of knowledge that can be relevant at different levels of the policy process: data on student achievement signals the academic performance of an education system, while research findings may inform best practices. A major role for international

organisations such as the OECD is to make this knowledge available and usable for policy makers and practitioners.

Knowledge is also a source for actors to shape and revise their beliefs, which impacts their attitude in the implementation process. Understanding the mechanisms through which actors learn and process information is crucial to manage knowledge for effective implementation. By linking models of governance to learning modes, Burns, Fuster and Köster (2016[10]) offer a powerful tool to analyse learning processes given an education system's type of governance. The diversity in learning modes and models of governance is important to take into account when trying to replicate or adapt implementation strategies from other education systems.

Context-specific and practitioner knowledge is crucial to carry out a policy at the school and district level. The data collected throughout the implementation process allows implementers to update their strategy if needed, and may contribute to adjusting implementation according to local imperatives. Monitoring mechanisms should thus be designed to be flexible, support the policy goals, and provide public information without weighing down on school's daily activities (OECD, 2010[16]). Too much control during the implementation process might indeed be resented by teachers for instance, who tend to see heavy monitoring mechanisms as a lack of trust in their profession (Cerna, 2014[25]).

In complex systems, the data collected through monitoring can also serve to hold stakeholders accountable throughout the system. Up-to-date data contributes to measuring progress of the implementation process. In some contexts, studies have found that having higher accountability standards on education policy implementers resulted in a more effective and qualitative implementation. For instance the United States' School Wellness Programmes that had to be in place by 2006 were implemented more effectively and with fewer challenges when implementers were required to be transparent, subjected to careful oversight by the district and performing a systematic evaluation of the programme (Budd et al., 2012[100]).

Accountability mechanisms can nonetheless have a negative influence over the implementation process. To be effective, they must be considered in the local context and might have to be adapted depending the stages of the process (Cerna, 2014[25]). Datnow (2005[88]) finds that high-stakes accountability mechanisms were more likely to hinder effective implementation if not aligned with the Comprehensive School Reform model adopted in schools by 2000.

3.4.7. Timing

The timing and pace set for implementation determine to a large extent how the process unfolds. An implementation strategy defines a timeline common to the main stakeholders, even though it is complex to define when implementation starts and when it stops (Hill and Hupe, 2002[66]).

When implementing a policy, actors are called to arbitrate between acting fast to meet electoral necessities, and taking the time to polish the implementation strategy, engage with stakeholders and let the policy sink in. Such dilemma is well summarised by Barber (2008[46]), when using "ambition", "urgency" and "irreversibility" as key words of "deliverology".

The effects of timing and pace on the implementation process are uncertain, but should not be overlooked because they are directly linked with the scope of implementation,

and its potential outcomes. Studies suggest that at too fast a pace, stakeholders may not be able or willing to implement; too slow, the implementation process may lose momentum or drain the system's resources. The study on curricular reform in Hong Kong concludes for instance that the tight timing imposed on teachers and principals threatened effective implementation of the policy (Cheung and Man Wong, 2012[86]). A study of the reform on education system decentralisation in Sweden leans towards the same conclusion: the shift to decentralisation was too sudden, leaving no time for municipalities to organise and take ownership of the reform (Burns and Köster, 2016[22]).

The pace of implementation is linked to the nature of the change the policy aims for: even comprehensive reforms may start with incremental changes, before the systemic changes can be effective. The effect of timing on implementation thus depends on the degree of acceptability of the policy, and on the system's capacity to implement (Haddad and Demsky, 1995[31]). A striking example is the Czech commitment to create consensus on the school-leaving examination (OECD, 2016[9]): the stakeholders took fourteen years to test, modify, discuss and agree on a format that was finally introduced in 2011. Taking into account the time dimension in implementation requires policy actors to adopt a long-term perspective on education policy, while keeping up the dynamic of the process in the short-term.

3.5. Summarising the key determinants

There are a considerable number of potential determinants of policy implementation: as early as 1986, a review of over 100 studies gathered many variables that were hypothesized to influence implementation (O'Toole, 2004[48]; O'Toole, 1986[101]). The analysis undertaken for this paper shows nonetheless that key determinants are recurrent across frameworks. The frameworks tend to group these determinants into four categories: elements of the policy being implemented, characteristics of actors, contextual features, and elements of the implementation strategy. In this Section, we have termed them policy design, stakeholders, context and implementation strategy.

The literature shows that implementing an education policy fundamentally consists in getting a large number of actors to co-operate at various levels of the education system so a policy translates into new learning materials for students, new methods for teachers, new management practices for school leaders, new assessments, and many other policies that influence the content of education at the school level. Implementation entails an education policy being at least partially defined before it is carried out, but the process of implementing contributes itself to shaping the policy as perceived by the public. This is why understanding the context, the policy design itself and the human dimension of education policy is so important when designing and carrying out the implementation strategy.

4. Towards a framework for education policy implementation

This paper has reviewed the literature to define what education policy implementation entails, and what its key determinants are. It has analysed a variety of existing theoretical approaches which generally agree on a number of determinants that affect the implementation process and outcomes of education policy. Building on the analysis, this Section presents an education policy implementation framework with a set of guiding questions and principles for action. These are operational tool which we hope can help policy makers take action on implementation to ensure that education policy has impact on student learning.

4.1. A proposed framework on education policy implementation

As illustrated in this paper, implementation is a multidirectional process entailing continuous interaction between policy makers, the public, and implementers –such as administrations at different levels, independent organisations and those working in schools (principals, teachers, etc.).

In this process, we have seen that there are a range of determinants that hold across education systems and schools policies in developed and emerging countries. Acknowledging the effect these determinants have on the implementation process is crucial if policymakers want education policies to be implemented effectively and reach the classrooms.

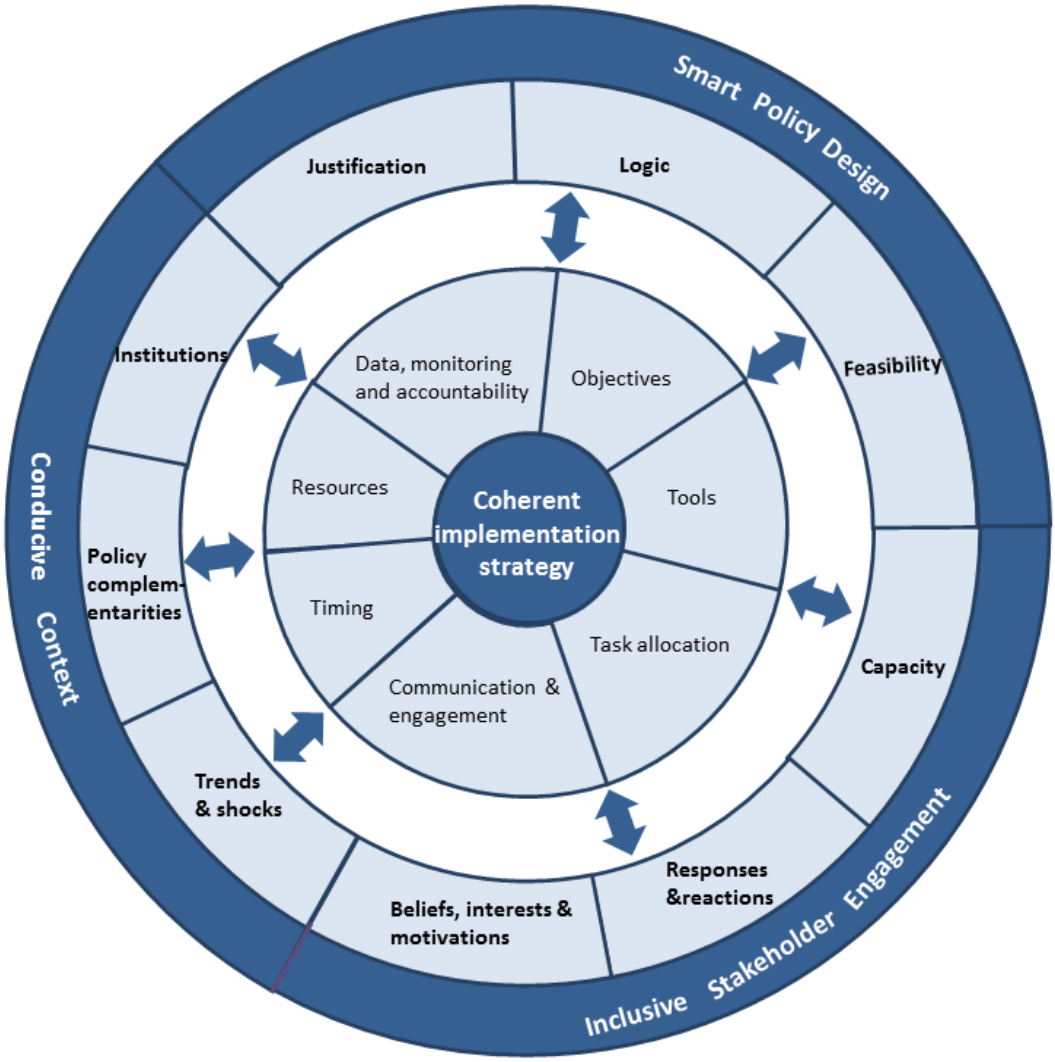
A narrow definition of education policy implementation could strictly refer to the strategy outlining *how* to effectively bring about change in education –but it is not enough. In fact, for the policy to be effectively implemented, it is important that all determinant be taken into consideration and aligned throughout the policy process. For this purpose, we have grouped the determinants in four dimensions and defined a framework that suggests that for effective education policy implementation, there needs to be:

- **Smart policy design**: a policy that is well justified, and offers a logical and feasible solution to the policy problem will determine to a great extent whether it can be implemented and how. For instance, if a new curriculum requires the use of high technology equipment which schools cannot afford, the policy may fail to be implemented unless some budget is available at the national or local level.
- **Inclusive stakeholder engagement**: Whether and how key stakeholders are recognised and included in the implementation process is crucial to its effectiveness. For example, engaging teacher unions in discussions early on in the policy process will have long-term benefits.
- **A conducive institutional, policy and societal context**: An effective policy implementation process recognises the influence of the existing policy environment, the educational governance and institutional settings and external context. Implementation is more likely to take effect when context is acknowledged.

- **A coherent implementation strategy to reach schools**: The strategy outlines concrete measures that bring all the determinants together in a coherent manner to make the policy operational at the school level.

Figure 4.1 presents the dimensions and determinants of effective education policy implementation.

Figure 4.1. Education policy implementation: A visual framework



As shown, the coherent implementation strategy in the centre is surrounded by the determinants that influence and shape the process. It is a central tool to stir the implementation process, but a well-designed strategy is not sufficient to guarantee effective implementation. While presenting a framework that is directed to policy makers, it is important to keep in mind that implementing education policy is multidirectional.

The process is piloted by a group of actors close with or mandated by policy makers to reach specific objectives, but it can be influenced by actors at various points of the

education system, such as schools, parents, local or regional education authorities. It must also be noted that education policy implementation always needs to be contextualised: the process' features vary because it is embedded in the structures of a given education system at a given time, with particular actors, and around a specific educational policy.

The central role of context shows that 'there is no one-size-fits-all model' for implementing education policy. One must thus pay attention to the specificity of the policy, stakeholders and local context to analyse or make recommendations about the process. Yet a common framework can help to structure the analysis, and guide the implementation process. With a generic framework, we hope to provide a tool that helps identify and analyse the determinants of success in education policy implementation.

4.2. Making the framework actionable

This paper has documented key theoretical elements on education policy implementation in the attempt to strengthen the theoretical foundations of a discussion on the topic. It has provided a definition of education policy implementation and proposed a generic framework to guide thinking, analysis and action in this area. We now translate the framework into a set of questions and principles for action in Table 4.1, to help policymakers go from speech to practice and adjust to the realities of complex systems.

This framework is proposed for an implementation advisor or for policymakers who would intervene at the national or regional level when an education policy must be implemented. It can be used as a starting point for analysis and support in the process of launching and implementing an education policy to ensure it reaches schools.

The table builds on the four dimensions for effective education policy implementation (*smart policy design, inclusive stakeholder engagement, conducive context, and coherent implementation strategy*) with questions and principles for action. To analyse the first three dimensions (in the horizontal entries in Table 4.1), column 2 proposes as set of guiding questions. To make it actionable, column 3 proposes principles to guide the development of a coherent implementation strategy.

Table 4.1. Education policy implementation: The framework in action

		Coherent implementation strategy
Smart policy design	What is the purpose of the policy? What problem does it aim to respond to? What is done elsewhere / has been done in the past about this problem?	Use knowledge that is relevant to the policy and to the local setting
	What is the vision? What are the goals? Are the vision / goals shared or are they conflicting? Who are the targets? Are the policy targets aware they are expected to change / do they agree?	Agree on a small number of simple, ambitious and measurable objectives Set up a monitoring system to get frequent and reliable data without interfering with the implementation process Adjust the implementation process based on the data and feedback collected
	What is the policy supposed to change to achieve the vision? Is the causal theory coherent? How have other government carried out similar policies concretely?	Agree on the relevant tools to carry out the policy
	How feasible is the policy? What are the existing resources? Is it enough?	Set up a realistic timeline Secure the resources and plan for the whole duration of the implementation process
Inclusive stakeholder engagement	Who are the key stakeholders affected by the policy? What are the relationships between key actors? Can they work together? How to get them to collaborate?	Engage key stakeholders and take into account their vision (if not done during policy design) Use their knowledge to make the implementation strategy more practical
	Who is needed to implement (steer the process, deliver a service, train the staff, etc.)? Who was instrumental in implementing this type of policy elsewhere? Are they capable of fulfilling the task? (resources, skills) If not, how to build their capacity? How will implementers be held accountable to the public (accountability mechanism)?	Agree on the distribution of tasks and responsibilities Work with the key actors to build their capacity Adapt the accountability mechanisms to the local context Set up simple ways to communicate between actors
	Who are the actors who might interfere with / facilitate the implementation process? How to get them on board?	Communicate clearly about the policy (use shared vision, adapt the level of speech)
Conducive context	What is the institutional setting already in place to support education policy implementation? Do the mechanisms needed for this policy fit with the existing? If not, how to make them fit?	Make use of the existing setting before creating new institutions, or create institutions that fit well with the existing (especially for incremental policy changes)
	What are the trends and likely shocks outside the implementing system that could affect the process (social, economic, political, demographic; on the local, national and global levels)? What can help the implementation effort and how to harness it? What can hinder the process and how to cope with it?	Prepare several scenarios of what could happen and the plausible strategies and resources to face it

	Are there any other policies that tackle this problem? How could they interfere with / complement each other?	Avoid overlap and inconsistencies between policies Use the complementarities that exist between policies

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Annex A. Overview of theoretical frameworks on policy implementation

Framework title	Perspective on implementation	Goal	Factors affecting implementation or Conditions for effective implementation	Source
Conceptual model of evidence-based practice implementation in public service sectors	Implementation consists in translating research findings into practices. It follows a four-stage process: exploration, adoption decision / preparation, active implementation, sustainment. The factors affecting implementation may vary from one stage of the process to the other.	Provide a conceptual model of factors affecting innovation implementation in public sector services to consider challenges and opportunities in implementing evidence-based practice	Factors in the exploration phase: 1- socio-political context, 2- funding, 3- client advocacy, 4- inter-organisational networks (outer context); 5- organisational characteristics, 6- individual adopter characteristics (inner context); Factors in the adoption phase: 1- socio-political context, 2- funding, 3- client advocacy, 4- inter-organisational networks (outer context); 5- organisational characteristics and leadership (inner context); Factors in the active implementation phase: 1- socio-political context, 2- funding, 3- inter-organisational networks, 4- intervention developers, 5- leadership (outer context); 6- organisational characteristics, 7- innovation-value fit, 8- individual adopter characteristics (inner context); Factors in the sustainment phase: 1- socio- political context,	Aarons, G., M. Hurlburt and S. Mccue Horwitz (2011), "Advancing a Conceptual Model of Evidence-Based Practice Implementation in Public Service Sectors", Administration and Policy in Mental Health and Mental Health Services Research, Vol. 38, pp. 4-23, http://dx.doi.org/10.1007/s10488-010-0327-7.

			2- funding, 3- public-academic collaboration (outer context); 4- organisational characteristics, 5- fidelity monitoring and staffing (inner context)	
Deliverology	Policy delivery is a highly iterative process going constantly between priority and objective setting, testing and learning, and refining the policy based on the lessons learnt. It contributes directly to making the policy itself.	Structure the Premier Minister Delivery Unit's approach to support administrations in implementing public policies	1- clear priorities are set and agreed upon by the different actors; 2- each priority is associated with a limited number of specific, measurable and ambitious targets assessed via the 'Map of delivery'; 3- a delivery plan is established to achieve the targets set. It remains flexible to accommodate the lessons learnt by the implementation team throughout the process; 4- the delivery chain exists and is understood; 5- data is collected frequently, a team in the relevant governmental departments is dedicated to analyse it, and officials use the data to base their proposals on evidence; 6- the departments collaborate with the Delivery Unit to report to top officials on the process' performance on each priority through regular "stocktake" meetings;	Barber, M. (2008), Instructions to deliver, Methuen, London
From policy development to policy enactment	Education policy enactment follows the development of a policy, but it is more complex than just executing. It consists in a web of processes through which policies are interpreted, translated and reconstructed.	Analyse how the nature of policy shapes the organisation and operational practices of education, and is shaped in turn by the implementers' actions	1- socio-political environment around the policy development process; 2- governance and strategic direction decided during the development process; 3- clear organisational principles for education management and leadership; 4- operational practices and procedures established at the school level	Bell, L. and H. Stevenson (2015), "Towards an analysis of the policies that shape public education: Setting the context for school leadership", Management in Education, Vol. 29/4, pp. 146-150, http://dx.doi.org/10.1177/0892020614555593.
Analytical framework of governance and knowledge	Implementation is a mechanism to steer policy, and as such it is connected to and interdependent with other mechanisms such as priority setting and accountability. It is widely influenced by the way knowledge is produced and used. A policy outcome is affected by its original statutes, but it is made as it is implemented.	Show how "knowledge and governance mechanisms interact to form an ecosystem that will affect and be affected by a number of other elements" [including] the structure of the governance system and the stakeholders involved" (p.29)	1- policy design 2- accountability and priority setting 3- knowledge production and learning mode	Burns, T., F. Köster and M. Fuster (2016), Education Governance in Action: Lessons from Case Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264262829-en.
Factors	Implementation "consists of the	Clarify the factors at play for	1- characteristics of the change: Need; clarity; complexity; quality/practicality;	Fullan, M. (2015), The NEW

affecting implementation	process of putting into practice an idea, program, or set of activities and structures new to the people attempting or expected to change. The change may be externally imposed or voluntarily sought; explicitly defined in detail in advance or developed and adapted incrementally through use; designed to be used uniformly or deliberately planned so that users can make modifications according to their perceptions of the needs of the situation." (loc. 1406, Fullan 2015)	education policy to translate from a wish for change to actual new practices, beliefs and learning outcomes throughout the education system	2- local context: district; community; principal; teacher 3- external factors: government and other agencies	meaning of educational change, Teachers College Press, New York.
UNESCO Applied framework for education policy planning	Implementation is a stage of the education policy cycle, after formulation and before evaluation. Policy-planning processes are country-specific and time bound, but some recurring factors are likely to affect implementation.	Clarify the various processes of pre-policy decision activities, decision-making and planning activities so policy makers can understand them more fully, and do what is necessary for effective implementation	*(conditions for effectiveness)* 1- education policy development should be based on solid knowledge of the sector, context and stakeholders 2- viable policy options must be generated 3- policy makers should be progressive about the policy option they choose: not too radical at least at the beginning, but ambitious enough to bring substantial change over time. The timing and speed of the evolution should be gauged considering the degree of acceptability of the reform by the stakeholders, and according to implementation capacities of the system 4- The micro-level planning should complement, thus be coherent with the macro level. The planners should actively seek political and public support for the policy, and engage stakeholders in the planning and implementation. Planning should be flexible, allowing for modifications along the way. 5- A built-in mechanism for assessment should help monitor and evaluate both the implementation process and the impact of the reform	Haddad, W. and T. Demsky (1995), Education policy making process: an applied framework, UNESCO, Paris.
The influences of policies, people and places on education policy implementation	Education policy implementation results mainly from the interactions among particular policies, places and people. "Decades of education policy implementation research and experience have been pointing to the complexity of implementation (Elmore, 1983; Sizer, 1985) and,	Formalize the lessons learnt from the past two waves of research in education policy implementation based on one major intellectual development of the field: the question of how and why policy, people and places interact "to shape how	1- policy designs: goals, targets, tools; 2- people: target groups, subgroups of professionals, community & associations, policy makers; 3- places: organisations and jurisdictions" settings; historical / institutional context; interdependencies with other systems/places	Honig, M. (2006), "Complexity and Policy Implementation Challenges and Opportunities for the Field", in Honig, M. (ed.), New directions in education policy implementation, State University of New York

	specifically, to policy, people and places as essential interrelated influences on how implementation unfolds (Odden & Marsh, 1988)." (p.3)	implementation unfolds"		Press, Albany, NY.
Improving implementation through framing better policy statutes	Policy implementation can be understood as the process through which implementers add value to the initial policy. It is measured by the extent to which implementers discretely change, delete or add to the core elements of the policy. The policy statutes* should account for and "control" this value-added, and thus be framed according to how able implementers are, and how much value conflict there is over the policy. *policy statutes: the document(s)/decisions(s) that frame the goals or objectives, tools, rules and targets, as well as structural relations between agents for a given policy (p85).	Determine the characteristics for a policy statute to steer implementation effectively. given different types of context	1- contextual variables level of conflict over values in the jurisdiction (support vs opposition to the policy) level of uncertainty/understanding (policy content, justification, how-to) in the implementing agencies level of motivation and capacity of the implementing agencies 2- characteristics of the statute degree of discretion granted to implementing agencies clarity of the policy goals (interacts with level of conflict)	Ingram, H. and A. Schneider (1990), "Improving Implementation through Framing Smarter Statutes", Journal of Public Policy, Vol. 10/1, pp. 67-88, http://dx.doi.org/10.2307/4007346.
Political dynamics of policy implementation and adoption framework	Education policy implementation is a dynamic process that depends on the alignment of the policy premises with actors' interests. The degree of alignment is determined in political games played between actors, in which actors' resources, skills and will to implement influence the outcomes. The institutional and sociocultural settings shape actors' interests, their strategies and the rules of the political games they play.	Use stakeholder mapping to examine and understand the political dynamics of policy adoption and implementation	1- key actors in the education system, their interests and resources; 2- key actors' influence strategies; 3- the contextual forces, political games and outcomes	Malen, B. (2006), "Revisiting policy implementation as a political phenomenon: the case of reconstitution policies", in Honig, M. (ed.), New directions in education policy implementation, State University of New York Press, Albany.

Environments influencing implementation	Policy implementation is one of the three key 'functional environments' of the policy process, and as such it "cannot be separated from the process of formulating and evaluating the policies being implemented" to be understood correctly (preface).	Provide a conceptual framework to study implementation as part of the policymaking process	1- Actors and arenas: policy makers, formal implementers, intermediaries(or providers, lobbies and constituency groups, recipients and consumers, the media, evaluators 2- Organisational structures and bureaucratic norms: internal procedures and communication, allocation of resources (money and time, adequacy and competency of staff, power over other implementing actors), psychological motivations (individuals) and bureaucratic norms (organisations) 3- Communication networks and compliance mechanisms: securing compliance on the part of intermediaries, common performance criteria, legitimate incentives to compliance	Nakamura, R. and F. Smallwood (1980), The politics of policy implementation, St Martin's Press, Inc.
Guiding principles for high-performing education systems	Well-developed implementation processes matter for education systems to enhance student outcomes. "It is important to have the right policies, but just as important to have well-developed means for making those policies real across large numbers of school" (p.25).	Establish the key characteristics of education systems that successfully make reforms happen ("high-performing systems"), in terms of both policy substance and processes	*(conditions for effectiveness)* 1- establish a small number of clear, highest priority, measurable, ambitious but feasible goals focused on student outcomes that do not distort practices within the school system; 2- develop an overall strategy to reach these goals, that deals with all the relevant components over time but prioritises the changes; 3- align the main elements and players of the education system coherently to support the overall strategy. The culture of the organisation should be consistent with its rhetoric, as should its resource allocation strategy; 4- focus, in all settings, on recruiting, educating, training, developing and supporting the educator workforce; 5- increase the capacity of the education ministries and associated organisations at all relevant levels to support large-scale improvement; 6- develop and use venues for ongoing dialogue and communication among all parties to the education system to establish a consensus over a common vision for education that sustains through changing governments; 7- strike the right balance between local initiative and central efforts at improvement; 8- establish and use accountability and reporting systems that support the goals and provide professional and public information, and do so without demotivating teachers or making unfair comparisons between schools; 9- develop leadership at the school and the system level; 10- allocate resources efficiently ;	OECD (2010), Improving schools: strategies for action in Mexico, OECD Publishing, Paris.
Public policy framework for education reform	Successful education policy implementation processes must be based on evidence, using specific knowledge about the policy, context and practices from various sources (local knowledge, research findings,	Provide policy makers with a method to use international and local evidence to facilitate reform efforts and to implement at a local level evidence-based policies and best practices from abroad	1- quality and quantity of relevant information and data available; 2- communication, engagement and consultation strategy with stakeholders; 3- amount and consistency of public funding for policy reform development and implementation; 4- legal, regulatory and administrative framework, and potential conflicts with the policy; 5- institutional arrangements of mandated public institutions;	OECD (2011), "The Public Policy Framework for Implementing Education Reforms", in Establishing a Framework for Evaluation and Teacher Incentives:

	international organisations' recommendations).		6- de jure and de facto decentralisation process across entities responsible for educational services	Considerations for Mexico, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264094406-5-en.
Factors for effective implementation	Education policy implementation refers to the complex mechanisms that either already exist or that policy makers have to set up in order to put a policy into effect throughout an education system. In the case of large-scale school improvement reforms, implementation is about providing and operating adequate resources, time and learning opportunities to change teaching and learning in classrooms across all schools in a system" (p.165).	Define, through analysis of past reform experiences and literature on school improvement, which practices and factors can contribute to efficient policy implementation of this type of educational reform	*(conditions for effectiveness)* 1- keep the context of the education systems in mind: composition of the student population; governance structure of the system; readiness for change of teachers and school leaders; 2- understand and engage stakeholders: dialogues between policy officials and trade unions; improvement in working conditions and learning opportunities for teachers; diffusion of evidence-based messages; 3- deal with the policy agenda: policy issues imposed during election periods; multiple policies for schools to implement at the same time; 4- evaluate impact: efficient data collection mechanisms; efficient use of the data 5- keep in mind the focus and core aspects of the specific policy being implemented (school improvement)	OECD (2015), "Implementing school improvement reforms", in Education Policy Outlook 2015: Making Reforms Happen, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264225442-13-en
Factors influencing implementation of policy reform	Reform makers must take into account the political economy around the reform process: reform is neither a linear nor a rational process. "Realising policy reforms is challenging. It is not only a matter of policy design, but much research evidence is showing that the process of introducing and implementing challenging policy reforms is as important as policy design itself. Even the most rational and economically well-designed policies may fail to be implemented if the process of introducing the reform is not well paved" (p.4).	Understand what influences the design, decision-making process, adoption and implementation of policy reforms to better support governments' efforts to reform education systems	1-the existence of appropriate institutions to support reforms from design to implementation 2-the impact and reactions of those affected by the reforms 3-the timing and interactions across different policy areas 4-the role of evidence and international organisations to support reform	Pont, B. (2008), "Making reform happen: Project framework and plans", Making Reform Happen, No. SG/MRH(2008)1, OECD Publishing, Paris.
The implementation	Policy implementation is presented as sequential process aimed at	Identify 6 political and legal conditions for a successful policy	*(conditions for effectiveness)* 1- there is a valid theory connecting behavioural change to problem amelioration; the requisite	Sabatier, P. and D. Mazmanian (1980), "The

of public policy: a framework of analysis	achieving statutory objectives. It consists in 5 stages after a policy statute is passed: implementing agencies decide how to put it into effect and proceed; targets groups comply or not with these decisions; the decisions produce some impact; the public perceive the impacts (or not); the initial statutes are revised based on the impacts produced and perceived.	implementation to establish a framework that links individual and system levels of analysis	technology exists; measurement of change in the seriousness of the problem is inexpensive 2- there is minimal variation in the behavioural practices which cause the problem; 3- the target group constitutes an easily identifiable minority of the population within a political jurisdiction; 4- the amount of behavioural change is modest 5- the statute incorporates a valid causal theory linking behavioural change to desired impacts; 6- statutory objectives are precise and clearly ranked; 7- the statute provides adequate funds to the implementing agencies; 8- the number of veto points in the implementation process is minimized and sanctions/inducements are provided to overcome resistance; 9- the decision rules of the implementing agencies are biased towards the achievement of statutory objectives; 10- implementation is assigned to agencies which support the legislation's objectives and will give the program high priority; 11- the provisions for outsider participation are similarly biased through liberalized rules of standing and by centralising oversight in the hands of statutory supporters	implementation of public policy: a framework of analysis", Policy Studies Journal, Vol. 8/4, pp. 538-560, http://dx.doi.org/10.1111/j.1541-0072.1980.tb01266.x.
Advocacy coalition framework	Policy implementation is the process through which a sector changes effectively over time. It results from the interaction of a variety of public and private actors with a policy problem, and is affected by the socioeconomic context and legal instruments that constrain these actors' behaviour.	Develop a general framework for studying policy change over the long run that combines the advantages of top-down and bottom-up approaches	1- external stable parameters: basic attributes of the problem area; basic distribution of natural resources; fundamental sociocultural values and social structure; basic constitutional structure 2- events external to the subsystem: changes in socioeconomic conditions and technology; changes in systemic governing coalition; policy decisions and impacts from other subsystems 3- constraints and resources of subsystem actors 4- interaction of coalitions' policy strategies and policy brokers' action 5- government action programme resulting from the confrontation of coalitions 6- operational outputs resulting from the programme (link with Sabatier and Mazmanian's framework, 1980)	Sabatier (original framework) (Jenkins-Smith, H. et al. (2014), "The Advocacy Coalition Framework", in Sabatier, P. and C. Weible (eds.), Theories of the policy process, Westview Press, Boulder, CO.)
Conceptual model to classify implementation challenges	Policy implementation depends on many factors, but its start with building a strategy adapted to the policy context -specifically, to the degree of conflict over the policy, and the degree of uncertainty about how to implement it.	Provides a model to categorise implementation challenges and adapt the implementation strategy accordingly	*(conditions for effectiveness)* 1- If there is low uncertainty about how to implement, and low conflict over the policy goals, adopt a model of implementation that includes realistic time frames, the right level of resources and staff capability ("Administrative excellence") 2- low uncertainty-high conflict: provide strong political direction and sound governance to ensure adherence to policy decisions, using strong rules and incentives 3- high uncertainty-low conflict: used bottom-up approaches to harness existing networks and knowledge, and collaborate with service providers ("Engagement")	Suggett, D. (2011), "The implementation challenge: strategy is only as good as its execution", Occasional paper, No. 14, Anzsog, Melbourne, https://www.anzsog.edu.au/resource-library/research/the-implementation-challenge.

			4- high uncertainty-high conflict: provide strong leadership around the vision, and strong engagement with networks and interest groups ("Leadership and engagement")	
Reform lessons from international exchanges of experience with education reform	Education policy implementation is successful when "governments formulate and implement reforms to ensure that education responds quickly and effectively to the evolving needs of learners and societies" (p.178).	Determine which factors influence education policy implementation, and under what conditions they contribute to effective implementation	*(conditions for effectiveness)* 1- policy makers build consensus around the vision for the reform & engage stakeholders in the design and implementation; 2- external pressures are used to convince of the need to reform; 3- there is financing to back reforms; 4- there is some shift away from reform initiatives towards building self-adjusting systems; 5- education leaders invest in change management skills for school leaders, teachers & themselves; 6- evidence is used effectively to guide policymaking & institutions are equipped to make sense of it; 7- education is part of more comprehensive reforms using whole-of-government approach	Wurzburg, G. (2010), "Making reform happen in education", in Making Reform Happen: Lessons from OECD Countries, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264086296-7-en.