

The role of government, as the actor most able to transcend short-term realities and interests and invest in quality, is crucial

Setting a policy framework

There is every reason to invest further in improving the quality of education. However, it is not an investment that can be borne easily by those who stand to benefit most. Poor people already bear heavy costs for their children's education, the benefits of which may accrue long after the investments have been made. Furthermore, because many of the benefits of a good basic education are broad and general, it is difficult to mobilize significant private resources for improving the quality of basic education. Hence, the role of government, as the actor most able to transcend short-term realities and interests and invest in quality, becomes crucial.

It has been argued that governments should invest at least 6% of GNP in education (Delors et al., 1996). While this level of investment is not itself a guarantor of quality, the idea of a benchmark has considerable political value² and in many countries meeting such a target would be a boost to the level of available resources.³ For each country there is clearly a minimum level below which government expenditure cannot sink without serious consequences for quality. This Report, however, cannot confirm a more general rule of thumb for investments at the macro level. (See Chapter 3, Figure 3.27, for a macro overview of public expenditure on education and Figure 3.29 on expenditure and achievement.) As Chapter 2 points out, the relationship between investment and quality – measured in terms of achievement – is not straightforward. Moreover, many factors affect levels of investment, including size of GNP, demography and public investments in other social sectors. Where measurable economic production is low and where children are a significant proportion of the population, the share of GNP devoted to education may need to be higher. In the case of major health deficits, hard choices have to be made regarding the allocation of resources among social sectors. Such choices should be informed by the knowledge that good education can help address broader social and economic challenges, including poor health and nutrition, conflict and HIV/AIDS.

Even at existing levels of investment, including aid in highly aid-dependent countries, governments and stakeholders can make significant choices to improve quality. Those

choices are the focus of this chapter. It explores what governments can do to create greatly improved conditions for learning while remaining mindful of budget limitations. Led by the evidence in Chapter 2 on what determines quality, and drawing on the experience of countries that have made significant progress, it examines key policy options at various levels in the education system, with quality as the objective.

Recognizing the importance of contextual circumstances, and employing evidence from earlier chapters, this chapter is guided by a framework for improving the quality of teaching and learning, presented in Figure 4.1.

This model reorganizes the five dimensions of the heuristic framework in Chapter 1 (context, learner characteristics, teaching and learning, enabling inputs, outcomes) to provide a more systemic and holistic structure for analysis. While Chapter 2 examines various indicators in terms of what determines quality, this chapter focuses on what actors at various levels in education systems can do to actually improve education.

The policy framework places **learners** at the heart of the teaching and learning process, emphasizing that, from the outset, policy must acknowledge their diverse characteristics, circumstances and learning needs. This emphasis is important in establishing objectives for better quality and defining strategies to improve education. The central role of learners, therefore, is the starting point for this chapter. It leads to a consideration of the ways in which *teaching and learning* in the classroom can be genuinely responsive to learners through curriculum development and application. This ring of Figure 4.1 also covers *outcomes* (both skills and values), as envisaged in curriculum goals and realized through the teaching and learning process. Beyond the classroom, there are many ways to create an *enabling environment* that is conducive to teaching and learning. Better teachers, better schools and a strong knowledge infrastructure can all make a considerable difference to the quality of education. Finally in this teaching and learning framework comes the umbrella of a coherent *education sector policy* and the *reforms* that governments can initiate at the national level.

1. See the section on national and international assessments of cognitive skills in Chapter 3.

2. See, for instance, the NGO Declaration on Education for All, International Consultation of Non-Governmental Organizations, Dakar, 25 April 2000 (www.unesco.org/education/efa/wef_2000/cov_ngo_declaration.shtml).

3. See Chapter 2, Table 2.3: all the 'ambitious' countries are well below this benchmark (the share ranges from 1.3% of GNP in Sri Lanka to 4.2% in Brazil), except South Africa (5.8%). Of the 'high-performing' countries, Cuba (8.7%) and Finland (6.4%) exceed the benchmark, while Canada (5.3%) and the Republic of Korea (3.6%) invest below the threshold.

Thus, this chapter focuses primarily on actors: the learner, the teacher, the school leader or manager, the specialist and the policy-maker. Its mode of analysis differs from that of earlier chapters in that it builds partly on lessons of experience, learning from initiatives that have worked or failed and accepting that causal relations are often far less clear-cut than in analysis based more on quantitative data. The chapter does not attempt to be comprehensive. It looks for the attainable, not the ideal. It looks at making difficult choices about priorities. Its focus is primarily, but not exclusively, on formal schooling.

Start with learners

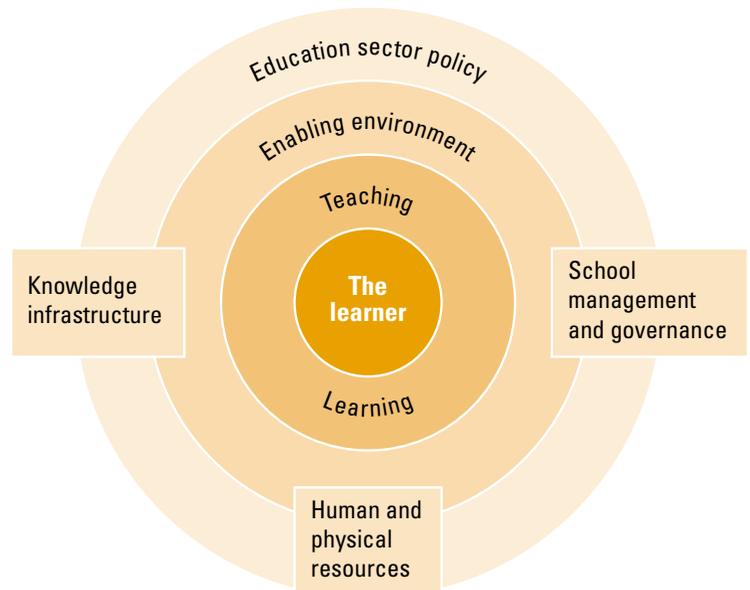
The quality of learning is and must be at the heart of EFA (UNESCO, 2000a). This being so, learners are central to attempts to improve the quality of education. While this may appear obvious, it is not always reflected in practice. All learning activities designed to offer meaningful learning outcomes should start with the clear understanding that learners are individuals, with different aptitudes and learning styles and with personal attributes influenced by their home and social backgrounds (Lubart, 2004).

It follows that strategies to improve quality should draw on the strengths of learners and on their knowledge, interests and capacities. As the previous edition of this Report on gender equality stressed, learners should not be treated as standard units in a uniform process. Education should be inclusive, responding to the diverse needs and circumstances of learners and giving appropriate weight to the abilities, skills and knowledge they bring to the teaching and learning process. The Dakar Framework makes clear that an inclusive learning environment is an essential attribute of high-quality education.⁴

In this context it is important to restate briefly the circumstances in which millions of children live:

- In sub-Saharan Africa, more than 11 million children under 15 have lost at least one parent to HIV/AIDS, and the number is projected to reach 20 million by 2010 (UNAIDS/UNICEF, 2003).⁵ Their access to learning opportunities is significantly constrained by the need to care for sick family members and younger siblings, by reductions in household income, by the burdens

Figure 4.1: Policy framework for improving the quality of teaching and learning



of loss and grief and by the stigma and discrimination that AIDS can bring.

- Estimates suggest that there are 150 million children with *disabilities* worldwide and that fewer than 2% of them are enrolled in school. This is a diverse category, covering intellectual, physical, sensory and psychiatric disabilities (Disability Awareness in Action, 2004).

- A recent survey of ten countries affected by or emerging from *conflict* found that more than 27 million children and young people, including refugees and internally displaced persons, lacked access to formal education (Women's Commission for Refugee Women and Children, 2004). The insecurity to which emergency gives rise particularly affects girls' education (UNESCO, 2003a). Moreover, experience of violence and the loss of family and friends have a major impact on children's emotional development.

- The International Labour Office estimates that 16% of 5- to 14-year-olds worldwide were engaged in work in 2000, and that 7% of 5- to 9-year-olds and 10% of 10- to 14-year-olds combined work with schooling (ILO, 2002).⁶ Work has an adverse impact on attendance, attainment

The Dakar Framework makes clear that an inclusive learning environment is an essential attribute of high-quality education

4. See strategy viii: 'Create safe, healthy, inclusive and equitably resourced educational environments conducive to excellence in learning, with clearly defined levels of achievement for all' (UNESCO, 2000a: 20).

5. The estimates of orphan populations vary depending on the methodology.

6. These figures exclude children working at home on household chores, so the actual number working and attending school is probably much larger, particularly for girls (UNESCO, 2003a).

There is strong evidence that poor nutrition and health in early childhood severely affect cognitive development in later years

and achievement, especially when children work away from home for long hours (Orazem and Gunnarsson, 2003).

■ In all these circumstances, disadvantages linked to gender, race and ethnicity, culture and language, religion, social status and migration are likely to be exacerbated.

It follows that schools need to respond to these conditions of severe disadvantage and be proactive in helping to mitigate their impact on children. An essential starting point is assuring good health and safety, while recognizing that some problems require particular types of educational response.

Healthy and safe learners

The link between health and learning is well established (WHO, 1997). Ill health affects attendance, retention, cognitive development and academic performance. There is strong evidence that poor nutrition and health in early childhood severely affect cognitive development in later years.⁷ Recent studies also reveal negative relationships between health and nutritional status and learners' school achievement.

This points to the importance of good early childhood care and the school's role in promoting good health and nutrition. School-based health programmes can be a cost-effective way to improve the health of learners at school and the community,⁸ particularly when good use is made of local resources and networks, as a Burkina Faso programme illustrates (Box 4.1).

Internationally, the FRESH programme (Focusing Resources on Effective School Health), launched

at Dakar, has developed a strategic framework to encourage health-promoting schools.⁹ It has four main components:

■ **Health-related school policies:** Education policy should address issues of health, harassment, violence, inclusion and equity.

■ **Healthy learning environments:** Provision of safe water and adequate sanitation is the first step for a healthy learning environment.

■ **Skills-based health education:** Schools should promote balanced development of knowledge, attitudes, values and life skills covering social behaviours associated with factors such as HIV/AIDS, family life and reproductive health.

■ **School health and nutrition services:** School meals, deworming and other services are delivered effectively through school networks.

The strength of this initiative lies in its integrated approach to health promotion and its broad definition of a healthy school environment, addressing issues of violence, equity and inclusion.

Tragically, violence is endemic in many schools worldwide. Such behaviour as bullying, sexual harassment, abuse and vandalism increase anxiety and adversely affect attendance and performance. Violence can lead to serious psychological problems (WHO, 1998; Currie et al., 2004). Dealing effectively with violence requires a strong commitment to change by the whole school community. For example, a strategy developed in Norway for coping with bullying involves intervention by teachers, pupils and parents, clear school and classroom rules against bullying and

7. For details see Pollitt (1990), Levinger (1994), Rosso and Marek (1996), Drake et al. (2002), Vince-Whitman et al. (2001) and World Bank (2004h).

8. Miguel and Kremer (2004) found that a school deworming programme in Kenya reduced absenteeism among treated pupils by at least 25% and improved attendance of children in neighbouring schools as well. Given the low cost of mass treatment (US\$0.49 per child in the United Republic of Tanzania, for instance), they argue that deworming is highly cost-effective and deserves government subsidy. For other studies on the effectiveness of school-based health and nutrition programmes, see Bennett (2003).

9. FRESH is a joint initiative of the World Health Organization, UNICEF, UNESCO and the World Bank. For details on its four core components and other information, see www.freshschools.org.

Box 4.1 School health and nutrition in Burkina Faso

Many school-aged children in Bazega province suffer from health problems. After a situation analysis, Save the Children (USA), in collaboration with the health and education ministries, launched a school-based health and nutrition programme in 1999. The programme comprises deworming, vitamin A and iodine supplementation, provision of latrines and safe drinking water and skills-based health education.

A study conducted after the first year in five schools found a significant reduction in the prevalence of malnutrition, anaemia and parasite infection, as well as a 20% increase in school attendance and improved performance in end-of-year exams. The programme has since expanded to cover the whole province, reaching nearly 15,000 children in 174 schools.

Sources: World Bank (2004i); Save the Children (2004).

Box 4.2 Inclusive education or special education?

Studies in both OECD and non-OECD countries indicate that students with disabilities achieve better school results in inclusive settings. Inclusive education also provides opportunities to build 'social networks, norms of reciprocity, mutual assistance and trustworthiness' (Putnam and Feldstein, 2003). Special schools tend to perpetuate the segregation of disabled people, yet, for students with some types of disabilities, provision of high-quality education in special schools may be more appropriate than 'inclusion' in a regular school that does not provide meaningful interaction with classmates and professionals. Ensuring that inclusive education is of good quality entails costs - for adapting curricula, training

teachers,* developing teaching and learning materials, and providing transport and accessible facilities - that many countries may have trouble meeting. A third option is to reconcile the inclusive and specialized approaches in a 'twin track' approach in which parents and learners decide whether to opt for an inclusive regular school or a special school initially, with inclusive education remaining the ultimate goal.

*In some countries, specially trained teachers are paid less than other teachers because they have fewer pupils. This discourages teachers from training for special needs (Nordström, 2004).

Sources: Nordström (2004); Richler (2004); Magrab (2004); Wormnaes (2004).

the establishment of school committees to handle the problem (Olweus, 2001).¹⁰

Responsive and inclusive schools

Proactive measures can also be taken to address disadvantages afflicting many millions of children. Four brief examples make this point.

Meeting the needs of *learners with disabilities* is particularly challenging, given the unresolved debate between proponents of a strong inclusive approach and those who argue for special needs provision (Box 4.2). In large measure this controversy reflects the many definitions and types of disability. Each type requires learner-specific responses, whether in mainstream or special schools.

As Chapter 2 shows, the cognitive skills required to make informed choices in respect of HIV/AIDS risk and behavioural change appear to be closely linked to levels of education and literacy. But schools must also find responsive and flexible ways to meet the needs of learners already affected by HIV/AIDS either directly or indirectly, e.g. through being orphaned and taking on wider family responsibilities.¹¹ For example, peer support can help address the psychological burden of orphanhood and the social stigma and sense of exclusion it may bring. Measures to reduce the financial burden for schooling, such as provision of stipends, will increase retention and completion among learners affected by HIV/AIDS.¹²

Flexible timetables and enrolment schedules, and special out-of-school learning groups can

Box 4.3 Distance learning for disadvantaged learners

The Open School Society in the Indian state of Andhra Pradesh was founded in 1991 and now comprises 4,700 centres, reaching over 100,000 learners, many of them dropouts, children from scheduled castes and learners with disabilities. It offers a condensed curriculum of language, mathematics and environmental studies in flexible, face-to-face instruction and in regional languages, several times a week. The programme provides regular training for teachers and community members. It has the advantage of being able to provide equivalence with the formal primary education system while remaining culturally and linguistically relevant to local needs.

The Somali Distance Education for Literacy programme teaches literacy, numeracy and life skills through weekly radio programmes, print materials and face-to-face instruction. It has over 10,000 registered learners, 70% of them women and girls, in some 350 classes.

Source: IRFOL (2004)

also help, as they do for children who work or have never attended school (UNICEF, 1999a; ILO, 2004). Above all, schools should not expel children on the grounds of HIV/AIDS status - nor because of race, ethnicity, religion, early pregnancy or sexual orientation. The school environment should be inclusive, safe and welcoming, and should respect human rights (World Bank, 2002b; Pigozzi, 2004).¹³

In some circumstances, the inclusion of disadvantaged learners may require alternatives to formal schools and full-time schooling. *Distance learning* is one such option, especially where it can be made highly flexible and context-specific. Examples from India and Somalia illustrate the point (Box 4.3).

10. For details, see www.colorado.edu/cspv/safeschools/bullying/overview.html and <http://modelprograms.samhsa.gov>.

11. The impact of orphanhood on enrolment and attendance has yet to be established. Studies show lower enrolment and attendance among orphans in many countries, but the pattern varies by country, suggesting differing local responses (World Bank, 2002b).

12. For a detailed examination of these issues, see Pigozzi (2004).

13. Also see the section below on better schools.

In situations of conflict and emergency, education is particularly important for children because it can provide stability and hope

In situations of **conflict and emergency**, education tends to be a low priority. Yet it is particularly important for children in such situations because it can provide stability and hope. Learning activities and knowledge that can help children cope mentally and physically with stress, while building values and attitudes that promote peace, should be emphasized. Key elements in fostering a sense of safety and personal well-being include safe play, sport and cultural activities; strong messages on health, nutrition and sanitation; mine awareness and other types of safety information; and development of communication and negotiation skills as a foundation for a peaceful and secure society.¹⁴ The Inter-Agency Network for Education in Emergencies (INEE) is developing a set of minimum standards designed to help the international community and other actors provide education of sufficient quality in situations of emergency and early reconstruction (Anderson Pillsbury, 2004).

Learner readiness

It is now widely recognized that early childhood care and education (ECCE) substantially enhances children's school readiness,¹⁵ yet this is not an area of significant investment by governments in most countries, despite evidence suggesting that such investment is a cost-effective way to improve education quality. A cross-country study in sub-Saharan Africa shows clear relationships between preschool coverage and repetition and survival rates as well as children's physical development (Jaramillo and Mingat, 2003).¹⁶ The study concludes that 87% of investment in preschool will be repaid in the form of increased efficiency in primary education.¹⁷ Other individual and social returns – such as better health, higher income and greater social cohesion – will most likely offset the remaining 13%, and possibly much more. While formal preschool is the most costly form of ECCE, cheaper options exist, such as mobilizing parents (see Chapter 2), and such informal ECCE activities may bring no less impressive benefits. Ways to provide affordable ECCE should receive greater attention.

Conclusion

Understanding learners' needs, circumstances, strengths and capacities should underpin the development and implementation of all education

programmes. Education that is not inclusive, in the broadest sense of that term, is unlikely to bring or sustain improvements in learning quality. The challenge for governments is to develop teaching and learning strategies that recognize this.

Improving teaching and learning

Teaching and learning are what learners experience. Together they form a process that takes place in classrooms and other learning settings. It is by this complex process that learners acquire the knowledge, skills, values and beliefs that constitute a good education. Consequently, policy decisions on teaching and learning are of the utmost importance. This section highlights seven major policy areas for attention. The first six are directly related to teaching and learning: establishing *appropriate goals* for the curriculum, developing *relevant content*, *using time well*, ensuring that *teaching styles are effective*, carefully considering the *language of instruction* and developing a sound *assessment* policy. The final policy area deals with enabling inputs that indirectly support quality teaching and learning: the supply, distribution and use of *learning materials* and a secure, accessible *physical environment* with appropriate facilities.

Appropriate, relevant aims

What happens in classrooms should reflect agreement as to what learners should learn and why. This is a matter of major interest in all societies. Invariably, weight is given to the knowledge and skills necessary for productive lives and livelihoods. But there is also strong concern for social and cultural values, human rights, greater equity and equality, and, increasingly, good citizenship, democracy and world peace.¹⁸ Clarity about the aims of education strengthens the coherence of the education system and helps in itself to improve quality.

Arriving at an appropriate set of educational aims largely involves striking a good balance between global or generic and local or more contextual skills and values. In many countries there is likely to be a need to refine this process by balancing general educational aims that stress national

14. See, for example, Sinclair (2001, 2002).

15. See Myers (2004) and UNESCO (2002a, 2003a).

16. The study cited here focuses on formal preschool because too few data on other forms of ECCE were available.

17. The authors estimate that if African countries expand preschool coverage to 40% by 2015, primary school repetition rates will fall to 15%, from 20% in 2000, and survival to grade 5 will rise from 65% to 78%.

18. See, for example, Weva (2003a).

Table 4.1: Policy choices in determining national curriculum goals as reflected in the Convention on the Rights of the Child

	Generic/global	Country/local
Cognitive skills development	<p>'The development of the child's personality, talents and mental and physical abilities to their fullest potential' (Article 29.1.a.)</p> <p>The rights to literacy, numeracy and life skills, 'such as the ability to make well-balanced decisions; to resolve conflicts in a non-violent manner; and to develop a healthy lifestyle, good social relationships and responsibility, critical thinking, creative talents, and other abilities which give children the tools needed to pursue their options in life'¹</p>	<p>'...[T]he development of the individual child's personality, talents and abilities, in recognition of the fact that every child has unique characteristics, interests, abilities, and learning needs. Thus, the curriculum must be of direct relevance to the child's social, cultural, environmental and economic context and to his or her present and future needs and take full account of the child's evolving capacities; teaching methods should be tailored to the different needs of different children'¹</p>
Values development	<p>'The development of respect for human rights...' (Article 29.1.b.)</p> <p>'The preparation of the child for responsible life in a free society, in the spirit of understanding, peace, tolerance, equality of sexes, and friendship among all peoples, ethnic, national and religious groups and persons of indigenous origin' (Article 29.1.d.)</p> <p>'The development of respect for the natural environment' (Article 29.1.e.)</p>	<p>'The development of respect for the child's parents, his or her own cultural identity, language and values, for the national values of the country in which the child is living, the country from which he or she may originate, and for civilizations different from his or her own' (Article 29.1.c.)</p> <p>'...the right [of the child belonging to minority groups], in community with other members of his or her group, to enjoy his or her own culture, to profess and practice his or her own religion, or to use his or her own language.' (Article 30)</p>

1. Appendix, para. 9. (CRC/GC/2001/1) Committee on the Rights of the Child, General Comment 1: The Aims of Education

unity and identity with aims that reflect the needs of particular groups. These choices are extremely important in defining the school curriculum.

Table 4.1 draws on the Convention on the Rights of the Child (see Chapter 1) to present important areas for policy debate on curriculum design, classifying them by whether they relate to generic/global aims or country/local goals and indicating the balance between cognitive skills and values development.¹⁹

Using data from the national curricula of 108 countries, held by the UNESCO International Bureau of Education (IBE), we can gauge shifts in the weight that countries accord to different objectives, from the mid-1980s to the early years of the new millennium. The right-hand column of Table 4.2 sets out some of the more significant changes. In essence, while basic skills retain a strong place in national curriculum objectives, increased prominence is being given to values associated with citizenship and democracy, as well as to education as a human right and education for sustainable development.

This evidence suggests that countries do review the mix between global and local, and the balance between values and cognitive skills and

knowledge. The table also offers some insight on the extent to which educational aims and the goals of curricula are designed to address the social and economic imperatives of life locally, nationally and globally. While radical, transformative changes occasionally occur,²⁰ adaptation and reshaping of existing curricula are more usual.²¹

One way to move towards a relevant, balanced set of aims is to analyse the curriculum in terms of inclusion. An inclusive approach to curriculum policy recognizes that while every learner has multiple needs – even more so in situations of vulnerability and disadvantage – everyone should benefit from a commonly accepted basic level of quality education. In the United Kingdom, a government-supported 'Index for Inclusion'²² identifies three dimensions of inclusion: creating inclusive cultures, producing inclusive policies and evolving inclusive practices (Booth and Ainscow, 2000).

The debate about the aims of education may seem remote from the practice of classroom teaching and learning. But without an educational vision and a sense of direction and purpose, it is impossible to arrive at nationally accepted approaches to content, pedagogy and assessment.

19. Some observers identify a strong tendency to adopt global/generic standards and skills, maintaining that international accountability legislation fuels this trend. It is sometimes seen as resulting in greater uniformity of education (Ohanian, 1999) and insufficient attention to local aims related to social change and human development.

20. One example is Paolo Freire's reading method, in which the teaching and learning of literacy centres on words with strong social and economic implications. Freire claims reading can be taught more effectively if the words being learned have important meaning to the learners and are in themselves empowering.

21. Current initiatives tend to be less radical than those of the 1960s and 1970s, such as Julius Nyerere's vision of Education for Self-Reliance (see Chapter 1: 34 and Kassam, 1995).

22. The index is an evaluation tool, designed to facilitate a participatory approach to developing inclusive education. This approach stresses the importance of examining the social and cultural purposes of the evaluation before considering such areas as schools, programmes and assessment (Lynch, 2000).

Table 4.2: Trends in curriculum statements, 1980s¹ to 2000s²

Aims of education as set out in Article 29 of the Convention on the Rights of the Child	Trends in objectives of education drawn from curriculum documents of 108 countries, over two periods, mid-1980s and early 2000s
<i>'The development of respect for human rights...'</i>	The number of countries emphasizing education as the fulfilment of a human right has increased. It is prominent in developing countries but the emphasis has declined in developed countries.
<i>'The development of the child's personality, talents and mental and physical abilities to their fullest potential'</i>	More countries now include development of individuals' capabilities, including skills and attitudes for critical thinking and problem-solving. In general, the development of personal capabilities, including emotional, creative and cognitive development, is given more attention at the primary level than in formal education as a whole. All world regions continue to put high priority on these non-cognitive skills. Attention to 'cognitive development and intellectual capacity' also increased, with basic skills such as literacy and numeracy emphasized across all regions and over time.
<i>'The development of respect for the child's parents, his or her own cultural identity, language and values, for the national values of the country in which the child is living...'</i>	The number of countries including religions and national identity as educational aims declined slightly overall, but trends in the regions reflect different social and political situations. Religion is strongly emphasized in the Arab States and in South and West Asia, while more countries in Central and Eastern Europe place importance on national identity.
<i>'The preparation of the child for responsible life in a free society, in the spirit of understanding, peace, tolerance, equality of sexes...'</i>	Greater attention is now being given to values, including democracy, citizenship and equality.
<i>'The development of respect for the natural environment'</i>	The number of countries including sustainable development as an aim of education tripled between the 1980s and the 2000s, albeit from a low base. The trend is particularly prominent in developing countries.

Note: For methodological detail see the source document.

1. Refers to 1980-85.

2. Refers to 1996-2001.

Source: Amadio et al. (2004)

Central to the curriculum is the teaching and learning of reading and writing. Literacy is a critical tool for the mastery of other subjects

Relevant content

The goals of the curriculum take shape in the subjects taught in schools. This fact gives rise to a policy debate regarding the definition of subjects, their number and the allocation of time to each. Opinion remains divided over the trade-offs between a curriculum with broad subject coverage and one defined more narrowly, focusing on a small set of priority goals and core subjects.

In practice, the mean numbers of subjects or subject areas listed in official curricula around the world have changed relatively little over the past two decades, for all grade levels (Benavot, 2004a). The *composition* of these subjects does appear to be changing, however, especially in relation to 'newer' subjects.²³ Consequently, a broad distinction can be made between these additions to the curriculum and subjects that contribute more directly to literacy and numeracy.

Central to the curriculum is the teaching and learning of reading and writing. Literacy is a critical tool for the mastery of other subjects.

It is also one of the best predictors of longer-term learning achievement.²⁴ Literacy must therefore be considered a priority area in efforts to improve the quality of basic education, particularly for learners from disadvantaged backgrounds (Gauthier and Dembélé, 2004).

While classroom time allocated to literacy skills has generally remained stable worldwide over the past two decades, the mean percentage of total instruction time allocated to mathematics instruction has declined slightly in the upper grades of primary education and increased marginally in lower primary education (Table 4.3). By and large, the patterns noted at the global level for mathematics are also apparent in each EFA region.²⁵ Conversely, the trend of incorporating and assigning greater priority to other subjects than literacy and mathematics in the curriculum is on the increase (Box 4.4 and Table 4.4).

Overall, the most notable increases are in the time allocated to environmental education and technology-related education. Vocational

23. 'Newer' refers here to subjects other than reading, writing and mathematics.

24. An analysis from North America reports that if a student has reading difficulties at the end of the first year of formal schooling, the probability of this student having difficulty at the end of grade 4 and at secondary level is as high as 90% (Juel, 1991).

25. Some regions saw a very slight increase between grades 1 and 2, but the overall trend of decline between primary (grades 1-6) and lower secondary education (grades 7-9) occurred clearly worldwide.

Table 4.3: Mean percentage of total instructional time allocated to mathematics in primary and lower secondary education, by grade level and time period (constant cases within grade levels)

EFA Region	Time ² period	Grade 1 ³	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9
Sub-Saharan Africa	1980s	20.8	20.2	19.6	18.6	20.3	20.5	16.6	16.1	16.1
	2000s	19.2	19.2	19	18.2	18.1	17.7	16.5	16	17.2
	(n)	12	12	12	12	12	11	10	8	5
Arab States	1980s	18.1	17.9	17.4	16.9	15.3	16.3	14.4	14	13.9
	2000s	17.6	18.5	17.1	17	16.8	16.6	14.2	14	14.3
	(n)	12	13	13	13	12	13	12	12	12
East Asia and the Pacific	1980s	17.5	20.5	19.8	19.6	18.3	15.9	13.8	14.2	14.3
	2000s	21	22.5	17.9	17.1	15.5	15.9	13.3	13.2	12
	(n)	7	7	7	6	6	5	7	7	7
South and West Asia	1980s	17.8	17.8	16.5	16.4	15.9	15.9	12.4	12.4	–
	2000s	19.1	19.8	15.7	16.4	16.4	12	11	11	10
	(n)	4	4	4	4	3	1	2	2	0
Latin America and the Caribbean	1980s	17.7	17.7	18	17.5	16.5	17.1	15.4	14.3	14.3
	2000s	23.4	23.4	23.3	21.8	21.6	21.1	14.6	14.5	13.4
	(n)	9	9	9	9	10	10	13	13	12
North America and Western Europe	1980s	18.4	18.2	18	16.6	16	15.1	14	12.8	13.2
	2000s	17.7	17.6	16.8	16.7	15.9	15.4	13.8	13	13
	(n)	11	11	11	11	11	11	9	7	6
Central and Eastern Europe	1980s	22.3	21.9	20	20	18.3	16.4	14.5	13.8	–
	2000s	19.3	19	17.8	17.4	15.2	14.2	13.4	13	–
	(n)	9	9	8	8	8	8	8	8	0
Global Mean	1980s	19.1	19.2	18.5	17.9	17.3	17	14.8	14.1	14.3
	2000s	19.4	19.7	18.4	17.9	17.3	16.9	14.3	13.9	13.9
	(n)	64	65	64	63	62	59	61	57	42

Note: For methodological detail see the source document. Data is not available for Central Asia.

1. The calculations are based on the data sets of the number of countries (n) for which the relevant data are available for both periods for a given grade. For example, nine countries in Latin America and the Caribbean have data on instruction time for grade 1 for both the 1980s and the 2000s. Countries with data for only one period are excluded from the analysis.

2. '1980s' refers to 1980–85; '2000s' refers to 1996–2001.

3. 'Grade 1' is the first year of primary education.

Source: Benavot (2004a)

education is losing currency, while the social sciences are little changed. Civics and citizenship education has gained ground in Latin America and the Caribbean and in East Asia and the Pacific but is less evident in Central and Eastern Europe, the higher grades in sub-Saharan Africa and the lower grades in North America and Western Europe. The time allotted to subjects relating to moral values, as opposed to skills-based subjects, increased in sub-Saharan Africa and in North America and Western Europe but decreased elsewhere, though countries in East Asia and the Pacific, while experiencing this decline, still give weight to these subjects. Surprisingly, health education appears to have decreased in Latin America and the Caribbean

and in the Arab States, as well as in the lower grades in sub-Saharan Africa and East Asia and the Pacific. Trends in the higher grades are not consistent within regions. North America and Western Europe have increased instruction in health education at all levels (Benavot, 2004a).

Although these trends can be mapped, little can be said about the learning implications of increasing the quantity of subjects within the curriculum, or about the trade-off between literacy and mathematics versus other subjects as manifested in learning outcomes.²⁶ What can be stressed is the importance of weighing the options carefully, especially as regards available instructional time.

26. The ways 'newer' subjects are actually taught varies. For example, HIV/AIDS prevention education may be integrated into any of several subjects or 'infused' throughout the curriculum. Many countries teach HIV/AIDS prevention as part of life skills development (Panchaud, Pii and Poncet, 2004; Smith, Kippax and Aggleton, 2000).

Box 4.4 The currency of a selection of newer subjects and subject areas# at global level

■ Health education or hygiene

In one-fourth to one-third of countries globally, some form of health education is required during primary and (lower) secondary education. Its prevalence in primary school curricula has declined slightly since the 1980s, but this trend is less apparent in secondary school curricula. The content of health education varies greatly. It can include family planning, HIV/AIDS prevention education, sex education, drug prevention and personal hygiene. The prevalence of health education in national curricula may reflect, in part, the broad-based content possible under this catch-all subject label.

■ Human rights education*

Considered an integral part of the right to education, this area has gained some recognition as a human right in itself. It is designed to increase knowledge of and respect for the rights and freedoms of each and every person, including the individual learner.

■ Multicultural education*

Multicultural education promotes knowledge and understanding of the cultures of fellow learners and citizens. It has gained considerable prominence in the past two decades.

■ Environmental subjects and education for sustainable development

Pollution, concerns over population and food supplies, depletion of natural resources and the ozone layer, the greenhouse effect and possible solutions for such environmental concerns are being covered in the primary school curricula of many industrialized and, to a lesser extent, developing countries. Overall the prevalence of this subject in national curricula has increased notably in the past fifteen years. While it is given greater prominence during the first five grades of primary school, the proportion of countries requiring instruction in environment-related topics has increased in all grades.

■ Citizenship and global citizenship education: educating for democracy and peace

Civics and citizenship education has increased in almost all grade levels since the 1980s. Attention given to citizenship education is particularly apparent in the lower grades of primary education. On average, one-fifth to one-third of all countries require the teaching of this subject in primary school and close to half of all countries require it to be taught in the (lower) secondary grades.

■ Technology

On average, technology-related topics - excluding computer instruction - accounted for 5%-6% of primary-grade timetables in the 1980s but is now required in 16%-27% of all primary-level timetables. Its prevalence as a required subject area has more than doubled in the lower secondary grades. Overall, in both the early 1980s and today, the importance of this subject increases with grade level. Factoring-in computer instruction would heighten this trend.

■ Development or global education

Development of global education is largely specific to industrialized countries. Comprising elements from education for sustainable development, human rights education, citizenship education, world studies, civics education, anti-racist education and peace education, it encourages learners to critically explore the relationship between North and South, understand global interdependences and work towards change in attitudes, values and behaviour (DEA, 1996). There is some evidence that development education is contributing to changing attitudes, thereby enhancing public support for development (McDonnell, Lecomte and Wegimont, 2003).

#These subjects may also be categorized as life skills and receive attention in the area of non-formal and adult education (UNESCO, 2003a).

*No trend data are available for these subjects.

Source: Benavot (2004a)

Using time well

Instructional time is an aspect of the curriculum that deserves special attention. The length of time required to achieve educational goals is a matter of considerable significance and a strong indicator of students' access to learning opportunities. School effectiveness research (Chapter 2) shows consistent positive correlations between instructional time and

students' achievement at both primary and secondary levels. Significantly, this relationship appears stronger in developing countries; Fuller and Clarke (1994) report this finding to hold good in twelve out of fourteen studies. The World Bank estimates that 850 to 1,000 effective hours (not necessarily official hours) of schooling per year is optimal in publicly financed primary schools (World Bank, 2004a). Increased instructional time enhances learners' exposure to knowledge and

Table 4.4: Mean percentage of countries requiring instruction in selected newer subjects in primary and lower secondary education, by grade level and time period

EFA Region	Time Period ¹	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Number of countries
Hygiene/ Health Education	1980s	26.2	29.4	31.8	35.3	31.7	32.9	25.9	24.1	16.7	72–85
	2000s	25.0	25.0	26.4	25.0	27.6	27.2	21.3	23.7	22.3	93–127
Environmental Science/ Ecology	1980s	17.9	17.6	15.3	12.9	9.8	7.6	1.2	1.2	0.0	72–85
	2000s	24.4	26.0	25.6	23.4	16.5	11.2	7.4	5.1	6.5	93–127
Civics/Citizenship Education	1980s	13.1	14.1	17.6	21.2	26.5	34.1	40.2	45.9	39.7	73–85
	2000s	21.0	21.8	25.6	28.2	31.5	35.2	39.3	38.7	51.1	93–127
Social Studies	1980s	31.3	33.3	40.0	43.5	46.9	43.0	43.5	42.2	40.3	72–85
	2000s	32.0	31.2	39.7	46.0	42.5	43.7	49.6	46.7	45.3	94–127
Moral or Values Education	1980s	25.0	25.9	23.5	24.7	25.6	20.3	16.7	18.3	13.9	72–86
	2000s	24.2	25.0	26.4	26.6	27.6	27.2	23.8	21.0	21.3	94–127
Technology and Related Subjects ²	1980s	4.8	5.9	5.9	5.9	6.1	5.1	14.1	15.7	16.7	72–86
	2000s	16.1	16.1	18.4	21.0	25.2	27.2	35.0	35.8	37.9	95–127
Vocational Education/Skills	1980s	21.4	21.2	22.4	21.2	22.0	26.6	32.6	38.6	36.1	72–86
	2000s	17.1	17.1	17.7	19.5	21.4	23.4	30.6	28.8	25.8	93–126

Note: For methodological detail see the source document.

1. '1980s' refers to 1980–85; '2000s' refers to 1996–2001.

2. Excludes computer instruction.

Source: Benavot (2004a)

results in correspondingly significant learning gains (Benavot, 2004b). Recent analysis suggests, however, that global annual intended instructional time has not increased since the mid-1980s and is often well below 1,000 hours (Table 4.5). In many countries instructional time has declined. In some cases (e.g. Japan) this may be an outcome of curriculum reform in which the number of subjects has been reduced. In others, particularly developing countries, meeting demand for increased access under resource constraints may have resulted in reductions in instructional time (Benavot, 2004a).

Table 4.6 shows annual instructional time by region. In all regions, it increases with grade. Sub-Saharan Africa has the highest values in all grades. Latin America and the Caribbean, East Asia and the Pacific and North America and Western Europe score high as well.

Intended instructional time – the maximum amount set out in national curriculum statements – is not the same as actual learning time. Studies in developed countries (OECD, 1996; Doll, 1996) reveal disparities between intended instruction time, actual time allocated in schools, the time learners spend actually learning ('time on task') and the time they spend

Table 4.5: Global average of annual instructional time,¹ by grade level and time period

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9
1985	710	720	760	791	817	844	896	908	900
2000	705	717	754	780	811	825	900	904	940
Number of countries	79	79	79	79	78	77	71	69	54

Note: For methodological detail see the source document.

1. Annual instructional time for each country is estimated, based on national documents submitted to UNESCO and supplementary sources. As the precision of these documents varies, the data should be interpreted with caution.

Source: Benavot (2004a)

on academic tasks ('academic learning time').²⁷ The amount of time decreases from the first to the fourth of these categories, especially in schools in poor communities. Micro studies have shown that in developing countries considerable amounts of time allocated for instruction are lost because of teacher and learner absenteeism, classroom shortages and lack of learning materials, as well as more universal phenomena such as lack of discipline and difficulty in maintaining learners' attention (Benavot, 2004b). Loss of instructional time deserves a high degree of attention, as it is a major constraint on improving quality. It can be remedied, however, primarily through better school management and organization and more effective teaching strategies.²⁸

27. See also Benavot (2004b).

28. Carnoy, Gove and Marshall (forthcoming) note remarkable differences in time use among schools in Brazil, Chile and Cuba and among different types of school within Chile, and report that the differences seem to be associated with learning achievement.

Table 4.6: Regional average yearly instructional time by grade level in 2000

EFA Regions	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Number of countries
Sub-Saharan Africa	755	775	812	847	872	871	951	946	965	16-18
Arab States	725	732	752	792	813	820	862	868	880	17
Central Asia	533	575	620	647	740	754	798	812	830	9
East Asia and the Pacific	704	710	764	784	814	826	911	918	918	14
South and West Asia	646	646	730	769	771	856	885	890	907	7-5
Latin America and the Caribbean	761	764	781	783	792	796	921	928	943	17-18
North America and Western Europe	743	748	790	799	845	847	894	906	933	23
Central and Eastern Europe	549	597	624	658	734	773	811	830	855	20
Total	689	705	742	766	804	819	883	891	908	122-125

Source: Benavot (2004a)

Effective teaching styles

What goes on in the classroom, and the impact of the teacher and teaching, has been identified in numerous studies as *the* crucial variable for improving learning outcomes. The way teachers teach is of critical concern in any reform designed to improve quality.

In an influential study, Coleman et al. (1966; cited in Gauthier and Dembélé, 2004: 2–4) identified the teacher variable as having the most pronounced effect on school achievement among pupils from modest backgrounds and ethnic minorities. More recent meta-analysis designed to assess the factors that are most likely to help children learn has confirmed the significance of the teacher effect. In a rigorous study of twenty-eight such factors, the two most prominent were found to be directly related to the teacher (Wang, Haertel and Walberg, 1994). A synthesis of 134 meta-analyses (Hattie, 1992; cited in Dembélé and Miaro-II, 2003) reached similar conclusions, indicating that even when there are significant differences in learners' backgrounds, teachers can exert a powerful influence, raising levels of achievement (Crahay, 2000).

Further research, however, indicates a wide variation in effectiveness among teachers. Good teachers appear to be effective with learners of all achievement levels no matter how heterogeneous their classrooms. If the teacher is ineffective, his or her students are more likely to perform at lower levels (Wright, Horn and Sanders, 1997; cited in Gauthier and Dembélé, 2004). More recent work (Babu and Mendro, 2003; Rivkin, Hanushek and Kain, 2002:

3; both cited in Gauthier and Dembélé, 2004) confirms these findings. The immediate and clear implication is that much can be done to significantly improve education by improving teacher effectiveness. This in turn requires attention to pedagogy and the way teachers teach.

Recent findings on the theme of pedagogical renewal and teacher development in sub-Saharan Africa²⁹ conclude that:

- Undesirable teaching practices persist.
- They can be described as following a rigid, chalk-and-talk, teacher centred/dominated, lecture-driven pedagogy or rote learning.
- Such pedagogy places students in a passive role, limiting their activity to memorizing facts and reciting them to the teacher. It is also reflected in classroom assessment practices.
- Such teaching practices are the norm in the vast majority of classrooms in sub-Saharan Africa and elsewhere, even in the most affluent countries (Dembélé and Miaro-II, 2003).

Pedagogical renewal across sub-Saharan Africa has included many attempts to switch to learner-centred, activity-oriented pedagogy and away from teacher-dominated instructional practices (Anderson, 2002; Kotta, 1986; Tabulawa, 1997; Storeng, 2001; van Graan et al., 2003; all cited in Dembélé and Miaro-II, 2003). Such efforts may be explained in part by the current tendency of some international agencies to favour such pedagogies. In most of the countries concerned, however,

Good teachers appear to be effective with learners of all achievement levels no matter how heterogeneous their classrooms

29. Case studies, background papers and literature reviews by the African education research networks ERNESA and ERNWACA, produced for the 2003 Biennial Meeting on Quality held by the Association for the Development of Education in Africa, are available at www.adeanet.org/publications_biennale/en_2003/bienpubs.html.

Box 4.5 Open-ended and discovery-based instruction

Open-ended and discovery-based pedagogies involve high-level cognitive skills such as comprehension, the application of knowledge, divergent thinking and problem solving. Examples of programmes that have adopted these pedagogies include:

- the **Escuela Nueva programme** in Colombia;
- the **Non-Formal Primary Education programme** of the Bangladesh Rural Advancement Committee;
- the **Escuela Nueva Unitaria programme** in Guatemala;
- the **Fe y Alegria schools** in Latin America;
- **multigrade programmes** in Guinea and Zambia;
- **Convergent Pedagogy** in Mali;
- the UNICEF-sponsored **Community Schools programme** in Egypt;
- the **MECE programme** in Chile;
- a **network of 'education for production' programmes** in Latin America;
- Namibia's **Basic Education Teacher Diploma**;
- the Aga Khan Foundation-supported **Dar-es-Salaam Primary Schools Projects**;
- Botswana's **University-Based Teacher Education Model**.

Typically, these programmes have some or all of the following characteristics:

- child-centred rather than teacher-driven pedagogy;
- active rather than passive learning;
- multigrade classrooms with continuously assessed learning;
- combinations of fully trained teachers, partly trained teachers and community resource people, all of them heavily involved in learning and in school management;
- peer tutoring among learners;
- carefully developed self-guided learning materials;
- teacher- and student-constructed learning materials;
- active student involvement in school governance and management;
- use of radio, correspondence materials, television in some cases and computers in a few cases;
- ongoing and regular in-service training and peer mentoring for teachers;
- ongoing monitoring, evaluation and feedback systems;
- strong links between the school and the community;
- attention by the community to children's nutrition and health long before they reach school age;
- local adaptations of the school day or school year cycle;
- a school focus on learning rather than teaching.

Sources: Avalos (1980); Farrell (2002); Anderson (2002); Craig, Kraft and du Plessis (1998); Hopkin (1997).

attempts to institutionalize child-centred pedagogy in schools and teacher-training institutions have produced inconclusive results. One investigation into why this is so, in Botswana (Tabulawa, 1997), cites deeply engrained epistemological assumptions by teachers and students, as well as social factors inherent in Tswana society. The assumptions were found to conflict with the basic tenets of child-centred pedagogy. If confirmed, this finding would indicate that, for open-ended pedagogies to be successful, significant change in the culture of knowledge acquisition may be required.

A further body of knowledge says that teaching practices are informed by ideas and beliefs that teachers begin to develop long before embracing teaching as a career and that traditional teacher preparation does not successfully challenge these beliefs (Dembélé and Miaro-II, 2003). Experts broadly agree on what constitutes

undesirable practice: a teacher-centred pedagogy, which places students in a passive role. There is also some consensus on the desirability of a participatory, interactive, child-centred, active pedagogy that is characterized by cooperative learning and inquiry and fosters conceptual understanding, critical thinking and problem-solving skills (ibid.). These desirable practices fall under the general category of 'open-ended' instruction (Box 4.5).

In the spectrum between 'traditional' chalk-and-talk teaching and open-ended instruction, some educators advocate structured teaching, a combination of direct instruction, guided practice and independent learning (Box 4.6).³⁰

Discovery-based pedagogies have proved extremely difficult to implement on a national scale. Moreover, their success relies heavily on appropriate levels of physical resources, strong

Structured teaching is a combination of direct instruction, guided practice and independent learning

30. Evidence from North America and the United Kingdom suggests that structured pedagogies work far better than open-ended approaches for children from socio-economically disadvantaged backgrounds and those excluded on the grounds of race or ethnicity, as well as slower learners, those with learning difficulties and underachievers. The research also indicates that this approach is not prejudicial to high achievers (Gauthier and Dembélé, 2004).

Box 4.6 Structured teaching

The concept of structured teaching stems from research identifying the teaching strategies and techniques used by experienced teachers and comparing them with those used by inexperienced teachers. The research highlights the practices that most help learning. Experiments have demonstrated that when inexperienced teachers are trained to use effective techniques, student achievement improves significantly.

Structured and systematic teaching consists of presenting material in small steps, pausing to check for student understanding and eliciting active and successful participation from all students. It is a particularly appropriate method for learning reading, mathematics, grammar, mother tongue, sciences, history and, to some extent, foreign languages. It can be adapted to young pupils as well as to slow learners of any age.

Structured instruction has proved most effective for teaching literacy. After a review of 1,056 experimental studies conducted over thirty years in the United States on the processes of learning to read, the National Reading Panel recommended explicit, systematic and intensive teaching of the various components of reading: phonological awareness and phonemes, grapho-phonetic entry points, guided oral and silent reading, and vocabulary. The panel recommended teaching reading by modelling, a technique in which the teacher illustrates links between new and prior knowledge and demonstrates forms of reasoning that foster better understanding. This requires providing many occasions for guided practice, during which students should receive feedback, so that later they can read successfully on their own.

Sources: Brophy and Good (1986); Gage (1986); Good, Biddle and Brophy (1983); Rosenshine and Stevens (1986); all cited in Gauthier and Dembélé (2004).

support and well-motivated, enthusiastic teachers. This does not mean that the idea of open-ended pedagogy should be abandoned in resourced-constrained situations, but it does face formidable challenges, even in optimal conditions. Thus, structured instruction may be the more pragmatic option for providing satisfactory quality in education in situations of severe resource constraints, high pupil/teacher ratios (which complicate classroom management and individual learning strategies) and underqualified or unmotivated teachers.³¹ With an approach to structured teaching that leaves space for individual discovery, good teachers can create a child-centred environment even in adverse circumstances. Child-centred in this context suggests respect for children and encouraging their involvement in their own learning (Croft, 2002).

Pedagogies for non-conventional settings

For people living where there is no school because of geographical isolation or low population density, or for those with nomadic lifestyles, alternative pedagogies are likely to be needed. Distance learning for conflict areas (discussed earlier in this chapter), mobile classrooms for nomadic communities and non-formal schools with teachers recruited from the community are among the possible responses.³²

Where schools do exist but are extremely underpopulated, multigrade teaching is an option. Although sheer logistical and economic factors can make multigrade teaching a necessity, it can also be a choice as an effective pedagogy for addressing the needs of a diversity of learners. Box 4.7 summarises the main conditions for effective multigrade teaching.

Language of instruction matters

Most countries in the world are bilingual or multilingual.³³ Hence, national language policy and the selection of languages to be taught in school and used as the media of instruction is of considerable importance for the quality of teaching and learning. It is a policy choice with implications for curriculum goals, content and pedagogy. It is also an intensely political matter. As UNESCO notes (UNESCO, 2003b):

Educational policy makers have difficult decisions to make with regard to languages, schooling and the curriculum in which the technical and the political overlap. While there are strong educational arguments in favour of mother tongue (or first language) instruction, a careful balance also needs to be made between enabling people to use local languages in learning and providing access to global languages of communication through education.

The situation in South-East Asia and China illustrates the diversity of languages and of patterns of language use in school (Table 4.7). In this part of the world there is a general trend towards more widespread use of local languages in the first few years of primary education.

There is now a strong body of evidence that bilingual schooling offers significant benefits in

31. For a detailed discussion of structured teaching, see Gauthier and Dembélé (2004: 27–32).

32. For more detail on these alternative strategies, see ADEA (2003) and UNESCO (2003a).

33. Some 6,000 to 7,000 languages are spoken in the world (UNESCO, 2003b). About 1.3 billion people, or 20% of the world's population, speak a local vernacular as their first language (Walter, forthcoming; cited in Kosonen, 2004). Worldwide, twenty countries have more than one official language. In major urban areas, schools may have children speaking thirty or forty languages.

Box 4.7 Multigrade teaching

Multigrade teaching is found in many parts of the world. It is believed to have positive impacts on cognitive achievement and on social and behavioural development, though these have not been confirmed. While multigrade teaching in wealthier countries is generally a pedagogic choice, in resource-constrained situations it is usually a necessity, and teachers may have negative attitudes towards teaching in multigrade classes with few resources available. For multigrade teaching to be beneficial for learners, the following conditions need to be met:

- Teachers and policy makers should be aware of the special needs involved.
- Curriculum should be specially adapted. Experimental work has been undertaken in Nepal and Sri Lanka to reorganize the national curricula in relation to core concepts and skills.
- Teachers should develop a range of teaching approaches to meet the needs of a multigrade setting, including peer learning, group learning and self-study.
- Adequate supplies of learning materials designed for individual and group learning are essential. Self-study materials cannot be a substitute for teachers, however; teachers should use the materials as part of an integrated teaching strategy.
- Learners should be involved in the general classroom management.
- Pre-service and in-service training should be designed to prepare teachers.
- Regular, frequent formative assessment by teachers is essential.

Curriculum, learning materials, teacher education and assessment are the most important components of an integrated strategy for quality improvement through multigrade teaching.

Source: Little (2004)

Table 4.7: Languages used in education in China and South-East Asia

Country	Local languages used in education ¹	Multiple languages in government system of education ²	Local languages used as medium of instruction ³	Languages used in government system of education ⁴	Access to education in L1 languages (%) ⁵	Total number of languages spoken ⁶
China	Yes	Yes	Yes	Mandarin, LWCs, local languages	69	201
Brunei	No	Yes	No	Malay, English	2	17
Cambodia	Yes	Yes	Yes	Khmer, local languages	90	19
Indonesia	Yes	Yes	No	Indonesian, LWCs	10	726
Lao PDR	No	No	No	Lao	<50	82
Malaysia	Yes	Yes	No	Malay, English, Mandarin, Tamil, Telugu, Punjabi, local languages	45	139
Myanmar	Yes	No	Yes	Myanma	61	107
Philippines	Yes	Yes	Yes	Filipino, English, LWCs	26	169
Singapore	No	Yes	No	English, Mandarin, Malay, Tamil	33	21
Thailand	Yes	Yes	Yes	Thai, local languages	<50	75
Viet Nam	Yes	Yes	No	Vietnamese, local languages	91	93

Notes:

1. *Local languages used in education* indicates whether local languages or languages of wider communication (LWCs), other than a national or official language, are used in education practice at any level or in any system of basic education – pre-primary, primary, lower secondary, formal or non-formal – run by government, local communities, NGOs, etc. ‘Yes’ means both instruction and some learning materials are in local languages and/or LWCs. Situations in which teachers use a local language or a LWC orally in addition to the official language of instruction are not included.

2. *Multiple languages in government system of education* indicates whether more than one language is used in the government education system (formal or non-formal) at any level of basic education. Private schools and NGO education projects are not included. ‘Yes’ in bold means more than one language is used, but no local languages are included.

3. *Local languages used as media of instruction* shows where local languages are the daily media of instruction at any level or system of basic education. ‘Yes’ in bold means local languages are used only in non-formal education by NGOs.

4. *Languages used in government system of education* lists the languages used in the government system. Details of other languages are given in each country case.

5. *Access to education in L1 (%)* is the estimated proportion of a country’s population having access to education in the learners’ first language (L1) – i.e. the proportion of the population having as mother tongue one of the languages used in education (Walter, forthcoming; except Cambodia, Lao PDR and Thailand estimates by Kosonen using data from Chazée, 1999; Grimes, 2000; Kingsada, 2003; National Statistical Centre, 1997; Schliesinger, 2000, 2003; Smalley, 1994).

6. *Total number of languages spoken* in a given country (Grimes, 2000).

Source: Kosonen (2004)

Initial literacy is acquired more easily in the mother tongue

learning outcomes.³⁴ In the most successful models, the mother tongue is used in the early years of schooling so that children can acquire and develop the literacy skills that enable fuller participation in learning activities (Benson, 2004). In a growing number of countries, after four or five years (earlier in some cases) there is a transition to learning and using the second or foreign language as the medium of instruction. In this way initial literacy is acquired more easily, facilitating the acquisition of the language that will become the medium of instruction for the rest of the school years.³⁵

Zambia recently adopted a new policy on initial literacy. English had been its medium of instruction for primary education, at the expense of all vernacular languages, since 1965, the primary reason being promotion of national unity,

allied to the economic and political value accorded to an international language.³⁶ Many educators lobbied for years to reverse this policy, arguing that it impeded the acquisition of literacy and mastery of the whole curriculum. Poor learning outcomes were used to support the argument.³⁷ Box 4.8 shows how Zambia is developing its own bilingual model (Linehan, 2004; Sampa, 2003).

Papua New Guinea (PNG) has over 830 languages, and at least 434 local languages are used for initial instruction in schools (Litteral, 2004). Popular demand for the use of local languages spearheaded a remarkable reform story that has had broader implications for the primary school system. In the late 1970s and early 1980s, village vernacular schools were introduced in Bougainville province, where

Box 4.8 Initial literacy and the medium of instruction in Zambia

The implications of the decision to use English in 1965 were eased slightly in a 1977 policy paper, 'Educational Reform: Proposals and Recommendations', which allowed teachers to use one of the seven official local languages to explain concepts that might not be understood in English, provided a majority of pupils in a class understood the vernacular chosen.

After studies in the early-1990s highlighted low levels of reading, in 1995, the National Reading Committee (NRC) concluded that a compromise was needed that would separate the medium of instruction from the language of initial literacy. The idea was to allow children to learn to read and write in a familiar language within a system where the official medium of instruction was English. This would meet both educational and political requirements, offering pedagogical innovation within a stable linguistic context.

A 1996 policy statement, 'Educating Our Future', agreed with the NRC's conclusions. With external assistance from the United Kingdom's Department for International Development (DFID), the Ministry of Education initiated the Zambia Primary Reading Programme (PRP). This programme was a systematic attempt to improve reading and writing in all primary schools, with goals for each grade level: basic literacy in a familiar language by the end of the first year of primary education, basic literacy in English by the end of the second year and

improvement in the teaching of reading at all grade levels through appropriate training and materials.

Early assessments and evaluations have been encouraging.* More broadly, the focus on literacy has helped secure observable success, in that parents and communities have responded warmly to the change. It has also raised teachers' expectations for themselves and their pupils. The PRP integrates methodology, assessment and classroom management into its courses and training programmes in a way that allows for practical demonstration of good practice and facilitates a process where teachers can theorize from practice (DFID/Ministry of Education, 2002). There is some evidence that enrolment levels are rising and absenteeism is on the wane in schools that are spearheading PRP strategies (Kotze and Higgins, 1999). The Permanent Secretary of the Ministry of Education stated in December 2003 that the PRP was the single most effective change agent for achieving quality education in Zambia.

* Grade 1 test scores in Zambian Languages improved dramatically, from a very low baseline, in districts where initial literacy was taught in the vernacular. In grade 2, scores in English resulted, on average, in learners reading above the expected level for the grade. In September 2003, grade 4 children from forty-five schools in the PRP pilot programme were found to be outperforming non-PRP pupils at grade 5 in literacy and numeracy. In all grades, the gender differences in performance found in the non-PRP sample had all but vanished (Kanyika, 2004).

Source: Linehan (2004)

34. Benson (2004) summarizes this literature, highlighting the many benefits of becoming literate in a familiar language. These include having easier access to communications and literacy skills in a second language, having a language and culture that are valued by schools, feeling good about school and teachers, being able to demonstrate knowledge, participating in learning, having the courage to ask questions and lessening the likelihood of unfair advantage being taken (a point especially pertinent for girls).

35. Bolivia may have the most advanced development and maintenance model for long-term continued study of the mother tongue and Spanish, which, being initially taught as a second language, moves up to 50/50 status in grade 4. Nigeria follows a slightly different model: in Yoruba-speaking districts, Yoruba is used throughout the six years of primary education, with English taught as a subject and gradually phased in.

36. Linehan (2004), in a paper commissioned as background for this report, outlines the history of language policy in Zambia since 1927.

37. For example, Williams (1998; cited in Linehan, 2004) notes that particular concern arose after test results in 1995 showed that only 3% of grade 6 pupils could read at desirable levels in English.

Box 4.9 Elementary schools in Papua New Guinea

Governance

Through a successful preschool system, Itok Pies Pri Skul (also known as TPPS), vernacular education was already familiar to the population of Papua New Guinea, so introducing vernacular education at primary level met with no major resistance. The main challenge has been to marry the decentralized, non-formal TPPS network with the highly centralized national education system. The pace of implementation varies by province and according to capacity. At village level, elementary schools are managed by a board designed to empower parents and communities in a way that is not possible with English-medium education. The boards vary in their ability to provide direction and implement policy. Communities select those to be trained as teachers and choose the language to be used for instruction.

Educational challenges

- *Personnel at all levels* must be competent to operate a vernacular education system. In the non-formal system, NGOs with vernacular education experience provided assistance from national to village level, focusing on language and culture.
- *Elementary teachers* must be prepared. Recruiting teachers with knowledge of local language and culture is most important. Selected teacher trainers with experience in the English system received short training courses on vernacular education. The courses, while practical and intended to emphasize materials production and teaching in the vernacular, had disappointing results.

- *Alphabets* were developed for 135 languages. Where there is no alphabet a lingua franca is used instead of the vernacular. Most provinces lack trained personnel who can assist in alphabet development.
- *Vernacular materials* need to be developed. Early local programmes developed separate materials for each language, but, in the 1980s, sets of printed pictures were produced that could be made into simple books by adding text in any language. This model is now used widely. The method of teaching literacy is interactive, with the integration of phonics and whole language approaches, which saves on materials costs.
- *Assessment and monitoring* are obviously more complicated in multilingual contexts. In elementary schools, teachers are responsible for their own assessment, taking for granted that comparability is problematic. For the primary system, a pilot project was started to monitor the progress of students in grades 3, 5 and 8 in four vernacular languages.

Financial challenges

During the TPPS period, each province or language community was mainly responsible for financing vernacular programmes and had its own policy. The introduction of formal elementary education put the financial burden on the national government. AusAID provided grants to cover the costs of training and materials from 1997 to 2002; since then, fewer teachers have been trained and the expansion and introduction of new schools has slowed.

Source: Litteral (2004)

parents felt strongly that their language and culture should figure more prominently in education to counter evidence of alienation and social problems among young people. This was the beginning of a movement that, with the aid of SIL International, an NGO, led ultimately to the national Education Reform Agenda in 1995. The agenda provided for a new level of education in which the language of the community is the language of instruction (vernacular in rural areas, lingua franca in urban areas), with the introduction of oral English at the end of the third year. Box 4.9 shows how the political, educational and financial challenges were overcome in PNG. As in Zambia, this is a relatively 'young' experience, but already some important lessons have been learned (Litteral, 2004):

- To be sustained, vernacular education must be successful in the eyes of communities and the educational establishment.

- A large number of languages is not in itself an obstacle to vernacular education if language communities and the government give practical, political and technical support.

- Aid agencies and NGOs can make significant contributions of technical skills, local knowledge and financial resources, though care should be taken to avoid dependence.

- Long-term commitment is essential. It will be sustained by improved student achievement and a strong sense of community responsibility. Teachers must be trained for bilingual education.

- Growth should be gradual and planned.³⁸

It seems clear both from the technical literature and experience on the ground that initial first language instruction improves the quality of education cost-effectively,³⁹ at best by building on

38. This section draws on Litteral (2004), a paper prepared for this report. PNG's primary system has three levels, each of three years: elementary (preschool to grade 2), using vernacular languages and a bridge to English in the third year; lower primary, where a bilingual policy prevails; and upper primary, in which English is the medium of instruction but vernacular languages are maintained.

39. Studies indicate that decreases in grade repetition and dropout outweigh the extra costs of vernacular education; see Benson (2004), who cites work by Chiswick, Patrinos and Tamayo (1996), Patrinos and Velez (1996) and Vawda and Patrinos (1998). Patrinos and Velez found that in Guatemala the benefits of implementing mother tongue programmes outweighed the costs after only two years.

Table 4.8: Summative and formative assessment

	Summative assessment	Formative assessment
Purpose	To evaluate and record a learner's achievement.	To diagnose how a learner learns and to improve learning and teaching.
Judgement	Criterion-referenced or norm-referenced; progression in learning against public criteria.	Criterion-referenced and pupil-referenced.
Method	Externally devised tasks or tests. Reviewing written work and other products (portfolio) against criteria applied uniformly for all learners.	Observing learning activities, discussing with learners, reviewing written work and other products (portfolio), learner self-assessment and peer assessment.

Sources: Harlen and James (1997); Black and Wiliam (2002).

the knowledge and experience of students and teachers, encouraging understanding through intercultural education and promoting gender and social equality (UNESCO, 2003b).

Assessment for better practice

As Chapter 2 indicates, regular, reliable and timely assessment is key to improving learning achievement.⁴⁰ It is the bedrock of an effective teaching and learning environment, whether it takes place at international or regional level (e.g. PISA, SACMEQ), national level (e.g. Key Stage tests in England and Wales) or school/classroom level (e.g. end-of-term tests). Assessment should allow those working in the education system to diagnose, monitor and assure the quality of the education they provide. International/regional and national assessment is discussed in Chapter 2. This section reviews the types of assessment designed to improve education at the classroom level, which we may characterize as either formative or summative (Table 4.8).

National and international assessments are summative in nature. Classroom-level assessments by teachers can be summative or formative. Formative assessment looks at how each learner learns and the problems she or he encounters, so teachers can adjust their teaching to observed learning progress. Evidence shows, too, that by giving feedback to learners, formative assessment can help improve their learning and performance (Black and Wiliam, 1998). Where practical, it should also draw on learner self-assessment, which can empower learners to assess their own progress and reflect on how they could improve their learning.

Summative assessment is often used to determine whether students are promoted to a higher grade or education level, or awarded certificates or diplomas. This usually relies on one-off examinations. Increasingly, however, ministries of education are opting for a continuous assessment, which is a combination of summative and formative assessments. Countries including Sri Lanka, South Africa and Ghana have introduced such systems to supplement the national examination. The idea is to facilitate more holistic judgement of learners' progress and achievement and lessen incentives to 'teach to exams'.

In practice, however, 'continuous assessment' often amounts to 'repeated summative assessment', with teachers filling in record forms, while no specific feedback is given to learners. This situation is partly attributable to lack of understanding on the part of teachers about formative assessment, but also reflects the pressure of external summative assessment on teaching and learning. Moreover, effective formative assessment requires adequate resources, teachers trained in assessment techniques and relatively small class sizes – requirements which do not fit the realities in many countries.

For governments seeking to improve education quality, a sound assessment policy is crucial. For school-level assessment to be influential, it should be consistent, regular and reliable, part of an overall school development policy and reconcile both formative and summative assessments with a strong focus on providing feedback to the learner and teacher. The actual mix of formative and summative assessment will take into account the constraints in particular contexts.

Enabling inputs for quality teaching and learning

Teaching and learning in the classroom are supported by a broader enabling environment, as Figure 4.1 illustrates. It essentially consists of good teachers, strong schools and a coherent national support infrastructure (discussed below). Also important is the provision, distribution and delivery of resources (including textbooks and other materials) and the physical structure of classrooms and schools.

Regular, reliable and timely assessment is key to improving learning achievement

40. It is crucial here to distinguish between the terms 'assessment' and 'examination', the latter being a specific form of summative assessment mainly used to differentiate among learners for selection or certification (Somerset, 1996).

Learning materials must be there

Effective teaching and learning require wide and equitable availability of learning materials. In many countries this is not the case. This situation calls for urgent attention, including the rethinking of policies governing production and distribution of textbooks and other learning materials and the training of teachers in how to use learning materials more effectively, in line with good teaching practice.

For many countries, providing every pupil with a complete set of textbooks is only an 'ideal target' (Montagnes, 2001). Moreover, accurate data on textbook availability is often scarce or non-existent. Often the lack of textbooks in classrooms is a result of an inefficient distribution system, not a shortage of resources. A study in Zambia indicated that less than 10% of books procured had actually reached classrooms (Silanda, 2000). A survey in Guinea found wastage of up to 67% of textbook stock (Sow, Brunswic and Valérien, 2001). The multiplicity of interests involved in textbook provision can lead to malpractice and corruption, which also contribute to inefficiency (Leguéré, 2003). To address this problem, the worldwide trend is to liberalize textbook production and distribution and decentralize procurement.

This opening of the textbook market has helped increase availability and decrease prices in many countries. In Uganda, textbook prices have been reduced by 50% as a result of liberalization (Eilor et al., 2003). Liberalization is not a panacea, though. In Russia it has led to regional inequity in availability and price (Borovikova, 2004). Liberalization can also result in replacement of a state monopoly by a few large, often international publishing houses, to the detriment of local publishers. High import taxation on paper, printing equipment and the like also hurts local textbook production (Montagnes, 2001).

Sustainable and equitable textbook development requires strong coordination by the state, preferably through a national body for book development, involving relevant ministries (e.g. those handling trade and finance), the private sector and NGOs, as well as the formulation of a national policy on textbooks (Salzano, 2002). Liberalization should be accompanied by the development of local private publishers in general.

School effectiveness research, including several studies in the 1970s and early 1980s, shows the availability of relevant, good-quality, affordable textbooks having a positive impact on achievement.⁴¹ Later studies indicate that, once schools have an acceptable level of textbooks, it is teacher practice that makes the difference.⁴² Studies in Kenya, Ghana and Australia (Glewwe, Kremer and Moulin, 2000; Okyere et al., 1997; Horsley, 2004; Laws and Horsley, 2004) are instructive in this respect. They demonstrate that, while textbook availability does affect the quality of teaching and learning, the ways teachers use textbooks vary considerably. This confirms the importance of support for teachers on effective use of textbooks.

Materials other than textbooks are also important. While the use of computers is spreading rapidly in schools in the industrialized world, most classrooms in developing countries may barely have a blackboard and a few textbooks. Teachers' guides are rare. Home-made teaching aids sometimes supplement meagre classroom resources, often with support from teacher resource centres (discussed below). In some countries, libraries are set up to provide supplementary reading material.⁴³ Such teaching materials and supplementary books are often underused, however (Knamiller, 1999; Rosenberg, 1998). The effectiveness of teaching and learning materials depends on teachers' ability and willingness to use them (Askerud, 1997; Rosenberg, 1998). Training in the use of newly introduced materials and continuous support to teachers should be an integral part of teaching and learning materials development.

Good places to learn

Attention has already been drawn to the importance of learner-friendly schools. Good school infrastructure is important to effective teaching and learning, as a recent World Bank evaluation on Ghana indicates (World Bank, 2004a). Achieving UPE will require unprecedented development and refurbishment of classrooms in many countries. A priority in remote and rural areas, it is also important in many cities, to avoid overcrowding. School buildings should also be accessible to disabled people. Clean water and sanitation facilities for girls and boys are basic elements of a healthy, safe and secure learning environment, but, as Box 4.10 shows, schools often do not meet these needs.

Once schools have an acceptable level of textbooks, it is teacher practice that makes the difference

41. Findings from later studies suggest, however, that the reported gains were largely due to learners' family backgrounds and other factors. Fuller and Clarke (1994) review studies on textbook availability and pupil achievement. For a recent study on the impact of textbook availability, see World Bank (2004a).

42. Fuller and Clarke (1994) reviewed school effectiveness research, focusing on sociological aspects. They argue that both the 'minimum' level of inputs and teachers' response to the availability of inputs are specific to context.

43. Strong political support made it possible for Brazil's government to supply nearly all its primary schools with library books – over 8 million to date – at a cost of US\$20 million (Gusso, 2004). In South Africa, classroom libraries have been set up through READ Trust, which also provides teacher training. For an estimated cost of US\$18 per learner, the programme seems to have successfully encouraged reading culture and improved reading and writing abilities (Radebe, 1998).

More attention must be paid to maintenance of school facilities, an issue too often neglected in aid projects and government budgets

The formulation of clear norms and standards regarding the technical specifications and location of schools should take into account the need for a good physical learning environment for all pupils and students. However, flexibility in norms for school location and due attention to such future contingencies as the introduction of multigrade schooling or the addition of a lower secondary class are critical. Local school mapping is an important tool in this regard. Finally, more attention must be paid to maintenance of school facilities, an issue too often neglected in aid projects and government budgets. Communities with limited resources can perform only basic maintenance tasks. Good maintenance is a cost-effective measure that expands the lifetime and quality of school buildings.

Policy choices

There is enormous potential to increase the quality of teaching and learning in every school and classroom. A rich body of knowledge and experience shows what should be done. Whether the poorest countries can or even should address

the full menu of policy issues discussed here is another matter. Through striving for coherence and consistency among the major components of the teaching and learning process, however, significant improvement in education quality is nonetheless possible. Another key is well-defined, well-balanced aims for education that give due attention to both cognitive skills and values development, through traditional core subjects and, where relevant, new areas of study. Sufficient learning time is critical: 850-1,000 hours of effective instructional time is a good target. Much more attention to teaching styles is needed. Structured teaching may be the most effective option for resource-constrained systems, but this does not mean the classroom cannot be child centred. In multilingual societies, the choice of language of instruction and language policy in schools is critical for effective learning. And assessment is important if lessons are to be learned for good classroom practice. Carefully considered options for providing and distributing learning materials, classroom facilities and physical infrastructure also play their part in better learning.

Box 4.10 'Unfriendly' schools

■ Sub-Saharan Africa

Historically, school construction projects rarely included latrines or water supply. In *Mauritania* and *Chad*, for example, inclusion of latrines and water in primary school construction projects dates only from 2001 and 2002, respectively, with the sixth World Bank education project. In *Chad*, one-third of schools have latrines and two-thirds drinking water. In *Guinea*, latrines and water supply were required in all new schools by 1989 but the retrofitting of older schools - 2,000 lacking latrines and 2,900 without water - was launched only with the ten-year Education for All Programme of 2001. In *Senegal*, 39% of classrooms have sanitation and 33% access to drinking water - facilities that still are not systematically included in school construction projects.

■ South Asia

In 1993, in the Indian state of Uttar Pradesh, 64% of the 73,000 primary schools lacked latrines and 43% water supply. By 2001, with the support of three World Bank-financed projects, more than 41,000 toilets had been built - not far from the initial need - and drinking water provided to more than 17,000 primary schools. For *India* as a whole, eight projects financed by the World Bank built 91,000 toilets - more than the number of new classrooms in the same projects - and equipped 57,000 schools with drinking water. In *Pakistan*, as of 1990, more than 51% of primary schools in Sindh province had no sanitation and 42% were without water supply. The situation in North-West province, as of 1995, was even worse: more than 80% of primary schools had no sanitation and half lacked drinking water.

■ Latin America

School latrines and drinking water have received more attention in Latin America. *Mexico*, for instance, added almost 3,200 latrines to primary schools, in four states targeted by the Primary Education Project of 1991-98. The Second Primary Education Project (1994-99) provided ten other states with latrines.

Source: Theunynck (2003)

Better teachers

Teachers are a key enabling factor in improving the quality of education. The evidence of this and many other reports is that teachers are critical to any reforms designed to improve quality. Moreover, teachers represent by far the most significant investment in public sector budgets. This section addresses ways in which countries with limited means could improve the recruitment of teachers, their initial training and ongoing support, their earnings and their deployment and conditions of service. It concludes by addressing a central dilemma: how to pay for an expanded teaching force.

Finding the right recruits

Preparing teachers begins with the selection of those who are to enter teacher training. Most governments have set standards that vary with the kind of schooling for which the training is designed. Both in developing and developed countries there is a temptation to lower these standards. In the developing world, it stems from a need in many countries to attract large numbers of teachers, in order to expand access to education quickly and reduce class size. In the industrialized world, some countries face ageing teaching forces and shortages of people interested in a teaching career, especially in mathematics, foreign languages, sciences, business studies and the technology fields, including information and communications technology (OECD, 2004e). The 'high performing countries' discussed in Chapter 2 have resisted the temptation to lower standards, keeping access to teacher training selective in order to maintain quality and the esteem in which the profession is held. But in some other countries people with low academic qualifications do enter teacher training (Lewin, 2004).⁴⁴

Countries with sufficient means might consider publicity campaigns and financial incentives to attract trainees. An alternative approach to recruiting the right candidates involves rethinking the criteria and procedures for admission to teacher training.⁴⁵ One possibility is to develop technically sound aptitude and motivation tests. Another is to make more use of interviews, though this is often time consuming.

In the On the Job Training programme in Trinidad and Tobago, people who are considering a career in teaching are given a chance to practise as a class assistant, so that a more informed decision can be made (George and Quamina-Aiyejina, 2003). South Africa also offers an example of making the training pathways towards the teaching profession more flexible: its 2000 Act on Adult Basic Education and Training gives adult educators the possibility of having relevant learning experiences and qualifications validated as 'building stones' for formal qualification (UIE, 2004).

Improving initial training

Initial teacher training can take a variety of forms. Its duration, curriculum focus, teaching practice and other aspects differ strongly from country to country. Table 4.9 illustrates the diversity in a framework of four main models.

In models 1 and 2, the training is predominantly or entirely pre-career, and usually full-time and residential. This leaves few resources for ongoing professional development – in particular the crucial support of newly qualified teachers in their first years of teaching. Moreover, it often ignores long-term professional development, and teacher training institutions tend to be isolated from schools. This can be mitigated by extending the teaching-practice part of the curriculum. In the United Kingdom, for instance, trainees spend two-thirds of their time in schools,⁴⁶ and in Cuba the entire pre-service training is school-based (Gasperini, 2000). Such models require a sufficient number of schools with the capacity to coach and counsel trainees; related costs will diminish somewhat with the gains made by reducing the off-the-job part of the curriculum.

School-based training can be combined with distance education, which saves travel and replacement costs⁴⁷ and can reduce direct costs if part of the training is self-instructional and based on print or other low-cost media. However, distance learning also entails problems (Sayed, Heystek and Smit, 2002), as observed with primary teachers in rural Africa. The materials need to be in the right language and address a wide range of topics, the trainees must be supported by both the school and the training institution and administrative support must be assured.⁴⁸

Both in developing and developed countries there is a temptation to lower teacher training standards

44. The literature identifies several cases in which the expansion of the teaching force required to staff the policy of smaller classes appears to have led to deterioration in average teacher quality in schools – and thereby put at risk the hoped-for benefits of smaller classes (OECD, 2004e).

45. Examples may be found in information on the OECD project *Attracting, Developing and Retaining Effective Teachers*, which involved twenty-two OECD member states and Chile. The participants' Country Background reports, describing their policies and innovations in the area of teacher supply and professional development, are available via www.oecd.org.

46. Döbert, Klieme and Sroka (2004) note that the advantages of school-based preparation should be weighed against the risk of reducing the critical edge that teacher training in colleges and universities can provide. Immersion in daily practice may to some extent prevent trainees from seeing failures and seeking alternatives.

47. This was the case, for instance, in the Malawi Integrated In-service Teacher Education Programme (MITTEP) described by Kunje (2002).

48. See Kunje and Chiremba (2000), Kunje (2002) and Kunje, Lewin and Stuart (2003) for more detailed discussions.

Table 4.9: Main models of initial teacher training

Description	Duration	Entry	Curriculum	Teaching practice	Cost per student
Model 1 College certificate or diploma (e.g. Bachelor of Education)	1–4 years full-time residential	Junior or senior secondary school leavers with or without experience	Subject upgrading, subject methods, professional studies	Block practice 4–12 weeks in one or more years, sometimes followed by internships	Relatively high
Model 2 University post-graduate certificate of education	1–2 years full-time residential after first degree	University degree, mostly undergraduates without experience	Subject methods, professional studies	Block practice 2–10 weeks, sometimes followed by internships	Relatively high but for less time
Model 3 In-service training of untrained teachers based in schools, leading to initial qualification	1–5 years part-time residential and/or non-residential workshops, etc.	Junior or senior secondary school leavers with experience as untrained teachers	Subject upgrading, subject methods, professional studies	Teaching in schools in normal employment	High or low depending on duration and intensity of contact with tutors
Model 4 Direct entry	0–4 years probation	Senior secondary, college or university graduates	None, or supervised induction	Teaching in schools in normal employment	Low

Source: Lewin (2004)

The importance of subject knowledge tends to be underestimated, given that many trainees lack basic knowledge

The curriculum of teacher training usually has four components: knowledge of the subjects that are to be taught, teaching methods, knowledge about how children learn and teaching practice. The time allocated to each varies considerably (Lewin, 2004) and the importance of the first, subject knowledge, tends to be underestimated, given that many trainees lack basic knowledge.

Findings from the five-country MUSTER project⁴⁹ suggest that an improved teacher education curriculum should have the following aspects (Lewin, 2004):

- It should equip trainees with the necessary language fluency and capability to serve the needs of the school to which they will be posted.
- Training material should be locally written and produced if externally produced materials are scarce or insufficiently relevant.
- The curriculum should challenge the trainee to reflect on his or her own practice. Learning to teach means acquiring not only knowledge and skills but also an understanding of learners and how they learn, along with repertoires of strategies for dealing with unique and ever-changing circumstances.

- The curriculum must have the flexibility to take the trainee’s prior experiences into account.

Consideration should also be given to the people who train teachers. They tend to be recruited from the ranks of practising, mid-career teachers, and many stay in teacher training until retirement, gradually losing contact with schools.⁵⁰ This problem is exacerbated by a preference for secondary-school teachers, who are seldom familiar with the realities of primary education. One solution could be short-term appointments of experienced primary teachers as teacher trainers.

Ongoing professional support

Education policy has long put more priority on initial teacher training than on continuing, in-service education, but this balance is now changing (OECD, 2004e: 6), both in industrialized and developing countries (ADEA, 2003: 19). Research shows that newly qualified teachers require a great deal of support from experienced colleagues and the teacher training institution, especially during their first year of practice (Lewin and Stuart, 2003; Lewin, Samuel and Sayed, 2003). Their early experiences also determine to a large extent whether they remain in teaching.

49. For details and discussion papers on MUSTER (Multi-site Teacher Education Research Project), carried out between 1998 and 2000 in Ghana, Lesotho, Malawi, Trinidad and Tobago and South Africa, see www.sussex.ac.uk/usie/muster.

50. MUSTER found that teacher trainers were not often focused on trainees’ needs, lacked links with schools, could be better managed to play a useful role in curriculum development and implementation, and could be more effective in providing continuing professional development and support.

Box 4.11 Best practice in ongoing professional support

Ongoing professional support may include study opportunities for teachers, training workshops, support from in-service advisers and inspectors, inter-school visits and peer consultation in teacher clusters. Such activities have the following characteristics:

- They require schools to become learning organizations in which teacher development activities are geared towards improving student learning. This means school leadership prioritizes learning and harnesses the different capacities of teachers to address common learning difficulties.
- They need to be part of a systemic process of education reform.
- They require an incentive structure that rewards individuals and promotes collective improvements in performance. Teachers must see the need to change their practice, be rewarded if they do so, and appreciate the benefits this brings to the school.
- They should be based on a holistic change strategy bringing other aspects of education into harmony with changes in teacher training and support. For example, deploying newly qualified teachers to schools where many staff lack skills will demotivate new staff and discourage them from engaging in continuous learning.
- They require government to assure the needed financial and other resources.
- They should focus on a few programmes and targets that can show improvement in small ways and be diffused to more schools.

Source: Sayed (2001)

Balancing time and money spent on initial training and ongoing professional support is a critical policy question. One consideration is that primary school teachers tend to have relatively short careers.⁵¹ Ongoing professional development directs more training resources towards those who are on the job and likely to remain so. It also allows for more incremental training via several routes

(full-time, part-time, day release, residential, distance, etc.) and in a variety of locations (in school, at teacher centres and at colleges and universities). Box 4.11 outlines best practice with regard to ongoing professional support. The 'knowledge infrastructure' vital to such support is discussed below under 'Support schools, inform policy'.

Teachers' career perspectives matter. Professional development does not work if teachers have few promotion opportunities other than in school administration or the education bureaucracy. In Sri Lanka, teachers can qualify as 'in-service advisers' who use their professional skills to benefit other teachers (Malderez, 2002). Box 4.12 describes a South African initiative that gives teachers a choice between promotions in teaching and in management.

Box 4.12 New career paths for teachers in South Africa

In April 2003, South Africa established a new post and salary structure for teachers. This involves performance-related salary increases and two promotion routes for teachers: one in teaching and one in management. In the teaching route, one can become a senior education specialist in schools while staying active as a teacher. Another option is to become an adviser to the Department of Education. The management route incorporates the more traditional forms of promotion, such as promotion to head teacher or official. The opportunities opened up by the teaching route are seen as an enrichment of the support structure, enhancing evidence-based practice in schools and strengthening links between daily practice and national policy.

Source: ELRC (2003)

Teacher earnings

As in all jobs requiring a qualification that provides access to multiple career paths, the salaries and conditions of service offered to teachers can have a significant impact on the composition of the profession and the quality of teaching. Teachers' salaries and earnings prospects, relative to those in other comparable jobs, can affect the decision by qualified individuals to enter or to remain in the teaching profession. They can also affect how hard people work at teaching and how motivated they are.

The salaries and conditions of service offered to teachers can have a significant impact on the composition of the profession and the quality of teaching

51. Among the possible explanations of this trend are increased attrition rates in countries with high HIV/AIDS prevalence, a tendency in some countries to regard primary school teaching as a stepping stone to better opportunities in the education system, and, where pay and conditions of service for primary school teachers are poor, migration to adjacent countries with better incentives or switching to more attractive occupations.

Box 4.13 Primary school teachers in Sierra Leone

The ending of Sierra Leone's eleven-year civil war in 2001, along with major changes in education policy (including abolition of tuition fees and introduction of universal school meals), led to a dramatic expansion of primary school enrolment. The number of pupils tripled in fewer than four years, while budget constraints led to the pupil/(payroll) teacher ratio increasing to 72:1 by 2003 (it had been 32:1 in 1992). One consequence is that around 20% of primary school teachers at government-funded primary schools are not on the public payroll. Many are 'volunteer' or 'community' teachers with little or no professional training, who are paid very little by their schools. They often account for over half of the teachers in government primary schools in remote rural areas. Severe crowding in classrooms, combined with lack of basic equipment and teaching materials, has resulted in the quality of primary schooling being very low.

Although teachers' salaries compare relatively well with those of equivalent occupations in the public service, most primary school teachers live in poverty. The average salary (plus allowances) for government primary school teachers in late 2003 was US\$50 per month. 'Community' teachers at government schools earned much less. Community schools have also been established, but rural parents are too poor to contribute much towards supporting them. At many of these schools, the community pays teachers in kind by working on their farms. Their low and usually irregular remuneration raises major questions about the sustainability of community schools.

Primary school teachers are increasingly demoralized. Most would leave the profession if they could. Teachers typically have to maintain a household of four or five people on a salary of less than US\$2 a day. Pay levels, even for qualified teachers, are only about one quarter of the cost of a minimum-needs wage basket for a four-person

household. In real terms, teachers' pay has fallen by over half since the mid-1990s, while workloads have increased appreciably, especially for teachers in the infant classes.

Low pay is compounded by very late payment of salaries. Both urban and rural housing conditions are quite poor. Many urban teachers have to commute long distances. Nevertheless, teachers want to work in urban areas, where they can earn additional income through private tuition and other work. This practice tends to undermine commitment. It has been suggested that some teachers deliberately do not teach the full syllabus, thus forcing students to attend private classes. Even in rural primary schools, 'extension classes' after the end of the school day are the norm for grades 5 and 6. The charges for these classes, which supplement teachers' salaries, are a major burden for poorer households and contribute to high dropout rates from these classes.

In rural areas the high incidence of poverty makes it hard for teachers to increase their income much with private tuition. But teachers commonly sell cakes and sweets to their pupils during break times, and pupils frequently work on teacher's farms. In some schools the latter activity is actually part of the school timetable.

Despite the growing demoralization, the overall rate of teacher absenteeism appears to have fallen in recent years: it was around 20% in late 2001, when peace was returning to much of the country, and is now perhaps half that. No reliable information is available on levels of and trends in teacher attrition, but the EFA National Action Plan notes the 'high mobility' of teachers. Given limited opportunities for tertiary education, many students opt for teacher training courses with little or no intention of taking up teaching as a lifelong profession.

Source: Bennell (2004)

Teachers' earnings are often insufficient to provide a reasonable standard of living

All governments face a balancing act. On the one hand, expenditure on education is often subject to tight fiscal constraints, and teachers' salaries and allowances already typically account for two-thirds (often much more) of current public expenditure on education (see Statistical annex, Table 14). Increases in teachers' salaries may not be possible without sacrificing other important school resources. On the other hand, particularly in developing countries, teachers' earnings are often

insufficient to provide a reasonable standard of living. As Box 4.13 illustrates, with the case of Sierra Leone, salaries may be too low to enable teachers to concentrate fully on their professional duties, which may encourage absenteeism, if teachers supplement their earnings from other sources (Mehrotra and Buckland, 1998).

Over time, teacher earnings have tended to decline, relative to those of comparable groups.

This is to some extent a natural result of the global increase in numbers of educated and trained people: the relative scarcity of people potentially able to join the profession has lessened. Similarly, progress towards universal provision has limited the ability of governments to increase real average salary levels regularly. Table 4.10 shows the trend in average primary school teachers' salaries in developing countries from 1975 to 2000 in relation to per capita GDP. They began the period more than six times as high as per capita GDP, but by the turn of the century the ratio had been nearly halved. The decline was particularly marked in Africa, especially in the French-speaking countries and in those of the Sahel, where the ratio fell to around one-third of its former level. It is not insignificant that the countries where salary ratios are among the highest are also those where the coverage of primary education systems remains low.⁵²

Comparisons with per capita GDP provide only a rough proxy for the extent to which teachers feel themselves better off or worse off than they were. It is also important to establish whether teachers' real earnings have risen over time. Figure 4.2 indicates that, in a selection of high- and middle-income countries where data is available, teachers mainly became better off in real terms over the 1990s.⁵³ Lower-income countries saw reductions in real earnings, with falls in excess of 20% in some cases. Data for 1998–2001 show these patterns continuing, with significant reductions in real salaries in Indonesia, the Philippines, Tunisia, Uruguay, Chile, Argentina, Senegal and the United Republic of Tanzania.⁵⁴ In much of Africa, teacher earnings were actually lower in real terms by 2000 than in 1970; the recent figures are often just the latest manifestation of decline.⁵⁵

There are also, of course, huge absolute differences in teachers' earnings among countries, due most notably to differences in standards of living: even after adjustment by purchasing power, real average teacher salaries in China are only one-tenth of the average for OECD countries. But even countries at similar levels of income pay their teachers differently, as can be seen from Figure 4.3. Thus, salaries paid in the Philippines are two to three times those paid in Egypt and Peru, even though per capita

Table 4.10: Average primary-school teacher salary (ratio to per capita GDP) by world region, 1975–2000 (countries with per capita GDP below US\$2,000 in 1993)

	1975	1985	1992	2000
All countries with per capita GDP below US\$2 000	6.6	4.6	4.3	3.7
Africa	8.6	6.3	6.0	4.4
English speaking	4.4	3.5	3.6	4.2
French speaking	11.5	8.0	6.3	4.8
Sahel	17.6	11.8	8.2	6.4
Asia	3.7	2.7	2.5	2.9
Latin America	2.7	2.9	2.3	2.3
Middle-East and North Africa	5.6	2.8	3.3	3.3

Source: Mingat (2002)

incomes are similar between these states. It seems, then, that there may be room for manoeuvre, in many societies, concerning the affordability and desirability of improvements to levels of teachers' salaries and conditions of service.

Teacher deployment and conditions of service

Practices concerning teacher deployment also differ. Some systems are centralized, others devolved to regions, districts or even schools. Certain practices can have a detrimental impact on the quality of education. In Ghana, for example, teachers may be posted to rural schools where they are not fluent in the medium of instruction (Hedges, 2002). The pull of town and city can distort efforts to deploy good teachers to schools in rural areas, compounding problems associated with poor living environments and housing shortages in rural areas.

To assure equitable allocation of teachers according to need, a prerequisite is a consistent, well-defined, honestly executed national framework for posting new and experienced teachers, to meet the needs of each and every school. Deployment cannot be left to individual decisions at local levels.⁵⁶ In many cases, incentives will be needed to attract teachers to difficult areas. Appropriate incentives can include opportunities for further study, leading to university degrees or postgraduate studies, and, for remote rural environments, housing or housing subsidies.

52. The origins of this differential date back to the colonial period. Under France's colonial policy, the only medium of instruction was French, schools were secular institutions and teachers were paid the same as their metropolitan counterparts. In countries under British rule, missionary schools were an integral part of the education system and benefited from state subsidies, and there was no equivalence between local wages and those in Britain. Thus British colonies had more primary school coverage at lower cost than did French colonies (see Cogneau, 2003).

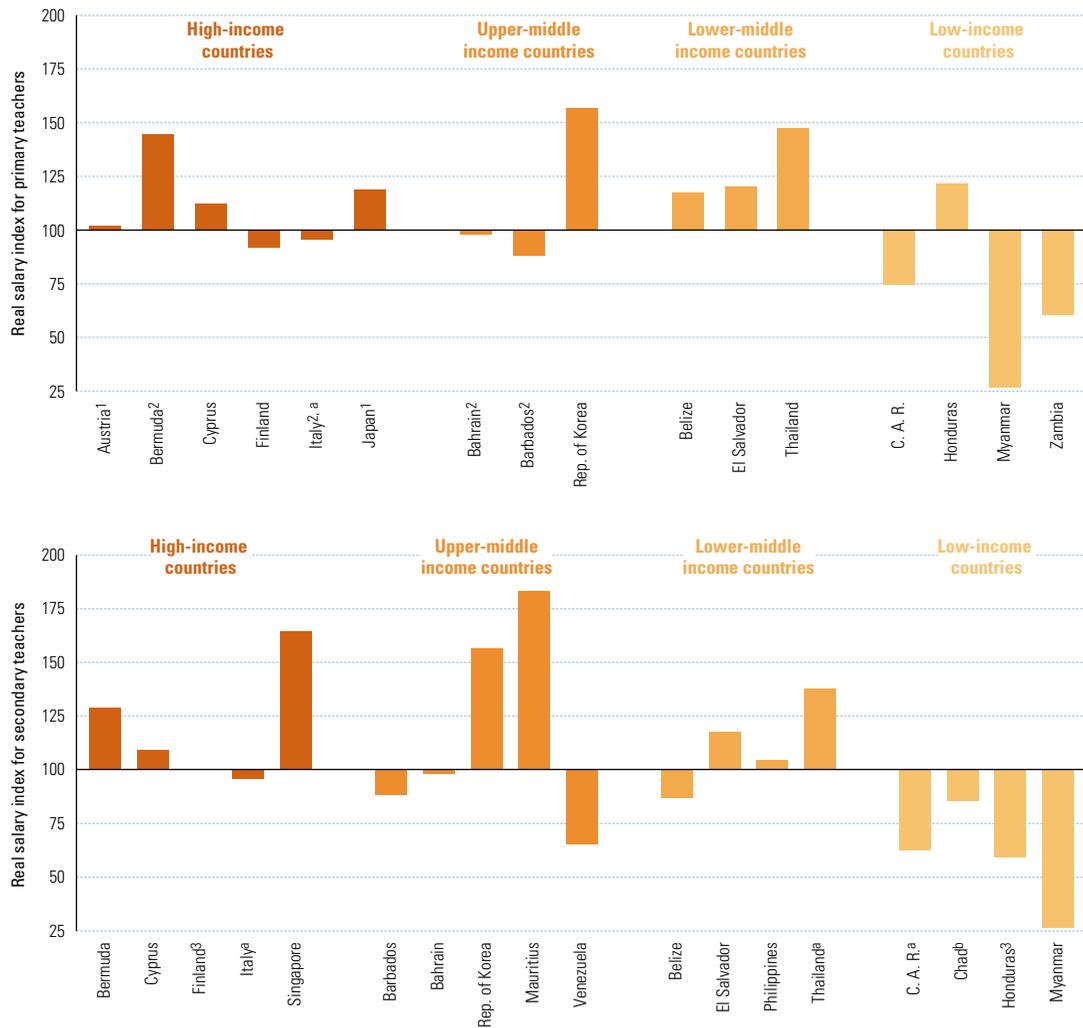
53. In relative terms, however, teachers' salaries declined between 1994 and 2001 in fourteen of the nineteen OECD countries where data is available (see OECD, 2004e: 4).

54. The data for the first six countries are in Siniscalco (2004: Figure 7) and those for Senegal and the United Republic of Tanzania, covering the decade to 2000, are in Lambert (2004: Table 3).

55. See Lambert (2004: Table 3) and Colclough (1997, 1991).

56. De Ketele (2004) notes that a key problem with assuring effective deployment in the developing world is that systems are often decentralized, with individual districts or schools making decisions that affect national needs. He advocates centralized systems, though it may be more appropriate to develop a national deployment framework to handle applications and appointments.

Figure 4.2: Real salary index for primary and secondary (language and mathematics) teachers, selected countries, 1998 or latest available year (1990=100)



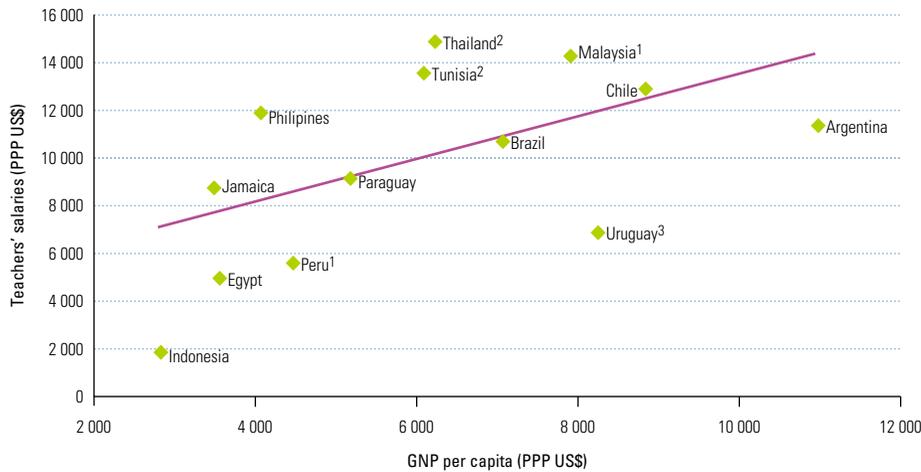
1. Data are only for pre-primary education
 2. Data include both pre-primary and primary education
 3. Mathematics teachers only
 a. Index (1991=100)
 b. Index (1992=100)
 Source: ILO (2000)

Concern about teachers' salaries and deployment features crucially in discussions about conditions of service of teachers. In a survey by Voluntary Services Overseas of teachers in Malawi, Zambia and Papua New Guinea (VSO, 2002), three primary concerns emerged other than low pay. Allowances and incentives were considered insecure, inequitable and often not included in pension plans; payment of salaries and allowances was late; and accommodation, where available, was in poor

condition.⁵⁷ The survey also noted the scarcity of promotion opportunities, the personal costs of furthering professional development through study, and a lack of transparency and equity in promotion processes.

Collectively, such conditions help explain why some teachers leave the profession and many feel their professional status is undermined. Positive signs are appearing in some countries, where improved morale and motivation have

57. In some cases, notably in Zambia, female teachers were adversely affected when it came to accommodation, since the official view was that they had no need of housing and that their husbands would provide for them (VSO, 2002).

Figure 4.3: Mid-career salaries for primary teachers and GDP per capita, 2001

1. Year of reference: 2000
 2. Including additional bonuses
 3. Salaries for a position of 20 hours per week. Most teachers hold two positions.
- Sources: OECD (2003c); OECD/UNESCO database.

resulted from teacher unions having negotiated with governments for improvements in conditions of service. As the example in Box 4.14 demonstrates, however, it can be a long, time-consuming process.

Developing national teacher policies

A key challenge for many governments in meeting the Dakar goals is to assure an adequate supply of teachers. The magnitude of the challenge can be considerable. In sub-Saharan Africa, for example, ten countries have net enrolment rates below 60%, fourteen below 80% and seven below 95% (see Statistical annex, Table 5). Many additional teachers will be needed to achieve UPE, unless dramatic efficiency gains from reduced grade repetition can be achieved. Moreover, pupil/teacher ratios exceed 60:1 in several low-enrolment countries and in countries that have seen rapid increases in enrolments related to EFA programmes. To reduce these ratios requires *pro rata* increases in the numbers of teachers. Untrained teachers make up as much as 40% of the cadre of primary teachers in some countries in sub-Saharan Africa. Upgrading these teachers' knowledge and skills creates additional demand for teacher training capacity, on top of the need for regular initial training. Box 4.15 shows the extent of this double challenge in four countries.

Box 4.14 Negotiating salaries, careers and professional concerns in Chile

The emergence of new career structures and a move linking teacher pay to performance in Chile offers a glimpse of what is possible when dialogue on education is mature and takes a 'high road' option towards quality objectives.

Chile adopted a comprehensive career plan, the Estatuto Docente (Teachers' Statute), following negotiations and broad social dialogue on modifying teachers' salaries and employment conditions. The negotiations took almost a decade and resulted in three national laws. The first, signed in 1991, regulated employment conditions and established a common structure for salaries and employment stability for teachers employed by local authorities and private schools. In 1995, modifications were made to local educational planning and to labour relations between teachers and employers. In 2001, salary improvements were agreed and new criteria established that linked progress in the teaching profession to assessments and voluntary accreditation. Coupled with these laws is a programme on teacher assessment, featuring peer assessment, agreed by the Ministry of Education, National Association of Municipalities and Colegio de Profesores (teachers' union). It is part of the Teachers' Statute. A national teachers' network for excellent teaching, called EDUCAR, was also established.

Sources: Gajardo and Gómez (2003); Liang (1999); both cited in Ratteree (2004).

Faced with this challenge, a number of African and South Asian countries have appointed parateachers, who are not given full civil-servant status. Sometimes called 'volunteers', they are typically hired for a short-term contract and offered lower wages and other benefits than

Box 4.15 Teacher supply and demand in four African countries

In **Ghana**, if the Free Compulsory Universal Basic Education programme is to achieve its objectives, the number of additional teachers needed will rise dramatically, to between three and four times the current output of teacher training. In **Lesotho**, the numbers needed represent as much as five times the historic output of the conventional initial teacher training system. In **Malawi**, which has adopted a mixed-mode in-service training system split between colleges and schools in order to increase output, numbers need to double. Projections of teacher demand in **South Africa** are complex, and so is the restructuring of providers. Nevertheless recent estimates suggest both a considerable shortfall in output related to need, and a crisis in supply of willing and qualified applicants.

Sources: Lewin (2002); Akyeampong, Furlong and Lewin (2000); Lewin et al. (2000); Kunje and Lewin (2000); Sayed (2002); Parker (2003); Steele (2003); Crouch and Lewin (2003).

The long-term sustainability of a policy maintaining two groups of teachers with blatantly unequal status is questionable

those for which their career-teacher counterparts are eligible. In India, as the discussion of the 'balskahi' teachers in Chapter 2 indicates, a critical feature of success has been the identification and local hiring of well-motivated individuals who are particularly suited to their jobs. In the Niger, on the other hand, where the vast majority of new teachers are now hired on a 'voluntary' basis, teachers' unions express outrage over the segmentation between civil servants and volunteers. The long-term sustainability of a policy maintaining two groups of teachers with blatantly unequal status is questionable. Senegalese experience suggests that the eventual absorption of 'volunteer' teachers within the civil service may be difficult to avoid.⁵⁸ The use of paraprofessionals is not restricted to developing countries. In the UK, for example, classroom assistants work alongside experienced and qualified teachers. The UK has begun to formalize the work of parateachers by offering training and qualifications for this work. The policy challenge that governments face is how to support 'volunteer' teachers while ensuring that the conditions of service of regular teachers are not undermined and that parateachers are not exploited.

Moves to reduce average levels of teacher earnings in ways envisaged by a mechanistic

application of the Fast-Track Initiative's Indicative Framework⁵⁹ can be fraught with difficulty. They may increase the affordability of extending education to all, yet seriously undermine the quality of schooling by hurting teacher morale.⁶⁰ At best, where structural rigidities have continued to hold teacher salaries at higher levels than market principles would otherwise support, governments need a long-term strategy to tackle them. Sudden shifts in policy are likely to threaten quality in the short term. Meanwhile, however, many countries can use other means of reducing the burden of salary costs: increases in class size, multigrade classes and double shifts can help reduce unit costs if carefully implemented in the right context.

Better schools

Chapter 2 reviews evidence on what makes a difference in improving the quality of education in schools. One important conclusion is that there are significant opportunities to improve the ways human and material resources are managed and used in schools, recognizing that the school is a complex social institution that operates within a wider socio-cultural and political context.

This section looks at the policy implications of approaches to making schools work better. It addresses two main issues. First, it examines how governments can develop policies that place schools at the forefront of improving education quality. Among the countries discussed in Chapter 2, for example, Egypt defines schools in terms of being 'beautiful, clean, developed and productive', while in Cuba collective ownership of schools is important and in Canada the notion of 'schools as habitat' has gained currency. Education policy in these countries embodies a sense of what a school should be and how it can improve.

The second issue is the extent to which improving quality requires greater school autonomy and better leadership. It involves important questions regarding the levels of authority, responsibility and accountability that should lie with those who work directly in and with schools. This issue is invariably part of a wider national debate on decentralization of public services, and so is unlikely to be resolved within the education sector alone.⁶¹

58. See Lambert (2004) for further discussion.

59. The framework advocates an 'optimal' ratio between average teacher salaries and per capita GDP of no more than 3.5. For further discussion see Chapter 5 and UNESCO (2003a: 250).

60. As noted earlier, low wages drive teachers into higher-status occupations, and in recent years high levels of teacher turnover and absenteeism have become entrenched, particularly in Africa (UNICEF, 1999c; AfDB, 1998). Glewwe, Nauman and Kremer (2003) find that teachers in Kenya are absent 20% of the time, and even higher rates are recorded in Uganda and Madagascar. Bernard (1999) notes that 74.2% of the teachers in the PASEC sample in Cameroon hold a second job.

61. For a broader discussion of decentralization in education see UNESCO (2003a).

Promoting better schools

As the learner is at the heart of the learning process, so the school is at the centre of the education system. It is where investments designed to improve the quality of education come together in the teaching and learning process. Reforms to improve quality should give appropriate weight to enabling schools to improve their own performance. Schools however, cannot effect meaningful change without sufficient capacity and considerable ongoing support. The question, then, is how to ensure that complex but necessary changes come about within a well-defined policy framework designed to develop better schools.

The notion of improving a school in its totality, as distinct from strengthening individual inputs or processes, has gained ground in both the industrialized and developing worlds. It finds expression in many different but related conceptual frameworks. Three examples are 'school improvement', which is largely a product of Western discourse and argues that schools should be significant agents in the management of their own change; 'whole school development', which takes a holistic approach to implementing systemic changes; and 'child-friendly schools' – a rights-based model that owes much to the work of United Nations bodies, especially UNICEF. All three ideas build on the premise that the school should be more central to reform and improvement.

School improvement

School improvement has been described as a branch of the study of educational change.⁶² While school effectiveness research (described in Chapter 2) looks at what counts, school improvement considers how to bring about change. That is its defining characteristic, and although there are variations in emphasis and focus, a broad set of principles underpins its philosophy:

- The school should be the focus of *education change strategies*.
- The *processes of education change* are important.
- Schools should be part of, and *own* attempts at, education reform.

- Real improvements require strong *group dynamics, teacher empowerment* and *capacity building*.

- '*Bottom up*' processes of education planning and curriculum development are most effective.

It is clear from the nature of these principles that an enabling policy environment is a prerequisite for school-driven school improvement. In many countries this requires a more proactive way of looking at schools and at those who work in and for them. In some industrialized countries, the concept of school improvement has been invoked as part of reforms designed around nationally agreed student and school performance benchmarks. In such circumstances, school improvement risks being 'little more than a quick fix and expedient response to the demands for change and the setting of targets by external agencies' (Hopkins, 2001). Insufficient attention is paid in such cases to the context of the school, to incentives that make a long-term difference and to capacity building.⁶³

A more 'authentic' form of school improvement emphasizes the skills, aspirations and energy of those closest to the school, rather than a centrally driven set of prescriptive changes. It recognizes that teachers and learners can learn from one another and in so doing improve interpersonal relationships and the culture of the school. This is a prerequisite for enhancing the nature and quality of learning experiences.⁶⁴

Conceived of in this light, school improvement is a way of designing and providing conditions that enable teachers, other adults and learners to promote and sustain learning among themselves within schools. Drawing on the work of Hopkins, Table 4.11 shows one school improvement framework and the major policy implications derived from it. The implications, in the right-hand column, will not be unfamiliar to education policy makers: all are objectives to which most systems aspire. The particular import of the school improvement model is the centrality of learning, learners and learning achievement and the focus this gives to school-driven change strategies.

Some critics ask whether such an all-encompassing model can be applied systemically where resource constraints exist. Even in more

As the learner is at the heart of the learning process, so the school is at the centre of the education system

62. See Miles, Saxl and Lieberman (1998), Hargreaves et al. (1998) and Hopkins (2001) for recent overviews of the literature on school improvement.

63. See, for example, work on performance-based reforms in the US, New Zealand and Australia, which concluded that no real gains in student performance resulted from major reforms that neglected to focus on instruction and capacity building (Leithwood, Jantzi and Steinbach, 1999).

64. See, for example, Barth (1990) and Hopkins (2001).

Table 4.11: School improvement: policy implications

Strategies	Policy implications
Focus on student achievement, learning and empowerment	<ul style="list-style-type: none"> ● Keep an unrelenting focus on student achievement and learning ● Develop curriculum and teaching programmes that are based on what is known about learning
Develop curriculum and teaching programmes that are based on what is known about learning	<ul style="list-style-type: none"> ● Pay attention to context – develop knowledge about what works and where ● Build capacity and strengthen known capacity-creating components
Create the conditions and capacity for school improvement	<ul style="list-style-type: none"> ● Nurture professional learning communities and provide incentives for teacher and school enquiry ● Improve research and dissemination of its results and make it relevant to practitioners
Implement focused change strategies	<ul style="list-style-type: none"> ● Make a commitment to, and allow time for, effective implementation ● Link pressure and support at all levels of the system
Build policy context and external support networks	<ul style="list-style-type: none"> ● Establish local infrastructure and networks, supported by good external facilitation ● Assure policy coherence

Source: Hopkins (2001)

systems can benefit. Perhaps the key message of the concept for some of the world's poorest countries is that this framework helps people think through the actions that are required to make schools part of the process of change. How comprehensively it can be applied may be unclear, but it provides a basis for analyzing whether schools can make a significant difference when they are placed at the centre of a reform model.

Whole school development

In some developing countries, the approach being adopted for comprehensive projects or national reforms is 'whole school development' or 'reform', which draws on insights generated by work on the school improvement concept. Examples include Aga Khan-supported projects in East African countries and in South Africa, Sri Lanka and Ghana (Akyeampong, 2004; and Sayed, Akyeampong and Ampiah, 2000).

Ghana's Whole School Development Programme is geared to meet the objectives of the government's Free Compulsory Universal Basic Education reforms. Increased authority and responsibility are being given to schools, communities and district authorities to improve the quality of teaching and learning, with a focus on:

- child-centred practice in the acquisition of literacy, numeracy and problem-solving;
- community participation in the delivery of education;
- school-based in-service teacher training;
- participatory planning and resource management;
- greater efficiency in resource management.

These objectives (Ghana Education Service, 2004) underpin the strategies shown in Box 4.16.

The programme has given rise to a range of positive intermediate developments and shows some signs of affecting the quality of student learning in Ghana.⁶⁶ But it is not without its challenges. For example, the cascade approach to training is not proving as effective as expected,⁶⁷ and some doubts have been raised about the extent to which there has been a real change in pedagogy in the classroom.⁶⁸

developed countries it has been suggested that emphasis on school-level change strategies is too time consuming and expensive and is most likely to be effective for schools that already have a strong capacity or propensity for change (Slavin, 1998). The model has also been criticised for a lack of attention to broader policy frameworks and the contexts in which they are developed. As a recent overview of school improvement notes, however, although national contexts differ it is unlikely that those concerned with education reform in developing countries would disagree with all or most of the following propositions:

- Education reform has to work at the level of the school.
- A multi-agency approach should support schools.
- System linkages should be 'wide' and 'deep'.
- Reform itself is a learning process.
- A strong vision of reform is needed.
- A strong focus on classroom practice is needed.
- Teachers are learners.
- Commitment comes from empowerment.
- Both local and central initiatives can work.
- Parents and communities make a difference.⁶⁵

If these propositions are accepted, school improvement does have insights from which all

65. This is based on Hopkins (2001), drawing on Dalin (1994).

66. See Akyeampong (2004), World Bank (2004f), Akyeampong et al. (2000) and Sayed, Akyeampong and Ampiah (2000). World Bank (2004f) suggests that school participation in whole school development has enhanced English and mathematics scores.

67. Sayed, Akyeampong and Ampiah (2000) found that head teachers who tried to organize on-site teacher development often lacked resources and/or had trouble motivating teachers in the absence of rewards and incentives. Moreover, although structures for supporting and training teachers, such as district teacher support teams and clusters, had been established, they had not necessarily developed a set of activities. Akyeampong (2004) also discusses challenges facing the programme.

68. World Bank (2004f) found that about one-third of teachers 'use a student-centred learning approach and use simulations on a regular basis, though about a fifth of the latter could not explain them properly. And about one fifth use cues to help explain difficult words. In summary, modern methods are far from unknown, but their use cannot be described as widespread, being utilized by a minority of teachers.'

Box 4.16 Whole school development in Ghana

Among the strategies in the Whole School Development Programme in Ghana, three key strategies involve teacher professional development, school-based action plans and the formation of school clusters.*

- The programme provides support to **head teachers and teachers**. In-service training follows a 'cascade' model: head teachers and district school circuit supervisors receive training, then are required to provide training at district and school levels. The training emphasizes child-centred pedagogy, effective use of appropriate teaching and learning materials and use of the local environment as a learning resource.

- To improve the partnership between head teachers, teachers and the community, workshops teach participants how to develop a '**Whole School Action Plan**' emphasizing the importance of this tripartite partnership in addressing teaching and learning needs. Action plans set targets, guide preparation of school budgets and include plans for ways to involve the community.
- To foster in-service training, the programme organizes schools in **clusters** of five to eight institutions. The cluster has become the primary unit of change for school improvement. Cluster in-service workshops are intended to provide the focus for school improvement activities.

*For details of training and other activities see Ghana Education Service (1999).

Source: Ghana Education Service (1999)

Nevertheless, the Ghana experience underlines the value of a long-term school-focused approach to reform that recognizes the importance of continual capacity building. Roles have to be defined clearly and responsibilities agreed and accepted. Strong partnerships are essential: within schools, between the head teacher and classroom teachers and between the school and the local community, with proactive support from district education authorities.

Child-friendly schools

The child-friendly school is a rights-based model that draws its authority from the Convention on the Rights of the Child. It promotes the view that good schools should be child-seeking and child-centred (Box 4.17).

In terms of national policies and programmes, child-friendly schooling can be a normative goal and thus a framework for programming and resource allocation, including for training. For individual schools and communities it can be both a goal and a tool for improving quality through self-assessment, school planning and management, as well as a way of mobilizing the community around education and child rights.

The model emphasizes the school as a place providing learning opportunities relevant to life and livelihood, in a healthy, safe environment

Box 4.17 Child-seeking, child-centred schools

Rights-based or child-friendly schools not only help children enjoy their right to a good basic education, they also help children learn what they need to know to face the challenges of the new century; enhance children's health and well-being; guarantee them safe, protective spaces for learning, free from violence and abuse; raise teacher morale and motivation and mobilize community support for education.

A rights-based, child-friendly school has two basic characteristics:

- It is **child-seeking**, actively identifying excluded children and working to get them enrolled in school and included in learning. It treats children as subjects with rights and treats the state as under obligation to fulfil these rights. It demonstrates, promotes and helps monitor the rights and well-being of all children in the community.
- It is **child-centred**, acting in children's best interests so that they may realize their full potential, and it is concerned both about the 'whole' child (including health, nutritional status and well-being) and about what happens to children in their families and communities before they enter school and after they leave.

Source: www.unicef.org/lifeskills/index

that is inclusive and protective, is sensitive to gender equity and equality and involves the participation of students, families and communities (Chabbott, 2004). These ideas are given expression in the Child-Friendly School Framework (Table 4.12), which is a matrix juxtaposing quality-related issues with child-related concerns.

Table 4.12: Child-Friendly School Framework

Quality issues \ Child-friendly issues	Inclusive/ gender-sensitive	Healthy/safe/ protective	Effective	Involved with the community
Learners				
Content				
Teaching/learning processes				
Environments				
Outcomes				

Source: Chabbott (2004)

School-based management undoubtedly has an impact on quality, regardless of whether that is its ultimate goal

Several projects around the world are using the framework. A recent overview suggests it is too early to assess the results; most of the projects are relatively small and baseline data on learning levels and outcomes are insufficient. Nevertheless, some initial evidence suggests that the framework is proving to be valuable in enabling some policy makers to work through the implications of decentralization and school-based management (Chabbott, 2004).

A study of child-friendly school initiatives in East Asia and the Pacific⁶⁹ draws four main conclusions (Bernard, 2004):

- The focus on learners, content, teaching and learning processes, environments and outcomes remains fundamental to the definition and realization of child-friendly schools, but flexibility is the key to implementation.
- The concept of the child-friendly school may be desirable in principle but it is difficult to maintain in practice.
- Single initiatives cannot be sustained in isolation. They must build on existing systems and work with 'like-minded' activities and partners.
- The concept has the potential to offer an entry point for addressing school level and systemic issues, but it requires a proactive, creative approach.

This study seems to suggest that the extent to which the concept of child-friendly schools provides an overarching framework for implementation of national policies and

strategies – as distinct from an analytical tool that sharpens understanding of whether children are genuinely at the heart of learning processes – remains to be tested fully. At present, as with EFA more generally, it is not surprising if governments embrace the concept as a general principle but do not as yet apply it in organizing school development and management. Still, its close attention to inclusion, diversity, security, health and gender equality make it an important framework for overcoming disadvantage and encouraging more effective learning environments.

School autonomy: challenges for management and leadership

One implication of reforms driven by school improvement, however interpreted and applied, is greater school autonomy. Such reforms are usually associated with decentralization. School-based management and leadership are crucial aspects of any reform strategy in which control and responsibility are devolved.

School-based management⁷⁰

In school-based management, responsibilities are transferred from central level to professionals within the school (generally the head teacher and senior teachers) and greater authority is given to elected school boards representing parents and the wider community. The concept is of increasing significance worldwide and undoubtedly has an impact on quality, regardless of whether that is its ultimate goal (Caldwell, 1998).

69. The countries involved are Cambodia, China, Indonesia, Mongolia, Myanmar, the Philippines, Thailand, Vanuatu and Viet Nam.

70. This sub-section mainly draws on de Grauwe (2004) – a background paper prepared for this report. School-based management is often used interchangeably with the terms school based governance, school self-management and school site management.

Box 4.18 School-based management and better learning

In **Israel**, greater school autonomy has had a positive impact on teachers' motivation and sense of commitment and on schools' achievement orientation, but only 4% of the variance in the effectiveness between autonomous and less autonomous schools could be explained by school-based management.

Autonomous schools in **Nicaragua**, most of which serve deprived areas, have results as good as other schools. This positive finding is related to their relative autonomy in staff selection and staff monitoring.

El Salvador's Community Managed Schools Programme, or EDUCO, gives communities significant authority over schools, including in finance and staffing. An early evaluation found that enhanced community and parental involvement improved students' language skills and diminished absenteeism, which could have long-term effects on achievement.

The results of the **OECD's** Programme for International Student Assessment (PISA) in 2000 suggests that 'in those countries in which principals report, on average, a higher degree of school autonomy with regard to choice of courses, the average performance in reading literacy tends to be significantly higher. The picture is similar, though less pronounced, for other aspects of school autonomy, including the relationship between mean performance and the degree of school autonomy in budget allocation.' The OECD warns, however, against a cause-effect interpretation, since, 'for example, school autonomy and performance could well be mutually reinforcing or influenced by other factors'.

Studies in **New Zealand** and in several countries of **West Africa** found that, in general, school-based management led to few changes in pedagogical practices.

Sources: Israel: Gaziel (1998); Nicaragua: King and Ozler (1998); El Salvador: Jimenez and Sawada (1998); PISA: OECD (2004c); New Zealand and West Africa: de Grauwe (2004).

Some commentators see it as a means of improving quality even when that is not the primary focus.⁷¹ Others⁷² express concern that introducing school-based management nationally can hurt the performance of weak schools where resource management capacity is most limited. Most, however, say there is simply not enough evidence-based knowledge about the direct or indirect impact of school-based management on learning outcomes.⁷³

The main arguments made for greater school autonomy are compelling and include the ideas that it is:

- more democratic, allowing teachers and parents to take school-based decisions;
- more relevant, since decision-making powers are closer to where problems are experienced, leading to more appropriate and relevant policies;
- less bureaucratic, since decisions are taken more quickly;
- more accountable, as allowing schools and teachers a greater say in decisions implies greater responsibility for their performance;
- more likely to yield additional resources, especially where giving parents a say in school management encourages them to contribute to it.

In themselves, these benefits do not lead to better quality. A recent macro study of school-based management, drawing on eighty-three empirical studies, concludes: 'There is virtually no firm, research-based knowledge about the direct or indirect effects of school based management on students...[T]he little research-based evidence that does exist suggest[s] that the effects on students are just as likely to be negative as positive' (Leithwood and Menzies, 1998).⁷⁴ Studies from several countries give some, if not total, support to this conclusion (Box 4.18).

These potentially dispiriting findings lead naturally to the question of what strategies and actions need to accompany the introduction of school-based management for quality to be improved, or at least not threatened. The literature to date has identified at least six main requirements:

- School-based management must be accompanied by strategies to strengthen capacities and *leadership* (see below).
- Schools need *information* on their performance so as to identify their strengths, weaknesses and priorities, in motivating rather than demotivating ways. This requires capacity building on basic data analysis and support on school improvement strategies. The role of local and district offices is key.

Schools need information on their performance so as to identify their strengths, weaknesses and priorities, in motivating rather than demotivating ways

71. See, for instance, Gaziel (1998), Williams et al. (1997), King and Ozler (1998), Jimenez and Sawada (1998) and OECD (2004c).

72. For example, Odden and Busch (1998), Asian Network of Research and Training Institutions in Educational Planning (forthcoming) and de Grauwe (2004).

73. See, for instance, Leithwood and Menzies (1998), Fullan and Watson (2000) and Caldwell (1998).

74. Caldwell (1998) and Fullan (1993) arrive at similar conclusions.

Evidence from New Zealand and Australia shows under-representation of minority groups in the composition of school boards

- Schools need professional, well-managed structures offering constant *support*.
- Central authorities must continue to play a critical role, especially in *monitoring* school performance for any patterns of low quality and inequality.
- Schools need control over resources.
- School-based management must be transparent.

Also required are strong accountability mechanisms. At the national level, these are likely to include curriculum guidelines, regular national examinations and audits to assure propriety in expenditure. At the local level, too, the effectiveness of school-based management depends strongly on the accountability the school feels towards the community, as well as the influence the community can exercise on the school through knowledge and skills, power, information and rewards (Lawler, 1986). More concretely, the community generally exercises its influence through involvement in the school board or council. The precise powers of such bodies vary. In Australia and the USA, for instance, boards can play a positive role in recruitment of principals/head teachers, in some budgetary decisions and in extra-curricular matters. But constructive engagement is not always present; at worst, boards provide opportunities for misuse of community resources, and transparency may be lacking especially in the use of funds.⁷⁵ In addition, communities are far from homogeneous. Elites can manipulate boards to reinforce their power. Evidence from New Zealand and Australia shows under-representation of minority groups in the composition of school boards (de Grauwe, 2004).

Tensions may exist within schools, too. Putting school budgets in the hands of communities can be unpopular with teachers, as was the case, for instance, in some districts of India and with EDUCO schools in El Salvador (Jimenez and Sawada, 1998). And while head teachers may support in-school supervision, teachers may be more antagonistic.

These significant challenges suggest that without major government undertakings for systemic reform to strengthen individual and institutional

capacities, the impact of school autonomy on the quality of education may be limited. Where the capacity of schools and governments alike is extremely weak, the main priority may be for central government to ensure that all schools have a minimum level of key resources – teachers, learning materials and infrastructure. Giving schools freedom to develop some of their own solutions may nevertheless be appropriate where communities are strong and NGOs active, but whether it is a long-term, sustainable grassroots option is more doubtful. As the examples of countries cited in Chapter 2 suggest, greater autonomy may work best when education systems have basic infrastructure and capacities in place. Otherwise the absence of an efficient, supportive state structure is risky, not only for individual schools but also for the system as a whole, with a threat of increasing disparities in performance. For real benefits to accrue, greater school autonomy must be accompanied by strategies to build the capacities of schools, head teachers and communities, inspired by a focus on quality improvement and concern for equity.

*School leadership*⁷⁶

The preceding sections on school improvement, and the school effectiveness literature cited in Chapter 2, point clearly to the importance of strong educational leadership in improving learning outcomes and creating a culture of school development. In both cases, leadership is seen in terms of transformation rather than control or maintenance. Thus, the ability of schools to improve teaching and learning can depend significantly on the quality of the professional leadership provided by senior school staff and, to a certain extent, by people from outside of day-to-day school operations.

In many industrialized countries, recognition of the importance of developing leadership skills is reflected in specialized institutions and research programmes such as the National College for School Leadership in the United Kingdom, the proposed National Institute for Quality Teaching and School Leadership in Australia and the international research project on Successful School Leadership at the Ontario Institute for Studies in Education at the University of Toronto, Canada.

Building capacity for school leadership systemically and sustainably is much more

75. Research by UNESCO's International Institute for Educational Planning (IIEP) on school functioning in a context of decentralization in West Africa shows that parents and teachers have scarcely any knowledge or control of the use of the money paid for children's schooling. Thus, where accountability at local and central level is weak, school-based management is unlikely to lead to better use of funds (de Grauwe, 2004).

76. This sub-section draws largely on the background paper by de Grauwe (2004).

difficult in education systems with limited resources available for professional development.⁷⁷ Few senior staff members in such systems can be classified as well-trained professionals. They are often classroom teachers who have been promoted near the end of their teaching careers. Selection and recruitment practices may favour long service, convey a gender bias and take account of factors extraneous to the demands of school leadership. Professional development opportunities are often limited in coverage, and in highly aid-dependent countries they may be associated with donor-supported projects whose methods may not mesh well with the practice of national systems.

The trend towards greater school autonomy and school-based management has significant implications for head teachers in terms of their workload, the nature of their responsibilities and the skills and knowledge required to fulfil new and more complex roles. Good school leadership is about transforming feelings, attitudes and beliefs, as well as practice, to improve the culture of the school (Hopkins, 2001); promoting teacher behaviour that focuses on a broad spectrum of learning outcomes (Leithwood, Jantzi and Steinbach, 1999) and building close working relationships with all stakeholders – parents, teachers, learners. But for head teachers working in relatively isolated, poorly supported schools with resource constraints, the motivation and incentive to become an innovative pedagogical leader and a proactive, participatory manager may be severely limited. Indeed, pressure to fulfil new roles without support may be a disincentive to becoming or remaining a head teacher.

In both developing and developed countries, the demands that reforms place on senior school staff may limit the time and the energy they can give for quality improvement (Leithwood and Menzies, 1998). Many new management tasks, especially those concerning financing and staffing, are complex. Studies covering four OECD countries found that administrators were ‘troubled by ethical dilemmas...and some reported an increase in the frequency with which they were confronted with difficult decisions in recent years’ (Dempster, 2000).

What can be done? Few countries have explicit policies on the professional development of head

teachers that are linked to a wider reform agenda, even where major programmes of decentralization and delegation of authority to schools are under way. And few ministries of education have one of the chief prerequisites for drawing up a professional development strategy: a national or district profile of head teachers, deputies, and teachers with school leadership potential.

At a minimum, clarity on the following issues is needed:

- what is expected and required of existing head teachers; what their areas of autonomy and levels of accountability are and what the roles and responsibilities are of decision-makers in the school and community;
- what head teachers, especially those newly appointed and/or isolated, can rightfully expect from local and national support structures;
- recruitment and selection procedures, including mechanisms for early identification of potential head teachers and, preferably, a system of mentoring by practising head teachers;
- career paths through regular professional development opportunities and in-service training;
- the importance of learning from one another in school- and cluster-based activities, through mutual support systems, including shared use of self-learning modules and materials.

Some countries have elements of this menu in place. In the Republic of Korea, recruitment patterns have been changed to attract younger candidates and some school communities have been given a say in the selection of head teachers. In Sri Lanka, a ‘school-based management policy’ has redesigned areas of responsibility at different management levels, including that of head teacher. In Malaysia, a system of early identification of promising future head teachers includes training and mentoring by practising head teachers. In Senegal, which has no nationally organised support systems, school directors on their own initiative have set up groups to share experience and advice through visits and seminars to which they all contribute.

Good school leadership is about transforming feelings, attitudes and beliefs, as well as practice, to improve the culture of the school

⁷⁷ Some significant developments in this regard, such as the PRISM project in Kenya [discussed later], are emerging, however.

Multi-shift schooling may provide opportunities for disadvantaged children to go to school

A recent overview of seventeen school improvement programmes in sub-Saharan Africa found twelve with school leadership components (ADEA, 2003). The Primary School Management Programme in Kenya, known as PRISM, has undertaken school management competency development activities for 16,700 primary school head teachers. Drawing on local resources and communities, it came up with a sustainable approach to school improvement. Head teacher support groups, led by zone inspectors, were the key development mechanism. Evaluations of PRISM reveal that these groups 'have a positive impact on several indicators...including school governance; student participation and achievement; admission and retention rates; parent and community participation in school life and activities; gender equity in access; parental financial contributions; instructional leadership by school heads...and the design and implementation of teacher development activities by school heads' (Weva, 2003b).

School-based leadership is unlikely to be achieved by formal training alone, although acquisition of new skills and knowledge is clearly important. South Africa has begun introducing a policy framework for Education Management and Leadership Development to develop national and provincial institutional focal points for management development, build strong networks of professional and community associations, establish quality assurance practices, use existing resources as much as possible and develop more cost-effective training methodologies (South Africa Department of Education, 2004). This broad-based approach suggests that effective school leadership flourishes where there are positive working conditions, incentives for change, a collegial environment and strong partnerships between schools and communities.

Multi-shift schooling

The previous sections draw on analyses of schools that conform to a broadly standard model. In many resource-constrained countries, however, organizing schooling means making difficult decisions about how to maximize scarce resources, especially where primary school enrolment has risen rapidly but new funding has not.

Multi-shift schooling is an option in such situations. It is a way of increasing the supply of school places by using existing resources efficiently. Double or even triple shifts make it possible for a single set of buildings, facilities, books and teachers to serve many more pupils and thus meet increased demand for schooling and for greater equity in the provision of primary education. Multi-shift schooling may also provide opportunities for disadvantaged children to go to school. For example, children in work may be able to attend only in the morning or afternoon and still follow a complete curriculum.

Multi-shift schooling places enormous pressure on those charged with managing and leading schools, and this has significant implications for the quality of education. However, it can bring benefits. For example, in areas where access is not a major issue, multi-shifting may help improve quality by significantly reducing class size and thereby alleviating pressure on school facilities. On the other hand, quality is clearly threatened if instruction time is severely curtailed and/or condensed. And, depending on how they are deployed, teachers may be overworked and tired. These drawbacks are not always serious, however; indeed, some research has indicated that academic achievement in double-shift schools may be just as high as in single-shift schools, and administrators with imagination may find ways to get round the problems of shorter school days and congested school compounds.⁷⁸

Like many strategies for reconciling tensions between access and quality in education, multi-shifting is most effective when tailored to a specific context. Variations on the concept range from choices between overlapping and 'end-on' shifts to changes in the length of the school week and rotation systems in which classes might alternate by day, week or month. The brief examples in Box 4.19 illustrate this variety.

Nevertheless, school managers and supervisors and local authorities cannot simply assume that multi-shift systems will operate cost-effectively. Efficient operation requires attention to the model that is to be used and the management structures that are needed (as well as their implications for recruitment and training), along with meticulous scheduling to assure efficient use of the school day. Learning at home and

78. For an extended examination of shift schooling and its implications for quality, see Bray (2000).

Box 4.19 Organizing the school day in multi-shift systems

- In **Saberas Maret** is a secondary school in **Indonesia**. With overlapping shifts and efficient scheduling, the school expanded its enrolment by 25% without major changes to the learning process.
- In **Hong Kong**, different teachers teach morning and afternoon sessions.
- In **Senegal**, which is short of qualified teachers, the same teachers are used for multiple shifts. Some teachers welcome this, as it enables them to increase their earnings.
- In **Bangladesh**, grades 1 and 2 are taught in the morning and grades 3, 4 and 5 in the afternoon.
- In **Puerto Rico**, elementary-level pupils are accommodated in the morning and intermediate-level pupils in the afternoon. Some schools are used by children during the day and by adults at night.

Source: Bray (2000)

better use of community facilities can also support multi-shift schooling.

Conclusion

Making schools work better is not easy, but is at the heart of the educational enterprise. It is important to have a vision of what a good school is. Greater autonomy can make a difference if schools are well supported. Leadership is critical, whether in the context of greater school autonomy or not.

Support schools, inform policy

Better teachers and better schools are essential ingredients of the enabling environment that contributes to improving the quality of teaching and learning (Figure 4.1). A third enabling component is professional support for teachers and schools, and, more broadly, the circulation of knowledge and experience among all major education stakeholders.

Like any other learning organization, schools need to reflect constantly on their activities and improve their performance. To do so, they must have regular access to evidence-based, practical knowledge about what works best in classrooms. Professional support to schools and teachers is therefore vital. Services that offer advice, promote developmental activity and manage in-service training have to be responsive to issues that are specific to schools, especially in resource-constrained systems where the need for support is often most critical. National, regional and global policy networks can also

benefit from knowledge drawn from local experiences and innovations, using it to inform their understanding of the strategies needed to improve teaching and learning.

There is merit in seeing the institutions and bodies involved in these two functions – supporting schools and informing policy – as part of a ‘knowledge infrastructure’⁷⁹ (Hoppers, 2004) that contributes to the production and use of professional knowledge (Hargreaves, 2000). This view stresses the generation, mediation and dissemination of educational knowledge in such a way that it is useful for teachers, school managers and policy makers.

The elements of this infrastructure can be conceptualized in two ways. First, they can be seen as a set of institutions and bodies established specifically to provide direct professional support to schools. They include school advisory services, teacher resource centres, school clusters, counsellors and school inspectors (in their advisory and reporting functions). The second understanding is broader and concerns upward and downward flows of knowledge, mediated by those who generate and disseminate outcomes of research on how to improve teaching and learning, whether for application in schools or to inform policy development. These actors include universities, research institutes, teacher training colleges and curriculum development centres. They may also include teachers’ unions, head teachers’ associations and community-based organizations providing professional support or generating knowledge. International organizations and networks may also make important contributions.

National, regional and global policy networks can benefit from local experiences and innovations, to inform their strategies

⁷⁹ In this context, this term is preferred to the somewhat narrower concept ‘educational research and development’ used by the OECD (2004b). In addition to research and development, the notion of knowledge infrastructure includes training, advisory work and quality assurance.

Common understandings at various levels of the education system enhance mutual learning and strengthen the coherence between national policy and local practice

In reality, these two dimensions are interlinked. A well-functioning knowledge infrastructure will support the development of a culture that encourages cooperation, sharing of knowledge and experience and, eventually, evidence-based classroom practice, school management and policy development. Common understandings at various levels of the education system enhance mutual learning and strengthen the coherence between national policy and local practice.

Keeping in mind the interplay between institutions of professional support and less tangible knowledge processes, this section addresses five major components of the knowledge infrastructure: advisory work, training, developmental activities, research and quality assurance. Understanding the interrelations between these functions and assuring some consistency and coherence throughout is a key step in strengthening the capacity of the education knowledge infrastructure and increasing the benefits that flow from it.

Advising teachers

Advising teachers and schools is an essential activity of professional support and guidance. Advisers should be able to translate the knowledge available from research, local experience, ministry directives and the like into a form that will benefit schools and their teachers. Increasing school autonomy makes this function even more important, since more autonomous schools will need more 'customized' knowledge. Such outreach to schools, where it exists, is usually in the hands of advisors and managers operating at regional or district level – or even closer to schools, with NGOs and for-profit organizations increasingly becoming active in the field (Hoppers, 2004). In addition, teachers' centres or teacher resource centres (Box 4.20), operating at intermediate and/or local levels, have become important elements of the teacher's support infrastructure in many countries.

A more informal type of advisory work is carried out by selected teachers, usually referred to as resource or staff development coordinators, change agents or leader teachers. Often informally appointed by school administrators or local authorities, they advise schools or networks of schools, thus enhancing cooperation between

Box 4.20 Teacher resource centres

Teacher resource centres (TRCs) offer in-service training, develop and provide resources for teaching and enhance the exchange of ideas among teachers. They are often integrated in school cluster systems and linked to institutions responsible for supervision or teacher education. In-service training is often provided through the 'cascade' model in which, for instance, head teachers are trained and then train teachers. The primary aim is improving pedagogy. Studies in some countries, however, show only a limited impact on classroom practice from this type of in-service training, raising questions about how appropriate one-way knowledge transfer is as a mode of professional development. The experience of early forms of TRCs in African countries indicates that such centres may be more successful when they are given greater pedagogical autonomy. TRCs can be effective when they facilitate knowledge development at the classroom level and encourage knowledge sharing among teachers, managers, advisors and inspectors.

Sources: De Grauwe (2001); Knamiller (1999); Hoppers (1998); de Grauwe and Carron (undated).

teachers and administrators at local level (Hoppers, 2004). Training and formal recognition may be as important as material rewards in promoting this form of pedagogical leadership (Chelu and Mbulwe, 1994).

In-service training

Earlier sections of this chapter discuss the professional development of teachers and school leaders, both pre-service and in-service. Here we take another look at in-service training, focusing on its importance as a vehicle for the transmission of knowledge regarding good practice and on its synergies with other functions of the support structure.

Here, too, one can see a transition from a more traditional institutional model to a variety of arrangements involving several stakeholders, including schools themselves. An emerging view is of the school as a professional learning community where staff development involves not only formal off-the-job training but also peer coaching and action research (Hopkins, 2001).⁸⁰

80. See also Aspland and Brown (1993) and ERNWACA (2003).

As noted earlier, pre-service training increasingly tends to involve new pathways into teaching. Partly inspired by pedagogical insights but also influenced by teacher shortage and limited resources, low-income and industrialized countries alike are showing a growing interest in work-based learning for teachers and in appointing trainee teachers or apprentices as classroom assistants.⁸¹ Their further development into professionals then takes place partly on the job, with training institutions playing an important supportive role and the trainees learning from closer contact with teachers' workplaces.

Experience in Cuba demonstrates that such arrangements are by no means limited to rich countries (Box 4.21). The costs of freeing up the time of teachers, principals and consultants can be offset by the benefits of greater synergies between schools and supporting institutions. Moreover, collaborating with schools rather than individual teachers makes it possible to look at school development in its totality (Hopkins, Ainscow and West, 1994). This is also the background to the 'whole school' movement (see 'Better schools', above) in South Africa, where schools link up with universities, NGOs and provincial Departments of Education.

Box 4.21 Cuba: school improvement as a collective effort

Cuba's national curriculum continually undergoes reform and adaptation to respond to local realities. Teachers and students take an active role and support the school in producing learning materials. Teachers exchange experience on teaching methods and materials in *colectivos pedagógicos*, which are organized by subject; each collective is supported by an expert in methodology. Every teacher is expected to carry out applied research, and the best results are shared at municipal education conferences. Specialized institutes guide the research. Strong links with the community are assured through home visits by teachers, homework sessions by students (three times per week) and mass gatherings and other participatory activities. Both pre- and in-service training (lasting five and six years, respectively) are school-based, assuring links between schools and training institutions.

Source: Gasperini (2000)

Developing curricula

In most developing countries, ministries take direct responsibility for the development of curricula, content and assessment instruments, sometimes supported by ministerial committees, as in South Africa (Hoppers, 2004). This model reflects a relatively high degree of centralization. In some circumstances it is susceptible to political influence on content. Ministries in countries with more decentralized systems have outsourced these functions and in some cases partly privatized them⁸² (Klopprogge et al., 1995), with schools free to choose the types of support they want.

In Finland, greater school autonomy has led to the development of horizontal networks of schools, combined with assistance from specialized experts (Hopkins, 2001, citing Fullan, 2000; UNESCO, 2003a).⁸³ The Senegalese *Collectifs des Directeurs* work on a similar principle (Niane, 2004), while Cuba is noteworthy for the concerted way in which actors at all levels are engaged in continuous school improvement as Box 4.21 already illustrated.

Participatory curriculum development (PCD) is a further example of developmental work involving local stakeholders. It suggests that, since successful use of the national curriculum in schools depends on the capacity, motivation and commitment of those who teach and directly support schools, the participation of these actors in curriculum development can reap learning dividends (McLaughlin, 1987; cited in Weva, 2003a). An example from the Gambia illustrates PCD at work (Box 4.22).

PCD has its critics. As the example from the Gambia suggests, it is not without costs, especially if there is a significant initial investment in establishing networks, systems and structures. Proponents argue, however, that the long-term benefits outweigh the costs and that the latter gradually decrease as the pool of skilled people grows and learning materials are put to use (Taylor, 2004; Helvetas, 2002). Perhaps the critical point for most resource-constrained systems is that this approach has benefits where there is already a clear, well-defined national core curriculum on which to build.

In South Africa, schools link up with universities, NGOs and provincial Departments of Education

81. For instance, the Bangladesh Rural Advancement Committee (BRAC) carries out initial training of teachers in as little as 12 days but provides well-organized ongoing support and weekly supervision. The level of pupil achievement in BRAC schools is generally better than in schools in the formal system (Latif, 2004). Systems in industrialized countries may use teacher shortages as an argument for shorter, more flexible pre-service training but pedagogical considerations also play a role (see, for instance, OECD, 2003b). Citing studies in developing countries, ADEA (2003) advises against lengthy pre-service training; it recommends continuous professional development in close interaction with teacher resource centres (for example) and making good use of information and communications technology.

82. Privatization does not necessarily exclude sustained subsidization, either direct or via schools. In the latter case, schools receive funds to 'buy' developmental services on a more or less free market.

83. The Finnish approach is based on the idea that 'it is possible for the school with its support networks to create visions of the future, (and to) reinforce (the) morals and (the) know how, which man (sic) needs as a member of society'. (Finland National Board of Education, 1996). Accordingly, Finland has opted for 'curriculum planning and implementation at the school level', which has important implications for the support structure (ibid.).

Box 4.22 English-language curriculum development in the Gambia

A participatory curriculum development approach was applied in the Gambia in the development of English-language teaching in primary schools. The following steps were critical:

- a small awareness raising workshop on the PCD approach, involving key stakeholders and resulting in an action plan for the curriculum development process;
- stakeholder analysis, followed by individual meetings with key individuals, focusing on their roles and their views on the current curriculum;
- a wider survey of stakeholders (teachers, parents, employers) from schools around the country;
- development of a thematic, child-centred approach to the new curriculum, integrating appropriate teaching and learning methods and materials into the content, and elaboration of a general outline through a departmental workshop, after which panels of serving teachers worked to develop the detailed curriculum;

- teacher participation in writers' workshops, where they produced pupils' books and teachers' guides.

The engagement of stakeholders throughout the process resulted in a high degree of interest, especially from teachers, in the development of the curriculum. Those involved agreed and followed a work plan. The main challenges included:

- dealing with regular turnover of staff;
- getting people together for key events;
- a need to build educational and pedagogical abilities and capacities, and reluctance by some participants to admit to this need;
- belated recognition of the need to engage more with learners and parents;
- difficulty in processing the large needs survey; a smaller sample survey would have been equally effective.

Source: Taylor (2004)

A radical approach to addressing the issue of relevance and applicability of research involves changing the very nature of research

Research

Generating knowledge about education has traditionally been the mission of universities and national institutes for education research. Such institutions traditionally investigate the practice of teaching and learning on the ground, combine the findings with existing bodies of knowledge and disseminate the results to the academic world, policy makers and, more rarely, directly to schools, teachers and/or intermediate organizations. A fundamental problem in this paradigm is that knowledge generated in one context may have limited application elsewhere. The problem exists both within developing countries (Hoppers, 2001) and within industrialized countries (OECD, 2004b), but it is exacerbated when the existence of an 'international state of practice' is suggested (Samoff, 1993) and is transferred by researchers and consultants from a Northern context to countries in the South. To enhance the relevance of education research, some countries have established bodies bringing together a variety of stakeholders – e.g. policy makers, practitioners, academics, NGOs and funding agencies. Examples include the Commission on Values in Education in South Africa and the Primary Education Development Programme in the United Republic of Tanzania (Hoppers, 2004).

At subregional level, member states of the Southern African Development Community (SADC) have started the Education Policy Support Initiative to review one another's educational knowledge bases, in order to inform future research (Hoppers, 2004).⁸⁴ Another international mechanism is the OECD Education Committee, where member states negotiate a common agenda of activities in the areas of research, policy review and indicator development.

A more radical approach to addressing the issue of relevance and applicability of research involves changing the very nature of research. Increasingly, practitioners recognize the value of reflecting on their own work and exchanging experiences in circles of peers that operate in comparable circumstances.⁸⁵ Action research is a more specific form of knowledge creation at grass-roots level, serving both to improve education directly and to feed outcomes upward in the national policy process (Van Graan et al., 2003). Central to these approaches is the aim of bridging theory and practice in efforts to enhance the value of education research.

Quality assurance

Strictly speaking, quality assurance is not an aspect of providing professional support to

84. For further information, see www.sadceducation.com

85. Gibbons et al. (1994) conceptualize such forms of interaction as 'Mode 2: knowledge production' – knowledge that is generated in the context of its application, possibly unintentionally and often by practitioners themselves. As traditional research institutions become aware of the more experiential forms of knowledge production, they may develop ways of interacting with practitioners on the ground to bridge the gap between traditional and alternative methods. See, for instance, Taylor and Fransman (2004) on participatory methods for effective learning.

schools or generating knowledge to inform policy. It is about measuring quality *ex post* and holding schools accountable – not about increasing quality *ex ante*. In practice, however, it is difficult, if not undesirable, to separate the functions of advising schools and informing policy from the function of controlling them, the more so because ‘tight inspection and control are essential for success’ in school improvement (Hopkins, 2001, citing Dalin, 1994). The advice to ‘link pressure and support at all levels in the system’ (Hopkins, 2001) is supported by various authors,⁸⁶ while Fullan (2000) notes that such linkage works best when systems of pressure and support are integrated.

For instance, benchmarked school performance indicators not only help inspectors hold schools accountable but should also serve as vital, more direct feedback to teachers, helping them identify their strengths and weaknesses (Hopkins, 2001). This scenario gives the inspector something of a hybrid role, sometimes referred to as that of the ‘critical friend’. On the one hand, the inspector uses information about school performance to make comparisons with other schools, to point at good practice and thus to truly support the school; on the other hand, the inspector needs to report any failure. Some countries accept or mitigate the resulting tension,⁸⁷ while others – e.g. Botswana and Namibia – avoid it by allocating the reporting function to a separate cadre (de Grauwe, 2001).

A good investment

The development of infrastructure that provides professional support and generates and mediates knowledge for better learning is resulting in a general trend towards much greater interaction at all levels among practitioners, experts, inspectors, policy makers and researchers, accompanied by increased mutual learning in networks and a higher level of engagement. Investment in such infrastructure remains low, however. Some commentators attribute this to a certain resistance in the education field to evidence-based practice (Hargreaves, 1999).⁸⁸ Everything that has been said in this chapter nevertheless indicates that improving schools and the teaching and learning that goes on within them requires a culture of working on the basis of knowledge and evidence (Hopkins, 2001).

Building support for systemic reform

Starting with the learner, this chapter has looked at how the quality of education can be enhanced in an operational sense: in the classroom, in and around the school, through professional advice and support and through wider application of evidenced-based knowledge. But as was made clear at the outset (Figure 4.1), any intervention should be set very firmly within the context of wider education sector policies and frameworks. Innovation at local level will not in itself give rise to more improvement in education. Raising the quality of education requires a broad, systemic approach sustained by political support and backed by sufficient investment to sustain key policy interventions, even if allocations to specific improvements are modest.

However, even assuming that policies and budgets are in place, national governments face other significant challenges in implementing reforms aimed at improving the quality of education. Politically, such reforms seem more difficult to pursue than policies to enhance access (Corrales, 1999: 5). Parents, for instance, will immediately note and enjoy a capacity expansion at a nearby school and the abolition of fees. Improving education takes more time, and although the benefits are considerable (as Chapter 2 shows), they are also more general, involving effects such as the long-term impact on economic growth, fertility and health and changes in values. Consequently it is often more difficult to build a strong national alliance of interest groups around quality. But the examples of countries where progress is being made suggest that such alliance building is important.

Reform strategies

Successful education reforms have been achieved in rich and poor countries, in democratic and non-democratic states and under political parties with very different ideologies. Some reforms have been part of broader national reform strategies, while others are very specific (Corrales, 1999: 15–16). National experiences point to a set of promising strategies, summarized in Box 4.23.

Drawing on these broad ideas about reform, this section looks at three issues with a direct impact

86. Barber (2000), for instance, promotes the principle of ‘maximum challenge, maximum support’ in relation to the English education system.

87. In the United Kingdom, Australia and New Zealand, the initiative in supervision lies with schools (self-evaluation). They must establish School Development Plans, which inform subsequent school-based reviews by external actors (Hargreaves and Hopkins, 1994). The reviews serve both to provide feedback to schools and to make them accountable to the government and the general public. There is debate about the disclosure of information on school performance. Full transparency could raise the pressure on weaker schools to improve but could also lead parents to avoid these schools, resulting in a downward spiral. Cuba’s ‘emulation’ principle anticipated Barber’s ‘maximum challenge, maximum support’: it integrates both extreme pressure (in the form of competition) and peer support. Cuban teachers seem to receive all the help they need, yet their careers and even their salaries may be influenced by pupils’ achievement (Gasparini, 2000).

88. The level of investment in educational R&D – a narrower concept than the whole educational knowledge infrastructure – is known for seven industrialized countries (Australia, Canada, Finland, Ireland, Netherlands, Sweden and the United Kingdom). The average for these countries is 0.3% of total educational expenditure, which is far less than the comparable figure for other knowledge intensive sectors (CERI, 2002).

Box 4.23 Nine ways to make changes happen

Change requires political initiative, followed by continuous political support through:

- formation of independent advisory councils that can sustain the impetus for reform despite any eventual political change;
- work towards consensus agreement with opposition political parties;
- linkage of education reform with other issues, such as economic competitiveness, social cohesion and nation building.

Demand for change needs to be strengthened:

- Information campaigns can help make parents and employers aware that reform is in their interest.
- Stakeholders can be actively involved, e.g. teachers, through participation in policy development, and parents, through participation in school boards.
- As a further step, actors at local level can be given financial autonomy.

Opposition to change needs to be addressed:

- Incremental implementation may ease the tensions raised by change, though reform then runs a risk of losing momentum.
- Opponents need to be turned into allies through early consultation and adaptation of plans to address their concerns.
- In some cases, salary increases or other incentives may need to be given to teachers, and the role of their unions better acknowledged.

Sources: Corrales (1999); Chapter 2 (see 'What determines quality? Lessons from eleven countries').

The situation of teachers has improved considerably in Latin America with the advent of more democratic government

on whether reforms designed to improve quality will make a difference: partnerships with teachers, strengthening of accountability and the need to combat corruption. As Box 4.23 makes clear, this not an exhaustive list, but it illustrates the equilibrium needed in the politics and practice of education if quality is to have a chance.

Partnerships with teachers

Given the central role of teachers in improving quality, their involvement as a profession, particularly through their unions and professional associations, is important. We have already seen how teachers can participate in non-teaching activities through work for school councils and governing bodies.⁸⁹ This type of local activity is more common than consultation at national level on the curriculum, pedagogical practice or other professional responsibilities.

The extent to which teachers' unions or associations can and do negotiate their employment terms and working conditions varies enormously by region and country, as noted earlier in the section on teacher deployment and conditions of service. Yet, like any other category of workers, teachers should benefit from the minimum international labour standards (freedom of association, right to organize and right to bargain collectively on conditions of employment).⁹⁰ Overall, the situation is most positive in North America and Western Europe. It has improved considerably in Latin America with the advent of more democratic government, and

shows signs of improving in sub-Saharan Africa, Central and Eastern Europe, Central Asia and the Pacific. It seems to have furthest to go in the Arab States and some Asian countries, despite significant improvements in particular cases (Ratteree, 2004: 16). But even in the more positive circumstances a shift is needed, from a bargaining positioning towards more of a proactive partnership that gives more attention to professional ethics and mutual accountability.

Nevertheless, there are other ways of motivating and enabling teachers to participate in dialogue on reform. Decentralization of authority regarding curricula and pedagogies can broaden the scope for stronger, more direct involvement of teachers at district or local level, although, as the experience of Indonesia in the 1990s revealed, this in itself is not sufficient (Ratteree, 2004: 11). Box 4.24 shows how stakeholders in the United Republic of Tanzania discovered that additional measures needed to be taken.

A key lesson from the Tanzanian experience is that formal communication channels, while important, are not enough to incorporate teachers' voices in educational decision making. Extra steps are needed to overcome misunderstandings and bring in the views of local and district union leaders. The capacity of teachers' organizations for research and for development and defence of policy positions must be strengthened. A legal and institutional framework to make dialogue predictable and to settle any disputes is also needed.

89. Such contributions are less prominent when teachers work in small and isolated rural schools (Ratteree, 2004).

90. International Labour Office Conventions: Freedom of Association and Protection of the Right to Organize, 1948 (No. 87); the Right to Organize and Collective Bargaining, 1949 (No. 98); Labour Relations (Public Service), 1978 (No. 151); the Collective Bargaining Convention, 1981 (No. 154).

Box 4.24 Involving the Tanzanian Teachers Union in basic education planning

When the United Republic of Tanzania developed its comprehensive Education Sector Development Plan and Primary Education Development Programme (PEDP), the government and donors initially thought the Tanzanian Teachers Union (TTU) was sufficiently involved in the process. But the TTU insisted that it was not fully involved in all the technical committees and district-level decision making. This difference in perception had to do with the union's limited capacity for response to all the invitations to participate in the process and to bring to

the table its own vision of how the PEDP could be implemented. A series of policy dialogue seminars, supported by the ILO and UNESCO, brought together key government officials and the TTU's top national and district leadership. The union then changed its approach to policy analysis, created a focal point for the poverty reduction strategy, expanded its research capacity, reflected on its position regarding education and poverty issues, and strengthened its coordination in these areas.

Source: Ratteree (2004)

Countries that are strengthening democracy, as in Eastern Europe and during the 1990s in South Africa, face the additional challenge of building a culture of dialogue. Box 4.25 shows how South Africa set about this task.

International organizations also have a role to play, whether from an international base or locally, in supporting national bodies. This is far from a universal trend, but change is in the air in the form of a fragile but promising dialogue involving international financial institutions, bilateral donors, international teachers' organizations and NGOs. Since 2002, the World Bank has stepped up its dialogue with trade unions. A reflection of these efforts is the review of trade union participation in the Poverty Reduction Strategy Paper (PRSP) processes in twenty-three countries (Egulu, 2004). Gaps in union participation were identified and suggestions put forward on how to improve not only the World Bank/International Monetary Fund partnership with unions but also participation in PRSP development more generally.

Codes of conduct⁹¹

The concept of mutual accountability and the responsibilities that lie with everyone charged with enabling good-quality education is implicit in much of the preceding analysis. In some countries this concern has resulted in the development of professional codes of conduct in education. Some deal with the whole education system while others focus on teachers, but in general their aims are to:

- enhance commitments, dedication and efficiency of service among members of the teaching profession, and in education more

Box 4.25 Bargaining and social dialogue in South African education

When its first democratically elected government came to power in 1994, South Africa began to regularize public sector labour relations and established the Public Service Co-ordinating Bargaining Council. The council's aim is to enhance workers' well-being and build sound relationships between the state, as an employer, and its employees. It also provides a forum for negotiations and collective bargaining. To accommodate the specific service needs and employment conditions of various categories in the public service, sector-specific bargaining frameworks were established, among them the Education Labour Relations Council (ELRC). Teachers' unions are represented on a proportional basis corresponding to the percentage of education sector workers they represent. Wages and conditions of service are the main bargaining topics but the parties also discuss the longer-term development of the education system. They can involve external stakeholders in these discussions in order to achieve their common goals.

Source: Ratteree (2004)

broadly, by formulating a set of recognized ethical standards to which everyone should adhere;

- provide self-disciplinary guidelines by establishing norms of professional conduct;
- gain community confidence in and support for the teaching profession by emphasizing social responsibilities towards the community.

The codes usually cover issues such as school admission policies, management of teachers, service conditions of teachers and staff, examinations, evaluation and certification procedures, and the mobilization and allocation of financial and other resources.

91. This section mainly draws on Hallak and Poisson (2004a), a background paper prepared for this report. For more information, see www.unesco.org/iiep/eng/focus/etico

Several studies conducted in the 1990s emphasize the negative influence of corruption on economic, political and social development

Usually, ministries of education are responsible for enforcing the code. Special bodies may have an advisory role – an example is the Ontario Teachers’ Federation – or play a more far-reaching part, as in the case of the Council of Professional Conduct in Education, in Hong Kong, which is responsible for ensuring that teachers comply with professional codes of practice. Another example is Scotland’s General Teaching Council – a self-regulatory body with the power to cancel a teacher’s registration.

Such codes can contribute significantly to the quality of the school environment and hence the quality of learning. Moreover, for teaching of norms and values to be credible, the school itself must be a place where honesty is the rule.

In Bangladesh, India and Nepal, codes of conduct are seen to have a significant positive impact on the commitment, professional behaviour and performance of teachers and staff, and to contribute to a reduction in teacher absenteeism.

Codes of conduct function less well when staff do not know about or understand them, and where complaint procedures are not well known or enforcement capacity is lacking. Some of these problems can be addressed by simplifying codes and making them more relevant, by involving teachers in their design and implementation so as to assure ownership, by making sure they are widely disseminated, by strengthening mechanisms for dealing with complaints and by integrating issues related to professional conduct into pre-service and in-service teacher training.

Teachers’ organizations play an active role in promoting professional ethics. Education International and its member organizations adopted a declaration on professional ethics in 2001.⁹² Its stated objectives are to raise consciousness about the norms and ethics of the profession, to help increase job satisfaction in education, to enhance status and self-esteem and to increase respect for the profession in communities.

Preventing and combating corruption

Implementing policies to improve education is one thing, assuring compliance is another. If fees are abolished but other payment is demanded, if textbooks are supposed to be free but in fact are sold at high costs, the learners’ interests are not served.⁹³

It is important to distinguish between graft and corruption. Graft is a relatively minor form of rule breaking, often stemming from *force majeure*: teachers who are sometimes absent because their salaries are so low and irregular that they need additional income are not being thoroughly corrupt. Graft cannot be eliminated by enforcement alone; better policy and, more generally, poverty alleviation are required.

Corruption is not only more severe, it also has a bigger impact on the quality of learning. Several studies conducted in the 1990s emphasize the negative influence of corruption on economic, political and social development.⁹⁴ Corruption increases transaction costs, reduces the efficiency and quality of services, distorts the decision-making process and undermines social values. In education, bribes in teacher recruitment and promotion tend to lower the quality of teachers, and illegal payments demanded for school entrance, along with other hidden costs, contribute to low enrolment and high dropout rates.⁹⁵ Since such practices affect the poorest most, equity in education is at stake, and so is public confidence in the education system.

While poverty and low salaries are at the roots of graft, the causes of corruption seem less overt. They are likely to include monopoly and discretionary power, poor supervision at all levels, poor public information on government decisions and lack of transparency with regard to foreign aid. The increasingly complex nature of the education sector due to decentralization, privatization and outsourcing has opened new opportunities for corrupt behaviour. Corruption can take many forms and affect both access and quality, as Table 4.13 shows.

The most successful three strategies in combating corruption in education are setting up and maintaining regulatory systems, strengthening management capacities and increasing ownership of the management process.

Establishing and maintaining *regulatory systems* involves adapting legal frameworks to focus them more on corruption (via rewards and penalties), designing clear norms and criteria for procedures (regarding, for instance, fund allocation or procurement), developing codes of conduct (discussed above) and defining well-

92. The Education International Declaration on Professional Ethics was adopted at the third World Congress of Education International in Jomtien, Thailand (25–29 July 2001).

93. See Leguéré (2003).

94. This section draws heavily on documents and discussions from the IIEP Expert Workshop on Ethics and Corruption in Education (Paris, 28–9 November 2001); see Hallak and Poisson (2002).

95. For further discussion on corruption and education, see Bray (2003), Eckstein (2003) and Leguéré (2003).

targeted measures, particularly for fund allocation.

Strengthening *management capacities* entails setting up effective control mechanisms against fraud, ensuring that regulations are enforced by increasing institutional capacities, and promoting ethical behaviour.

Enhancing ownership involves developing decentralized, participatory mechanisms, increasing access to information (particularly via information and communications technology) and empowering communities to exert stronger social control.

Conclusions

The essential conclusions of this chapter are largely straightforward. They reflect the framework for improving quality shown in Figure 4.1:⁹⁶

- Understand the diverse need of learners, especially multiple disadvantaged learners.
- Give priority to where teaching and learning actually takes place – the classroom.
- Support reforms that focus on teaching and learning outcomes: appropriate goals and relevant content; values as well as skills; sufficient and effective instructional time; structured teaching in child-centred classrooms; assessment for learning improvement.
- Get the enabling environment right, with good learning materials that are used well by teachers; a safe, healthy infrastructure; professional, motivated teachers; and well-organised, well-led schools – the central institutions for improving quality.
- Build strong professional support systems and knowledge infrastructures.
- Develop and maintain sound, coherent, long-term education sector policies and a nationally owned, financially realistic framework for quality-related reforms.
- Address barriers to reform: build partnerships; develop accountability and combat corruption.

Table 4.13: The main forms of corruption in the education sector

Areas of planning/management involved	Corrupt practices
Building of schools	Fraud in public tendering Embezzlement School mapping
Equipment, textbooks, food	Fraud in public tendering Embezzlement Circumvention of criteria
Teacher appointment/management	Favouritism Nepotism Bribes
Teacher behaviour	'Ghost teachers' Bribes (for school entrance, assessment, exams, etc.)
Finances	Distortion of rules and procedures Inflation of costs and activities Opacity of financial flows
Allowances (e.g. fellowships, subsidies)	Favouritism Nepotism Bribes Circumvention of criteria
Examinations and diplomas	Information selling Favouritism Nepotism Bribes Academic fraud
Information systems	Data manipulation Data selection/censorship

Source: Hallak and Poisson (2004b)

While the list may be straightforward, giving it effect is not. Yet, none of these proposals, suggestions or strategies is a purely abstract idea. All reflect practice in many countries around the world. Their interpretation, sequencing and prioritization may vary, but even the relatively small store of recorded evidence on which this Report has drawn demonstrates that everything is possible. The scope for improving the quality of education is vast and the technical understanding is there. Urgently needed now are the political will and the resources to make it happen.

⁹⁶ A regional exercise along similar lines is reflected in the Havana Declaration by Ministers of Education from Latin America and the Caribbean on the Follow-up Model of the Regional Project for Latin America and the Caribbean (PRELAC) – Support Monitoring and Assessment. It identified five strategic focuses: education content and practice enabling construction of meanings in regard to ourselves, others and the world in which we live; teachers and strengthening their participation in education change so they may better satisfy student learning needs; culture of schools, converting them into participatory learning communities; management of education systems, making them more flexible and offering effective lifelong opportunities; and social responsibility for education, generating commitment to its development and results (UNESCO-Santiago, 2003).