CHAPTER 1

Conditions for Success in Education Reform

During the last ten years, international comparisons of the performance of different education systems have become increasingly prominent. Data show that countries can substantially improve educational outcomes in a relatively short period of time – from a few years to a single generation. At the same time, there is compelling evidence that quality and equity are not mutually exclusive and that it is possible for nearly all students to achieve excellent results.

Making significant improvements to system-wide educational outcomes is a complex task that requires a multi-faceted approach. This chapter identifies some of the core principles that have guided the development of high-performing education systems across the OECD. It describes the factors known to be related to better school performance and analyses policies and practices in the best-performing countries and in those that are rapidly improving. While there is no single template that all high-achieving countries follow, these conditions can provide useful guidance for governments aiming to implement changes that will bring about real and lasting improvements in educational outcomes.

INTRODUCTION

The aim of this report is to help education authorities in Mexico and other OECD countries to strengthen their education systems. The report focuses on policies to improve teaching, leadership and social participation across schools so as to improve the attainment of children in basic education. It develops a comparative framework of the key policy levers for successful schools and school systems and adapts it to the context and reality of Mexico. Box 1.1 reviews the new OECD methodology undertaken to support the government of Mexico by providing comparative analysis, advice and communications to support their education reforms.

This introductory chapter places Mexico's request in the broader context of educational improvement around the world, outlining the principles that are common to high-performing education systems. It thus provides a background for the proposed strategy that follows. Chapter 2 of the report describes the need for education improvement in Mexico in more detail, while Chapters 3 and 4 provide specific analysis and recommendations on how to consolidate a quality teaching profession and how to improve school effectiveness through school leadership, management and social participation. Chapter 5 ends by suggesting some guidelines on how to implement these recommendations.

HIGH-PERFORMING COUNTRIES SHOW THAT IMPROVEMENTS ARE POSSIBLE

In the last ten years, international comparisons of the performance of different education systems have become increasingly prominent. The OECD's Programme for International Student Assessment (PISA) has played an important role in creating this focus. National myths about results have, in some countries, been shattered, and deficiencies in quality and equity have been exposed. At the same time, there is compelling evidence that quality and equity are not mutually exclusive and that it is possible for virtually all students to achieve excellent results (Figure 1.1). Countries such as Finland, Poland, Korea, Sweden, Canada and Ireland have all achieved high student attainment and low drop-out rates; they have increased the proportion of adults who are educated to upper secondary level, and have a low proportion of students who struggle in school (see Figure 1.2, which shows the percentage of 15 year-old students who perform at each proficiency level in science). Among the lower performing countries in the OECD, Mexico and Turkey have a particularly high proportion of low performing students, as well as high drop-out rates from secondary education (Figure 1.3).

Box 1.1 A new OECD methodology to support education policy implementation across countries

The OECD-Mexico project follows increasing efforts by the OECD to support education reforms across OECD and partner countries. More specifically, an agreement between the OECD and the Mexican Ministry of Education (*Secretaría de Educación Pública*, SEP) was established to support the design and implementation of education policy reforms to improve the quality and equity of the education system in Mexico (2008-2010). Support was requested specifically in the areas of teacher career paths, school management, leadership and social participation.

A specific methodology has been designed to promote effective policy design and implementation. Three types of contributions include comparative analysis, communications (workshops, conferences and country visits) and recommendations (presented in this report), delivered by the OECD Mexico Steering Group on School Management and Teacher Policy.

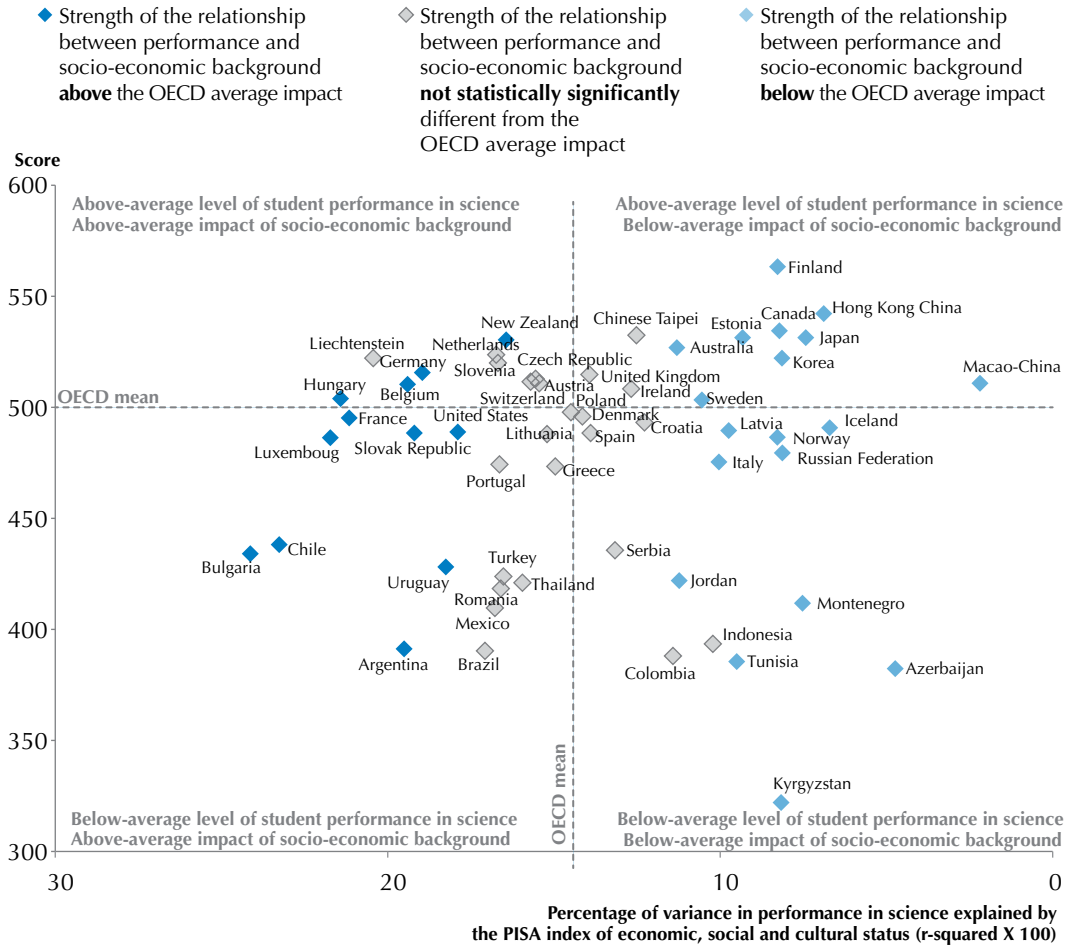
The OECD Mexico Steering Group: To develop and deploy knowledge for Mexico, the OECD has established a body of experts to guide the work (see annex A for their biographies). The OECD Mexico Steering Group on School Management and Teacher Policy combines international education policy expertise with Mexican policy and implementation knowledge. With the analytical and organisational support of the OECD Secretariat staff, the Steering Group provides advice and support on ways to adapt lessons from international experience to the Mexican context and in the design and successful implementation of related policies. Its main tasks are to provide analysis, advice, support and liaison with relevant stakeholders in their areas of expertise. It is composed of eight members, all of them senior representatives of the international education community and three OECD analysts. Specific deliverables include:

- **Comparative analysis**: A set of reports and publications have been developed to provide valuable comparative analysis of relevant education policy issues such as teacher training and development, teacher selection and recruitment, teacher evaluation and school leadership.
- **Communications and workshops:** A series of workshops have been designed to develop the necessary knowledge on which to base recommendations, and to consult and engage with stakeholders of education reform in Mexico. These workshops also serve to disseminate key messages and international practices in Mexico to encourage further reflection and change.
- **The OECD-Harvard Seminar for Leaders in Educational Reform**: This seminar was organised to develop and enhance the participants' capacity for policy reform, using the OECD recommendations as background. This capacity-building seminar for high-level Mexican policy makers combined an active training programme with country visits to Chile (January 2010) to study teacher policy, to Canada, Ontario (May, 2010) to study school leadership and a final module on implementation in Mexico (June 2010). The objective is for participants to work together to develop an implementable plan of action to adapt to their own context.
- **Specific recommendations for Mexico**: The project has developed specific recommendations for Mexico, based on study visits to Mexico, comparative and specific analysis of teacher and school management issues in Mexico and expertise in the area. This report presents the set of recommendations. A parallel report concentrates on the topic of teacher evaluation and assessment policies in a comparative perspective.

Information, reports and documentation can be found at *www.oecd.org/edu/calidadeducativa*.

Figure 1.1

The relationship between socio-economic background and performance in science, PISA 2006
Average performance of countries on the PISA science scale and the relationship between performance and the index of economic, social and cultural status

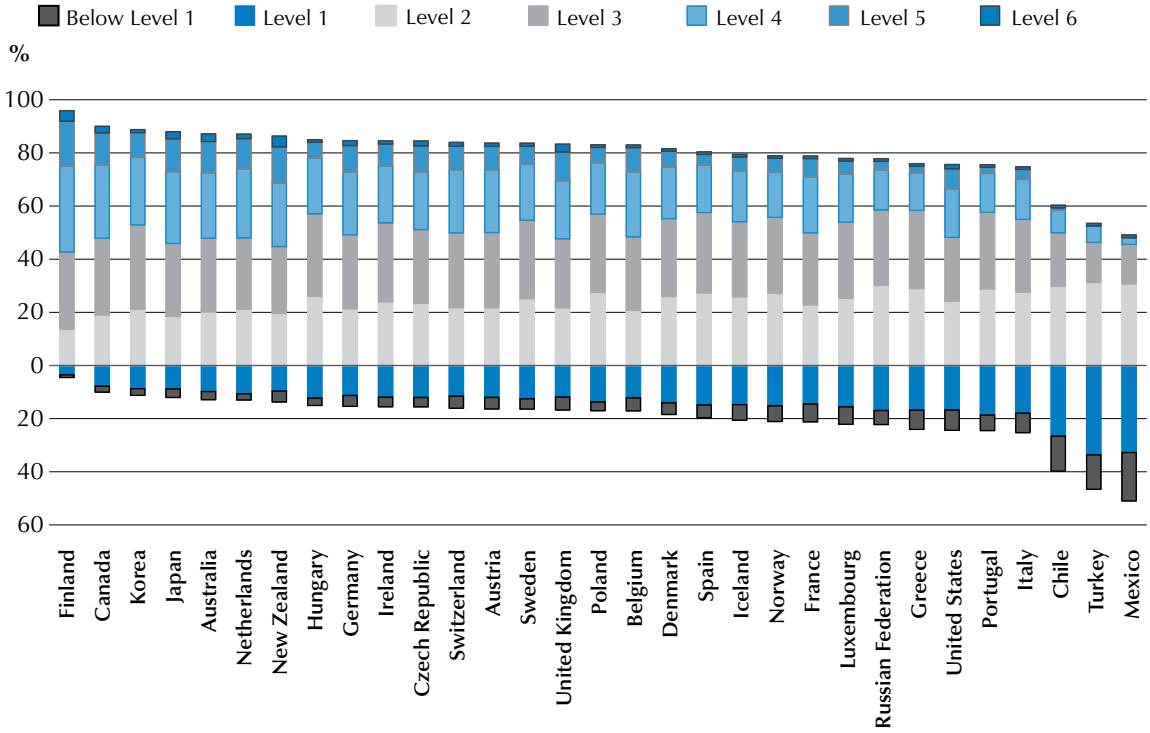


Note: For example, all countries in the upper right quadrant combine above-average student performance in science with high equity (as measured by the low impact of student socio-economic background on results). On the other hand, a group of countries in the bottom left quadrant combine below-average performance with low equity (high impact of socio-economic background on results).
OECD mean used in this figure is arithmetic average of all OECD countries.
Source: OECD (2007a), *PISA 2006 Science Competencies for Tomorrow's World, Vol; 1: Analysis*, OECD, Paris.

Nevertheless, caution should be exercised before expressing too much dissatisfaction with public education. Despite the frequent rhetoric of crisis, public education has been a considerable success in much of the world: in most OECD countries virtually everyone has had access to at least 12 years of formal education.[1] The proportion of young people completing secondary education has risen steadily for decades (Figure 1.4), as has the proportion entering post-secondary education. Groups who were previously denied any formal education now participate: the educational situation of women has improved dramatically, and many people with disabilities receive vastly better education than used to be the case. Illiteracy has decreased greatly. Although

Figure 1.2

Cross-country comparison of 15 year-old students' performance in science, PISA 2006
Percentage of students at each proficiency level on the science scale



Note: Countries are ranked in descending order of percentage of 15 year-olds at Levels 2, 3, 4, 5 and 6. The six proficiency levels represent groups of tasks of ascending difficulty, with Level 6 as the highest and Level 1 as the lowest. Students whose maximum score is below Level 1 were unable to utilise science skills in the situations required by the easiest PISA tasks. At Level 5, for example, students can develop and work with models for complex situations, identifying constraints and specifying assumptions.
Source: OECD (2007a), *PISA 2006 Science Competencies for Tomorrow's World, Vol; 1*: *Analysis*, OECD, Paris.

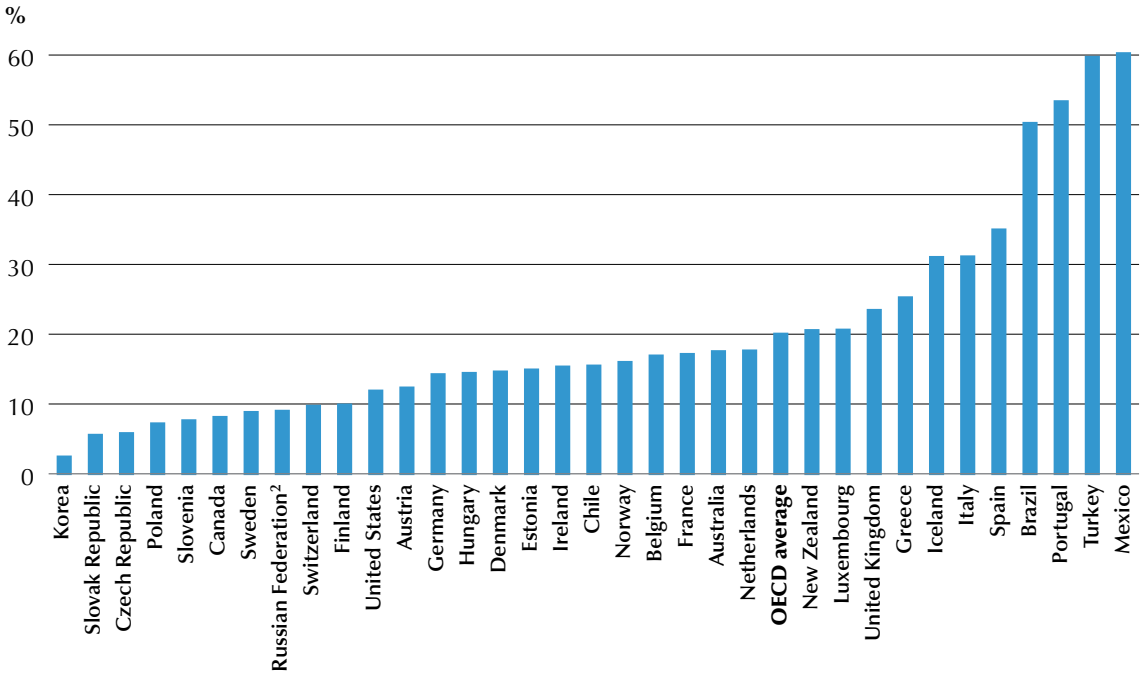
there remain many low-skilled, low-paid jobs, a number of studies show that demand for literacy and numeracy skills in advanced economies has increased on average (Chiswick, Lee and Miller, 2002; Levy and Murnane, 2004). Much has been accomplished.

Yet more remains to be done. We now know that the development of human and social capital is closely linked to productivity, economic growth and social welfare, and that one additional year of schooling can contribute to an increase in GDP per capita of 0.58% per year (Hanushek and Woessmann, 2007). Recent evidence indicates that improvements in skill levels have increased economic growth across countries, and that education policy can make a big difference in improving school results (Hanushek and Woessmann, 2009; OECD, 2010a). Therefore, while further improvement in education systems is important, even the most successful systems face challenges, and changing economic and social conditions continually place new pressures on public education.

Current data also show that countries can make dramatic improvements to educational outcomes in a relatively short period of time – from a few years to a single generation. Figure 1.4 shows the impressive improvement

Figure 1.3

Proportion of 25-34 year-olds who did not complete education to upper secondary level, 2008[1]



1. Excluding ISCED (International Standard Classification of Education) 3C short programmes.
2. Year of reference 2002.
Source: OECD (2010b), *Education at a Glance 2010: OECD Indicators*, OECD, Paris, Table A1.2a.

in educational attainment of the younger population of some OECD countries, such as Australia, Belgium, Chile, Finland, Ireland or Korea, compared with the adults aged 55 to 64, all above the OECD average. Greece, Portugal and Spain have also achieved important improvements but still remain below the OECD average.

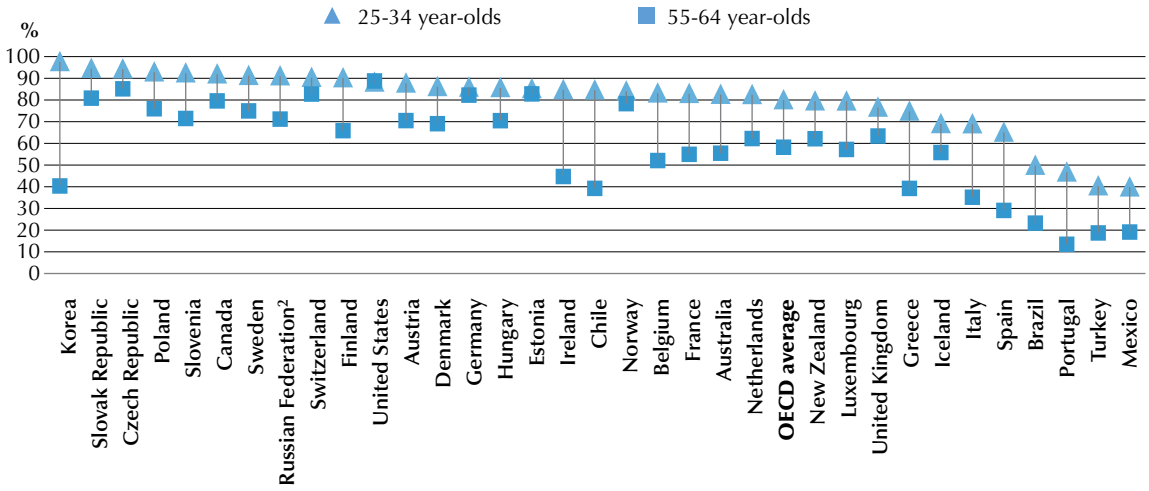
In many of these cases, education has become a national priority for the government. This is the case in Korea, which in a generation has moved from being one of the lowest to one of the highest performers on many educational indicators. Its strategy has been to prioritise human capital development, support a life-long learning strategy and ensure a strong curriculum by selecting and supporting quality teachers. In Finland, a qualitative leap in education results has been made by focusing on the quality of teaching and by improving the equity of results by providing immediate support for those falling behind. Secondary education has been made comprehensive; and although national curriculum frameworks and standards are in place, municipalities and schools are allowed considerable autonomy to adapt these to local context. Schools also provide many support services to students.

A further important finding is that, beyond a certain basic level, student outcomes do not seem to be related strongly to national expenditure (Grubb, 2009; OECD, 2007a). Evidence from PISA shows only a modest association between expenditure and scores in mathematics, although when lower performing countries are considered the relationship is stronger, suggesting that expenditure levels may matter more for lower performers (Figure 1.5).

One important result that emerges from the analysis of PISA data, a range of policy studies and research is that single policy measures of any kind are unlikely to produce the desired results. Real improvement in outcomes

Figure 1.4

Percentage of the population attaining at least upper secondary education, 2008[1]
Percentage, by age group



1. Excluding ISCED (International Standard Classification of Education) 3C short programmes.
2. Year of reference 2002.
Countries are ranked in descending order of the percentage of 25-34 year-olds who have attained at least upper secondary education.
Source: OECD (2010b), *Education at a Glance 2010: OECD Indicators,* OECD, Paris.

depends on comprehensive strategies that consider many aspects of the system at the same time (Barber, 2007; Levin, 2008; Fullan, 2010; Hopkins, 2006; Hopkins, 2007). While not all of these elements require, or can possibly receive, the same level of attention at once, efforts to improve outcomes for entire systems do require multi-faceted strategies. This idea is developed more fully later in this report.

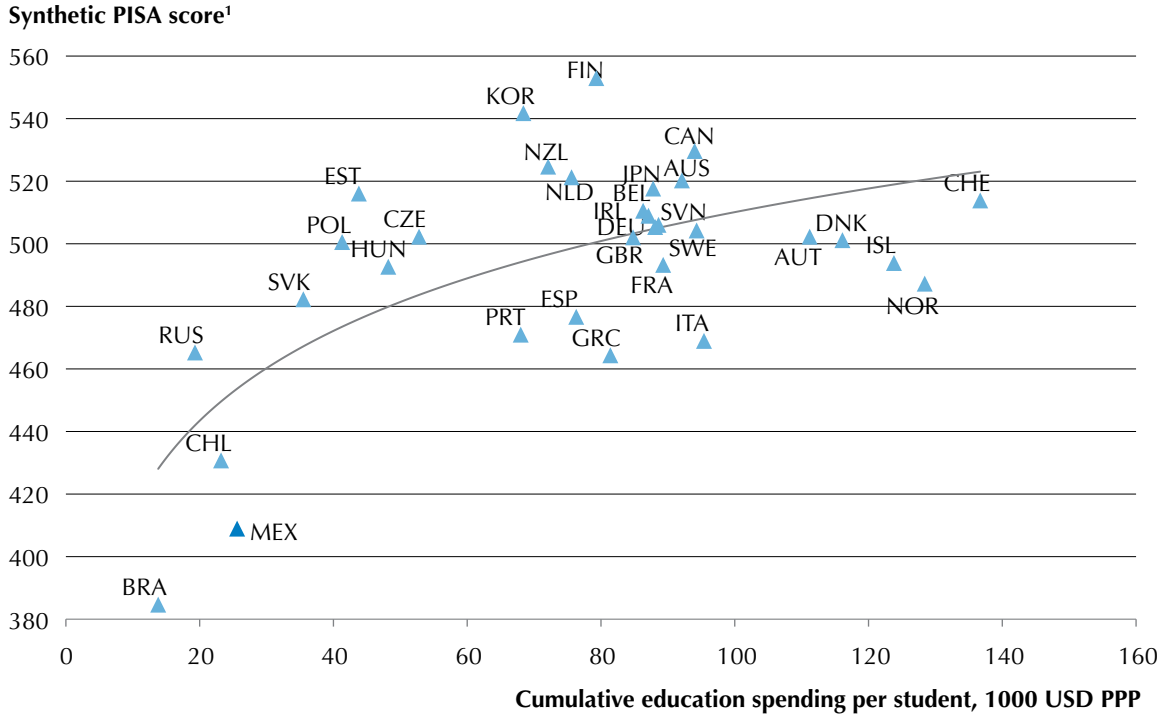
These findings have raised the bar for all countries and put a premium on making the right policy choices. No country can be complacent about its current level of education performance, and everyone must recognise that no matter how well a country is doing, more is possible. As a result, countries have become more sensitive to their relative success and are interested in learning more about how they can create higher levels of achievement as well as reducing inequities.

Two main sources of knowledge inform our understanding of these issues. As noted, international data from studies such as PISA have been important (Schleicher, 2009), as have the comparative analyses of policy and practice undertaken by the OECD and other organisations (OECD, 2005; Barber and Mourshed, 2007; Pont, Nusche and Moorman, 2008a). In addition, a growing and increasingly sophisticated research literature has examined many improvement initiatives using a variety of research methods, from case studies to quantitative analyses of large databases (Hargreaves and Fullan, 2008; Leithwood, Harris and Strauss, 2010; Levin and Fullan, 2008; Chapman, 2006; Townsend, 2007). There is still much to learn and plenty of room for improvement in the education research enterprise worldwide (OECD, 2007b). At the same time, there is more robust knowledge about education than ever before, so the increasing interest in how countries can improve performance is to some degree matched by increasing knowledge about how to do so. This report aims to introduce some of that knowledge.

Learning about policy making and policy implementation across countries is a complex business. On the one hand, the growing evidence base does offer some clear conclusions about what is required for improvement.

Figure 1.5

Education spending per student compared to 15 year-old students' performance, PISA 2006



1. This figure shows the PISA synthetic score, which combines the scores on the reading, mathematics and science scale through factor analysis.
Source: OECD (2009), *OECD Economic Surveys: Mexico*, OECD, Paris.

On the other hand, the adoption of policies and practices inevitably takes place in and is influenced by the local context, which has its own institutional structures, labour markets and incentive structures, history, values and beliefs. Context is important in policy design. The practices and policies that are successful in one context may look somewhat different in another; one cannot adopt education policies from other places in an unthinking way and expect success.

WHAT ARE THE GUIDING PRINCIPLES FOR HIGH-PERFORMING EDUCATION SYSTEMS?

Improving system-wide educational outcomes is a complex task, requiring an approach that addresses many, if not all, major components of the system. No single element is sufficient in itself because all elements within the school system are interconnected. For example, while effective teaching practices may be the single most important element in getting better student outcomes, these in turn are shaped by leadership, curriculum, facilities, school autonomy and system governance, school culture, accountability, teacher education and others. It may not be possible for any country to address all of these issues at the same time or in the same way, but all of them must be considered at some point.

While a comprehensive strategy is necessary, it is equally true that there is no single template that all high-achieving countries follow. Korea's path to educational improvement has been different from the path taken by Finland or Ireland. Even so, the analysis of policies and practice shows that there are some core principles and assumptions that can guide governments that are aiming to make real and lasting improvement in an efficient way.

The suggestions here encompass matters of both policy substance and process. 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 schools. Policy design must take into account the possibilities for implementation; there is no point in adopting policies that cannot realistically be put into place. Similarly, policy is rarely entirely correct at the first attempt, so implementation should involve feedback loops that allow adjustments to be made to reflect changing circumstances or learning.

As an essential first step, successful systems **establish a small number of clear, highest priority and measurable goals focused on student outcomes**. These goals focus attention and provide benchmarks for progress. They must be related to student outcomes – not just to inputs or processes – and should be expressed in terms that are both easy for the public to understand and which resonate with professional educators. They should be ambitious but also clearly within the realm of possibility: a fine balance to achieve. For example, goals might involve an increase of x% in completion of secondary education; an outcome related to improvements in national tests; or a significant reduction in identified inequities in student outcomes. These goals should be widely publicised in the system and with the public to build commitment towards improvement. For example, a number of OECD countries have set goals for completion of upper secondary education; England has established goals for literacy and numeracy at the end of elementary schooling and Ontario's recent improvement was guided by goals for elementary level literacy and high school graduation (Box 1.2).

Box 1.2 Defining goals to guide educational improvement: selected examples

The **European Union** agreed on a strategic framework for European cooperation in education and training: Education and Training 2020. The benchmarks set in 2009 include the following:

- At least 95% of children between the age of four and the age for starting compulsory primary education should participate in early education.
- The proportion of 15-year-olds with insufficient abilities in reading, mathematics and science should be less than 15%.
- The proportion of early leavers from upper secondary education and training should be less than 10%.
- The proportion of 30-34 year-olds with tertiary educational attainment should increase to at least 40%.
- The proportion of adults who participate in life-long learning should increase to at least 15% of 25-64 year-olds.

In **Ontario**, **Canada**, an initiative called Energising Ontario Education focused on three key priorities for all players in the public education system: 1) high levels of student achievement – defined as 75% of students achieving provincial standard in Grade 6 and reaching 85% graduating rates; 2) reducing the gaps in student achievement; and 3) increasing public confidence in publicly funded education. These targets were set in 2004 but have continued for a second mandate in 2008 to ensure sustainability and focus on the core purpose of schooling. This has set a vision that most participants in the system have embraced and are working towards, providing clear focus and stability.

Source: European Commission, *ec.europa.eu/education/life-long-learning-policy/doc28_en.htm.*

Goals must focus on equity as well as quality, with a commitment to ensuring that all groups of students make steady progress. Wilkinson and Pickett (2010) found that greater inequality is associated with a whole range of negative effects on the economy and society, so the pursuit of greater equity must itself be an important policy goal in education. It has been demonstrated that the costs of unequal educational attainment and drop-out are high for the economy and for society over the long run (OECD, 2007b; Lyche, 2010). History tells us that societies tend to underestimate their overall potential for learning, and that where appropriate support is provided almost all people can achieve higher than expected levels of performance. Figure 1.1 shows that some countries are able to attain high quality education outcomes with less inequity in secondary education.

It is also desirable to choose goals that will not distort practices within the school system. For example, if a goal is based on a measure taken at a single point in time, such as the proportion of students scoring above a certain benchmark on a national test, and especially if this is attached to sanctions for failure to perform, there is a danger that it will inevitably generate undesirable practices such as manipulating the population writing the test, replacing good teaching with narrow test preparation, or even outright cheating. As March pointed out many years ago, "a system of rewards linked to precise measures is not an incentive to perform well; it is an incentive to obtain a good score" (March, 1984).

It is also important to ensure that goals do not result in too narrow an approach to education. Successful systems recognise that the goals of education must be broad and inclusive. Literacy skills are of little use if students have no appreciation of the pleasure of learning and no sense of the breadth of human knowledge and interest. In successful systems, the arts and sciences, citizenship, health and physical activity are seen as complementary to and supportive of the so-called basic skills rather than being a distraction from them. Such systems are careful to avoid narrowing the curriculum or teaching practices.

Goals are important but are by themselves insufficient. To achieve them, systems must **develop an overall strategy that deals with all the relevant components over time**. Depending on the circumstances, changes in legislation, financing, curriculum, accountability systems or public reporting may all be required. However, the starting point for improvement should always be changes in teaching and learning that will yield better student outcomes, with other components following as necessary. We have learned over time that changes in governance or other policy systems alone do not lead to better performance; they may be a necessary condition to support changes in teaching and learning but they are not by themselves sufficient. For example, countries such as Sweden, the Netherlands and Flemish Belgium have introduced more competition between schools, but this may not have improved overall outcomes over time, nor have shifts in the balance between local and central financing led to better outcomes.

One danger of a multi-component strategy is the perception that there are too many unconnected initiatives and actors without enough specification of priorities. To be successful, **the main elements and players of the education system need to be coherently aligned to support the overall strategy.** This includes aligning the curriculum, the criteria for selection, the appointment and evaluation of teachers and school leaders, the accountability system, financing schemes, and also aligning the roles of the key actors involved (Box 1.3).

The organisation's culture must be consistent with its rhetoric. No amount of rhetoric about student achievement will matter if the real pressures on leaders are about complying with rules or managing problems. As the aphorism has it, "what gets attention, gets done", and in many organisations, as in the political arena, trivial matters of administration and paperwork often get more attention than the organisation's espoused goals. In high-performing systems or countries there is an intensive focus on student achievement, and all resources and actions are aligned in support of policies and programmes designed to support the learning of all students. Everyone understands that student learning is the most important task of the organisation, in reality as well as in rhetoric.

Box 1.3 Aligning policies and actors with the education strategy in Ontario, Canada

From 2004, with the election of a new government, the provincial government of **Ontario** designed and implemented an education improvement strategy focused on three main goals (see Box 1.2). Within this framework, Ontario has developed a coherent leadership strategy, adequate support frameworks and concerted actions to include all key actors in dialogue and in the reform process, such as school boards, teacher unions, academics and practitioners, to achieve consensus and develop alignment. Through this reform, educational attainment has improved and long-term capacity has been built across all levels of the education system.

- The **leadership strategy** focuses on attracting good candidates to the posts and preparing and supporting them to improve the quality of instruction.
- Within the strategy, a **leadership framework** has been defined to provide five key domains that can be adapted to context: 1) setting direction; 2) building relationships and developing people; 3) developing the organisation; 4) leading the instructional programme; 5) securing accountability. These are well known by all actors, adapted to local contexts as needed, used in a new principal appraisal system and used for training and development. There are many examples of school boards and schools that have adapted the framework to their needs.
- **Requirements to become a principal are high**, demonstrating the high calibre they are looking for. Potential candidates need to have: an undergraduate degree; five years of teaching experience; certification by school level (primary; junior; intermediate; senior); two Specialist or Honour Specialist additional qualifications (areas of teaching expertise) or a master's degree; and completion of a Principal's Qualification Program (PQP), offered by Ontario universities, teachers' federations (unions) and principals' associations, which consists of a 125-hour programme with a practicum.
- **There is an overt effort towards leadership succession planning in school boards**, in order to get the right people prepared and into the system. Therefore, the process starts before there is a vacancy to be filled.
- **Mentoring is available during the first two years of practice** (for principals, vice-principals, supervisory officers and directors).
- **A new performance appraisal model for leaders focused on results** has been introduced. In the Principal/Vice-Principal Performance Appraisal (PPA) model, principals set goals focused on student achievement and well-being in a five-year cycle. They are also required to maintain an annual growth plan which is reviewed in collaboration with the supervisor annually.

Source: OECD (2010d), "Seminario OCDE-Harvard para líderes en reformas educativas en México: gestión escolar y reforma escolar en Ontario", OECD, Paris. *www.oecd.org/edu/calidadeducativa*.

The allocation of resources is a particularly important and often neglected element in this alignment (Grubb, 2009). If budgets do not reflect the priority given to better teaching and learning then the message to those in the organisation is that these things do not matter very much. For example, the deployment of staff to ensure that the most capable people are working where they are most needed is an often-neglected aspect of resource allocation.

Given a focus on student learning, improvement requires, in all settings, **recruiting**, **educating, training, developing and supporting the educator workforce**. High-performing systems take account of the growing

body of international evidence that supports what most parents have always assumed: that the quality of the teacher is the single most important school-level predictor of student learning (OECD, 2005). So building the capacity of educators (Fullan, 2007; Elmore, 2004) is the single most important element in a school improvement programme. High-performing countries place considerable emphasis on making teaching an occupation that attracts young people with high skill levels. However, careful recruitment is not enough: mastering teaching is a life-long task, which means there must be strong programmes of professional learning throughout teachers' careers. To be effective these programmes must be linked to the day-to-day work of schools; just providing one-time development workshops has been shown to have very little effect on subsequent practice (Timperley *et al.*, 2007; Musset, 2010). The development of focused, research-informed standards for teaching, recommended later in this report, is one important way to signal and support a clear commitment to excellence in teaching, because these give specific form to the desired approaches. These issues are developed more fully later in this report.

Large-scale educational improvement requires adequate institutional capacity and structures. One can assume that where new approaches are not being implemented, it is for one or both of two reasons – lack of desire ("will"), or lack of capacity ("skill"). To change will and skill in large organisations takes sustained effort. Issuing policy direction or providing professional development is entirely insufficient. The need for infrastructure exists at several levels. To begin with, in most countries ministries of education play a powerful role in setting agendas and determining the focus of the system as a whole; that is certainly the case in Mexico. Yet developing and implementing a comprehensive improvement strategy is not something that most education ministries are organised or equipped to do. So high-performing countries have increased **the capacity of their education ministry and associated organisations to support large-scale improvement**. This may require changes in the culture, leadership and structure of these organisations so that they are focused on leading and supporting improvement at all levels across the entire system. In federal systems, such as Mexico, both national and state education ministries require new capacities and ways of working that move them away from regulation towards capacity building.

District or regional organisations, where they exist, need similar attention. It is a mistake to assume that an organisation can take on a new and very different task with the same skills, functions and structures that were used for the old tasks. Sometimes intermediate agencies or structures, independent of government, can also play a useful role in promoting reform, especially in a large and diverse country such as Mexico. An example of this is the district approach, which is recommended later and illustrated in Box 1.4.

Successful systems recognise the necessity of engaging all partners in developing improvement. The prospect of achieving long-term and sustainable improvements in education systems is better if political consensus amongst the key stakeholders can be reached regarding the need for reform and the specific nature of the reforms to be introduced. Changes in education policy will not necessarily lead to immediate improvement. It takes time both to achieve improvements in the knowledge and skills of the workforce and for such improvements to subsequently affect students' learning. In order for the proposed reforms to bear fruit, policy needs to move in a consistent direction over a number of years and sometimes through changes of government.

This requires multiple **venues for ongoing dialogue and communication among all parties –** all levels of government, teachers, school leaders, union leaders, students, parents and other key civil society groups. The social partnership model in place in many European countries is an example of this approach. Education is a project of the entire society and improvement can only be sustained when all parties have a commitment to it. As shown in OECD work on the implementation of reform generally (OECD, 2010c), in democratic societies the consent of those involved is essential and cannot be obtained by fiat or assumed based on an election result.

Countries have developed various vehicles for this kind of political engagement, usually involving some structure that includes all the social partners in open discussion of education policies, practices and proposed reforms.

Box 1.4 Institutions supporting large-scale improvement across selected OECD countries

Across the OECD, countries have developed different structures to promote improvement in education. Some may be specialised units within the education ministry; others may be intermediary agencies. These organisations play varying roles, but all have some connection with increasing the capacity of the system to implement effective policies and practices.

In **England**, the National Research and Development Centre for Literacy, Numeracy, ESOL and ICT (NRDC) was created as part of the Skills for Life strategy in 2002. This aimed to improve the literacy and numeracy of 750,000 adults by 2004, rising to 1.5 million by 2007. Originally created by the government, the NRDC is a consortium of universities and development organisations working as an independent centre to improve practice and inform policy through research and development. Its five areas of study are: 1) Economic Development, Impact of Basic Skills and Social Inclusion; 2) Motivating Learners to Succeed – Increasing Participation, Retention and Achievement; 3) Raising Quality – Effective Teaching and Learning; 4) Professional Development and the Quality of the Skills for Life Workforce; and 5) The Context, Infrastructure and Impact of Skills for Life on Provision and Learners.

Since 2008, **Australia** has started an "Education Revolution" strategy to improve the quality of its education system. As part of it, the Council of Australian Governments (COAG) established a Productivity Agenda Working Group. This working group's main task is to develop National Partnerships proposals to foster reforms in: early childhood development; addressing education disadvantages; improving the quality of teaching at schools, and; fostering a market design of the vocational education and training sector. To support the implementation of the working group's actions, the COAG and Commonwealth government have fostered a new financial framework that links funds to outcomes. It will include a clear statement of objectives, roles, responsibilities and outcomes to which both levels of government will have to commit. In schooling, the agreement will include non-government school sectors, and in training it will extend to industry.

In **Ontario**, **Canada**, the Ministry of Education created special-purpose structures, staffed by distinguished educators from across the province, to support its key improvement strategies. A Literacy and Numeracy Secretariat was organised to support improved practices in elementary schools, and a Student Success leadership system was created to support efforts to increase high school graduation rates. In both cases, ministry staff worked closely with schools and districts to support an aligned approach to better practices and results.

Source: *www.nrdc.org.uk; www.deewr.gov.au/Ministers/Gillard/Media/Speeches/Pages/Article_081008_160501.aspx;* Levin (2008). *How to Change 5000 Schools*, Harvard Education Press, Cambridge, MA.

Education councils in most European countries present one structured way to bring together all the key education stakeholders to provide advice on important issues. Often, countries create special consultation commissions on specific reforms or issues. For example, when undertaking a reform to provide more opportunities for life-long learning, the Danish parliament established a special commission to interview specialists, practitioners and others in order to formulate recommendations but also to build support for those ideas. Many of these strategies ensure that multiple views are sought and respectfully heard, not just during the policy development process but all through implementation as well, so that adjustments to policies can be made as required.

Wherever possible, this can contribute to ensuring that differences are worked out through ongoing dialogue. The result is greater commitment and more effective implementation of improvements.

School systems are multi-level enterprises. Individual schools, and classrooms within schools, are the key sites where formal education takes place, but the success of each school also rests on an appropriate support and monitoring system. This means that school systems must **strike the right balance between local initiative and central efforts at improvement**. Neither a top-down command system nor a system that turns over all decision-making to individual schools is the right model. Local knowledge and initiative are vital, and systems that place too many controls on individual schools may stifle that spirit of enterprise. Equally, it is important to ensure that every school is performing well and that parochialism does not have undue sway or that an excessive competitiveness among schools does not undermine overall system improvement. PISA results indicate that schools with more autonomy in some key areas tend to have higher levels of performance, but only when aligned with accountability measures. One cannot assume that thousands of schools will easily have the capacity to do the requisite local planning and monitoring. More autonomy requires more support for schools to perform (Pont, Nusche and Moorman, 2008a; 2008b). The larger system should provide support for schools and must also take action where schools, for whatever reason, are unable to take the necessary steps themselves.

Countries currently employ different structures for creating this balance. In many countries municipal governments are deeply involved in the management and operation of schools. In the United States and Canada, school districts play a key role in directing and supporting schools within larger policy frameworks. In other countries, networks of schools develop either spontaneously or in a planned way to bring schools together without excessive bureaucracy. This has been happening in the Netherlands and Flanders, Belgium with the development of communities of schools (Pont, Nusche and Moorman, 2008b), and in Barcelona with the development of education zones. In Denmark, Local Government Denmark (Kommunes Landsforening, KL), the association of the 98 municipalities in Denmark, set up a partnership on lower secondary education to improve the learning outcomes of students. This initiative is intended to provide teachers and school leaders with technical assistance and guidance for the purpose of developing assessment and evaluation practices in the classroom and at the level of the school that will help educators better identify students in difficulty, to better diagnose the sources of their problems, and develop personal education plans accordingly (OECD, 2010c). However, in general, the key factor is not the particular structure, but the spirit or culture that animates the system to value both school autonomy and system performance.

Improvement in any system or service requires good data on current levels of performance. Educators, parents and policymakers need timely and accurate data if they are to make informed decisions about how best to enhance the learning and development of children and young people. In high-performing systems, the availability of appropriate data is an essential condition for building and maintaining public support for the continuous improvement of their schools.

For schools, this means **accountability and reporting systems that support the goals and provide professional and public information on outcomes, and do so without demotivating teachers or making unfair comparisons between schools**. Appropriate accountability has been the most contentious policy area in education in many jurisdictions. Every person or organisation wants to be judged on a basis seen as fair (and this includes students of all ages in their classrooms), but all measures, including value-added assessments, have an inherent degree of error and uncertainty. All measures produce a certain number of false positives and false negatives. One way to address this tension is to use multiple sources of data and invite different parties to analyse and draw conclusions. When different data elements and different analyses run on similar tracks, one can have much more confidence in the results. A second requirement is to ensure that any interventions or sanctions for poor performance are put in place only on the basis of several measures, including informed judgment. Thus poor

performance on a measure can and should be cause for further investigation but should not, in itself, be the cause of sanctions. Programmes of improvement themselves need good data and feedback. It is inevitable that initial plans will require modification as things develop. There must be willingness to assess progress and adjust activities as required. The leadership of a reform strategy cannot expect others in the system to make adjustments based on data if there is no willingness to do so at the system level. This can be a problem where a strong political commitment has been made to a particular course of action; but without the willingness to learn and adjust to changing circumstances, a reform programme will alienate supporters and lose momentum.

All of these components depend on effective leadership at all levels of the system (Pont, Nusche and Moorman, 2008a; 2008b). Without good people in place, no policy framework will produce results, and good people will make any policy framework more effective than it would otherwise be. **Leadership development for schools and at the system level must therefore be a key component of any effort to improve education.** With teachers, leadership development involves much more than careful recruitment or extensive professional development; it must be embedded in all aspects of the organisation. Leadership also needs to be seen as a function that extends across large numbers of people, not just those in formal positions. Schools operate best when many staff members see themselves as playing some leadership role in the overall organisation, and the same is true for school systems. A strong sense of collective responsibility, in which people feel a commitment beyond their own particular role, is also an important element. The Austrian Leadership Academy provides an example of a holistic focus on leadership development, targeted towards moving the system players from the concept of school management, which is more bureaucratic in nature, to that of instructional leadership, focused on professional roles looking towards school improvement (Box 1.5).

Box 1.5 The Austrian Leadership Academy

In 2004, **Austria** created the Austrian Leadership Academy – a two-year programme that combines the principles of learning, structure and curriculum content. It consists of four two-to-three-day forums on partnerships, coaching teams, regional networks and virtual networks. Participants in these courses are those involved in leadership and school management in regional and national departments of education, besides school leaders. About 25% (6,000) of potential participants have voluntarily participated and graduated from this programme by 2008.

Source: Pont, Nusche and Moorman (2008b). *Improving School Leadership: Volume 2 Case Studies on System Leadership*, OECD, Paris.

Other elements of the system must support these central priorities. For example, a high quality curriculum with appropriate standards is important to guide teaching and learning. However, curriculum and standards alone do not result in improvements in teaching; there is much evidence showing that such documents are largely ignored in classrooms unless they are supported by additional elements such as professional development, good materials and the integration of standards into monitoring and accountability systems.

Finally, something should be said about the **role of resources**. It was noted earlier that among OECD countries overall levels of spending do not predict student achievement levels. In education, the understanding of the relationship between resources and outcomes is often weak. Use of resources is dominated by conventional ideas about how a school system should be run, not by evidence of where resources really matter (Grubb, 2009). It is clear that resources do matter, so the key thing is a deeper understanding of how best to use them. For example, class sizes are often smaller in secondary schools than in elementary schools, even though there

is more evidence supporting smaller class sizes in elementary education. Technology has been a significant source of spending with little improvement to show for it (Grubb, 2009; Wiliam, 2009).

CHARACTERISTICS OF EFFECTIVE SCHOOLS

The previous sections have discussed education policy at the system level, either within a whole country or a province. However, the real work of education takes place in classrooms and schools. System level policies are crucial enablers, but it is just as essential – if not more so – to give attention to the features that make individual schools effective places of learning for all students.

In the last 40 years, there has been a vast amount of research into what makes an effective school. Effective schools have been defined in different ways, with a common theme being the progress made by the children and young people who attend them. Many reviews of this research have summarised key characteristics, but there is wide agreement on main features of school effectiveness. The list from a review of research by Sammons, Hillman and Mortimore (1995) stands the test of time and is summarised in Table 1.1.

These features are a reminder of the central importance of teaching and learning practices in shaping student outcomes, and of the elements, such as home-school trust, that support improved teaching and learning. They are also a reminder that changes in structural aspects such as size or timetabling or the organisation of grades, while frequently adopted, are less powerful.

These features seem to apply in many international contexts. Murillo (2007) reviewed school effectiveness studies in Latin America and concluded that "the factors highlighted in those studies share many features with the Sammons review (Sammons, Hillman and Mortimore, 1995). Elements such as school and classroom climate, leadership, shared goals, high expectations, methodology and teamwork appear repeatedly in studies not only in Latin America but also in the rest of the world." However, two additional aspects feature in Murillo's review – resources and teacher preparation. In Latin American studies, unlike in some other regions, the quality and management of material resources, including finance, are directly related to student achievement, as are the quality of initial and continuing education of teachers and their working conditions. These findings reflect the very large inequalities in resources, including finance and teacher quality, in many countries and even within the same state or city. Nevertheless, other factors which feature most often in Latin American studies of school effectiveness include: school climate; shared goals; classroom climate; planning and instructional methods; high expectations and involvement (Murillo, 2007). These aspects relate very closely to school leadership, in which there is growing interest and research in some Latin American countries.

As Stoll and Sammons (2007) point out, "school effectiveness research has consistently drawn attention to the [principal's] leadership in promoting and maintaining school effectiveness and as a key characteristic of effective schools". There is a very strong association between the quality and effectiveness of schools and the quality of their instructional leadership. Recognition of the importance of leadership led to the major OECD project on Improving School Leadership (ISL) (Pont, Nusche and Moorman, 2008a; 2008b), that has led to several countries reforming their policies. The Sammons review (summarised in Table 1.1.) found that "almost every single study of school effectiveness has shown both primary and secondary leadership to be a factor". Research has found no evidence of effective schools with weak leadership (Gray, 1990), which means that improved leadership is essential if underperforming schools are to improve (Matthews and Sammons, 2005).

Applying these principles has implications for the management of the education system at all levels. They reinforce some of the elements defined earlier, such as an appropriate balance of local autonomy and central direction, as well as the focus on building instructional skills and capacity among all who work in the system.

Table 1.1

Key characteristics of effective schools

LEADERSHIP	
Professional leadership	Firm and purposeful
	The participative approach
	The lead professional
High expectations	High expectations all around
	Communicating expectations
	Providing intellectual challenge
Shared vision and goals	Unity of purpose
	Consistency of practice
	Collegiality and collaboration
A learning organisation	School-based staff development
A learning environment	An orderly atmosphere
	An attractive working environment
TEACHING, LEARNING AND ASSESSMENT	
Concentration on teaching and learning	Maximisation of learning time
	Academic emphasis
	A focus on achievement
Purposeful teaching	Efficient organisation
	Clarity of purpose
	Structured lessons
	Adaptive practice
Monitoring performance (accountability)	Monitoring pupil progress
	Monitoring school performance
PUPILS AND PARENTS	
Positive reinforcement	Clear and fair discipline
	Feedback
Pupils' rights and responsibilities	Raising pupil self-esteem
	Positions of responsibility
	Control of work
Home-school partnership	Parental involvement in their children's learning

Source: Sammons, Hillman and Mortimore (1995), *Key Characteristics of Effective Schools: A Review of School Effectiveness Research*, Institute of Education, London and the Office for Standards in Education.

CONCLUSION

There are some essential conditions for the improvement of school outcomes. Making significant improvements in system-wide educational outcomes is a complex task, which requires a multi-faceted approach that addresses many of the major components of the system. No single element may be sufficient for progress, but most are necessary. At the core are policies that focus on improving teaching and learning, including curriculum teaching skills, leadership and assessment.

At the same time, while it is vital to have the right policies, it is just as important to have well-developed means for implementing those policies across school systems. Policy design must take into account the context and possibilities for implementation; there is no point adopting policies that cannot realistically be put into place.

The analysis of high performing systems' policies and practice shows that there are some core assumptions that can guide governments that are aiming to make real and lasting improvement in an efficient way. These can be grouped as follows:

- Clear goals, with public understanding and support, related to student outcomes, that focus not only on quality but also on equity; guided by a comprehensive strategy that aligns the necessary elements, resources and levels of governance in pursuit of these goals;
- A strong focus on recruiting, developing and retaining excellent people in the system; this also involves leadership development that supports capacity for the strategy and for teaching and learning;
- Institutions and infrastructure to support improvement: this implies processes and institutions to engage all relevant partners in dialogue; an appropriate balance of central direction and local flexibility; and infrastructure at all levels to provide support for improvement across systems and schools;
- Accountability and reporting systems that support the goals and provide professional and public information on outcomes, without demotivating teachers or making unfair comparisons between schools.

While system goals are important, it is also necessary to pay attention to the work of individual schools, which is where teaching and learning take place. Research on effective schools has revealed a set of characteristics that need to be supported by system level policies, and which also focus on the quality of teaching and learning in each school and for all students. System and school level approaches must be aligned and mutually reinforcing.

To address these conditions is a challenge in any country. Improvements across an entire education system can only come with strong, consistent political support and leadership sustained over time. It requires years of consistent effort to create improvement, but country examples show that with persistence and thought it can be done.

In the case of Mexico, a country with relatively weak capacity across the system, large regional variations and high levels of poverty, the challenges are considerable. The following chapters focus on three aspects that are key to system improvement: teachers and teaching; school and system leadership; and social participation in education.

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NOTES

1. In Belgium, France, Germany, Hungary, Iceland, Ireland, Italy, Japan, the Netherlands, Norway, Spain, Sweden and the partner country Estonia at least 90% of students are enrolled in education for 14 years or more. Enrolment rates for a period of 11 years exceed 90% in Greece, Korea, Mexico and the United States.