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Discussion Paper

The Challenge of Learning: Improving the Quality of Basic Education in Sub Saharan Africa

Working Document
DRAFT

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- Pedagogical renewal and teacher development
  (Martial Dembélé and Be-Ramaj Miaro II)
- Decentralization and diversification of delivery systems
  (Boubacar Niane and Jordan Naidoo)
- Implementation of basic education reforms and innovations
  (Kabule Weva and Kabiru Kinyanjui)
- Relevance of education: Adapting curricula and the use of African languages
  (Nazam Halaoui).

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Chapter	Title	Authors
1	Setting the Scene	Charlotte Sedel
2	The Reality of School Improvement: Moving Towards Clarity	Jane Schubert
3	What is the problem of Equity in Quality?	John Oxenham
4	Investment Programs	Jeanne Moulton
5	Options for a Cost-effective Allocation of Resources	Alain Mingat
6	A Relevant Curriculum	Martial Dembélé and Mamadou Ndoye
7	Breaking the Mold: Teacher Development for Pedagogical Renewal	Martial Dembélé
8	Improving the Effectiveness of Schools: the African experience	Martial Dembélé
9	Diversity within an Integrated Education System	John Oxenham
10	Managing the Improvement of Education	Jordan Naidoo
11	Monitoring Performance: Assessments and Examinations	Vincent Greaney and Thomas Kellaghan
12	Financing Quality basic Education	Bart van Uythem and Adriaan Verspoor
13	Towards a Culture of Quality: A Strategic Framework	Adriaan Verspoor
14	The Way Forward: Emerging Priorities for Action	Adriaan Verspoor

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The opinions expressed in this paper are those of the authors. They should not be attributed to ADEA, to its members or affiliated organizations or to any individual acting on behalf of ADEA.

EXECUTIVE SUMMARY

1. Three years ago, at the World Education Forum in Dakar, all countries of Sub Saharan Africa reaffirmed their commitment to the goals of learning and completion of basic education for all. Most education systems in the region are far from reaching these goals and the challenge implicit in this commitment is daunting. Less than one third of the children of school age acquire the knowledge and the skills specified in their national primary education curriculum. This jeopardizes the very objectives of economic development, social progress, peace and democracy that are at the core of the New Partnership for African Development (NEPAD). Most critical is the challenge of quality.

The challenge in context

2. A large number of children on the continent remain out-of-school. The gross enrolment ratio of Sub Saharan Africa stands at 81.2% (2000), lower than any other region in the world. Of the 115 million children of school age not enrolled in school, 42 million or 35% live in Sub-Saharan Africa although it only has 10% of the world population. Enrolling these children represents a major challenge for poor African countries. But with a gross intake rate of more than 95% the challenge is becoming more one of quality than of access. Of the children that enroll less than two third reach the final grade and of these only about half can demonstrate that they master the expected skills and knowledge.

3. Thus, most African education systems today do not deliver the knowledge, skills and attitudes that parents want and society expects. The causes are multiple and need to be seen in their historical context. At independence countries inherited education systems designed to educate a small elite group of children. The resource parameters of these systems precluded its linear expansion; major changes were required to transform it into an effective mass education system. This transition has been completed in some countries but remains 'work in progress' in many others. Moreover, increasingly ambitious objectives of mass education from equal opportunity to enroll, to universal completion and learning achievement added to the challenge. Industrialized countries have struggled with these goals for more than half a century. Sub Saharan Africa faces them in an environment of slow economic growth, major public health challenges caused by the HIV/AIDS pandemic, a persistence of conflict and civil strife in many countries and capacity for policy and program implementation that remains insufficient for the task.

4. Yet, the challenge of basic education is inescapable. To stimulate discussion and reflection, ADEA selected the issue of "quality in basic education" as the central theme for its biannual meeting in 2003 and established an ad-hoc group to investigate the question: *How can the countries of sub-Saharan Africa improve, in a financially viable way, the quality of basic education and learning?* The methodology was based on the praxis approach that was adopted for earlier work of ADEA, characterized by "*learning through action, learning from action to develop and improve action*". The foundation of the analysis presented in this paper are the 22 case studies carried out by country teams, supplemented by more than 30 background papers.

Improving quality: what do we know?

5. Quality is a multi faceted concept. Most definitions highlight the different elements of the basic input-process-output model that commonly underpins education research and policy analysis. This paper has been guided by a concept of quality which emphasizes cognitive and affective results (mediated by quality inputs and processes) that are measured by the extent to which pupils achieve knowledge, skills and behaviors specified by a national curriculum.

6. Research and evaluation on quality in education has produced broad agreement on the key factors of school improvement such as leadership, staff cooperation, and achievement oriented school policies (Hopkins, 2000). Also important is the conclusion that the most effective measures to favor students from disadvantaged milieus are found directly in schools and classrooms, particularly in those that focus on basic skills learning and use direct instruction. Research findings in developing countries are largely similar, while finding that school factors – in particular the provision of basic resources – make a much greater difference. But it has become quite clear that providing basic resources and knowing which factors enhance student learning does not automatically results in effective use or translates into changes in instructional practice.

7. School improvement research has investigated how and under what conditions these changes occur. An important contribution is the recognition that changes in teaching and learning in the classroom not only **involves teachers' behaviors but also their beliefs** (Fullan, 2000). The lessons for lasting school improvement are:

- change takes place over time
- change initially involves anxiety and uncertainty
- technical and psychological support is crucial
- learning new skills is incremental and developmental
- organizational conditions within and in relation to the school impact school improvement
- successful change involves pressure and support within a collaborative setting

Quality and equity: a concurrent challenge

8. The goal of education policy has shifted from equal opportunity to enroll, to universal enrollment and more recently to universal completion. Without quality instruction the latter goal cannot be accomplished. Increasing equality of learning outcomes has become an international, universally agreed goal driving national policy and action. Quality is thus inextricably linked with equity.

9. Recent analyses confirm that poverty, rural residence and gender persist as the strongest correlates of school attendance and performance. The impact of poverty on enrollment, retention and completion is particularly striking. Whereas almost seven out of every ten students from the wealthiest families complete successfully, fewer than three out of ten from the poorest families do so. The second important variable is whether a child lives in an urban or rural area. This impact of these two variables is exacerbated for girls. Overall, only one girl in three appears likely to complete primary school, compared with one out of every two boys. Amongst the girls from the poorest rural locations, only one in five is likely to do so.

10. While demand factors may play a role in causing this gender disparity – see for instance FAWE's involvement with the Maasai communities of the Kajiado district in Kenya – improving female enrollment rates in many African countries and experiences of countries in Asia and Latin America demonstrate clearly that they can be mitigated. In seven SSA countries girls are more likely to be in school and in nine there is no statistically significant effect of gender on school attendance. This suggests that under the right conditions the impediments to girls' education will give way. Identifying those conditions and taking corrective action is the policy challenge.

11. Poor quality instruction is very likely the strongest explanation for the failure of students to acquire the expected knowledge and skills and pass examinations, and an important source of inequity. To address the problems of access and quality for the rural poor and in particular poor rural girls, marked priority will have to be given to examining the obstacles and possible inequities that affect that population.

Changes in international support

12. Following the 1990 Jomtien conference, bilateral and multi-lateral aid agencies increased their efforts to support basic education programs and policy reform. But the dominant emphasis on the expansion of access, the relative neglect of the need to improve learning achievement, the pursuit of over ambitious performance targets, the under-estimation of capacity constraints, the absence of a sustainable financial framework and the fragmentation of external support often combined to thwart the anticipated outcomes, especially as regards quality improvement.

13. In response, a Sector-Wide Approach (SWAp) is emerging as a process that produces a comprehensive sector development program providing coherence to the support of international funding agencies and increasingly also NGOs, and government funding priorities. Within this framework all significant funding for the sector supports a single sector policy and expenditure program, linked to government's budgeting process, under government leadership, adopting common approaches across the sector, and progressing towards reliance on government procedures to disburse and account for all funds. Of the 48 countries in sub-Saharan Africa, about 15 are active participants in SWAps. These countries have set national priorities for quality improvements in the context of the equitable distribution of sector funds. They are also taking the lead in partnerships with international agencies based on broadly accepted targets and strategies.

14. SWAps are helping to overcome the limitations of the project approach. The initial results are promising but still uncertain. The analytical underpinnings of sector reforms have been strengthened, participation and consultation is becoming a part of the policy development process, and the link between policy and implementation has been strengthened. SWAPs have created an environment that allows explicit consideration of intra – and inter-sectoral trade-offs, channeling resources directly to schools (e.g. Tanzania, Uganda, Guinea) and scaling-up of pilots programs (Zambia, Guinea and Mali). Finally, as government aim to reach people in remote areas, NGOs are being considered increasingly as effective operational partners.

15. But important challenges remain. First, governments will need to extend the partnership beyond the major financing agencies and ensure opportunities for meaningful participation throughout the processes of program design, review and implementation for all national and international stakeholders. Second, sector development programs will need to make explicit provision to include mechanisms to support innovations and experimentation. Finally, financing arrangements will need to be flexible so that legal and institutional constraints of major financial partners can be accommodated. SWAps vary considerably in the way they address these and other challenges. In fact, one of the

strengths of the approach is the flexibility to take account in different ways of the ambitions and constraints of the partners.

Promising avenues and blind alleys

16. The financial challenge of the EFA targets is considerable. Allocating resources efficiently, that is to those inputs that are associated with enhanced learning achievement at an affordable cost will be imperative. Research has explored the impact of school – and out of school factors on student learning. Findings suggest that:

- The **academic level of teachers** has variable effects; more than 10 years of general education may not have much impact on student learning;
- Short pre service training accompanied by school level support for beginning teachers can be as effective as long pre-service training
- **In-service teacher** training as currently practiced does not appear to have much of an impact;
- **One book per pupil** in core subjects is likely to enhance learning achievement significantly;
- **Double shift** systems are almost always detrimental to learning; **multi-grade** usually has no negative impact;
- Girls drop out less with female teachers;
- **Class size** up to 60 does not appear to affect student leaning significantly;
- **School lunches** mostly have a positive impact on student attendance;
- **Pre-school attendance** has a positive impact on student learning;
- **Time available for learning** has an important impact on achievement;
- **Repetition** rarely has a lasting effect on student learning and is correlated with high drop-out;

17. But all of these factors only have a limited explanatory power (about 10-15% of the total variation). The residual is probably related to the way resources are used. Moreover, it is the relationship between the cost and the impact on learning of particular variable that determines its cost-effectiveness as illustrated in the table below. Low cost and high effectiveness interventions are the promising avenues that policy makers may wish to consider rather than the low effectiveness or high cost of high effectiveness interventions of the blind alleys.

Variable	Promising Avenue	Blind Alley
Curriculum	Bilingual programs using African languages as medium of instruction in early grades Content organized in a limited number of subjects Direct instruction with supporting structured materials	"Colonial" languages throughout the cycle Discovery learning and open ended instruction
Learning materials	A textbook in core subjects for every child Notebook and other supplies Sundry classroom supplies Teacher guides Classroom library	Computers in classrooms
Time	1000 hours of instruction Regular teacher presence Arrangements for substitute teaching	Double shift use of teachers
Infrastructure	Community managed classroom construction Double shift use of classrooms	National competitive bidding
Teachers and schools	Continuous in service training and support Distance education for teachers Female teachers School based management Training head teachers as instructional and transformational leaders Support by pedagogical counsellors	Lengthy pre-service training Centralized management Traditional Inspections Subject matter teachers
Students	Community provided school lunches Community managed ECD and pre-school programs School health (micro nutrients and parasites)	Services provided by central government agencies
Parents	School management committees with authority on resource allocation and school organization Adult basic education	

18. Without essential inputs no learning will take place. But ultimately it is the combination of inputs and processes – an appropriate curriculum, competent teachers effective instructional strategies and supportive school environments that will result in high learning achievement.

A relevant curriculum that prepares for the future

19. A relevant curriculum is one that connects learning to the child's experience and environment, responds to parental expectations and demands and at the same time prepares students not for today's world but for society as it will develop in the next fifty years. Connecting to the students' context means in Sub-Saharan Africa first and foremost moving to mother tongue instruction – at least in the early grades. It also means a content that builds on the local environment and culture. The experience of Zambia, Mali and Burkina Faso with the use of African languages as the medium of instruction demonstrates how these challenges can be tackled.

20. Responding to the labor market expectations of parents and society means that the curricula will need to emphasize the acquisition of basic skills. In a world where economic development is increasingly affected by the ability to compete in a global market and production processes change rapidly, the basic education curriculum will to prepare student for a labor market maybe more than 50 years in the future and provide the students not so much with the specific skills demanded in today's market but with the ability to adapt to new skill requirements of tomorrow.

Classroom with improved practice

21. The classroom is where inputs are transformed into learning. Without a competent teacher no curriculum can be implemented effectively. In Sub-Saharan Africa, improving teaching practice will require changes in the traditional rote learning methods that still dominate the vast majority of classrooms. Efforts to shift instructional practice towards open-ended approaches, such as child-centered, activity-oriented teaching, have been difficult to implement throughout the world. Given the reality of the African classroom with often very large student numbers or multi-grading, a shift towards instructional methods that are more direct and explicitly focused on learning appears as a more realistic starting point. Promising instructional methods for these situations do exist – they include the use of highly structured self-learning materials accompanied by explicit teaching of new content, as in Escuela Nueva (Colombia) and BRAC (Bangladesh).

22. The need for change is particularly urgent in first two years of schooling. These years are particularly critical to a child's educational future, as they lay the foundations of the basic literacy and numeracy skills. Research in the US suggests that the level of reading competence at the end of the first year of schooling is a highly reliable indicator of future successful learning performance. And yet many children are particularly poorly served in these early years.

23. Whatever instructional practices are adopted as desirable has implications for how teachers are prepared, at both the pre-service and in-service levels. In this respect, very significant changes are taking place in the way teachers are trained, hired, and remunerated. Some countries are recruiting teachers with more general education, shorter pre-service preparation, and more classroom based teaching practice experience (for instance in Guinea). Increasingly new teachers, with or without pre-service preparation, are hired as contract teachers often by district authorities or communities. This places new demands on in-service training systems which must respond to the needs of an increasingly diverse teaching force. Uganda and Guinea have tackled this challenge with a decentralized programs aiming at continuous improvement of teaching practice instead of the traditional centrally directed occasional in-service events.

Schools focused on learning

24. Successful quality improvement is a whole school process led by the head teacher. Often the head teacher's role has been reduced to an administrative one. Instructional leadership is a challenge for which few head teachers are well prepared. But most important, is the emerging transformational role where the head teacher leads and coordinates the efforts of teachers and community stakeholders to improve teaching and learning processes, develop the capacity to implement change and enhance the school's effectiveness. Improving the selection of head teachers to a process that is competence based rather than seniority based is a first step. In addition, the training programs that a number of countries have launched to prepare the head teachers for the demands of this role are examples of promising practice that has the potential to contribute significantly to the goal of quality education for all.

25. Administrative and instructional supervision and support play an important role in improving what goes on in schools and in classrooms. There is also, and paradoxically, evidence that the supervision and support that schools and teachers typically receive from inspectors and pedagogical advisors are insufficient and ineffective. This is particularly the case in most Sub-Saharan African countries. From a quantitative viewpoint, the situation has deteriorated with the expansion of educational systems. There are simply not enough inspectors and pedagogical advisors to cater to all schools and teachers on a regular basis. Small, remote schools are especially ill-served

The new paradigm: reaching the learners

26. With the diverse patterns of living, gender imbalances and ranges of groups in difficult circumstances found in Africa, diverse patterns of educational provision will need to be the norm. Small rural and migratory communities need different arrangements from urban or larger rural groupings. Diversity, flexibility and openness to new ways of teaching must be features of an education system that aims to reach all children. This is not an argument for alternatives **to** formal education but instead for alternatives **within** the formal education system. It means that each government – doubtless in cooperation with appropriate partners – will need to develop and support a range of programs to fit the needs of different communities and groups of learners,.

27. This kind of diversity requires a **'paradigm shift'** in thinking about educational provision. The current dominant paradigm is largely supply driven: "*getting learners to come to school or class*". The complementary paradigm is demand focused: "*getting education to reach the learners*". That would entail looking at where the learners actually are, negotiating with them or their families what they would accept as worthwhile education, and examining how best to arrange it within the possibilities of the learners' environment, means and commitments. This second paradigm already operates in adult education – REFLECT in Burkina Faso is an example. It also operates here and there for children, for example, in the 'Save the Children' work in Mali, and Nigeria. Such a shift in approach would likely foster openness to what has been called 'mutual learning' or 'non-formalizing the formal while formalizing the non-formal'. The shift towards the use African languages as the medium of instruction in Mali and Burkina are examples of this process.

28. These diverse learning systems that aim reach out to all, need learners, teachers and community support. The experiences in the country cases (e.g. Uganda) show that demand for education exists among families for their children and among young and older adults whose right to education has been either wholly or partially frustrated. It is usually strong and widespread, and demonstrates itself effectively, as soon

as a credible, affordable opportunity for education becomes available. Although there are also people who have no interest in education and may even oppose it, they tend to be few and to form a dwindling minority. Often the to the success is the mobilization of social support, by family members, friends, respected persons in the neighborhood. Partnerships with non-governmental organizations and small community-based organizations, both non-profit and for-profit to work out arrangements with local communities for the delivery of services have successfully addressed this challenge in several instances. The experience of the 'faire-faire' project in Senegal shows the potential of this approach.

29. Diversification is a necessary but rarely an easy option. Initiatives in Nigeria and Burkina Faso developed slowly and even after a decade still reach only minorities of the children and adults they strive to reach. The experience reviewed suggest ways to overcome some of the obstacles:

- Government commitment to the principle of diversity, i.e. to a system with common core objectives that values local variations and recognizes there can be no single pattern for getting education to the learners.
- Flexibility in recruitment of teachers and substantial investment in their training and support will often be required to allow hiring people from the community often with a limited general education
- Intensive communication between all the parties and clear and clearly defined and understood roles for each are essential for the feasibility of any initiative
- Evaluation of costs and outcomes is essential if program coverage is to be expanded and fungible resources from the national budget are to be allocated to alternative programs. Without convincing evidence of the benefits and the cost from an innovation or reform, few policy makers will be ready to adopt the innovation system-wide.

Restructuring education sector management

30. In most countries education has traditionally been managed through highly centralized systems. This often results in inefficient application of resources, inequitable provision of access and unacceptable differences in quality of instruction and learning achievement between rich and poor, urban and rural and boys and girls and has thwarted progress towards the EFA goals. In response large changes in the way education is managed are taking place throughout the region. Virtually all countries are have embarked on some form of administrative deconcentration and are decentralizing management functions to regional or district offices of the Ministry of Education or to local authorities, though the pace has been quite uneven. Ethiopia, Uganda, Senegal, Tanzania and South Africa, for example, are proceeding fast, while Ghana, Mali, Guinea, Niger, Zambia and Nigeria and are under way more slowly. In several countries this process is successfully complemented by efforts to move towards school-based.

31. The trend towards school-based management where schools are being giving more leeway to make decisions about curriculum, budgets and resource allocation and staff and students is critically important. Within nationally defined standards and operational parameters schools have increasing autonomy and flexibility to adapt school organization and instructional practice to local conditions. Teachers are being encouraged to adapt reforms and innovations to local conditions and student learning needs. The resource transfer takes place as conditional block grants (Uganda and Tanzania), as support for school development projects developed at the school level (Guinea, Madagascar, Senegal) or through subsidies to community owned and operated schools

(Chad). There is a large variation in the way these processes are being implemented, and progress is almost always uneven and slower than expected. Government financial procedures are often poorly adapted to the demands of decentralized financial management. But, most important, it is the lack of experience and capacity constraints at the school level and in the school management committees that has often constrained progress. At the same time there are several promising experiences (Uganda, Tanzania, Guinea) which suggest that a persistent effort at building capacity for planning and experimentation at the school level can help to create an environment highly conducive to quality improvement.

32. The move towards school based management has important consequences for central ministry offices. Their role is evolving towards (i) setting norms and standards; (ii) mobilizing adequate financing and ensuring the timely transfer of resources to schools; (iii) monitoring policy implementation and assessing progress in student learning; (iv) stimulating public discussion of education policy issues and nurturing social and political partnership for education reform.

33. Several countries are complementing the move towards deconcentration and school based management with efforts to diversify providers, differentiate programs and separating financing and provision of education services. Examples can be found in Chad where a the government subsidizes communities that operate their own school, in DRC where the churches play – with public support – a key role in the provision of education services and in Burkina Faso and Senegal where private operators have been contracted to deliver a range of non-formal programs. Moreover several countries are exploring the potential of support from the business community. Different ways are being used to transfer resources to the school level. Some countries provide capitation grants – partially in the form of inputs and services partially in cash, others employ contingent funding mechanisms where the amount and the timing of resource transfers depends on school level needs and the quality of local project proposals.

34. All these changes are usually supported by deliberate efforts to involve communities in the process of schooling and the provision of direct support to schools. A range of alternative education structures and program delivery mechanisms are thus being experimented with to ensure responsiveness to the needs and the priorities of people in different social, cultural and economic contexts. The role of the school management is broadening beyond their traditional involvement in classroom construction to include local adaptation curriculum and calendar, managing school resources and monitoring and evaluation of school operations.

Monitoring learning, assessing progress

35. Effective management of quality improvement in a system that is increasingly decentralized, involves multiple providers to deliver a programs adapted to a wide range of local conditions, and relies on multiple sources of financing cannot be done without reliable information to guide resource allocation and action. Assessments of student learning and statistics on key system performance indicators such as coverage, internal efficiency, teacher deployment and material input availability are the essential management information instruments in such a system.

36. Information on student learning can come from (i) public examinations, (ii) national assessments; (iii) international assessments, and (iv) classroom assessment. Calls for reform of *examinations* are ubiquitous. Evidence relating to the effects suggests (i) if the content areas of examinations are changed the content to which students are exposed in class will change; and (ii) lack of teacher competence, large classes, a lack of resource material, and the difficulty of teaching higher-order skills is likely to over-ride the influence of changes in examinations. Examinations should not be an obstacle to quality improvement, but should provide support by, for example, extending curriculum coverage, ensuring that they reflect their certification function by including content which is appropriate for all levels of student achievement and providing itemized performance feedback to schools.

Box 1 National assessment activity spread through Africa during the 1990s.

SAQMEC, MLA and PASEC have been highly instrumental in building national assessment capacity in more than 20 countries. The information obtained in a national assessment about strengths and weaknesses in the knowledge and skills students have acquired, and about how achievement is distributed e.g., by gender and location, can play an important role in informing policy and decision-making. Yet, information from assessments often remains within the research community and has not often contributed to the design and implementation of quality improvement strategies. International assessments provide comparative data on achievement several countries. Few African countries have participated, so far. However, some of the national assessments that have been carried out allow international comparisons. These can provide important opportunities for learning from countries facing comparable constraints and challenges.

37. Although *classroom assessment* has attracted the least attention in proposals to use assessment to improve the quality of education, it would seem to have the greatest potential to enhance students' achievements. However, teacher's assessments are often of poor quality and do little to foster the development of higher-order and problem-solving competencies in students. Unfortunately, improving teachers' assessment practices is more difficult than improving or developing other forms of assessment.

38. The Africa experience to date suggests that assessment information *can* improve policy and the management of resources in education and can shape teachers' instructional practice, but that success is not assured. If assessment procedures are to contribute to the improvement of the of student learning, at least two conditions must be met. First, assessment policy should be integrated into a broader range of comprehensive

and co-ordinated improvement measures, which assessment reforms are designed to reinforce. And secondly, since the success of educational reforms ultimately depends on their successful implementation in classrooms, resources should be provided to ensure that reform policy is understood, and acted on, in schools.

39. Considerable work has been done to strengthen the capacity of countries to produce educational statistics and indicators that will enable to monitor closely the performance of their education systems. The NESIS program of the ADEA working group on education statistics has promoted the use methodological of technical tools designed to help countries to control the "statistical chain" and ensure reliable data collection and processing. A module for the development of indicators of education quality is being tested.

Financing quality

40. Bruns, Mingat and Rakatomala (2003) have proposed the following framework for estimating the cost of reaching the EFA goals:

Pupil-teacher ratio	40	Govt. revenues as % of GDP	14/16/18
Teacher salaries/per capita GDP	3.5	% govt. revenues for education	20
% rec. spending on non-teacher inputs	33	Primary ed. share of govt. spending on education	50
% repeaters	10	% pupils in privately-financed schools	10

41. On this basis they estimate an external finance gap of about $1.9 billion per year on average. This means a fourfold increase in the level of donor support, to 45% of total cost in 2015. Moreover the estimates may be too low especially as regards financing for quality improvement.

42. The 33% target for non-teacher salary expenditures used by Bruns et al. would result in an average expenditure per child of $23 in 2015 including administration cost ($10) and financing of specific actions to ensure education opportunities for about 10% of the children specifically at risk. If the total amount of USD 23 would be available for school level quality input this would be close to a 'minimal level of inputs' ($16), but very far from the 'desirable level of about $30. However, if the 5% annual growth rate assumed by BMR would turn out to be only 3%, the absolute value of the 33% would become only $17 by 2015, much below even the 'minimal level of inputs'. In addition, there is a timing issue as the boost to non-teacher salary recurrent spending has to take place well before the resulting quality improvements will take their full effect. The increased provision of the quality enhancing material inputs with an estimated cost of $16 per student (of which an estimated $10-12 would be additional expenditures) is needed **now** to support immediate improvements in instructional practice which can then be bring about the efficiency gains that the model has projected to occur throughout the period. This would increases the annual financing requirement in the early years by about $700 million, representing an increase of about 30% of the total estimated recurrent primary education expenditures in 2000.

43. It is therefore important to explore the options that countries can consider to deal with possible shortfalls in internal or external financing and still remain on track towards the EFA goals. Four policy options were quantified in the context of the Bruns et al. model:

33 African countries	EFA Cost (annual)		Domestic resources (annual)		Financial gap (annual)	
	%change	$ change (million)	% change	$ change (million)	% change	$ change (million)
Salary cost change from 3.5 to 3 times GDP/cap	-6.4%	-373	-0.4%	-17	-19.2%	-356
Share of primary education spending from total change from 50 to 55%	0.0%	0	6.6%	263	-14.2%	-264
Pupil/teacher ratio 40 to 45	-8.0%	-469	-0.2%	-8	-24.9%	-461
Double classroom use	-6.2%	-363	0.0%	0	-19.6%	-363
Private school enrollment from 10 to 15%	-3.9%	-228	0.0%	-2	-12.3%	-227
ALL MEASURES COMBINED	-20.2%	-1182	-0.1%	-4	-63.6%	-1176

44. The calculations show how policy decisions affect the financing gap. The effects are significant and illustrate the flexibility that exists to adjust policy to external conditions. They also suggest that – assuming that increases in external financial assistance beyond the projections of Bruns et al. are unlikely – countries will be well advised to consider strategies that (i) deploy available resources with optimal effectiveness (ii) encourage community and parental contributions to education development. Increased cost effectiveness will require, first, reducing the variation in the level of allocation of resources – in particular in teacher pupil ratios – between schools. Second it will require enhancing the efficiency by spending resources on those inputs and processes that are known to be strongly supportive of student learning. And finally it makes it imperative to pursue whenever possible low cost solutions such as community based early childhood and adult basic education programs and community managed classroom construction.

45. Equally important is to take advantage of the readiness of many communities and parents to contribute to the education of their children. There is a long tradition of such contributions in many African countries but it is important to establish partnerships and policies that do not place an unduly heavy burden on the poorest. The absolute principle of such polices must be that no child shall be excluded from school because of inability to pay. Several mechanisms have been tested: matching grants with variable community contributions depending on the poverty level; waivers of tuition and book fees; direct support to the neediest and the most disadvantaged; and formal recognition of the monetary value of contributions in kind. There is considerable evidence suggesting that such schemes are effective, in particular when they are managed by communities.

The road towards quality: a strategic framework

46. As in the industrialized world the path of quality improvement in Sub-Saharan Africa has often been rocky and strewn with obstacles. There are experiences that provide warnings and lessons about the obstacles to avoid. But also, and perhaps most importantly, there are promising experiences that offer lessons on the way forward. These experiences can be summarized in terms of **seven principal pillars of quality improvement:** create the opportunity to learn, improve instructional practice, manage the challenge of equity, increase school autonomy and flexibility, nurture community support, ensure a realistic financial framework, and respond to HIV/AIDS and conflict situations.

47. Building a national strategic framework on these seven pillars is critical to improving quality. Equally important but much less well understood is the development of a culture that explicitly aims to promote quality and learning. Such a **culture of quality** is driven and sustained by a set of values and beliefs on the process of teaching and learning – a theory and practice of education and a vision of educational practice – that is widely shared. Key features are:

- Values that place learning central;
- A belief that failure is not an inevitable part of the education process; and that all children can learn given time and appropriate instruction;
- A commitment to equitable outcomes and a readiness to vary inputs and processes to achieve these;
- An improvement process that does not simply define outcomes and standards; but that focuses, first and foremost, on the means – on the processes and the skills required to bring about quality results;
- A dedication to universal quality learning based on diversity and flexibility in delivery mechanisms and instructional practice.

48. Such a system has little to do with the "machine bureaucracy", the industrial age model that has long been typical of the schools in the industrialized world and that still survives in many developing countries. In fact, education systems are much more like "living systems". The new management systems that are emerging are inspired by this new metaphor. Such systems are self-producing; they have the capacity to create themselves; they continually grow and evolve; they react and adapt continuously to changes in the environment; they have a large diversity as each part of the systems react to the information from its environment. Managing such systems means recognizing that the industrial age command and control models do no longer work. Such systems grow and develop through incentives, through changes in the environment and by each element adapting and adopting successful practice. They are learning organizations. The change in metaphor for the education system is important. It indicates a different way of thinking and a different set of beliefs, a different mental model about what is important and how change occurs.

49. These kind of organizations have a high degree of local control. They encourage and support local initiative. They emphasize "improving the quality of thinking, the capacity for reflection and team learning and the ability to develop shared learning and shared understanding of complex (…) issues. It is these capabilities that will allow learning organizations to be both more locally controlled and more well coordinated than their hierarchical predecessors" (Senge, 2000). Instead of mobilizing

school level stakeholders to respond to mandates from the top, upper levels encourage, respond and support grassroots level initiative.

50. The most important responsibility of the leaders of the education system is to establish such a culture of quality, make sure that it is widely shared, and model and encourage behaviors that put it into practice. It means helping everyone in the system gain a sense of efficacy and responsibility; encouraging them to do their best job with the resources available. It implies a system wide commitment to the prevention of failure, systematic bench marking of good practice, continuous learning. Such notions may seem unrealistic in the sub-Saharan Africa context, But several of the country cases report experiences that move in this direction. For example, Senegal established agreed job descriptions for all education sector staff, Benin defined fundamental quality standards to be met by every school, Madagascar has initiated performance contracts with schools, and Swaziland and Namibia are helping teachers to reflect and learn from their own practice..

51. **Implementation** has long been recognized in developed and in developing countries as the Achilles heel of education policy reform, especially reform that aims at large scale changes in the process of teaching and learning. Many carefully designed programs have floundered on the rocks of implementation. The assumption that change is an orderly, rational and linear process that provides centrally defined fixes to the quality problems of schools is one that has been found to be false in almost every instance. In fact there is an emerging consensus that (i) change is essentially a local process with the school as the unit of change; (ii) local learning and adaptation is key; (iii) developing local capacity – at the school, the community and the district level – is a condition *sine qua non* for success; and (iv) progress is incremental and uneven.

52. Implementation depends on application by thousands of teachers working behind the classroom door. Good practice cannot be mandated but must be grounded in local ownership. Ultimately it is the coherence of the triad student learning, teacher learning and development, and school capacity that will determine the effectiveness of particular school improvement policies. Based on their reviews Verspoor (1989) and Moulton et al. (2000) argue for an implementation model that provides for flexible and incremental implementation strategies; includes arrangement for learning from experience; allows the development and implementation of several innovations; recognizes and values local level experience; and considers policy development and implementation as continuous, iterative and mutually reinforcing processes.

53. The country case studies prepared for this paper include several examples of programs that are moving in this direction. The trends towards school based management, the use of locally prepared school development plans as a basis for resource allocation and the decentralized teacher demand driven in-service training and support programs and the participatory approaches to program development, provide strong indications of the changes in the "mental models" of school improvement that are occurring in agencies, education ministries and other stakeholders. For example Tanzania and Uganda are providing substantial discretionary resources to schools to be managed locally; Senegal and Guinea are experimenting with the funding of school development plans. In-service teacher development is delivered in a decentralized locally responsive way in Guinea and Uganda; Mauritania prepared its current education development plan through a participatory and iterative process involving local stakeholders and agencies.

The way ahead: learning and working together

54. Evidence assembled for this study suggests five important conditions that will guide and underpin effective action on quality improvement. Many of these issues have been highlighted in reviews of education development experiences and discussed in international meetings. In fact, exhortations to garner political will, design simple projects, build capacity, strengthen partnerships and learn from experience have been ubiquitous in the literature and in international meetings. But attempts to operationalize them have been relatively few although the ADEA working groups and discussions at biennial meetings have made important contributions in this regard.

55. First, **the political will to act** may perhaps be best seen as the initial step towards a broad based and long lasting national commitment to a shared vision that embraces quality and equity and that provides the foundation for a "culture of quality". Such a commitment is not only reflected in public pronouncements of policy, it is also made concrete by: (i) allocation of adequate resources; (ii) a focus on quality and learning in political discourse; (iii) participation of all stakeholders; and (iv) effective communication strategies to build broad based support

56. Second, **selecting and sequencing priorities** for quality improvement strategies needs to deal with two distinct dilemma's (i) the definition of priorities; (ii) how to reach a meaningful number of students. Setting priorities is most cases a matter of choice about scope and sequence of innovations. It is not a question about what to do and what not to do. It is answering the question where to start and what to do later. The experience documented in the country case studies and the preceding chapters suggests the following for the selection of program priorities: (i) a sense of ownership at the school level is a necessary starting point, with intervention strategies conceived as a menu of options for local choice; (ii) improvement in classroom practice based on the recognition of the teacher as the kingpin of quality improvement is the entry point; and (iii) reforms of curriculum content and teaching methods need to be conceived as a continuous process which recognizes that dominant practice changes only gradually.

57. The most severe constraint on the scope of the innovation is the capacity of the teacher to change teaching practice. Beeby (1967), Verspoor (1987) and Hopkins (2000) provide frameworks for different intervention strategies according the school's capacity to adapt, adopt and apply change. These are not intended to provide a precise recipe for the sequencing of interventions but rather to suggests how the different elements of the education process need to evolve in a coherent way

58. Several country case studies seem to lend support to David Korten's (1980) suggestion that a strategy for going to scale will have to go through three phases (i) learning to be effective; (ii) learning to be efficient and (iii) learning to generalize. Most pilots program focus on the first step. But few do actually develop convincing evidence on learning outcomes and cost or prepare for the day when the human, the institutional and the financial large scale applications precludes the kind of nurturing and close-up support that allows a pilot program to be successful. There maybe case to rethink the design of pilot projects and deliberately conceive them as a series of innovations of a limited scope that do not deviate too far from existing practice, that can be adapted and applied by a large number of teachers without too much difficulty and support. Implementation over time of a series of those innovations, gradually increasing the capacity of schools to change would in fact combine the functional and the explosion strategy and be a real learning strategy.

59. Third, **capacity building** is widely recognized as a critical priority, but without a lot of progress in addressing it. In fact, if anything the challenge has become greater as the circle of stakeholders involved in education has enlarged. Effective capacity building strategies begin by creating an environment that encourages the utilization of existing capacity. Management audits and decentralization are among the promising approaches in this regard. Capacity building will need to focus on the school but for this to be successful schools will need to be supported by meso-level institutions. Building at the meso level new types of organizations that actively engage with schools must be at the heart of a capacity building strategy, especially in a context of decentralization and moves towards school based management. These institutions would not be arranged in a hierarchy; quite the opposite, they would work in parallel across the meso level, effectively flattening the education system. They would include: networks, research and training centers, professional organizations, social and community projects, and ministry offices.

60. Fourth, more active **partnerships** have been one of the most successful outcomes since Jomtien concluded the International Consultative Forum on Education for All (Amman, 1996). The Dakar Framework for Action echoed this and called for" broad based partnerships within countries, supported by co-operation with regional and international agencies and institutions". Partnerships happen at different levels in the system and with different purposes. There are partnerships at school and community level and largely aiming to support the delivery of education services, often to the most disadvantaged populations. Then are partnerships that shape development cooperation and education aid. Important changes are underway in both.. The past decade has seen the proliferation of NGOs ranging in capacity from that of well-supported international NGOs to small fly-by-night operations. NGOs have often gained a stronger voice in policy decisions and become a source of reliable community-level implementers of education sector program activities. The government role here is often an enabling one. At the national level SWAps are changing the way education development programs are financed and managed.

61. Fifth, **learning from practice** is at the heart of any quality improvement strategy. The counties case studies underpinning this paper and the preceding analyses clearly demonstrate that quality improvement is a multifaceted and complex process – in the industrialized world and in Africa. Yet experience is accumulating and lessons are being learned as countries are pursuing a "quality education for all" agenda. Four elements of strategy that dominate the practice of quality improvement on the continent.

- A system of learning institutions with flexibility in delivery and equivalence in objectives
- Focus on learning permeates such a system is and gives it coherence.
- Continuous improvement emphasizing a sustained effort over time, not quick fixes
- Evidence based strategies provide the foundation for learning from experience

62. Quality improvement in basic education is an imperative for all African countries that want to participate in the global information society of the 21st century and lift their people out of poverty. But unless the EFA and fast track policies result in increased learning, the EFA emperor will have no clothes. Many countries are actively testing programs to improve quality. Sharing lessons from experience and learning from each others successes and disappointment is essential if policy makers and practitioners in the region are to work together in a community of learners.

CHAPTER 1
SETTING THE SCENE

63. Three years ago, at the World Education Forum in Dakar, all countries of Sub Saharan Africa reaffirmed their commitment to the goals of learning and completion of basic education for all. Most education systems in the region are far from reaching these goals and the challenge implicit this commitment is daunting. Less than one third of the children of school age acquire the knowledge and the skills specified in their national primary education curriculum. This jeopardizes the very objectives of economic development, social progress, peace and democracy that are at the core of the New Partnership for African Development. Most critical is the challenge of quality.

64. An educated population is a precondition for meaningful participation in a world economy where competitive advantage is increasingly technology based and knowledge driven. Education has been found to be a key determinant of increases in productivity and improvements in health and nutrition (Lockeed and Verspoor, 1991). It helps to lift people out of poverty, creates opportunities for social mobility and reduces economic and social disparities.

65. A large number of children remain out-of-school. The gross enrolment ratio of Sub Saharan Africa in 2000 varies from 29% in Niger to 131% in Cape Verde, averaging at 81.2%, lower than any other region in the world. Of the 115 million children of school age in the world not enrolled in school, 42 million or 35% live in sub-Saharan Africa although it only has 10% of the world population. Enrolling these children represents a major challenge for poor African countries. Hanushek and Kimko (2000) found a strong link between the quality of labor (i.e. cognitive skills as measured by performance on mathematics ad science tests) and economic growth. Clearly, increasing the number of years of instruction without paying attention to the quality of education and the students learning achievements, risks losing the positive effects of education investment on growth (Islam, 1995).

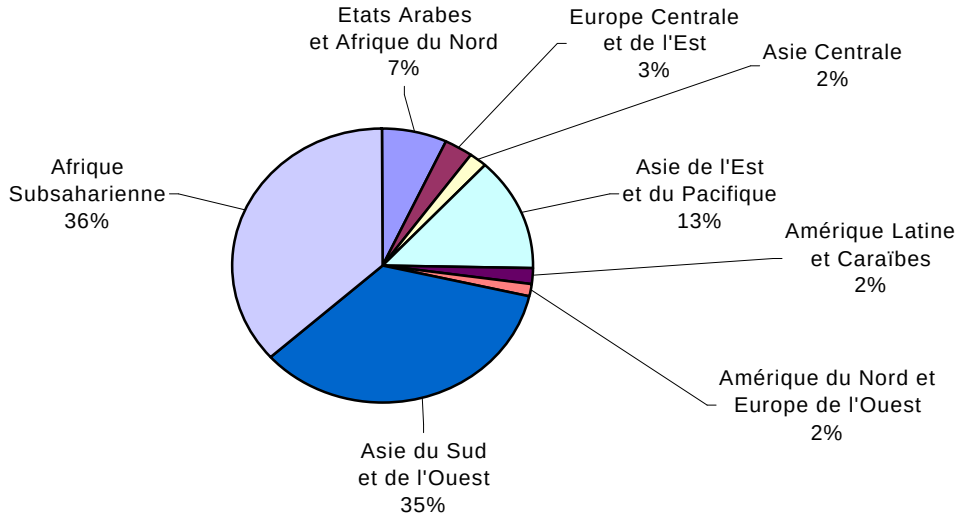
66. The challenge of basic education for all is becoming one of quality. In many schools in Africa, the learning achievement is so low that after several years of schooling, the students have not obtained the basic literacy and numeracy skills. Therefore, if the improvement of quality of instruction is not focused on, all efforts might be wasted. Wasted because important resources will be invested without being translated into learning outcomes and because children – future adult – risk of being illiterate despite their schooling or dropping out of school too soon.

67. To reach the objectives of Education For All, it is particularly important to ensure that:

- all children enter school;
- all children complete the primary cycle;
- primary education imparts a set of basic competences

68. The data available suggests that basic education systems in sub-Saharan Africa have made reasonable progress in terms of the first objective but that major efforts remain to be undertaken to achieve the last two. Progress in these areas will require a considerable improvement in the quality of education and measures that will ensure access to this quality education for the poorest populations.

Graph 1 Repartition of out of school children in the world



Source: UNESCO 2002

69. Quality and equity are thus the two inseparable objectives that countries need to pursue in their quest of education for all. Quite obviously at this moment, most of the African education systems are not able to deliver the knowledge and skills needed for economic growth, social development and civic progress. In this first chapter, the qualitative challenges of Education For All, the main elements that determine qualitative weakness and the constraints that have contributed to the qualitative underperformance of basic education in Africa will be reviewed. This discussion will be completed by a presentation of the methodology that guided the analysis of African experiences with the improvement of the quality of basic education in recent years.

The challenges of Education For All

70. *The world Education Crisis* (Coombs, 1967) drew attention to the problems accumulating in all developing countries resulting from the influx of students, the shortage of resources, the increase in costs and the ineffectiveness of systems. They were not able to adapt to the needs of the populations.

71. Against a background of economic crisis and strong demographic growth (2.7% on average per year), the pressure on education systems increased in the 1980s. Spending per student in primary school as a percentage of the GNP per inhabitant dropped significantly between 1970 and 1983, going from $67 to $48 (in 1983 constant dollars – World Bank, 1988). The impact was felt at the school through reduced availability of essential material inputs, fewer teachers, larger classes and a deteriorated infrastructure. Overtime, the cumulative effect of this situation negatively impacted on the quality of learning. Resulting stagnation of education development led the Jomtien conference in 1990 to conclude that educational reforms should focus their efforts on "the real learning achievement and on outcomes rather than exclusively on school enrolment."[1]

[1] Global Declaration on Education For All: Meeting Fundamental Education Needs, UNESCO, New York, 1990.

72. The objectives of Education For All thus had an important qualitative dimension from the outset. Unfortunately over a decade later, outcome in sub-Saharan Africa were found to be disappointing. Progress has been too slow to meet the objective of Education For All. The World Education Forum of Dakar (2000) reasserted the commitment of all partners to this aim while concluding that the challenges of access, primary school completion, achievement of learning and equity are inextricably linked to the implementation of policies in favour of the Quality Education For All.

Participation in education

73. The strong demand for education in Sub-Saharan Africa is reflected in the increase of gross intake rate from 94.64% to 95.1% for boys and from 83% to 88.4% for girls during the 1990s while the school age population grew from 58.1 million to 81 million.

74. However, these averages mask patterns of education development that vary considerably in the region. In 2000-2001, Botswana, Malawi, Mauritius, Uganda, Swaziland and Togo reached the universal primary school participation objectives or came close to. On the other hand, in eight African countries, Angola, Burkina Faso, Djibouti, Eritrea, Ethiopia, Guinea, Niger and Tanzania, more than half of all school-age children remain out of school. In these countries reaching universal primary education remains a major challenge.

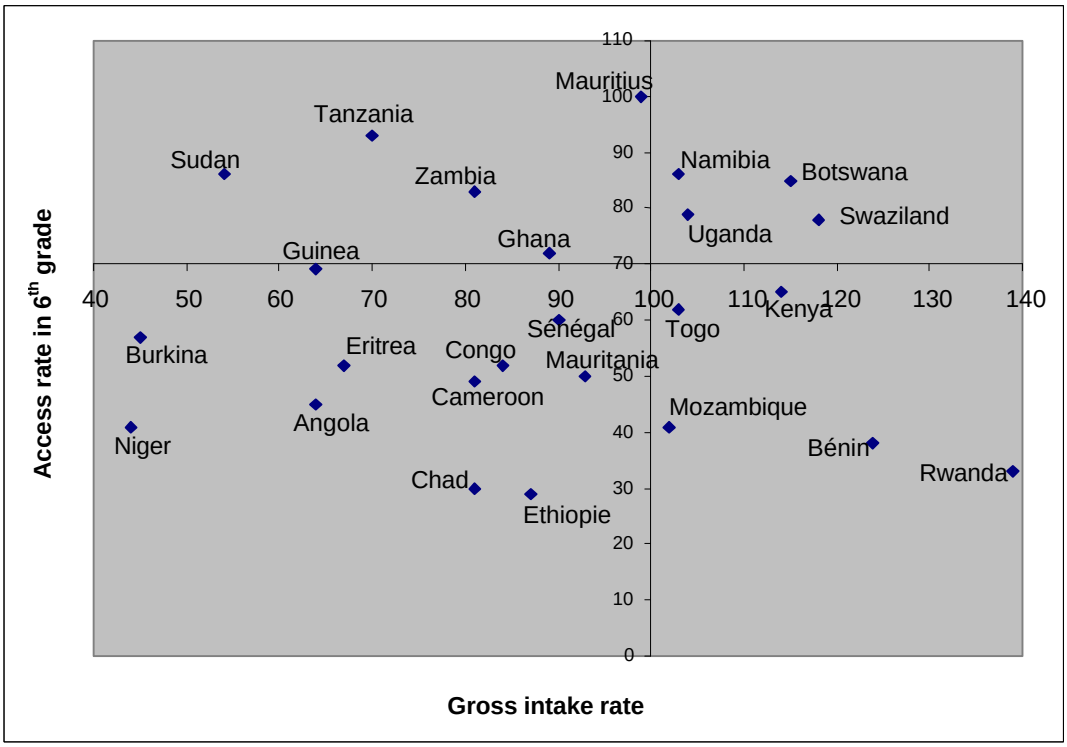
75. Entering primary school is the first step on a long way, often strewn with obstacles. The fact that a student enters in first grade does not mean that he will complete primary school. A country with a gross enrolment rate of 100% may have a very low completion rate but not reach universal primary education as defined in Dakar. Moreover, the strong increase in intake rates reinforces the fact that the real challenges of the years to come are ensuring primary school completion and the level of learning achievement.

Low access rate in sixth grade

76. The second Dakar objective highlights the importance of ensuring a compulsory and free primary education of good quality and **following it to the end**. In fact, it is considered that a minimum of five years of a primary education of adequate quality is needed to obtain the basic skills that would permit individuals to fully participate in the economic and social development of a country and not fall back into illiteracy.

77. The following diagram compares the gross intake rate in primary school and the access rate in grade six. It shows that there is a great variety of situations in the African countries and that most of them are located in the dial on the lower left. It means that major efforts remain to be made so that students enrolled in primary school will continue until the end. It is, however, understood that these five years do not represent the full range of basic education. The concept of basic education has been expanded to include early childhood and primary education, literacy, general knowledge and life skills for youth and adults and in some countries a few years of secondary education (Interagency Commission, 1990).

Graph 2 Access rates in sixth grade and gross intake rate in primary school – year 2000



Source: MINEDAF VIII – Statistical paper

78. Even if the data available shows that acceptable progress has been made in terms of access to school, the situation pertaining to academic performance, however, remains of considerable concern.

Learning achievement

79. Central to the challenge of Education For All by 2015 is what the children have learned during their schooling. Being enrolled in grade five or six does not necessarily mean that the students have acquired the basic skills specified in the national curricula. Evidence from adults' literacy programs in Ghana, Kenya, Uganda, Namibia and Senegal found that a large proportion of learners had attended primary school for as many as six years, but who felt that they had not mastered the basic skills sufficiently. They were in fact seeking a "second chance education" (Chapter 3).

80. Indicators measuring learning achievement are useful for evaluating the sixth Dakar objective, which is "improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skill". The essential question is therefore to know if these students have obtained this basic learning during their primary cycle.

81. Assessment of the average level of the student learning causes serious concerns about the quality of education. In fact, no countries where tests have been administered reach the Dakar's objective. Obviously, the students do not learn what they are supposed to learn during primary cycle since out of the 45% of the students who complete it, 50% have not acquired the knowledge and skills specified in their curriculum

and 25% obtain performances considered as minimum (UNESCO – Global Monitoring Report, 2002). As the Mauritania case mentions, the 2000 IREDU study found that the average primary pupil was able to answer correctly only 30 per cent of the assessment items in Arabic, French, mathematics and environmental studies. In Guinea, similarly, pupils, who had persevered through the entire primary school course and graduated from Grade 6, were able on average to achieve only 34 per cent in French language and only 25 per cent in writing on a standard criterion referenced assessment. In contrast, the official aim had been to ensure adequate mastery through an average achievement of 75 per cent. In a similar assessment in Uganda, the average Grade 6 graduate scored only 24 per cent for English reading and writing against an intended average standard of 75 per cent, while only 15 per cent of the graduates – just one in every seven – were able to achieve or exceed that standard (Barrier et al. 1998). In effect, simple access and perseverance in primary school in these three countries resulted in virtual functional illiteracy for the majority of pupils, both boys and girls. However, there are some countries (i.e. Togo and Niger) with nine out of ten adults who had completed primary Grade 6 are able to read easily, so that their schools could be deemed to have largely fulfilled their intentions, as far as reading was concerned. The contrast between Mauritania, Guinea and Uganda, on one side, and Niger and Togo, on the other, bears out the observation that "… trends at country level diverge sharply, with rapid progress registered in some countries, stagnation in others and declines elsewhere." (Bruns et al. 2003.2).

82. National averages can mask strong disparities in education opportunity in terms of wealth, geographical location, or gender. In most countries, the education systems are highly inequitable in terms of access and opportunities to learn on all of these dimension (Chapter 3).

Disparities in education

83. Despite the efforts over the last half-century and the mobilization of the international community since the Jomtien Conference in 1990, poor and rural people in many developing countries remain severely disadvantaged in terms of education. In the great majority of countries in sub-Saharan Africa, the persistent delay in the provision of access to education is particularly alarming for girls. The slow progress toward the universalisation of basic education comes in great part from continued low school enrolment in rural areas and poor areas (Chapter 3).

84. When rural and gender disadvantage combine, the gap in educational disparities increases further. Often, out of the 24 countries for which data are available, nine countries, for the most part English-speaking – Tanzania, Lesotho, Madagascar, Namibia, Rwanda, Botswana, Swaziland, Malawi and Zimbabwe – have a net school enrolment rate that is higher for girls than for boys. The gender parity index is higher in English-speaking countries than in French-speaking countries.

85. For the gross enrolment rate for the year 2000-2001, the gender parity index for all the countries of sub-Saharan Africa is 0.89 but in Benin (0.67), Chad (0.61), Ethiopia (0.67), Ghana (0.68) and Niger (0.67) the index is well below than regional average. The index is generally higher for the gross intake rate, which means that in many countries girls drop out school more often than boys: Benin (0.76), Chad (0.72), Ethiopia (0.73), Ghana (0.93) and Niger (0.68) (UNESCO, 2002).

86. Equity concerns can't be limited to gender. Ensuring access to quality education to the poorest children, especially those living in rural areas will also require special attention. The poor performance of education systems influences the demand for schooling. In fact, the success of one student often has a positive effect on bringing other children in the family, the community and the society into school. Conversely poor quality of education resulting in repetition and dropout discourages parents from enrolling their children in school (Verspoor, 2001). It is therefore important to consider the link between the supply and demand for schooling.

The social demand for a quality education

87. The decision to send a child in school and/or to retain him depends on the expected outcomes by the parents. If they are greater than costs (direct and opportunity), they will probably send their children to school. For poor parents, the direct costs of schooling are often a major constraint in the pursuit of their children's education. In Uganda, for example, the primary school enrolment rate has almost double since school became free in 1996.

88. Dropping out of school may indicate that the balance of costs and outcomes, which leans toward the school when the child enters first grade, has changed a few years later. For poor families in which child labour can generate additional income, the opportunity costs associated with the child's schooling will tend to increase with age and consequently the grade in school. However, when the quality of education is good, the benefits of schooling are likely perceived as high by the parents and students. Therefore they are likely to be ready to contribute to the cost of schooling (Chapter 9).

89. In other case, children will drop-out school prematurely, due to a lack of supply. This is especially the case when the school is too far from the parents' home, or the relevance and quality of education is perceived as too low by the parents. Likewise, high levels of absenteeism on the part of the teachers may cause the parents to have a negative view of the school.

90. Finally, it is logical that there is a weak demand when the education that is provided is of low quality or perceived as irrelevant. Under several circumstances, it is not the children who drop out school, but the school that abandons the children. In order to reduce these effects, many countries have established alternative education systems in order to meet the specific needs of different groups of people (Chapter 9).

91. Nevertheless, the demand for schooling does not depend only on the school and there are sometimes cultural, economic and social factors that play an important role. But these factors are exogenous and experiences also prove that it is possible to organize the school in such a way as to create an acceptable compromise between (i) a structure that integrates some elements of local tradition and constraints (contents and teaching methods, including the language(s) used and taught, the school calendar, activities, etc.) and (ii) a structure that provides children with basic cognitive, operational and social knowledge that will permit them to enter the job market and build a different future, one that is better than that of their parents.

92. Few countries have been capable to develop quality education systems that serve all children. The section that follows reviews the factors that have an impact on the quality of education.

The determinants of poor quality

93. The problems of quality in basic education in Africa are linked in most countries to a shortage of resources for education and perhaps even more to the low effectiveness in the use of available resources. The consequences are shown by a growing deficit of competent teachers and ineffective school organization methods.

Declining and poorly managed resources

94. Public spending on education, expressed in percentage of the Gross Domestic Product (GDP) is relatively stable over time for the sub-Saharan Africa region. In general, there is only a weak relationship between the total volume of public resources mobilized for an education system and the quantitative coverage of this system. But a detailed analysis done by Bruns and al. (2002) shows that there is a range of situations. The countries in group 1 have a costly and ineffective education system with low primary completion rates. The countries in group 2 have the opposite situation.

Table 1 Unit cost in % of GDP per capita, gross enrolment rate and completion rate of primary

	Unit cost in % of GDP per capita	Primary GER	Primary completion rate	Year of data
Group 1				
Burkina Faso	23.6	45	25	1998
Eritrea	22.2	53	35	1999
Niger	35.5	31	20	1998
Group 2				
Gambia	13.2	88	70	2000
Ghana	12.7	79	64	1999
Malawi	8.8	117	65	1999
Nigeria	13.8	85	67	2000
Togo	13.2	115	68	1999
Zambia	6.9	85	72	1998
Average of African countries	**12.9**	**77**	**45**	

Source: Bruns and al., 2002

95. In most African countries, spending on teachers' salaries is high and represents on average 75.9% of all recurrent expenses in education. This means that the resources allocated to pedagogical support and professional development of teachers are too low to ensure a quality of education. Average unweighted public spending for the day-to-day functioning of the primary school, apart from teacher remuneration, is currently estimated at $9 per student per year of which only $1.8 is available for school level (Rasera, 2003).

96. Education of higher quality most often requires more resources to allow an increase in annual spending per student, n particular for expenditures on materials inputs, and accommodate a rise in the number of graduates that this brings about (Chapter 12).

Too few competent teachers

97. The two indicators most frequently used to measure the overall quality of the teaching personnel in primary school are (i) the percentage of primary school teachers having the required academic qualifications (general level of instruction) and (ii) the percentage of primary school teachers trained to teach according to established standards.

98. It is important to note that these indicators are not very useful for the analysis of the quality of education. Not only are the qualification and training levels of one country difficult to compare to those of another but in addition, they do not take into account the competencies acquired by the teachers through their professional experience. To this should be added the fact that the relationship between the length of the training received and the teachers' competencies is not clear. As Lockheed and Verspoor (1991) have already pointed out, it is often important to reform the content and quality of training programs and not simply their length (Chapter 7).

99. In sub-Saharan Africa, many of the countries have a very high student/teacher ratio although there are great variations between the countries ranging from 26.1 in Mauritius to 71.2 for Chad. The median value for the 37 countries for which there is data is about 50 students per class. Even if there is really no consensus on the relationship between class size and quality of education, it is nonetheless true that the number of teachers is insufficient. The number of teachers to be recruited for new and replacement positions is estimated on average at 200,000 per year.

Table 2 Increase in the number of public school teachers, past and required

	Public school teachers (in thousands)			**Average annual increase**	
	1985	**2000**	**2015**	**1985 - 2000**	**2000 – 2015**
English-speaking countries	1191	1557	2180	+1.8%	+2.3%
French-speaking countries	601	825	1512	+2.1%	+4.1%
Other countries	57	109	160	+4.4%	+2.6%
Total Africa	1848	2490	3852	+2%	+3%

Source: MINEDAF VIII – Statistical paper (World Bank data)

The underperformance of education systems

100. The low level of participation, completion and learning achievement in basic education has been recognized by senior policy-makers as a major constraint on education development. Virtually all countries have tried to address these problems – often with the assistance of external partners – through educational reform programs that often were announced with the anticipation of major change and the hope for improvement. Yet often the results have been much less than anticipated. The transition from an "elitist" colonial model to a mass education model capable of providing acceptable education quality for all has often been difficult and slow, especially as the objectives of quality and equity evolved to become more ambitious and the capacity to implement large-scale programs remained limited in many countries. These internal constraints have been exacerbated by external ones – an adverse international economic environment, an HIV/AIDS epidemic that has created new and additional challenges to education and the persistence of war and civil strife in many countries on the continent. These elements are briefly discussed below and will be discussed further in the chapters that follow.

Slow transition toward effective mass education models

101. Most African nations inherited colonial education systems, which, by all accounts, produced efficiently the civil servants needed for the most important spheres of the colonial economy (Moumouni, 1968). As planned, they graduated a tiny elite group of skilled individuals, well versed in the language of the colonizers, who possessed the "modern" attitudes perceived to be essential for any graduate to function in "modern," though colonial, organizations and societies.

102. The leadership of the newly independent countries came out of the ranks of the administrators, teachers, nurses and doctors that graduated from these systems. When it came to designing the path for the economic and social development of their new nations, and the role education was to play in it, they relied heavily on their personal assessment of the colonial systems. Hence, the policy context favored the continuation and expansion in contents and, to some extent, the purpose of the inherited colonial systems.

103. These policies resulted in an increase of average educational attainment on the continent from six months to three years from the 1960s to the early 1980s (World Bank, 1988). However, many countries began to question the appropriateness of the inherited systems. The expanded systems were producing: (i) graduates with less-than-acceptable learning achievements and attitudes, (ii) high repetition rates leading to (iii) low completion rates. It became increasingly clear that a system that had been efficient for the education of a small elite was neither appropriate in terms of educational objectives and curriculum content nor affordable as regards its financial parameters for countries aiming to establish a mass education system to provide universal primary education.

104. All African countries have attempted to address this issue often through successive reforms of their education system aiming at:

- Curriculum reforms to link the content of education with African reality;
- Establishing low-cost parallel systems designed to prepare children for life in rural areas;
- Mobilization of parental and community resources and student's productive work to encourage self-financing of schools.

105. The analysis of the discourse of these reforms and the evaluations of their implementation paint a contrasting picture of what "quality" meant to the stakeholders involved and for the strategies they devised. In reality, many reforms did not make it beyond the pilot stage, did not address the core issues of teaching and learning, or proposed models of schooling that were rejected by parents. Policies aiming at the use of African languages as the medium of instruction, enhancing the relevance of curriculum content and introducing child-centered instructional strategies were rarely implemented effectively on a large scale. Alternative models of service delivery to reach children that were excluded from traditional schooling because of poverty or geographic isolation or other special circumstances remained outside the mainstream of education policy. Only rarely were the resource parameters managed to balance system development demands and available resources, resulting in unsustainable unit cost, misallocation or severe under funding of the education system.[2] The experience with curricula reforms will be discussed in Chapter 6.

106. These problems came to the fore in 1990 when, galvanized by the World Education Conference in Jomtien, countries aimed to rapidly increase enrollments. Without concomitant increases in resources or increases in the effectiveness of resource deployment, these policies often resulted in reductions in public expenditures per student, low completion rates and low learning achievement.

107. The recommitment to the EFA goals in Dakar has provided an incentive to many African countries to critically examine the shortcomings of past policies, and to move toward a policy framework that integrates access and quality goals in a flexible, financially sustainable framework.

The evolution of the quality concept

108. The challenge of basic education policy is not only a challenge of quality but also one of equity, of equal opportunities to learn and achieve. The concept of equality has evolved over time. After being construed as equality of access, the goal was redefined as equality of opportunity implying the provision of the same teaching and learning conditions to all students.

109. An even more ambitious equality concept, reflecting the preoccupations highlighted during the Jomtien conference and revived in Dakar, concern the equality of results measured by academic success. This is how the measurement of Education For All went from a gross enrollment rate of 100% to a completion ratio of 100%. The first two perspectives highlighted educational resources offered to students; this third concept focuses on the inequalities of results (output) in the sense that all students must have adequate pedagogic support and quality in order for them to attain a minimum level of competence at the end of their schooling.

110. The problem of the weak performance of education systems can thus not be conceptualized easily as a deterioration of quality but should be seen rather as a challenge of growing ambitions and the policy objectives in a context of a decrease in available resources.

[2] H. Boukary, forthcoming.

Low policy implementation capacity

111. The development of effective education systems requires that the countries themselves make intensive efforts, notably, by implementing the reforms that the education sector needs. Unfortunately, African counties have often lacked the capacities and the institutions needed to undertake these reforms or make the most effective use of external aid.

112. The weak managerial and technical capacities of the ministries of national education and other organizations and communities that act in the education sector are major obstacles to the improvement of education and learning (Moulton, 2003). A large number of factors contribute to the persistence of the challenge of strengthening the capacities of education systems because these systems have grown larger and more complex as the number of children in school has increased (Chapter 4).

113. The international development agencies recognize the need for strengthening the capacities of the ministries but the strategies adopted have had, so far, limited effects. Since the 1960s, the bilateral and multilateral donors have mainly had a "project approach" that generally consisted in supporting small-scale educational projects. Each donor carried out its own projects, most often without any monitoring on the part of the country's authorities and without any collaboration with the projects of other sponsors. In general, the projects contributed little to the systemic and sustainable improvement of the quality of education and they often remained pilot projects, dependent on foreign technical assistance (Chapter 4). In addition, the project approach often resulted in a weak national ownership, a low productivity level and inadequate financing.

114. Today, the importance of the coherence of the donors financing mechanisms and educational policies is widely recognized. It was to address this issue that the sector approach (SWAP) was developed in the late 1990s in Ethiopia, Uganda and Zambia. This new approach aims at establishing a complete sector development program and a framework setting new methods of financing and managing education in which the national authorities are more involved (Chapter 4).

A difficult economic environment

115. Today, 30 out of the 36 least developed countries in the World Report on Human Development of 2002 are in Africa. Over the 1990s, the annual per capita growth rate was negative in sub-Saharan Africa at –0.4%. The absence of economic growth partially explains the inability of many of these countries to fight monetary and human poverty. The proportion of individuals having only a dollar a day to live on increased over the 1990 – 1999 period, from 47.5% (241 million) to 49% (315 million) (UNDP, 2003).

116. The weak economic growth of African countries weighs heavily on the availability of financial resources needed to meet the objectives of universal primary education.[3] This means that few countries will be able to finance UPE through their own resources and that the search for outside and private financing is imperative.

117. The slow growth of industrial sector and the stagnating job market also affect the education system. Parents often perceive education quality in terms of preparation for further study or access to the modern sector labor market.

[3] Cf. the research carried out by UNICEF (Delamonica et al., 2001); UNESCO (Gacougnolle, 2000) and World Bank (Mingat, 2002) to estimate the resources the countries will need to achieve UPE.

Impact of HIV/aids on the quality of education

118. The extent of HIV/AIDS in Africa with 28.5 million adults and children stricken by the epidemic is a serious threat to supply and demand for basic education in several African countries. The repercussions of morbidity and mortality linked to HIV/AIDS on the school systems of the countries in sub-Saharan Africa have galvanized the attention of the international community. Many African governments have organized awareness and information campaigns for the populations and have also favoured access to antiretroviral drugs.

119. Evidence is emerging that in several countries theses efforts are beginning to pay off. The intensive efforts in Zambia, Botswana and Malawi to fight HIV/AIDS most likely have had a positive impact on teachers' behaviour insofar as recent estimates show that mortality rates are not as high as often had been projected. This clearly means that the actions undertaken must be continued and even reinforced over time.

120. HIV/AIDS has a serious negative impact on the ability of these teachers to carry out their work with the expected regularity. Teacher absenteeism is a widespread problem partly due to inadequacy of management and supervision. But the absenteeism of teachers caused by HIV/AIDS requires more targeted and specific actions. Statistical data available on the extent and causes of teacher absenteeism, however, is rare and makes the implementation of an effective action program difficult.

121. Information on the number of children directly stricken by the epidemic is, in most sub-Saharan African countries, very incomplete. The three groups of students whose lives are most directly affected by the disease are HIV postive children, children living with sick people and children whose parents or guardians have died of HIV/AIDS. Because of very difficult family situations, orphans and children living in households affected by HIV/AIDS may be forced to abandon school without any hope of going back. But, an analysis of the surveys data on households conducted in over 20 countries in sub-Saharan Africa indicates that it is hard to generalize about the impact of the orphan status on enrolment rate (Bennell, 2003).

122. Every effective program to fight AIDS in the workplace is based on several essential parts: an evaluation of the prevalence of the risk; education and prevention: counseling and support groups; voluntary screening; deployment and transfers; medical care (including making antiretroviral drugs available); the fight against discrimination; replacement teachers and teacher support networks. And most importantly effective intervention will need to be based on reliable data and close monitoring of program impact. The ministers of education cannot act alone, and the support of sponsors, NGOs and the community is vital.

Education in countries in conflict

123. Many countries are now in crisis and emergency situations. From 1990 to 2001, 57 major armed conflicts in 45 different places were counted in the world. Sub-Saharan Africa is the most severely affected.

124. In these countries, the challenges facing the education sector are enormous and complex. Infrastructures are frequently damaged or destroyed, textbooks and didactic material also risk being destroyed. Parents and children are strongly marked by violence, seen or experienced. According to Christopher Talbot (2002), the planning directors of the ministries of national education are often poorly prepared to deal with these situations, all the more so as the bilateral and multilateral agencies generally have taken charge of a number of initiatives required to meet the needs of the populations affected by the crisis, more or less marginalizing the ministry officers.

125. The first steps toward reconstructing education systems are important. Rapid access to education must be followed by a regular improvement in quality and school coverage while strengthening the capacities of national institutions. The process of reconstructing the education systems of countries in conflict is a real challenge for all the actors who are led to work together (ministries, sponsors, NGOs, communities, churches, etc.). This may equally be the opportunity to introduce new promising reforms.

Objective and methodology of the discussion paper

126. Improving the quality of education is arguably the most critical element of successful EFA strategies in Africa. But real quality improvement, i.e., improvement in the teaching and learning process that results in enhanced learning outcomes, has been very difficult to bring about in both developing and industrialized countries. To intensify the discussion and stimulate reflection, ADEA has selected the issue of "quality in basic education" as the central theme for its biannual meeting in 2003. The ADEA Steering Committee has established an ad hoc group in charge of carrying out a summary titled "The challenge of learning: improving the quality of basic education in sub-Saharan Africa" in order to support the efforts of the African countries involved in taking up the challenge of basic Education For All. The objective and methodology for the study are presented below.

Objective of the study

127. The central question that has been investigated by the task force is:

How can the countries of sub-Saharan Africa improve, in a financially viable way, the quality of basic education and learning?

128. Quality is defined for the purpose of this study in terms of outcome: achievement by all children of learning objectives as defined in the national programs. Performances in the main subjects – languages, mathematics, science and social studies – are typically used to measure this outcome. But this is insufficient. The perceptions of the quality of education are very diverse among different stakeholders and may influence demand and subsequently the offering. For this purpose, three hypotheses have guided the work:

- Many learning objectives (mostly cognitive) are widely shared and express society's expectations for students (notably learning a given behavior and values);
- Other learning objectives will vary from one community to another and are also very important; they are often reflect on the socioeconomic environment and the parents' mental images of education;
- The determination to achieve a quality Education For All forces the systems to meet these different expectations by adopting a "broadened vision" of education and by creating a space for "multiple learning paths" making it possible to respond to different perceptions of quality.

129. The objective, or rather the ambitions of ADEA is to effectively mobilize the attention and efforts of African countries and their partners on the challenges of improving quality in basic education as a key element of the Education For All policies. It is expected that the program will help the emergence of enriched political visions and strengthened commitments as well as the institution of a "culture of quality" in all stakeholders participating in the processes of change that are expected to improve the environment, conditions, processes and outcomes of learning. This should help countries not only with a better understanding of the key elements of quality improvement

strategies but also with better ideas of how such policies may be instituted and implemented at the country level.

Methodology

130. The methodology is based on a participatory approach that values, above all, the exchange of experiences and the sharing of knowledge between countries in order to develop a broadened vision, a cultural anchoring and institutional and technical capacities for constantly improving the quality of education. The inter active process of learning involved first assumes that each country learn from its own policies and actions by evaluating them so that one or more successful and/or promising experiences in improving the quality of basic education may be identified and analyzed.

131. The study has been based on the praxis approach adopted for earlier work of the Association for the Development of Education in Africa. This approach is driving the concept of "*learning through action, learning from action to develop and improve action*," to reinforce the lessons that have been learned from the country studies. The two main lines of this study are thus comprised of the analysis of national experiences and a review of the literature on four major themes:

- Pedagogical renewal and professional development of teachers;
- Decentralization/devolution and alternative education systems;
- Implementation of basic education reforms and innovations
- Relevance of education: adapting curriculum and using African languages.

132. All the members and partners of ADEA (ministries of national education, working groups, development cooperation agencies, NGOs, education networks and specialists) have been involved.

National experiences

133. The presentation of national experiences in the form of case studies makes them communicable to other African countries and comprises the basis of comparative analyses, crossed views and inter-learning. In total, 22 national case studies were carried out: 11 in French-speaking countries, 10 in English-speaking countries and one in a Portuguese-speaking country (see Annex 1).

134. On the basis of lessons learned from national case studies, thematic syntheses have been prepared with a view to a collegial reflection on relevant policies, strategies and practices in African contexts, which are certainly different but commonly characterized by inadequate resources and low capacities that constrain the options and opportunities in policy, reform and action.

Background papers

135. Along with case studies, several education specialists have written background papers on the four main themes as well as to subjects not directly connected to these themes but that deal with the quality of education. These support documents have made it possible to complete results obtained from these case studies and place them in a much broader context of the African and international experience.

136. In total, around 40 Background papers were realized, divided among the ADEA working groups, the thematic coordinators, the agencies and consultants (see Annex 1).

137. In addition, reviews of the African literature done by the researchers of the regional networks (ROCARE and ERNESA) have been included.

138. This whole approach focused on endogenous experiences and knowledge therefore intentionally favors the search for African solutions to African problems. In other words, it is based on pedagogy of learning that places the main actors in the center of the construction of their knowledge and know-how by actively involving them in strategies for seeking and solving problems. The participatory approach that has guided this exercise was carried out through the organization of three meetings with country case studies coordinators and authors of the background paper and intensive e-mail exchanges.

Organization of the paper

139. This discussion paper is organized as follows. It begins with a review of current discourse on issues of quality and quality improvement (chapter 2), equity and gender (chapter 3) and approaches for external support (chapter 4). This is followed by a review of evidence and experiences from Sub-Saharan Africa with as regards the effectiveness of investments in different inputs (chapter 5), curriculum relevance especially as regards the use of African languages and adaptation to local context (chapter 6), instructional strategies and teacher development (chapter 7) and school effectiveness (chapter 8). The paper then reviews the experiences in Sub-Saharan Africa with the provision of a range of learning opportunities through the differentiation of programs and the diversification of providers (chapter 9), changes in the way education systems are managed (chapter 10), student's learning progress is measured and monitored (chapter 11). It discusses the financial implications of accelerated progress to the education for all objectives (chapter 12) provides a strategic framework for quality improvement (chapter 13) and discusses some key elements of an education policy focused on quality improvement (chapter 14).

CHAPTER 2
THE REALITY OF QUALITY IMPROVEMENT: MOVING TOWARD CLARITY

140. The current global consensus among educators and stakeholders within the public and private sector is that quality exists when students demonstrate knowledge. The international focus on quality rests on the knowledge that less than a third of the African children successfully completing the primary school cycle. Despite the decades of research that fill volumes of journals, seminar proceedings, and the documents of professional meetings, it is both amazing and disappointing that so little of what is known from the vast body of knowledge generated by this research, has actually been utilized to improve national policy and local practice. Even in industrialized countries the increasing knowledge about educational change and quality in terms of technical information, the expansion of research competence, and the emerging interest in teaching and learning at the classroom level, have not resulted in large scale improvements in student achievement or accelerated student learning (Hopkins, 2001). Although much – but not all – of this research is from the industrialized world, its findings can stimulate reflection on the commonalities notwithstanding the differences in context – of the experience regarding the implementation of education reforms in developing countries.

141. The Dakar Framework for Action and includes a specific target on quality (Target 6):

"Improving all aspects of the quality of education for all, so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy, and essential life skills".[4]

142. The important message of this target is that **quality is centered on measurable learning outcomes for all.**

Perspective on quality

143. Defining quality is more frequently debated than articulated. Adams (1993) presents some persistent questions that surround attempts to define "quality" – so as to understand and utilize the concept of quality. He draws distinctions between efficiency, effectiveness, equity and quality, identifies multiple meanings of quality (as defined in the literature as inputs, processes, outputs, outcomes, and value added) and attempts to operationalize, by listing possible characteristics of quality such as: definable in context; integrated with efficiency and equity; not associated with high costs; potentially valuable across settings with agreed-upon goals and contexts.

144. Almost a decade later, UNICEF (2000) presented a definition of quality education that had five characteristics: learners who are healthy and ready to learn; environments that are safe and adequately resourced; content reflected in relevant curricula for acquiring basic skills; processes that use child-centered learning; and outcomes that encompass knowledge, skills and attitudes and link to national educational goals and civic participation. UNICEF's quality model depicts the center of this definition on the outcomes. UNESCO expanded the definition of quality to include a special emphasis on gender perspective and a demand for education to reflect upon its relevance

[4] Dakar Framework for Action (2000). The Millennium Challenge Account, the Fast Track Initiative , the G8 summit and the USA No Child Left Behind Act (2001) are all manifestations of the global alliance on quality basic education.

to the world outside of school to social dimensions. It is based on **education as a human right** and includes areas such as: peace and human rights; improved quality of life; addressing the HIV/AIDS pandemic; literacy; and teacher education (Pigozzi, 2000).

145. A classroom-anchored working definition of quality guided a decade (1991-2003) of USAID activity focuses on teaching and learning. This operational approach applied a process that stimulated dialogue about quality in host countries by pointing to the "essential elements of student progress toward meeting or exceeding locally appropriate standards (expressed in measurable outcomes such as academic achievement in numeracy, oral expression, and reading), conditions of learning environments and instructional strategies and resources that strive to treat all students equally so that learning is not hindered because of characteristics such as gender, socioeconomic status, geography or ethnicity"(Schubert, 1993).

146. All these definitions highlight the different elements of the basic input-process-output model that commonly underpins education research and policy analysis. It has also guided the analyses presented in this paper. It emphasizes the importance of cognitive and affective results (mediated by quality inputs and processes) that are measured by the extent to which pupils achieve knowledge, skills and behaviors specified by a national curriculum.

147. The central message of this chapter, **which emerges from the knowledge base of the past few decades, is that knowledge about what students have learned and can do and the link to instructional practice, stems from systematic information about teaching and learning drawn from the classroom**. The classroom is the "workplace of learning" – the authentic setting where the intended beneficiaries of any educational change (i.e. reform) demonstrate measurable improvement (or non-improvement) as a consequence of that change. Knowing more about why progress toward improvement does and does not occur can only emerge from ongoing and systematic examination of the environment where the change/improvement is to occur.

148. This chapter briefly summarizes the multi-faceted research perspectives that contribute to the knowledge base of educational policy and practice on quality and student learning. Much of the existing body of knowledge stems primarily from education systems and school environments in industrialized settings, although there is a growing knowledge base of school effectiveness and enhancing schooling in developing countries (Hopkins, 2000; Scheerens, 2000). It provides a very brief summary of the current "where we stand" in terms of the knowledge gained through the research and the extent to which this knowledge is useful and/or appropriate to other, diverse contexts such as educational policy and practice in Africa. This Chapter provides the backdrop for the review of experiences in chapters 6-8 and the discussion in chapter 13 and 14 on the main elements of the quality improvement strategies that are emerging in Sub-Sahara Africa.

What is known about quality improvement?

149. Three decades of research and evaluation from a variety of independent but complementary perspectives provide several lenses through which quality may be viewed and upon which concrete action may be taken throughout the hierarchy of an education system. The overall attempt is to understand and ascribe meaning to education policy and practice assumed to result in increased performance of teaching and/or learning or both. The Coleman report (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, and York, 1966) can be regarded as a historical landmark of research and practice on quality. It ascribed most of the variation in student learning to socio-economic factors and raised questions about the impact of schools. The report provoked a considerable body of research and practice on what has become known as "school effectiveness". Early

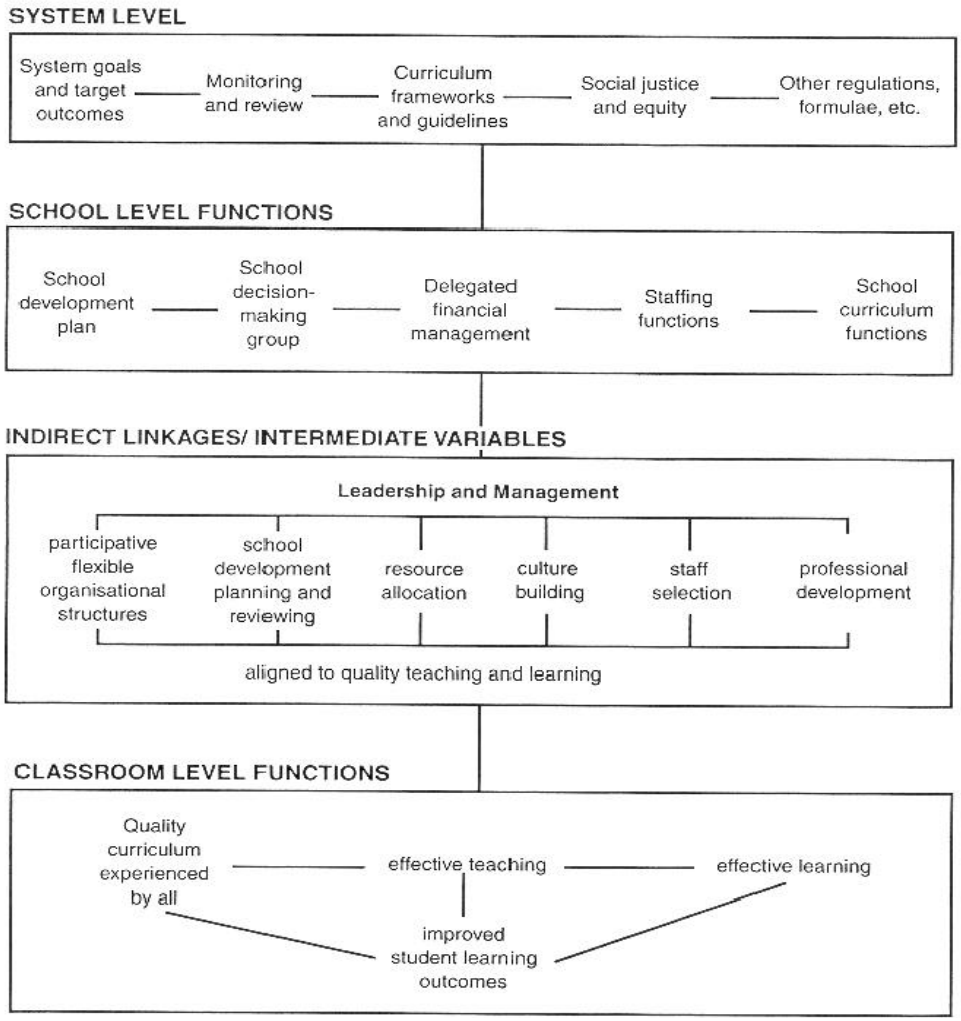
research in this tradition was primarily intended to prove Coleman et al wrong, i.e., to prove that "schools mattered" in student learning achievement. The central questions that have animated and continue to animate effective schools research later expanded to include:

What school-related factors account for student achievement, and ultimately the successful completion of schooling, after controlling for external factors such as family background or socio-economic status? Among these factors, which ones most affect teaching and learning? How can schools be improved to provide an environment conducive to learning?

150. An abundant and widely quoted literature on school effectiveness and school improvement has emerged from this research, comprising studies of individual projects, reviews of national education sector strategies, case studies of activities, meta-analyses of clusters of studies and reviews of reviews!

151. By pinpointing the specific factors within the education system that influence teaching and learning this research has created a knowledge base, that policy makers, planners and practitioners can learn from and build upon, thereby avoiding a "reinvention of the wheel". The challenge is to extract the core elements from the available evidence to stimulate a dialogue that results in evidence-based policy and practice that addresses specific national priorities. Dimmock (2000) offers a summary gleaned from the literature on school effectiveness and restructuring (a term which embraces" policy and practice aimed at transforming education across all levels from system through regional and district to school.". He distinguishes between reform (a term applied to change that remains undefined), restructuring (transformation of a school – leadership, governance, management) and design (a more intentional focus to structure and process, a linkage among the elements, and a reinforcement among the parts). Figure 1 illustrates the relationships among the key components of a system and within each, illustrates functions at a particular level. The bottom line is "improved student learning outcomes." The intermediate variables are critical to connect the school activities to the classroom functions, as derived from the literature.

Graph 3 System structure and functions



Resourced environments

152. Scheerens (2000) compiled evidence from industrialized countries according to various strands of educational-effectiveness research: school effectiveness in equal educational opportunity research; economic studies on production functions; evaluation of compensatory program; effective-schools research; and studies on instructional effectiveness. He includes a table of the main components of 14 factors positively linked to effectiveness. Figure 2 summarizes the most important ones.

Table 3 Key factors of effectiveness

Factors	Components
Educational leadership	▪ School leader as information provider ▪ Initiator and facilitator of staff professionalization
Curriculum quality/opportunity to learn	▪ Setting curricular priorities ▪ Opportunity to learn
School climate	**(a) Orderly atmosphere** ▪ The importance given to an orderly climate ▪ Good conduct and behavior of pupils **(b) Climate in terms of effectiveness orientation and good internal relationships** ▪ Perceptions of effectiveness-enhancing school climate ▪ Pupils' engagement ▪ Appraisal of roles and tasks
Evaluative potential	▪ Monitoring pupils' progress ▪ School process evaluation ▪ Use of evaluation results ▪ Keeping records on pupils' performance
Effective learning time	▪ Time ▪ Monitoring absenteeism ▪ Time at classroom level

153. The overall conclusion of these analyses is that, in industrialized countries:

- the impact of resource-input factors is fairly small;
- there is agreement on the relevance of factors for school improvement such as leadership, staff cooperation, achievement oriented school policies but when subjected to meta-statistical analyses, the impact of school-organizational factors is small to medium;
- between-school variance (achievement scores liked to "school-effectiveness") factors explains a small (about 10%) proportion of total variance in student achievement, although the average may conceal striking differences – as much as one year of schooling – in the school experience of a student in one of the most effective schools compared to those going to the least effective schools (Hopkins, 2001).

154. In a review of more than 100 sources, Gauthier et. al. (2003) examined research on effective pedagogy and schools in both an industrialized and a developing country context. One intent of the research was to target studies that favored the success of students whose schooling may be influenced by: malnutrition; absenteeism; repetition; and dropout, so as to derive commonalities between the two contexts and increase the relevance of the findings to a development context. One overall conclusion was, that within the literature on the industrialized countries, "the most effective measures to favor students from disadvantaged milieus are found directly in the classroom." The message is that "**school can make a difference in the academic performance of young people**

despite a disadvantaged socioeconomic context." Further, the most effective instructional practices must focus on the *teaching, on basic skills learning, and use direct instruction.* The hope is that this focus, over time, will not only improve the ultimate success of the pupil, but also increase successful completion rates.

155. Within the past five years, a review of the findings on school effectiveness reveals some limitations as a tool for improving student achievement. What's important is the critical examination of the utility of the findings linked to student achievement. For example, Scheerens suggests that: (i) the attention to individual school inadequately addresses how national systems function; (ii) a focus on instrumentality that sees goals and objectives as more static than dynamic and does not recognize the need for change or adaptation; and (iii) an inability to adjust to issues related to equity and efficiency (Scheeens, 2000). Dimmock also points to the limitation of checklists that may oversimplify complicated processes – they emphasize neither the WHAT nor the HOW of improving the quality of schooling. He further argues that the school effectiveness advocates have assumed "one size fits all" model, thereby offering a model useful for all students regardless of gender, age and ability.

156. It is very important when searching the knowledge base for findings that can best and usefully inform educational planners and implementers to disaggregate the findings, particularly when considering their application to new and diverse environments. Even though limitations may be cited for particular research directions, it does NOT mean that all is lost. Indeed, much has been learned and can be used elsewhere. The task is to distinguish between what is and is not applicable and in what context. The attempt in this chapter is to extract that which strategically focuses on pupil learning. Hopkins presents a summary of the legacy of effective school movement as analyzed by Murphy (1992):

- the educability of learners – it's possible for all children to learn
- a focus on outcomes – examining process is equally informative
- taking responsibility for students – don't blame the victim (the student) for the shortcomings of the school; schools should take a fair share of the responsibility for students' learning performance
- consistency throughout the school community – treat the school as an organic whole, – more than the sum of it's parts – and don't focus on only the parts

157. Hopkins refers to the emerging group as pragmatists that combine both qualitative and quantitative methodologies. What's happening now is a shift away from the "templates" of the past and the need to be more reality-based in planning and implementing any policy or intervention that strives to improve student achievement. The world is different than it was when many of these "movements" began is imperative: schools are being called upon to respond and "fix" social problems; parents are demanding more accountability; students are pressured to consider choices and at an earlier age; governments are installing universal standards and increasing measurement to meet those standards. National boundaries are blurred as global priorities for work and leisure gain prominence.

158. Hopkins frames the need to move into this complex, evolving and more global society as the requirement to be "authentic" – to strategically focus policy and practice on learning. Authentic strategies address the process and the outcome of student achievement, but also acknowledge the necessity of productive management within schools. This authenticity brings: a focus on outcomes; targeted focus on teachers and learners; consistent implementation of strategies; recognition of cultural context. However, the essence of the authentic school improvement strategy is that **"powerful**

learning and powerful teaching is the heartland of the authentic school improvement." This means a transformation from test scores and results to skill-building cognitive and affective processes as well as helping teachers to instruct their students in **how** to learn while they are acquiring knowledge in specific curriculum content inherent in this transformation are requirements such as:

- improving our understanding of the relationship between a teacher's education or pedagogical practices and student learning.
- Increasing our recognition of the importance of external factors that influence learning – this means access not only in attendance, but the ability of a child to attend to the learning process while in class
- recognizing that the mechanisms for improving literacy and numeracy may not be limited to traditional schooling
- recognizing that assumptions about what happens in a school or classroom do not reflect the reality of the experiences
- acknowledging the necessity of addressing each step involved in the successful implementation of a policy – from the national level to the classroom level
- moving from "schooling" to learning as the target of action

159. Another voice for the natural direction of integrating theories, experiences, and findings from several bodies of literature, particularly the effective schools and school improvement is Dimmock. He argues to restructure education, by drawing a more holistic approach that acknowledges the relationship among all segments of the education sector – and often to other sectors such as health, or democracy and governance. The current work on designing learner-centered schools utilizes knowledge from: learning theory, organizational theory, teacher development, management, and culture. Schools are therefore viewed as dynamic and flexible.

160. A meta-analysis of comprehensive school reform (CSR) and achievement reviews the research on the achievement effects of CSR and summarizes the specific effects of 29 implemented models. The targeted schools are high-poverty schools (70%) with low student test scores. Many of these schools have been confronted with a revolving door of reforms and new initiatives that are seldom linked to evidence of success. The research usually occurs after the implementation and may even have been dropped in the wake of a new and different activity. The overall conclusion is that schools that implemented CSR models for 5 years or more showed strong effects that were consistent across schools of varying poverty levels. It 11 components that represent a comprehensive and scientifically based approach to school reform are. This approach for example:

- employs proven methods for learning, teaching and school management
- provides high-quality and continuous teacher development
- includes measurable goals for academic achievement
- integrates instruction, assessment, classroom management, professional development, parental involvement and school management
- includes plan for annual evaluation of the reform

Less fiscally resourced environments

161. Gauthier and al. (2003) attempts to derive commonalities between the industrialized and developing context by focusing the review of studies on students whose schooling may be influenced by characteristics such as: malnutrition; absenteeism; repetition; and dropout. The researchers chose to address interventions that favored the success of industrialized countries among students from disadvantaged conditions in order to increase the relevance of the findings to students from developing countries. The authors reviewed 100+ sources and conclude that within the literature on the industrialized countries, "the most effective measures to favor with students from disadvantaged milieus are found directly in the classroom." The effectiveness of a teachers' instructional practice must focus on the teaching rather than on the student AND that the teaching must focus on the acquisition of basic skills such s reading, writing, and mathematics. The conclusions are even more explicit that such a focus will "develop cognitive and affective competencies rather than favoring the latter over the former." The authors hypothesize that such a focus over time may not only favor the success of these students at risk, but also improve their completion rates and long-term participation in personal and civic futures.

162. The summary of the literature on effective pedagogy in developing countries reveals that one characteristic of the research is a litany of negative factors such as *unstable political conditions, weakness of teacher preparation and support, exploding school participation, and unsupportive conditions for teachers.* However, one critical obstacle on the research of schooling and teacher effectiveness is the inappropriateness of transferring models from industrialized to developing countries. Scheerens presents a review of earlier reviews summarizing 96 studies on the estimated effects of resources on education in developing countries. The two input variables with the most frequent positive significant association (above 50% of the studies) to achievement in developing countries are teacher education and per-pupil expenditure. The other three input variables – teacher/pupil ratio, teacher experience, and teacher salary – are also positively and significantly associated with in between 27 and 35% of the studies. These percentages are higher than those found in studies in industrialized countries (Hanushek 1997).

163. The knowledge base from research in developing countries that began with a seminal effort in examining the change process at national and local environments within a development context was a cross-country study in Columbia, Ethiopia and Bangladesh (Dalin and al. 1992). The combined effort of 14 researchers collected qualitative data over a four-year time period. Six critical factors emerged: briefly stated.

- concrete, locally available, ongoing in-service training linked to practice and peer collaboration;
- timely and relevant support from local and district educators that relates to instructional practice
- an environment of high expectations to produce results and share successes;
- shared responsibility through decentralization of management and administration;
- use of locally-developed teaching and learning materials that strive toward mastery of teaching and learning; and
- active community roles in funding and management of schools.

164. Heneveld & Craig (1996) presented a conceptual framework identifying factors affecting school effectiveness, often referred to in the literature on developing countries – i.e. supporting inputs, enabling conditions, school climate and teaching/learning process all leading to student outcomes. This model was used as the

research framework for a baseline study on educational quality in primary education (e.g. information on pupil performance; parents; communities, teachers, learning materials etc) in Uganda in 1996. The model proved useful in pinpointing opportunities for improvement by revealing that although the schools in the same were "significantly short" on the components of effectives, they did exist and did influence school effectiveness (Carasco and al., 1996).

165. In 1995, Jansen produced a critique of the effective schools literature which examined the limitations of that literature in the developing world and proposed an alternative that rested on different methodological assumptions. The review traces the 1960s and early 1970s or large sample of quantitative studies which, although were inattentive to students, concluded, "schools mattered." The next wave, late 1970s and early 1980s is characterized by checklists and case studies that describe the properties (what works) of effective schools. Studies in the 1990s revealed weaknesses in the earlier body or knowledge vis-à-vis student performance. Jansen suggests that a critical weakness of this literature is that it suggests a recipe for effectiveness that limits the user's understanding of change and is not universally applicable (Jansen, 1996).

166. A very informative set of research activities from 1993-1997 were conducted through an IIEP inter-regional research project (Carron and al., 1997). The outcome of the four-country analysis is a nine-dimensional framework used to analyze school functioning within the local education environment (e.g. characteristics of the context; relationships within the school; teaching/learning process; teaching process measured against objectives).

167. Applicability of the knowledge derived from industrialized countries to developing countries receives attention in some of the works presented earlier. In the review of studies related to pedagogy and schools, the research is often characterized by a litany of negative factors such as unstable political conditions, weakness of teacher preparation & support, exploding school participation, unsupportive conditions for teachers that mitigate studies of effectiveness. The transfer of knowledge is a risk. However, Scheerens summarizes his review of the "strands" by reporting that the provision of basic resources makes most of the difference in developing countries, particularly for the most deprived schools. A decade ago, Farrell (1992) noted that resource-scarce environments require attention to cost-effectiveness and efficiency that may not be required in wealthier environments. Choices may require trade-offs that add to one activity while subtracting from another.

168. The review of pedagogy and schools offer important insights for the design of education reform programs in developing countries:

- adopting instructional approaches should be done with caution, until they have been determined to result in student achievement – note particularly some "discovery" approaches whose success is linked to individuals rather than sustainable practices – or that they are logistically feasible for overcrowded classrooms, poorly prepared teachers, and the absence of learning materials
- depending on successful pilot projects to solve educational problems at the national level is not strategically sound as they often fail – often for logistical reasons
- viewing the school only as an economic input-output system ignores its important social system features – adapting teaching conditions to the local culture; integrating communities into the functions of the school; keeping parents informed of their children's progress so as to engage them in supporting schooling

169. The recently completed examination of the school improvement efforts of the Aga Khan Foundation over the past 15 years is particularly instructive to developing nations because the program was implemented in Africa and the activities stemmed from a common set of strategic principles applied in a variety of situations, and projects were no less than three years, some as long as ten (Anderson, 2002). Moreover the challenging conditions under which the donor, the governments and the NGOs worked are shared by other nations. The six key design features underlying the overall effort to improve teaching and learning are: school-based; whole school as unit of change; ongoing teacher development; include management and other organizational conditions to support teacher capacity to implement change; strategically plan for institutionalization of the school improvement effort; and bring in partners among stakeholders for substantive involvement.

170. Hopkins provided an external perspective on the Aga Khan initiative and offered several conclusions that merit attention for future planning:

- this approach fell short of fulfilling the results-oriented expectations of current performance-based standards around the world
- he proposes a better balance between strengthening capacity and accountability measures at the local level
- there is limited understanding and application of child-centered methods by teachers
- there is little evidence of positive impact on student learning from child-centered methodologies

171. Hopkins acknowledges the very challenging task of implementing reforms that result in student achievement. He suggests that one reason is the fragmented nature of policies that address only one component of the education system – e.g. teacher training and curriculum redevelopment. He reminds us that any shift in teaching and learning in the classroom must not only **involve teachers' behaviors but their beliefs**. The lessons to consider for authentic school improvement are that:

- change takes place over time
- change initially involves anxiety and uncertainty
- technical and psychological support is crucial
- learning new skills is incremental and developmental
- organizational conditions within and in relation to the school impact school improvement
- successful change involves pressure and support within a collaborative setting"

Using the knowledge

172. The bottom line – what are the building blocks from all this knowledge and experience that enable policymakers and program developers to design activities that are technically sound, logistically manageable, and address national priorities? There is consensus that "one size does not fit all." The knowledge base enriches the dialogue within specific national activities but there is no known template for success. But the new century brings guiding principles based on the accumulated wisdom and experience of previous decades, recognizing the school and the classroom as the unit of change and establishing effective management practices.

- Focus on learning – raise level of pupil achievement and skill of teachers and teacher trainers?
- Establish a process of continuous improvements in teaching by ensuring coherence between teaching strategies, curriculum content and learning needs and developing the skills of teachers and teacher trainers
- Recognize the school as the unit of change and ensure that reform strategies are congruent with the hopes and aims of policy, the values of a school and the beliefs of a teacher.
- Attend to the implementation requirements necessary to insure that a scheme has a fair opportunity to be tested.
- Examine the evidence for success if adapting or adopting a particular strategy.
- Think strategically about the link between the national policy, system management and the local practice – in terms of ownership, capacity building, implementation, and sustainability.
- Broaden civic participation to establish education goals – be realistic so as not to build in failure.

173. From a quality perspective, the most revealing measure of the information and experience revealed by the research and the reviews presented in this chapter, is extent to which is it useful in improving student achievement and the factors that influence this outcome. The way forward must be charted with an approach(es) or a process(es) that applies what has already been learned to the situation as it exists "on the ground" (i.e. the reality) and systematically examine how the policies and the interventions are being implemented and the extent to which they are making a difference in student performance. The next step on the path to quality as revealed by the research of the past few decades is to enter the classroom.

174. Once inside, it is necessary to examine the dynamics of the classroom and to gather very specific information about what's happening. For example, what teachers know about the content they are expected to teach and how do they teach it; what resources are and are not available and how are they used; what do pupils do when they come to school (i.e. how do they use materials, do they have materials to use) and what do they know throughout the cycle. The results of such systematic and continuing examination must then be released throughout the education sector so each component within the sector receives specific information about action it may take to improve a policy or a practice and how its action relates to other components. For example, if those responsible for teacher training learn that some teachers are unable to read the materials provided, then the implication is that something needs to be done within the professional development of teachers to teach teachers how to read! The curriculum folks must then

examine their materials through the lens of this finding to decide what action may be appropriate from the curriculum development side to address this issue.

175. What's being suggested as the way forward in accelerating the path to education quality represents a dramatic shift in determining policy and developing program because it reverses a top-down traditional approach to reform. **It's a bottom up approach because the choices to be discussed begin with information from the ground – the source of the implementation**. The Improving Educational Quality Project (IEQ), funded by USAID and implemented from 1991-2003 in 17 countries, tested such a "cycle of improvement". The process begins and ends in the classroom and employs multi-methodological approaches to reduce the misalignment between "the educational goal of quality and the political priority to quantity. These dual pursuits of political and educational agendas share common goals: the successful completion for all children of the primary school curriculum. The IEQ process pinpoints the factors that sustain this misalignment and provides realistic and concrete information from the classroom to form the basis for corrective action in policy and practice. The idea is to bring quality and quantity into alignment (Schubert and al; 2001).

176. The sea change in approach to accelerating the path to improving quality education is based on these lessons from IEQ:

- The classroom as the source of authentic knowledge about teaching and learning.
- The knowledge generated from the classroom creates a common discourse for dialogue about how to improve policy and practice.
- Knowledge shared at all levels of the education sector – from the classroom to the boardroom – stimulates the translation of research into practice.
- Linking factors that influence teaching and learning contribute leads to increased understanding about the dynamics of the classroom.
- Involving in each country educators at all levels in examining classroom dynamics and sharing the findings strengthens local ownership of the process and the capacity to sustain and integrate the process within a national system.

177. This is not a perfect world! Education reform as a mechanism for change brings a history of successes and failures. Strategic planning is being discussed within the framework of EFA – governments, donor agencies, institutes of education and the private sector – because the targets of access and quality remain unfulfilled. It is not necessary to reinvent the wheel. It is important to apply what has been learned with an ongoing and systematic process that addresses the reality of the education context.

CHAPTER 3
WHAT IS THE PROBLEM OF EQUITY IN QUALITY?

178. This chapter attempts to identify options for responding to the question, "What can the state do to promote equitable progress towards the EFA goal of "*universal primary completion with good quality education?"* The word 'quality' implies the acquisition at specified levels of the knowledge and skills specified in the curriculum. It implies a shift from simple equality of access to equality in treatment and eventually greater equality in attainments. Insofar as the attested inequality arises from inequity, it implies that equity has to feature as a central purpose of public policy

Inequality and equity

179. The discussion takes the indicators of quality to be (i) retention of the students who enrol, i.e. low dropout rates and high completion rates, (ii) ensuring that learners spend the stipulated time in learning, i.e. high attendance rates and low rates of teacher absenteeism, (iii) high proportions of learners reaching their targets in the time appointed, i.e. low or nil repetition rates, (iv) large proportions of learners achieving their learning targets and (v) small disparities in learning attainments between regions, schools, social classes and genders. To satisfy these indicators, minimum equitable 'adequacy' in quality will likely entail, in concrete terms, that each child enjoys sufficient health, access to a safe school with essential amenities, sufficient attention from a competent teacher and sufficient access to sound learning materials to undertake approximately 1000 hours of active and effective learning annually.

180. As will be seen, the data available indicate that ineffectiveness arises less from inequalities in the abilities of different groups of children to learn and more from two sets of factors. These can be conveniently labelled "supply factors" and "demand factors". "Supply" denotes the availability of educational facilities – not necessarily schools – the quality and particularly the dependability of teaching, content, learning materials and other components of an education system. These factors lie clearly within the state's power to address.

181. "Demand" denotes the willingness and ability of families to enrol their children and to sustain their support in ensuring that the children attend regularly, apply themselves diligently and persevere to the end of their courses. Demand factors can be more difficult for the state to address, but, as will be shown, are certainly not beyond its power. Further, the evidence suggests that demand factors are in overall terms more readily mitigated than those on the supply side. Indeed, the data indicate that the main sources of the apparent ineffectiveness of education and of the inequalities in the achievements of different groups of children are probably inequities in the distribution and application of human and material resources and therefore well within the power of the state to redress.

182. This chapter takes the term "equity" to indicate fairness, reasonableness and impartiality. Conversely, the term "inequity" connotes unfairness, possibly arising from neglect, partiality or misguided decisions. The basis for assessing 'fairness' is 'rights based', in the sense that every child not only has the universally recognized right to an education that satisfies generally accepted and applicable criteria of adequacy in the context of a particular society, but in addition has the right to two further expectations. The first is that the state will ensure the availability of all the necessary facilities for an adequate education. The second expectation is even stronger: the state will remove all

obstacles to the child's access to education and effective learning, even if some of the obstacles exist within the child's family and circumstances, and will help, even induce, the child to enroll and persevere. Yet further, the state is expected as soon as possible to go so far as to make it compulsory that every child take up its right to education. Therefore, since the state is responsible for eliminating obstacles, even those that do not arise from inequity, it is clearly even more responsible for removing obstacles that do arise from inequity.

183. Although the literature often discusses equity and equality together, this chapter focuses on equity and adopts what Grisay (2003) terms the "realistic" ideology: "since a certain degree of inequality is the very foundation of any society, it is only necessary to combat *injustice* in the school system and not inequality itself." However, it is of course the presence of inequalities that points to the possibility of inequities: each inequality then requires examination as to its sources.

184. As regards inputs and resources, which Grisay discusses under her heading of EQUALITY 1(equality of opportunity) do some state schools tend to enjoy better buildings, better facilities, better supplies of teaching and learning aids and resources and, most important, higher proportions of reliable, competent and committed teachers than the average, while others are left much worse off than the average on all these dimensions? Such inequalities or disparities would of course raise suspicions that some inequity or injustice was at work.

185. As regards process and treatment – Grisay's EQUALITY 2 (equality of treatment) – do learners of one gender or from some social groups tend to do much better or much worse than the average? While some variation between individuals is to be expected, large and systematic variations between the genders or between social groups raise the suspicion that some are being treated better or worse than others and again that there is some inequity or injustice at work.

186. Similarly, if there are schools that exhibit lower than average rates of attendance, higher than average rates of repetition and dropout – and thus lower rates of completion – and lower than average levels of attainment in local standard assessments – Grisay's EQUALITY 3 (equality of results) – there must be schools that do the opposite, i.e. there are inequalities between schools. The Benin and Mauritania cases document the huge variations in attainments between schools and between classes: in some schools the average attainment is 80 per cent, whereas in others it reaches only 10 per cent. The two governments clearly attribute these inequalities to inequities for which the system itself is responsible, for they plan deliberate measures to reduce them between regions, zones, types of school and gender.

187. On all these dimensions, the state proceeds on the assumption that, under conditions of equal access and equal quality, the observed wide inequalities of outcomes in learning will be narrowed and as Grisay observes, the correlation between gender or social class or place of residence and educational achievement will be much weaker and ideally may vanish altogether. In effect, increasing equality of learning outcomes has become an international, universally agreed goal and, in that guise, a driver of national policy and action.

The correlates of disadvantage

188. Widening the focus beyond Mauritania, Togo and Uganda, Table 4 takes data from 19 countries of sub Saharan Africa to show that the three long and well known factors of poverty, rural residence and gender persist even now as the strong correlates of ineffective education. Intrinsically, the three should show no correlation at all with these indicators. If access and quality were equally available and distributed, why would poor and rural children or girls on average *necessarily* attend less regularly than the country average, or repeat and drop out more than the average, or learn less than the average? The fact that disparities on these indicators have been mitigated and even reversed in many countries underlines that they are indeed not intrinsic, but subject to policy, action and mitigation.

Table 4 Social disparities according to various indicators for primary education in 21 countries in Africa*

Indicator		Gross enrolment rate (%)	Rate of access to the 1st Year (%)	Rate of transversal retention (%)	Completion rate (%)
Sample average		**78.2**	**71.9**	**58.0**	**41.7**
Gender	Boys	84.5	76.9	61.4	47.2
	Girls	72.1	66.8	54.2	36.2
	Difference (Boys – Girls)	12.4	10.1	7.2	11.0
	Ratio (Girls / Boys)	0.84	0.87	0.88	0.77
Geographic location	Urban	103.5	88.4	69.0	61.0
	Rural	70.1	65.4	42.8	28.0
	Difference (Urban – Rural)	33.5	22.9	26.2	33.0
	Ratio (Rural / Urban)	0.68	0.74	0.62	0.46
Income quintile	Q5 (wealthiest 20 %)	106.7	89.9	76.3	68.6
	Q1 (poorest 20 %)	62.1	53.3	43.9	23.4
	Difference (Q5 – Q1)	44.6	36.6	32.4	45.2
	Ratio (Q1 / Q5)	0.57	0.59	0.58	0.34

* The countries are Angola, Benin, Burundi, Cameroon, the Central African Republic, Chad, Côte-d'Ivoire, Guinea, Guinea-Bissau, Madagascar, Malawi, Mauritania, Niger, Nigeria, Uganda, Rwanda, Sierra-Leone, Togo, and Zambia
Source: Mingat. 2003.

189. Before a discussion of the indications of the data, some limitations need noting. First, Table 4 it does not take into account factors such as ethnicity (some ethnic groups may either suffer discrimination and disadvantage or, on the contrary, enjoy disproportionate privilege) life-style (some populations, such as nomads, practise patterns of living that make conventional modes of education impracticable), culture (some religious groups prefer not to send their children to conventional schools), or difficult circumstances (families living through civil conflict, refugees, orphans, children caring

for sick parents). Such factors currently affect large numbers of children in Africa, even though the numbers in any given country may be small relative to the entire population. Table 4 then deals with countries only in very broad terms. Nevertheless, it serves to sketch a set of generally recognisable circumstances.

190. A second limitation of Table 4 is that the 21countries in the sample may not be fully representative of all 48 in sub Saharan Africa. Even so, they serve to point to situations that are true of most of the 45 countries, albeit to varying degrees.

191. The first point to note in Table 4 is that in these 21 countries taken as a whole, the Primary Completion Rate (PCR) is less than half even for the boys and just over a third for the girls. In part, the PCR is a result of the attendance rates, for irregular attendance often precedes dropout and Mingat points out that only three countries have a net attendance rate of 75% or more. The implication is that in most countries large proportions of boys and girls are attending so irregularly, that they will likely not complete their primary education. Further, the clear disparities among the boys, among the girls and between the boys and the girls raise suspicions of inequalities generated by inequities in regular access and overall quality.

192. The second important point is that the largest set of differences between two groupings is that between the wealthiest 20 per cent of the population and the poorest 20 per cent. For the Primary Completion Rate, it is in fact 4 times larger than the difference between boys and girls. It is possible that this huge disparity arises solely from the situations of families and from no inequity in access or treatment at all. On the other hand, it is more than probable, as several studies over several decades have suggested, that the greater influence of the wealthiest families over state policy skews the distribution of public resources inequitably towards the children of those families and away from children who are in greater need of those resources.

193. The second largest difference depends on whether a child lives in an urban or rural area. Although not as large as the disparity between richest and poorest, for the Primary Completion Rate it is still 3 times larger than the difference between boys and girls. Here the disparity may indeed be due more to 'natural' obstacles such as distance and fragmented or mobile populations, but the possibilities of inequity still need to be investigated.

194. Much smaller – but still significant and large enough at 11 per cent to require direct action – differences exist on the gender dimension, with girls being systematically at a disadvantage vis à vis boys. These differences are indeed inequalities. Do they arise from inequities? The following paragraphs consider them in order of descending magnitude, beginning with poverty and concluding with gender.

Poverty

195. In the column "Rate of Access to the 1st year (%)", nine out of ten children from the wealthiest families enter school, while only five out of ten in the poorest families do so. (In seven countries, fewer than two out of ten children in the poorest quintile of the population attend school: Burkina Faso, Eritrea, Ethiopia, Guinea, Niger, Somalia, and Sudan. (Huebler and Loiza 2003.) Is this difference due to inequity and, even if it is not, can the state mitigate it?

196. The experiences of Botswana, Guinea, Kenya, Malawi, Nigeria, Tanzania and Uganda suggest both that it is indeed due to inequity and that the state can indeed mitigate it. When those governments abolished fees for primary schooling, enrolments increased to an almost overwhelming degree. That suggested that the fees constituted an obstacle that was indeed inequitable, because the state had imposed it and in doing so impeded many children from their right to primary education. In effect, the state created a

supply, but at the same time damped down demand. This is an instance of the state's influence on demand factors. In releasing the clearly pent up demand, some governments had difficulty in ensuring that supply coped with it. It is likely then that, if more states abolished fees and other monetary charges for primary school, enrolments would more than likely expand rapidly.

197. After entering primary school, how do the children from the wealthiest and poorest families use the education available? The table does not give attendance rates, but it does offer the "Rate of Transversal Retention", which is the percentage of students who enter the final year of the primary course. Again, the children from the richest families show a large advantage. Nearly 8 out of 10 make it through to the final year, whereas, among the children from the poorest families, just over four out of 10 do so.

198. Is this difference also due to inequity? Even if it is not, could the state do something to mitigate it? The answer here has to be more complex, because the reasons for dropout can be several and are likely to be particular to a given country or even a given district or locality. Chart 1 on page 11 summarises at least some of the known contributing factors and sketches counteracting measures that have been tried in some countries and might be possible in others. For the moment, it will be useful to look at the observations of some recent research. Dachi and Garrett (2003.10) remark, "According to Eldring et al. (2000) '… inability of households to meet the basic needs of children (education, food, shelter and clothes) in most cases forces children to engage in employment in their endeavour to improve their conditions and livelihood", while "Amma et al. 2000 indicate that working children contribute about 40% of the household income that is geared to basic food items. Eldring et al. (2000) found for example that in Kenya children were regarded as a source of livelihood for poor families." These observations confirm what has long been well known: very poor families need the labour of their children and in most societies they seem to need the labour of their girls more than that of their boys.

199. In case it may be thought that very poor families see no value in educating their children, it is necessary here to emphasise the seriousness with which poor families treat the education of their children. A very recent study (Boyle et. al. 2003. ix) shows that in Uganda and Zambia the poorest families devote – 'sacrifice' would be a better word – no less than 33 per cent of their discretionary household income to their children's education. "There is a notable willingness amongst the poorest to pay… and to make sacrifices for, what they perceive to be good quality education." The inference is that the low rate of 'transversal retention' is probably not due to a failure to recognise the importance of education or to a failure of demand. Rather it is due to defects on the supply side, which have failed to put the right to education within the reach of the poor.

200. The disparity between the richest and poorest groups in the Primary Completion Rate is even greater: whereas almost seven out of every ten students from the wealthiest families complete successfully, fewer than three out of ten from the poorest families do so. The reasons are very likely the same as those that help explain the disparate rates of transversal retention and could be susceptible to similar remedial measures.

201. "Deficient Learning" is in fact very likely to be the strongest contributor to this finding and poor quality instruction is very likely the strongest explanation for the failure of students to satisfy its requirements for formal success, even though they have persevered through the full course. Such a statement does imply that inequity is probably at the root of the disparity in success. That is to suggest that the state has failed to ensure the equitable distribution of teachers, materials and other facilities and allowed it to be skewed in favour of the students from the wealthiest families and to the disadvantage of

those from the poorest. Such partiality is of course not confined to the richer families. Large proportions of teachers share it, because they understandably prefer to serve where the amenities for themselves and their families make life more comfortable.

202. Boyle and her colleagues (2003) found that in Kenya, Uganda and Zambia, as well as in three countries of Asia, poor parents defined quality "predominantly in terms of the availability and competencies of teachers". Equity would require that the children of these parents enjoy an equal probability with the children of rich parents of attention and instruction from able, committed, punctual and punctilious teachers. The facts in every country suggest that the common interests of the teachers, the better schools and the richer families coincide to prevent the state from satisfying this particular element of equity.

203. Stated more positively, however, the finding indicates that a state committed to equity and determined to ensure it, could do a lot to improve the probabilities of successful learning for children from the poorest families. This corroborates the conclusion of Colclough and Lewin in 1993 and of Bruns et al. ten years later: the attainment of universal primary completion depends even more crucially on education system reform than on incremental financing. An early step towards reform is suggested by Mingat (2003) in the context of targeting groups subject to inequity: "A possible means of establishing concrete actions could be to construct a poverty map and to target areas with a high proportion of families living in the deepest poverty." The increasing availability of household surveys should facilitate such a step (see for example the study by Huebler and Loiza, 2003).

Rural residence

204. In turning to the second most powerful correlate of disparity in indicators – geographic location – it is useful to start with some reinforcing statistics.

205. *Rural vs. Urban Enrolments* – Mingat's survey shows that, in sub Saharan Africa, 72 percent of urban children are in school, compared to only 51 percent of rural children. In seven countries, more than 7 out of 10 rural children do not attend school: Burkina Faso, Comoros, Ethiopia, Guinea, Guinea-Bissau, Niger, and Somalia. In Somalia, which has the lowest net attendance rate of the countries in the sample, 9 out of 10 rural children are not in school. In six countries, the disparity between urban and rural areas is greater than 40 percentage points: Burkina Faso, Eritrea, Ethiopia, Guinea, Guinea-Bissau, and Niger.

206. *Rural vs. Urban Attendance* – In fourteen countries (out of 18), the disparity between urban and rural *attendance rates* ranges from 20 to 40 percentage points: Burundi, Central African Republic, Chad, Democratic Republic of Congo, Equatorial Guinea, Madagascar, Mali, Mauritania, Mozambique, Senegal, Sierra Leone, Sudan, Tanzania, and Togo. The ratio of rural over urban attendance rates (0.74 for Africa overall) shows that, on average, children in rural areas have an attendance rate that is 26 percent below the attendance rate of urban children. In seven countries, the attendance rate in rural areas is less than half the attendance rate in urban areas: Burkina Faso, Eritrea, Ethiopia, Guinea, Guinea-Bissau, Mali, and Niger.

207. On the other hand, in sharp contrast, six countries show a disparity between enrolments in urban and rural areas that is only 5 percentage points or less: Gabon, Kenya, Sao Tome and Principe, South Africa, Swaziland and Uganda. Interestingly, too, all of these countries have relatively high attendance rates overall, ranging from 68 to 93 percent. These numbers indicate a high correlation between a high attendance rate overall and a reduced disparity between boys' and girls' enrolments. What these six countries demonstrate then is that rural residence is neither an absolute nor an insurmountable

barrier either to enrolment or to regular attendance. The inference then is that the disparities in the other countries arise from inequity, caused by neglect, inaction or by more deliberate partiality.

208. Although rural residence does tend to be associated with lower than average rates of enrolment and attendance, especially for girls (Mingat 2003) shows that it is not entirely separate from the factor of poverty: " …a structural relationship exists between geographic location and household income. Analyses carried out in the various countries demonstrate that income is not generally uniformly distributed among the various areas of dwelling. Indeed, even though some proportion of poor people lives in urban areas, the large majority of households from the poorest quintile live in rural areas, and to a slightly lesser extent, the majority of households from the wealthiest quintile live in urban areas." Thus, if one controls for household wealth, the urban-rural difference almost disappears. That indicates that the disparity in primary school attendance between urban and rural areas is highly associated with the widespread poverty among rural residents of Africa.

209. Yet the examples of the six countries with relatively small differences on the rural/ urban dimension suggest that the elimination of poverty is not a precondition for substantially reducing the larger differences in the other countries. There are possibilities to enable very poor families in both urban and rural areas to enroll and keep their children in school until they successfully complete the course.

Gender

210. The third correlate of disparity in indicators is 'gender', which is to say that girls in the 19 countries are at a systematic disadvantage vis à vis boys on all four indicators in the table. Overall, only one girl in three appears likely to complete primary school, compared with one out of every two boys. Amongst the girls from the poorest rural locations, only one in five is likely to do so, leaving four out of five excluded from their right to a full primary education of good quality. While demand factors may play a role in causing this disparity – see for instance FAWE's dealings with the Maasai communities of the Kajiado district in Kenya – the experiences of countries in Asia and Latin America demonstrate very clearly and, indeed, the improving rates in many African countries confirm, that the state can mitigate them substantially. For instance, between 1990 and 1999, the Gambia improved the Gross Enrolment Ratio for girls from 57.6 to 71.2 per cent, narrowing the gap between them and the boys from 18.7 to 7.9 percentage points. Perhaps more striking are the figures for 19 countries in Africa, which could provide data on survival rates from Grade 1 to Grade 5: in 11 of those countries, higher proportions of girls survive than of boys (UNESCO, 2002). Also, in none of the other eight did Gender Parity Index (the ratio between girls and boys) fall below 0.85, i.e. the girls' survival rates were not far behind those of the boys.

211. Even more indicative of the relative pliability of the gender dimension is the following finding of Huebler and Loaiza: in 27 of sub Saharan Africa, boys are more likely to attend school than girls, but in seven others, girls are more likely to be in school. In nine countries there is no statistically significant effect of gender on school attendance. These facts seem to indicate that under the right conditions the impediments to girls' education will give way. What any state has to do is identify and ensure those conditions.

212. The disparity between boys' and girls' education has received much attention because girls have traditionally been less likely to attend school than boys in Africa and other parts of the world. The surveys results confirm that a gender disparity continues to exist in sub Saharan Africa, but it is less severe and more variable than in previous decades. The efforts to increase girls' participation in education thus appear to have been at least partially successful. (Huebler & Loaiza) However, the case reported

from the Kajiado district of Kenya makes it clear that there are still situations where social norms and traditional cultures can militate against the enrolment and continuation of girls in school and simply have to be confronted and combated by judicious direct action. Also, as Boyle and her team (2003) have reconfirmed in their research in Kenya, Uganda and Zambia, when families have insufficient resources to educate all their children and have to choose between boys and girls for schooling, they tend to decide in favour of the boys – usually with the assent of the womenfolk and the girls themselves. The inference is that, if education were free of all directly monetary costs, such families would probably choose to educate all their children, not just the boys. Here solutions must be devised to reduce and eventually to eliminate the circumstances under which families have to face such choices.

213. *Treatment in the classroom:* The preceding paragraphs have discussed gender disparity as it affects enrolment and attendance, both of course essential for an education of good quality. There is, however, an additional dimension that affects quality. That concerns how teachers treat different learners and what expectations they have of the abilities of different groups of learners. The long and widely shared view that mathematics, science and technology tended to be 'boys' subjects has led to girls not being expected to do well in them and even being discouraged from pursuing them. As the report of the 12-country FEMSA project has demonstrated, this widely accepted 'fact' is not an unalterable fact of nature, but decidedly a result of social expectations and teaching practices by both male and female teachers.

214. It is inequitable for teachers to give girls the false impression that they cannot match the attainments of boys and to expect less from them than they can actually achieve. It is also inequitable for teachers in their classroom behaviour to allow boys to capture more attention and encouragement than girls. These are behaviours that can be changed through information and training. These inequities then lie within the power of the state to mitigate and eliminate.

215. *Primary completion:* Despite these hopeful observations, the current situation in several countries does reflect substantial probable inequity and demands appropriate action to assure all girls, but especially poor rural girls, their right to a decent primary education. Table 5 offers data from eight countries in Africa to underline the disadvantage that poor rural girls confront and to reinforce the point that the disadvantage can be substantially mitigated. The eight countries listed are indeed not representative of all 45 states in Sub Saharan Africa. Six of them are in West Africa, while seven are Francophone and none is Anglophone. Therefore, the eight do not represent Africa as a whole, but simply serve to illustrate the range of disadvantage that exists currently.

216. In all eight, the PCR for girls in general lags behind the national average by between one and 15 percentage points. The gap is least in Madagascar at only one point, but there the overall PCR has most unfortunately deteriorated by 7 percentage points in 10 years and rural girls are at the severest disadvantage, 15 percentage points behind the national average for girls. Indeed, only one rural girl in nine was likely in 2000 to complete her primary education. The gap is greatest in Mozambique, where the overall PCR has indeed risen by six percentage points, but where the PCR for girls has actually deteriorated by two points and only one rural girl in seven was likely to complete her primary course. In all eight countries, the rural girls lag behind the national average for all girls by margins ranging between four and 15 percentage points.

217. Despite the discouraging trend of these data, the cases of Mauritania and possibly also Togo that were mentioned earlier suggest that governments and their societies can do much to remedy the matter. In both countries, substantial proportions of girls do now complete their primary education. Further, in Mauritania the gap between

the rural girls and the others is quite the smallest of the eight. In Togo, although this gap is indeed wide, nonetheless nearly half of the rural girls do complete their primary course and in fact have by far the highest PCR for rural girls of the eight countries, a full 15 percentage points ahead of Mauritania. The inference is that other governments in Africa, which complain of the difficulties of mitigating the gender disparities in primary education, would do well to study how and under what conditions the governments of Mauritania and Togo have achieved the improvements displayed. The fact that the disparities could indeed be reduced by these two governments indicates that they probably arose through forms of inequity and lie well within the power of the state to eliminate.

Table 5 Disparities in transversal retention: possible contributors and mitigators

Possible contributors	Possible causal factors	Due to inequity in the education system?	Possible mitigators
Irregular attendance	• Distance to school • Recurrent Illness • Family's need for labour, earning; caring for sick parents • Fear • Poor relations with teachers • Feeling disadvantaged vis à vis other students	• Only in so far as non-school options have not been adopted • Probably not • Probably. Corporal punishment deters boys, sexual harassment deters girls. • Possible prejudice, antipathy, victimisation on the part of teachers • Probably not, but possibilities of teachers making students more aware of disadvantages	• Multi-grade and distance learning approaches • Health services in schools • Consultation with family on options to enable regular attendance. Parent-Teacher and Community Support possibilities. Monetary stipend and scholarships "Take Home Food" programmes, especially for girls, in very poor areas. • Better preparation for teachers, better monitoring by head and senior teachers. Enabling parents to discuss problems with school authorities. • 'Awareness raising' and training for teachers
Deficient learning	• Malnutrition, hunger • Lack of texts and other learning materials • Difficulties with language of instruction • Teacher absenteeism reduces time-on-task; • Unqualified, incompetent, demoralised teachers • Boredom	• Probably not • Possible inequities [a] in distributing supplies to schools in poorer areas; [b] in pricing. • Possible inequities in language policy and in quality of teachers stationed in poorer areas • Possible inequities in quality of teachers stationed in poorer areas; possible higher rates of teacher absenteeism and lower rates of 'time on task' and time spent in actual learning.	• Breakfast, lunch feeding programmes • Free texts, subsidised prices for writing materials for schools serving poor populations; more effective distribution. Consultation and education for unschooled parents*. • Reform of language policy; more equitable distribution of effective teachers • More equitable distribution of effective teachers; stronger accountability for teachers' presence in classrooms and for time spent in actual instruction and learning.

Possible contributors	Possible causal factors	Due to inequity in the education system?	Possible mitigators
Discontinuation despite good attendance and successful learning	• Direct costs of school uniforms and other charges • Opportunity costs of earning power • Onset of puberty for girls	• Possible inequity • Probably not • Possibly not, but possible misbehaviour by male teachers and older students	• In poorer areas, dispensing with uniforms, requiring cheaper uniforms or subsidising uniforms • Incentives to offset opportunity costs • Consultation with parents and community supports; severe sanctions for misbehaving teachers and students

*This suggestion derives from an experience by World Education Inc. in Guinea, as reported by Barbara Garner. "We talked to [adult] class members in six communities around Guinea. Something they were talking about in response to the broad question of 'What have you learned?' was that the actual act of being learners themselves had sensitized them to the needs of their kids in school. They realize now that they need their pens, they need to study. Therefore, when their kids ask for money for a pen, they give it to them rather than shoo them away. They give their girls less housework (hauling water, etc.) and more time to study. All anecdotal, but nicely compelling." The interaction between parents' education through adult basic education and literacy programmes and their children's schooling will be examined more closely in chapter 9.

Table 6 Proportion of children reaching the sixth year of schooling: data from eight African countries, 1990 and 2000

Region	1990			2000			
	Gross enrollment rate (%)	Completion rate (%)		Gross enrollment rate (%)	Completion rate (%)		
		Total	Girls		Total	Girls	Rural Girls
Sub-Saharan Africa	71	48	44	77	54	50	-
Low-income Country		41	35		46	41	-
Benin		23	15	81	40	27	14
Burkina Faso		19	14	45	25	16	10
Guinea		16	9	57	34	25	11
Madagascar		34	35	96	27	26	11
Mauritania		34	26	86	47	42	38
Mozambique		30	23	93	36	21	14
Niger		18	13	31	20	12	7
Togo		41	26	102	68	57	46
Average of the 8 countries		**27**	**20**	**74**	**37**	**28**	**19**

Source: Mingat. 2003. – Magnitude of social disparities in primary education in Africa: gender, geographical location, and family income in the context of EFA

218. *Success and Promotion:* Many countries measure the quality of primary completion with a standard national examination. There is some evidence that recalls the earlier discussion of the treatment of girls, once they have enrolled in school. Table 6 below summarises a comparison between the performances of boys and girls on Tanzania's Primary School Leaving Examination and shows three tendencies, one encouraging, another suggesting the possibility of a sustained bias against girls, while the third appears to reflect poor quality in most primary schools.

219. The encouraging aspect is that between 1996 and 2000 the pass rates for both genders did improve a little. However, the fact that fewer than a third even of the boys could achieve even the minimum, relatively lenient pass mark indicates that most schools fail to offer education of a satisfactory quality. Finally, the fact that the pass rate for the boys is nearly double that for the girls raises the suspicion that most girls are offered a worse quality of education than most boys and are being subjected to inequity.

Table 7 Performance in the primary school leaving examinations (PSLE) in Tanzania by sex, 1996-2000

Exam Year	Male			Female		
	Pass (%)	Fail (%)	No. of Candidates	Pass (%)	Fail	No. of Candidates
1996	25.6	74.4	185,616	12.9	87.1	186,405
1997	25.4	74.6	202,830	14.0	86.0	210,898
1998	28.1	71.9	180,201	14.6	85.4	183,813
1999	25.0	75.0	207,075	13.8	86.2	219,506
2000	28.7	71.3	190,646	15.5	84.5	199,060

Note: The minimum pass mark is 61 out of 150 marks (about 41 percent).
The Net Enrolment Rate stood at 48% for females and 46% for males during those years.
Source: ADEA Mbilinyi/FAWE paper. 2003. using data from The National Examinations Council of Tanzania, Primary School Leaving Examinations Results for Year 1996-2002, adapted from Chomola, R.C. 2003.

220. The suspicion of inequity in the 'success' rates in graduating from primary school is continued into the rates of transit into secondary school in 16 countries. Table 7 shows that in every one of the 16 countries higher proportions of boys than of girls make it into secondary school. The narrowest disparity appears in Tanzania, where very small proportions of both genders enroll in secondary school; the widest of 19 percentage points appears in Liberia. In a situation where secondary schooling involves families in substantial expense, the tendency noted earlier for poor families to decide in favour of educating their boys, rather than their girls seems to prevail.

Table 8 Transition rate to secondary schools of selected countries in SSA.

Country	Gross Enrolment Ratio in Secondary School	
	Female %	Male %
Burkina Faso	8	12
Burundi	6.1	8.1
Cameroon	22	32
Chad	5	18
Comoro	16	21
Ethiopia	11	15
Guinea	7	20
Liberia	12	31
Mali	10	20
Mozambique	11	17
Niger	10	16
Rwanda	11	12
S. Africa	76	91
United Republic of Tanzania	5	6
Uganda	9	15
Zambia	22	29

Source: ADEA. Mbilinyi/FAWE paper compiled from FAWE Country Profiles

221. *Gender, equity and future generations:* Studies going back several years have shown that children of mothers, who have themselves been to school, are more likely to attend school than those of mothers who have never been to school. Huebler & Loaiza in their 2003 study of sub Saharan countries reconfirm that finding, as does Valerio (2003) for Ghana. Indeed, the effect of the mother's education is exceptionally strong: in 16 countries of Africa children of mothers with primary education or higher are at least 20 percentage points more likely to be in school than children of mothers with no schooling, even after controlling for other factors.

222. The difference shows up not only in enrolments: it is evident also in attendance. In Sub-Saharan Africa, children of mothers who have been to school have a net attendance rate of 71 percent. Children whose mothers did not attend primary school or higher have an attendance rate of only 47 percent. In seven countries – Burkina Faso, Eritrea, Ethiopia, Guinea, Guinea-Bissau, Niger, and Somalia – the attendance rate of children of schooled mothers is in fact more than twice as high as the attendance rate of children whose mothers did not go to school. As pointed out above, irregular attendance tends to lead to dropout, as children find it harder and harder to keep up with the rest of their class. These numbers reinforce the case for focusing on girls' education in the Millennium Development Goals because they indicate that educating a girl is not only beneficial for the child herself, it also increases the likelihood that future generations of both girls and boys will enrol in ever higher proportions, attend school more regularly and complete their courses.

223. Much the same point can be made for offering adult women who have either never been to school or who had to drop out, before they completed their primary schooling, opportunities to educate themselves. Studies in several countries, most recently in Ghana by Valerio (2003), show that even participation in an adult literacy programme can move mothers to enroll their children in school and to insist on their regular attendance.

224. *Conclusions on gender and equity:* However, more important than the prevailing disparities are the facts that girls' enrolments do seem to be increasing, even if more slowly than desired, and the gaps between them and the boys do seem to be narrowing. While this observation is no grounds for complacency, it is an antidote to hopelessness and a stimulus for more action and more resourcefulness in combating the underlying inequities. Overall, the data discussed above suggest simply that gender, the smallest of three indicators of disparity, may be more susceptible to mitigation than the two associated with poverty and rural location. An observation by Bruns, Mingat and Rakotomalala supports this inference: they note that completion rates for girls improved faster than those for boys during the 1990s.

225. Clearly, poor families' needs for their daughters' labour, parental concerns about the safety and integrity of their daughters, religious inhibitions about educating girls, early marriages and other well known impediments on the demand side can be gradually overcome, if the supply of education is available and the economic constraints are mitigated. If a government can devise policies and practices that will enable all girls from the poorest rural families to complete a primary education of good quality, it will likely have eliminated all the major obstacles and inequities that currently impair primary education. From there, it could proceed to fine tune styles of teaching and the design and content of texts to mitigate more subtle biases that undermine successful learning by girls.

Mitigating inequity

226. If Mingat's general note is true that the major problems of access and quality concern the rural poor and in particular poor rural girls, a government genuinely committed to universal primary completion will give marked priority to examining the obstacles and possible inequities that affect that population. The physical distribution of the various sub-sections of rural dwellers, factors of distance, infrastructure and transport for ensuring the delivery of learning materials and technical support, patterns of economic and social life, local attitudes to and demand for schooling for girls, the attractiveness of particular locations for professional teachers in terms of housing, water and fuel supplies, health and education facilities for their own children, security for women teachers, will all have a bearing on strategies to ensure that every rural child – and every poor rural girl in particular – enjoys her right to an education of adequate quality.

227. The constellation of factors may necessitate a government thinking strategically less in terms of schooling alone and more in terms of a variety of modes of basic education. Chapter 9 will look more closely at efforts to diversify the delivery of education within an integrated and coherent system. Here it is necessary simply to point out that schools need not be the only vehicle for education. In many countries, many families prefer to educate their children at home within broad guidelines from the state, while other states have made special arrangements by correspondence, radio and television to help far flung rural families ensure that their children are not left behind. Equally, teachers need not be drawn only from professional bodies of civil servants. There are possibilities of helping local men and women develop the skills to enable local children to learn enough to avoid undue educational disadvantage later in life.

228. Flexible strategic thinking will of course include the consideration that the state need not be – and in most countries is not – the sole provider of education. Private suppliers, missionary societies, other charitable bodies and even community organisations have well established roles in most countries of sub Saharan Africa. Nonetheless, governments would do well to examine how such partnerships might be strengthened and expanded in the interests of equity and quality. As Bruns et al. remark, "Indeed, increased service delivery through community schools, alternative schools, non-profit private schools and schools run by non-governmental organizations is in many developing countries a key strategy for achieving more efficient use of public resources and more equitable geographic coverage." (p.9) As noted earlier, some of these mechanisms like community and alternative schools will feature in chapter 9.

Equity in resource allocation

229. At this point, it is as well to bring into consideration the likelihood that achieving equity in the supply and take-up of education of sufficient quality will involve new inequalities in the distribution of finance. Currently, the inequalities observed in enrolments, perseverance, attainments and completion may well arise from inequitable inequalities in the distribution of resources that ensure adequate quality – finance, sound infrastructure, effective teachers, supplies of learning materials. Correcting such inequitable inequalities in the interests of greater equity may well result in inequalities in unit costs.

230. For instance, it is likely that ensuring the rights of girls in tiny and remote mountain communities will prove more expensive per child than ensuring the rights of children in towns with good communications and amenities. Providing reliable teachers from outside the community could require special, relatively expensive, incentives to persuade them to come to the community and stay for at least a couple of years. Alternatively, forming teachers from within the community could prove expensive in the costs of training and continuing technical support. Feeding programmes to ensure that children from very poor families in towns, villages or very small communities are well enough nourished to be able to learn effectively, will obviously increase the costs of ensuring equity in education in disadvantaged locations in relation to the costs of education for better off, more accessibly located families. Similar considerations will of course apply to ensuring equitable education for children with disabilities, or who are caring for sick family members or are in a variety of difficult circumstances. In effect, equity in pursuit of closer equality in access, quality, attendance, perseverance completion and attainments will need to attract a higher priority than strict equality in financial allocations.

231. In relation to this point, Bruns et al. urge, "…ministries of education must achieve greater equity and efficiency in allocating finances and deploying personnel across different regions and across schools, as well as between administrative support services and school-level delivery." (p.15)

Equity and excellence

232. An associated issue that affects allocations is the pursuit of excellence in education. Nobody would oppose excellence: indeed, all would commend it. However, modes for nurturing excellence often involve either clustering excellent resources, like outstandingly effective teachers, in centres of excellence, or allocating additional resources for excellent learning materials and facilities, even when insufficient resources are available to ensure adequate quality for all. Can excellence then be an enemy of equity? From the perspective of the public interest, is equity a higher priority than excellence? Since a basic education of adequate quality has been universally accepted as an essential human right, there can in fact be no dispute that, in public education priorities at least, equitable quality for all must come before excellent quality for some.

CHAPTER 4
INVESTMENT PROGRAMS

233. The impressive growing number of students in primary schools in Africa has put a huge strain on the budget and human capacity of every country that has committed to both getting more children into school and giving each student a good-quality basic education. The formidable challenge is not only to provide effective physical facilities and teaching and materials and improve teaching practice, but also to do so at a national scale and at a cost that governments can afford over the long term.

234. In Africa, every effort to improve quality on a nationwide scale has received significant support from international lenders and donors. Quality improvement is a central element of the international commitment to the goals of Education for All, the Millennium Development Goals of poverty reduction, and the increased use of democratic practices and good governance. These international movements are providing a strong impetus to getting more children, especially girls and children in poor families, into schools that provide real opportunities for learning. Thus, the story of large-scale quality improvements goes hand in hand with the story of partnerships between government and international agencies and the growing role of civil society and non-governmental organizations (NGOs).

235. This chapter looks at the attempts of African countries and their international supporters to bring about system-wide, sustainable improvements in quality. It describes the decline of the "project" approach, which until recently was the dominant mechanism for external support to education, and advent of the Sector-Wide Approach (SWAp). Based on preliminary documented experience, the chapter looks at the effectiveness of the SWAp in producing sector development programs and discusses their promise and limitations in terms of improving the quality of education.

The growing scale of reforms

236. Prior to 1990, most ministries of education served a limited number of children, reaching many of those in urban areas but not stretching far at all into rural areas.[5] Without government's commitment to universal primary education, the per-student cost of primary education rested on equilibrium between what governments could provide in the way of classrooms, teachers, and books, and what families were willing to pay in fees to give schools the operating budgets they needed. Galvanized in the 1990s by the EFA movement several governments waived fees in an attempt to enroll all children in school. Enrolments increased dramatically but without concomitant increases in the budgets. The per-student budget, based on what funds were available, plummeted, and along with it, the availability of instructional (quality) inputs and the managerial capacity of the entire support system required to provide them.

237. The reforms of basic education instigated by EFA were first and foremost a response to resource constraints. Although the 1990 Jomtien declaration and plan of action emphasized the need for quality instruction, most initial support centered largely on means for enrolling more students without increasing unit costs: multi-grade classrooms and double shifts, without the training of teachers and additional supplies that

[5] See for example, Mingat, A. (2003), Magnitude of Social Disparities in Primary Education in Africa: Gender, Geographical Location, and Family Income in the Context of EFA. The World Bank, Department of Human Development, Africa Region, and Moulton, J. (2001), Improving education in rural areas, Annex. The World Bank, Department of Rural Development.

might negate the negative effect of these stopgap measures. Few innovations have changed methods of teaching and learning or the purpose of schooling. Rather, they are ways of coping with disparities between the supply and demand of schooling.The past decade has seen shifts in the strategies used by international agencies to help governments improve education quality on a large scale. Many have moved away from isolated "stove-pipe" or "Christmas tree" projects scattered throughout the education sector to projects concentrated in basic education – mostly at the primary and lower secondary levels. Since about 1997, ministries of education have moved toward the Sector-wide Approach (SWAp), with targets, indicators, and administrative procedures "harmonized" under government leadership.

238. Government leadership for education reform was often inconsistent, while the capacity to design and institute fundamental changes in the primary school system remained inadequate. Local communities have neither the resources nor the knowledge base to sustain small-scale innovations. Central to the problem of improving education quality as enrolments grow rapidly is the role of international agencies. The UN agencies, the World Bank, the African Development Bank (AfDB) and bilateral donors, which intensified the dialogue on a sustainable framework for Education for All policies in 1990, all increased their efforts to support the improvement of government policies and programs. But the dominant emphasis on the expansion of access, the relative neglect of the need to improve learning achievement, the pursuit of overambitious performance targets, under-estimation of capacity constraints, the absence of a sustainable financial framework and the fragmentation of external support often combined to thwart the anticipated outcomes.

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The project approach and its shortcomings

240. Since the 1960s two kinds of international support have prevailed: World Bank and AfDB lending for projects executed by the ministry of education and bilateral grants accompanied by intensive technical assistance and equipment donations.

241. The banks make loans to enable ministries of education to supply the "inputs" required to expand the system and improve quality – to supply textbooks, train teachers, build classrooms – and to develop related processes such as curriculum development and examinations. These project inputs are treated by government as development or capital expenditures, and they are seldom transferred into the recurrent budget as sustainable operations. While the banks rely on the ministry of education to execute projects, the management unit is often separate from government systems. Selection of priorities for investments often reflect institutional views on education policy.

242. Bilateral donors and UN agencies have typically supported small-scale projects, such as a group of teachers colleges or technical assistance to the inspectorate. Each donor has its own projects, which, for the most part, operate outside of government control and without collaboration with other donor projects. Most do not advance beyond a pilot stage or are confined to limited areas of the country.

243. With some exceptions, the projects of international agencies have contributed little to improving the quality of education in a systemic, sustainable manner. Funding for quality inputs and processes has been insufficient. The productivity of ministries has suffered from dysfunctional systems, thus making inefficient use of funding and other resources. International support has failed to transfer capacity and expertise to the government. Textbook supply in most countries, for example, remains at the mercy of agency funding and procurement policy. Few countries have a national textbook policy, a budget line, or efficient national procedures for procurement. As a result every textbook project is a series of events with unique procedures, and ample opportunities for fraud and corruption. Fifteen years of financing and project support have not resulted in a reliable supply of good quality textbooks to schools.

244. Changes in pedagogy are generally bounded as pilots and rarely integrated into the school system. Bilateral projects are labor-intensive, depending on foreign technical assistance and supervision. Technical assistants become increasingly accountable to their own governments to produce results, which often result in leaving behind ministry officials, who have no such accountability. Some innovations, such as classroom-based radio instruction, depend on economies of scale to be affordable. Yet, after the expensive piloting phase, paid for by the donors, ministries have been unable to sustain their benefits or incorporate them into the national system.

245. Though they have long recognized that the efficiency of aid has been impeded by poor donor and lender coordination, international agencies continue to negotiate individually with ministries of education while each donor aims to establish a priority government support for its projects. Moreover, because they often bring clearer objectives and more resources to the table, international agencies "own" the projects, their vision and their implementation. Ministries have not been encouraged to set priorities among piloted improvements in teaching, school-management, or use of instructional technologies, for example. Ministry partners have rarely been able to be more than passive counterparts, facing multiple donor agendas and reporting systems, and donor projects that often are duplicative and even work at cross purposes. Donor and lender projects have not led to synergistic improvements, as ministry officials exhibited a preference for overseeing them separately and discouraging collaboration.

246. In sum, a lack of ownership, low productivity, and insufficient funding have resulted from the approach taken by governments and international agencies over the past few decades to improving education quality. The persisting challenge, then, is to enable the ministry of education to take more responsibility for sector development plans and to manage scarce resources in such a way as to provide systemic and system-wide support to schools for quality teaching.

The sector approach: SWAps

247. The recent interpretation of the EFA goal as "completion" of the primary cycle is placing more focus on quality issues (Bruns and al., 2003). Quality will be the principal theme of the 2004 EFA Global Monitoring Report (GMR). System-wide quality improvement is now widely accepted as a central element of EFA strategies. The EFA concern for improvements in quality highlights the limitations of the project approach. It has brought to the fore the importance of national ownership, alignment of the objectives of different stakeholders, and the coherence of interventions and harmonization of procurement and financing mechanisms.

248. Toward this end, a Sector-Wide Approach is evolving as a process that produces a comprehensive sector development program, and a framework for changes in the way education is financed and managed. Within this framework all significant

funding for the sector supports a single sector policy and expenditure program, under government leadership, adopting common approaches across the sector, and progressing towards reliance on government procedures to disburse and account for all funds.[6]

249. The Sector-wide Approach is a process that leads to a sector development program or, in some cases, a more limited primary education sub-sector program. Of the 48 countries in sub-Saharan Africa, about 15 are regarded as active participants in SWAps. These are Ethiopia, Uganda, Tanzania, and Zambia in East Africa; and Benin, Burkina Faso, Ghana, Guinea, Mali, Mauritania, Niger, Nigeria, and Senegal in West Africa, Mozambique and Lesotho in Southern Africa. By actively engaging for several years in a SWAp, these countries have set national priorities for quality improvements in the context of the equitable distribution of sector funds. They have also committed to taking the lead in partnerships with international agencies and broadly accepted targets and strategies.

250. The first SWAps in Africa began around 1998 in Ethiopia, Uganda, and Zambia. The most consistent supporters of SWAps are the members of the group of "like-minded" European donors: DfID, Irish Aid, the Netherlands, and the Nordic countries (Swedish SIDA, Norwegian NORAD, Finland's Development Cooperation, and Danish DANIDA). AfDB, Germany, France, the European Union, the United States, and Canada support the notion of donor coordination inherent in SWAps, though to date they have not been ready to move toward a joint financing mechanism (described below). UNICEF has so far kept its funding outside of the SWAps, but is considering ways to participate. The World Bank and DfID have provided budget support in some countries.

Principal features of SWAps

251. The SWAp is not so much a new concept as it is an emerging operational model that exhibits definite features. Its aims are to align the objectives of international support with government priorities and to improve the coherence of international advice and financing. The principle features of a SWAp are these (Hasegawa, 2002):

- It is developed and implemented under the ownership of the recipient country.
- It includes all major donors and lenders (though in fact not all SWAps include all donors and lenders, they are all built on the belief that international agencies must work together in support of government, even though each loses some control over its own agenda and, in some cases, funding.) Accounting and reporting procedures are "harmonized," so that the government can set goals, use indicators, and provide reports acceptable to all partners.
- It takes into account the entire education sector. This becomes more important as the shortcomings in nearly exclusive attention to primary education become more evident. Larger cohorts are completing primary school; the demand for secondary school graduates – if not tertiary graduates – to fill teaching positions becomes urgent; and the importance of early childhood education and mothers' literacy is gaining currency. Not all SWAps, however, cover more than primary education.
- It results in and is backed by a sector development plan, an appropriate expenditure plan and calls for multi-year financial commitments from donors and lenders (though figures beyond the first year are usually provisional).
- It supports the establishment of regular review meetings attended by representatives of all stakeholders and a monitoring and evaluation system for measuring program outputs and outcomes.

[6] Definition used by the Overseas Development Institute (ODI).

- The volume of financial support is determined according to the agreed-upon factors, including the public financial gap, the amount of aid provided in the past, and the level of available domestic financial resources.
- Budget support (that is, the direct deposit of funds into the government treasury) is considered to be the most desirable aid instrument. Budget support, however, is not essential to a SWAp and is its most resisted feature. A SWAp can also be financed by a coherent collection of projects funded by the usual mechanisms, although these arrangements are much looser and the SWAp frameworks more fragile.

SWAPs' contribution to quality improvements

252. These features of a SWAp are expected to improve quality by, above all, changing the nature of the dialogue among government and international agencies. The process no longer supports one-on-one meetings between each agency and the ministry as the principal means of negotiating the agenda. Instead, the ministry of education, other government agencies, international agencies, and NGOs meet regularly to set priorities, discuss issues, agree upon goals, targets, and indicators, and monitor progress. As a result, the sector development program becomes more coherent and easier to sustain and manage. This benefits quality improvement programs in at least three ways.

253. The SWAp is expected to lead to firm agreements on increases in the overall level of national expenditures on basic education as well as allocations to quality inputs. By bringing the ministry of finance into the dialogue, government and international agencies get a more transparent and comprehensive understanding of how the education sector budget fits into the broader government budget and how all parties can adjust to ensure that priorities are addressed. Relationships between items in the development (capital) and recurrent budgets can be better rationalized, and through budget support, international funding can be used to support the recurrent as well as the development budget.

254. The SWAp should facilitate management reforms, principally the decentralization of basic education services. Decentralization, a process that has been occurring during the same timeframe that SWAps have evolved, requires government and its supporters to pay greater attention to the meso-level of ministry, to local governments, and to schools and the communities that support them (see Chapter X). The SWAp permits actors in these places to engage more actively in planning. It also helps all stakeholders look together at inequities in the distribution of resources and to plan together strategies and mechanisms for addressing those inequities. This would be much more difficult in a project mode of assistance, in which each international agency is focused on limited aims and usually within limited geographic areas of the country.

255. The SWAp is also intended to improve joint monitoring of quality-enhancing inputs and processes and through common assessments of their impact on learning achievement. Looking at an agreed-upon set of indicators and measures of progress, SWAp participants engage in dialogue on what is working well and what needs to be given more attention. This should help the ministry develop a coherent view of priorities, trade-offs and implementation sequencing.

Experience relevant to improving quality

256. With roughly five years of experience in a growing number of countries, what has been learned about the effectiveness of SWAps in helping governments make systemic, large-scale, and sustained improvements in the quality of education?

257. While we have no quantified data that demonstrate direct relationships between SWAp activities and improvements in student achievement (or other indicators of improved quality), there is some evidence of the effectiveness of SWAps in leading toward quality improvements, however indirect. The following findings come from a study of Mozambique's SWAp sponsored by ADEA (Takala and al. 2003), analyses of SWAps by the British Overseas Development Institute (Brown and al., 2001), the *Joint Evaluation of External Support to Basic Education in Developing Countries*[7], a review of the World Bank's experience with improving quality in Africa Moulton, 2003), and a SIDA analysis of SWAps (Ridell and al., 2000). These studies look at SWAps across Africa, though the bulk of information is on Burkina Faso, Ethiopia, Mozambique, Uganda, and Zambia.

258. **Ownership**. With better cooperation among donors and a concerted effort to help governments set priorities and implement them, ministries of education are taking a stronger lead in achieving objectives. In some countries, however, there is a perception that international agencies are still in control of targets and of priorities. Primary education continues to dominate the agenda in each SWAp country, even though governments face political pressure to allocate public resources more generally throughout the sector.

259. **Harmonization of administrative procedures**. This has proved easiest to achieve in four areas: (a) reporting format, (b) common performance indicators, (c) joint missions, and (d) procedures and norms for technical assistance. Harmonization is most difficult to achieve in (a) procurement and (b) financial management (Ridell and al. 2000). Altogether, there have been limited gains in harmonization.[8]

260. **Links to government's budgeting process**. The SWAp process has encouraged ministries of education to work more closely with ministries in finance in analyzing education's share of the total government budget. A particularly useful tool for this analysis is the medium-term (three-year) expenditure framework, which helps both ministries and international agencies share a picture of projected costs and policy options (Ridell and al. 2000).

261. **The link between policy and implementation**. "In countries using a SWAp, there is a clearer potential link between policy and implementation than was evident in the project world, in which government strategies were dependent on fragmented donor projects to implement them….The need for time to prepare and agree policies, and to adapt and modify them over time, argues for creating strong policy analysis capacity within government, linked to effective processes for linking analysis to decision-making and to execution."(Foster and al.) Agreement among ministries and agencies on objectives and targets is making conflicts more manageable than in contexts where there is no such explicit agreement.

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[7] Association of Universities and Colleges of Canada (AUCC), (Draft, 2003), *Joint evaluation of external support to basic education in developing countries, Phase 2 report, Volume 6: Final report.*

[8] AUCC

Successes

262. In spite of their relative newness, there have been some notable successes in improving quality system-wide that are closely linked to SWAps.

- **Sector-wide reform**

263. Mauritania's ministry of education has taken the lead in a participatory and iterative sector planning process during which participants were asked to set priorities under increasingly tight budget constraints. The process, which has taken place in close dialogue with its major international partners, is grounded in considerable analytical work, and it has continued during implementation. Quality issues are being addressed in a sequence that reflects financial and capacity constraints.

- **Additional resources to schools**

264. Tanzania and Uganda and Guinea have found ways to get more resources to schools by giving small grants based on student enrollments. These direct allocations allow schools to purchase instructional and other school supplies. The important success of this quality-improvement measure is that the funds actually reach schools. In Uganda, the amounts and channels of disbursements are publicized, so that the success (or failure) of their transfer through banks is apparent to everyone.

- **Pilots taken to scale**

a) In Zambia, the Primary Reading Program, a project funded by the British that pre-dated the SWAp, was "taken under its umbrella," so the project personnel were able to build good working relationships with the ministry. The project went to a larger scale and was even coordinated with other ministry functions, including curriculum revision.[9]

b) Guinea has incorporated a system-wide innovation in teacher training. A reform of the structure of pre-service training has resulted in a dramatic increase in the output of teachers from colleges without any negative impact on student learning.

c) Mali is expanding its Pedagogy Convergente program in the context of a ten-year sector development program supported by all major donors. The program integrates a national-language-instruction activity that has been piloted and nurtured for many years and pedagogical innovations introduced in NGO-supported community schools into the basic instructional system.

d) The ministry of education in Uganda launched a Teacher Development and Management System (TDMS) that now covers the entire country (see Box 1).

[9] AUCC

Box 2 The creation of a SWAp in Uganda

The creation of a SWAp in Uganda has been a major force in improving the quality of a primary education system that doubled in enrollments during one year. In 1993 Uganda began a series of quality-oriented reforms, including a gradual ten-fold raise in teachers' salaries, liberalization of the textbook market, revisions of the curriculum and examinations, and a teacher-development system. The Teacher Development and Management System provided in-service training to unqualified teachers, professional support to all teachers, and a rationalization and changes in the pre-service network of teachers colleges that brought them into synch with the other reforms. The TDMS also strengthened the capacity of district education offices and gave parents and communities an important role in monitoring and supporting schools.

These reforms were still progressing slowly from pilots in two districts when, in 1997, President Museveni effectively abolished school fees, resulting in an explosive growth in enrollment, from 2.6 million in 1993 to 5.2 million in 1997 (climbing to 7.2 million in 2003). The challenge facing the government – and landing directly on the shoulders of the Ministry of Education and Sports – was to catch up in quality reforms with the huge leap in enrollments. Grade 1 and 2 classrooms holding 90 or 100 students were not uncommon; teachers were overwhelmed, and textbooks were in short supply. In addition, the HIV/AIDS scourge was peaking in Uganda, decimating the ranks of teachers and other ministry staff.

The international community responded to the crisis with increased funding. The US Agency for International Development and the World Bank, which had supported the quality reforms from 1993 on, were joined by British, Irish, Dutch, and other aid agencies. Perhaps more important than their funding pledges was the agreement among donors and lenders to collaborate in a SWAp to support the new Education Sector Investment Program (ESIP). The SWAp benefited from effective leadership within the ministry, which, by 1998, was convening semi-annual sector program reviews attended by representatives of all stakeholders, including non-government organizations. A key component of the SWAp was the active engagement of the ministries of finance and public service, which enabled participants in the process to reshape the ESIP budget as a three-year annual rolling Medium Term Expenditure Framework that meshed with the ministry of finance's larger budget framework, and to recruit and pay many more teachers within the civil service structure. The ESIP thus provided everyone with a clear picture of priorities and trade-offs and paved the way for consensus on targets and a means for monitoring progress.

Had Uganda not instigated a SWAp, the TDMS might have been crushed by enrollment numbers overwhelming its still-fragile structure, and a bombardment of uncoordinated donor projects might have paralyzed the ministry. Instead, the ministry took the lead in coordinating all players, prioritizing problems and goals, and allocating resources. Since improvements in the country's macroeconomic situation and available funds, increases in foreign grants and loans, and proportionally larger allocations to primary education have helped the government raise per-pupil expenditures from US$2.86 in 1993 to US$19.00 in 2001.

Though quality "inputs" are still unacceptably low, with pupil teacher ratios at 54 to 1 and textbooks at 5 to 1 in lower primary, the SWAp process provides assurance that the partnership of government and international agencies will continue to address problems collaboratively.

Issues

265. Though none of these findings reveal an improvement in education quality as a direct result of the SWAp, taken together they give a picture of the transfer of responsibility and initiative away from international agencies and to governments. Thus, they show a break from the mold of separate and dispersed projects that have little promise of large-scale, sustained improvements. Insofar as they have begun to help ministry systems function better and in alignment with the larger government finance and budgeting system, SWAps are laying the indispensable foundation for policies grounded in budget constraints and managed in a manner that holds government as well as international agencies accountable for results. As long as policies promote quality, as well as access and equity, the link between a SWAp and improved quality should become stronger.

266. Yet SWAps are still nascent and should be considered more of a potential than an unequivocal demonstration of improvements in quality. A number of important issues remain to be resolved.

267. **Budget support?** This is the most resisted aspect of a SWAp. At one end of the spectrum, the like-minded group of donors is committed to budgetary support and prefers "basket funding" (pooling donor funds and channeling them through the government's treasury). While some of the other bilateral agencies and multi-lateral agencies sometimes provide budget support through separate funding arrangements, still others continue exclusively with project support. On the whole, budget support is still a small portion of funding and a fragile mechanism. Some argue that while budget support represents a considerable step toward government ownership of sector activities, it is not critical to the successful functioning of a SWAp.

268. 268. **Hampering grassroots innovations?** One country report notes that "the shift to sector-wide support has possibly had a negative effect on opportunities for external agencies to support capacity building at decentralized levels. Innovative projects that support direct activities have all but disappeared, resulting in fewer opportunities for projects that favor grassroots innovation, local empowerment and capacity building"[10]. This trend is a result of the reduction in funds for smaller-scale projects of bilateral agencies. Particularly in light of increasing decentralization of basic education services, ignoring the need for continuing support to small-scale innovations would result in throwing the baby out with the bathwater. The challenge for SWAp participants is to facilitate government's piloting and analysis of alternative innovations in pedagogy, program strategies, and delivery systems.

269. **Trade-off between system-building and equity targeting?** The initial stages of a SWAp have in some countries led to a trade-off between two legitimate priorities: extending coverage of basic services as cost-effectively as possible, and including groups who are outside the mainstream, as a result of gender, poverty, geography, or disability. The cost of reaching marginalized children is often higher than that of reaching those who can afford to pay, who have easy access to a school, and whom society considers deserving of an education (Foster and al.). Yet the SWAp process provides a better forum for discussion of priorities and trade-offs than the project approach does, and over time SWAp partners should be able to balance interests and agree on priorities.

[10] AUCC

270. **Skill sets of international agencies?** As bilateral agencies move away from technical support to projects, which has primarily entailed expertise in pedagogy and instruction, to a role of analyzing policies and monitoring progress, a different set of skills may be needed. These centers on "sector-wide analysis, policy formulation and planning, negotiations and require a greater understanding of the 'politics' of external agency coordination. Yet these are not part of the traditional skills of education section experts in external agencies at the country level." Some see in SWAps an increase in the role and influence of the World Bank, partly because the bilateral agencies and UN agencies do not always have policy-formulation and planning skills. In Mozambique, some ministry staff perceives "expertise imbalances among fielded international staff or consultants. In general, field staff in bilateral agencies is not well prepared to handle the level of sophistication on the basis of which procedures are negotiated and defined. There are perceptions on the Mozambican side that the multilaterals, particularly the World Bank, field seasoned experts with whom the representatives of the bilaterals cannot genuinely negotiate…. Many expressed high regard for the pool of expertise available from the World Bank…. By contrast, the expertise available from some bilateral agencies was deemed less useful and in some cases even deficient in terms of a working partnership" (Takala and al.) SWAp participants are beginning the process of adjusting to these new requirements, but no clear patterns have emerged yet.

Complementing SWAps: NGOs and poverty reduction strategies

271. Alongside the emergence of SWAps, two important trends are influencing education sector development programs. These are (1) the growing influence of NGOs and civil society and (2) the supportive macroeconomic context of Poverty Reduction Strategies (PRSs). In very different ways, both NGOs and PRSs are complementing the work of SWAps in addressing quality improvement.

NGOs and civil society

272. International NGOs (such as Aide et Action, British Action Aid, CARE, and Save the Children) and national or local NGOs are funded by bilateral and multi-lateral agencies, by churches and other religious organizations, and by individual contributors, especially those living in North America and Europe. In earlier decades, each NGO had its own agenda, for which it raised funding and worked independently. Most worked in the most disadvantaged communities in Africa, with "the poorest of the poor." Through decades of experience in the most challenging communities, many NGOs have gained a reputation for high-quality education programs, albeit on a small scale.

273. Although many of the large NGOs attended the Jomtien conference in 1990, it was not until the Dakar meeting in 2000 that they organized and presented a formal statement on NGOs' support to Education for All (2000). In the context of EFA, the programs of many NGOs have since become more closely aligned with those of international funding agencies, and as a result, with those of governments, even though their support is almost exclusively on non-government, or non-formal, programs. This has happened as government efforts have begun to reach the remote communities in which NGOs work. Respectively, as some NGOs became more visible, with their success in supporting community schools and out-of-school programs, governments and international agencies view them increasingly as competent partners in implementing projects. For example, the government of Mali eventually extended payment of teachers' salaries and books to community schools that had been created and supported by Save the Children (Prouty Robert, 2003).

274. NGOs are generally viewed not only as serving communities that government does not reach but also as representing the interests of civil society (non-government associations). This happens more at local-level than at central-level forums, though in some countries NGOs have participated in the SWAp process and had a strong-voice in the regular national reviews of sector development programs.

275. Although respect for NGO work in education has grown in most of Africa, there continues to be a wide range of government policies and attitudes toward them. Ethiopia, for example, forbade NGOs to operate in the sector for many years, though this has now changed. At the other extreme, Senegal now contracts with NGOs to provide education services, particularly in adult literacy. Guinea NGOs manage community construction, support community schooling, and implement in-service teacher training programs. In Tanzania, one NGO has played the key role in analyzing basic education policies and financing. National chapters of the Forum on African Women's Education (FAWE) has played an advocacy role in a number of countries. Altogether, NGOs and civil society have become much more active in the education sector and, more particularly, in the policy dialogue.

276. Yet as international agencies shift more of their financial support to government budgets, NGOs have expressed concern that a full-scale shift would hamper efforts to strengthen civil society – non-government players (Swift, 2000). "There is a tendency for the dialogue surrounding the development, implementation and assessment of large-scale programs of support to basic education to be conducted on a narrow basis, without effective participation by civil society organizations and key stakeholder groups such as teachers. This has the effect of alienating key groups necessary to the success of programs and may undermine the level of political support and community commitment available to sustain the subsequent program."[11]

277. Representatives of teachers, NGOs, communities, and even smaller aid agencies are in many instances still marginalized. As long as this condition persists, smaller groups are likely to continue with their own projects, without much hope that they will be recognized beyond limited communities. At worse, if funding for such projects is diverted full-scale to central government systems, the sources of innovative improvements in quality will dry up. NGOs have offered a great deal to improvements in quality through their small-scale projects, and those SWAps that foster their continued participation have much to gain. It will be important to recognize the importance of such innovations in SWAp process and ensure that education development programs provide for financing through "innovation funds" or targeted funding allocations.

Poverty reduction strategies

278. Based on evidence that, with the right policies and strategies, poverty in Africa and other parts of the developing world can be reduced significantly (Collier and Dollar, 1999). The World Bank has during the past few years based many of its country lending programs on national Poverty Reduction Strategies. The Bank and IMF work with the government to prepare a Poverty Reduction Strategy Paper (PRSP).

279. The PRSP in each country is an analysis of the specific factors contributing to poverty, an action plan, and a set of indicators of progress toward goals. It is underpinned by detailed sector strategies prepared through similar but separate processes. The PRSP is linked to the achievement of the Millennium Development Goals (MDGs), the second of which is "to achieve universal primary education."

[11] AUCC

280. The PRS process offers significant support to education sector programs. First, because of the link in the MDGs and PRSP between poverty and low education attainment, the PRS process provides financial resources for education sector development programs. Second, in line with the EFA's growing emphasis on education quality – as well as access – the MDG indicators used to measure progress in education cover not only enrollment but also completion and literacy rates.

281. Third, as the PRSP is a comprehensive approach to economic development, the education sector budget is placed in the context of all national development plans. The targets of the education sector plan and their resource implications are summarized in an expenditure program that is consistent with the government's medium-term expenditure framework and the longer-term macroeconomic framework embedded in the PRSP. Sector development plans in this context are no longer the wish list of the ministry of education supported by the sympathetic sector specialists of international agencies, but part and parcel of the national macro-economic policy and resource framework.

282. Finally, the effectiveness of SWAps has in some instances been constrained by the limited authority that ministries of education have over the resources they need to fulfill their functions. Teachers are usually paid by the ministry of finance or another ministry, and the broader regulatory environment affects the flow of resources. Poverty Reduction Strategies (PRSs) are expected to help ministries of education overcome these limitations.

283. The World Bank has prepared an Education Chapter in the *PRSP Sourcebook* as a guide for developing the education policy component of a PRSP. It provides "diagnostic tools and research findings that can help countries identify the policies and programs likely to have the most powerful impact on education opportunities and outcomes for poor children and illiterate adults within their country context."

284. To date, fifteen governments have submitted PRSPs to the World Bank, and many others have completed Interim PRSPs. Burkina Faso, Mauritania, Mozambique, Tanzania, and Uganda finalized their papers two or more years ago. The reviews of how well the PRS is delivering on its potential are mixed. Drawing on a wide range of assessments, the IMF/World Bank report of March 2002[12] concludes that the PRS process is helping to put governments "in the driver's seat" in planning and implementing poverty-reduction programs. The increased competence of key ministries, including finance and planning is expected to be a great help to line ministries, including education, in developing and implementing feasible policies and programs. In contrast, the Joint Evaluation found that line ministries are only marginally involved in the PRS process and that many education sectors still do not use an MTEF.[13]

285. The usefulness of the PRS in improving education quality will depend, above all, on the quality and credibility of the sector development program.

Conclusions

286. The growing experience with SWAps to overcome the limitations of the project approach to improving education quality on a large scale is promising but still uncertain. On the positive side, the SWAp, as well as the PRS, strongly encourages ownership of the planning and implementation processes by government and active

[12] International Development Association and International Monetary Fund (September 2002), Poverty Reduction Strategy Papers—Progress in Implementation. International Development Association and International Monetary Fund (March 2002), Review of the Poverty Reduction Strategy Paper (PRSP) Approach: Early Experience with Interim PRSPs and Full PRSPs. Prepared by the Staffs of the World Bank and IMF.

[13] AUCC

participation of other stakeholders in these processes. In letting go of these responsibilities, international agencies give governments much more opportunity to coordinate their functions, manage their resources, and discipline their staffs. Progress along these lines is essential if ministries of education are to continually improve and sustain improvements in the quality of education. Without capable systems in place, ministries will be unable to incorporate small-scale pilots and sustain large-scale services in an adaptable and varying manner that responds to local needs and differences.

287. On the negative side, the gap between theory and practice is still highly visible: SWAps appear still to be driven too much by the goals, values, and practices of international agencies. Ministries of education have often not fully seized the opportunities that the PRS process offers. Although it may be only a matter of time before this changes, governments and international agencies must continue to make a conscious effort to encourage practices that put ownership of planning and implementation into the hands of those responsible for success. The increasingly active participation of NGOs and the civil society they represent is also critical to the success of the SWAp.

CHAPTER 5
OPTIONS FOR A COST-EFFECTIVE ALLOCATION OF RESOURCES

288. Policy analysis for quality education begins with an investigation of the link between the means and methods of organizing schooling on one hand and the results obtained on the other. This chapter analyzes this link. This chapter consists of three main sections: the first provides the global framework for education policy and examines how issues concerning the quality of the service offered fit into that framework. The second part specifically deals with factors concerning organization of schooling. It studies their impact on students' achievement and their cost, and also examines the options for implementing and combining these factors. Finally, the third section highlights the fact that, although physical and financial resources are important if quality schooling is to be built, more qualitative, pedagogical and management aspects must certainly not be neglected.

The global context of education policy with reference to quality issues

289. The effectiveness of policies aiming to develop a quality primary education system is partly dependent on the public resources mobilized for this level of education. These resources derive from i) the country's wealth (measured by the Gross Domestic Product and by the GDP per capita), ii) the tax-raising powers of the State to levy resources to ensure the overall operation of its services and financing of its collective functions, iii) the budgetary priority allocated by the government to the public funding of its school sector, and iv) the degree of priority allocated to primary education among the different levels of teaching within the education sector.

290. There are significant variations in sub Sahara Africa between them for each of the four aspects mentioned above. The tax-raising powers of low-income African countries varied between 8 and 26% in 2000[14], with a tendency for the poorest countries to encounter greater difficulties in collecting taxes (smaller tax base and more limited administrative capacities). Similarly, the priority given to the education sector varies greatly from one country to the next, with the proportion of public revenues allocated to education varying from 10 to 33%. Finally, the countries do not all make identical trade-offs in favor of primary education, with figures between 35 and 66% for six years of schooling. All these variations together mean that the volume of public resources mobilized by the countries for primary education (measured as 6 years of schooling) varies significantly between the different countries in sub-Saharan Africa, as shown by the data in table 9 below.

[14] Bruns, B, Mingat, A and R. Rakotomalala: Achieving Universal Primary Education by 2015: A chance for Every Child; World Bank, 2003

Table 9 Public current expenditure on primary education (% of GDP) in low income – African countries (2000)

Country	% GDP for primary education	Country	% GDP for primary education	Country	% GDP for primary education
Democratic Republic of Congo	0.2	Tanzania	1.1	Uganda	1.7
Central African Republic	0.6	Chad	1.1	Malawi	1.8
Guinea-Bissau	0.7	Ethiopia	1.2	Mauritania	1.8
Republic of Congo	0.8	Burundi	1.3	Niger	1.8
Guinea	0.8	Ghana	1.4	Sierra Leone	1.8
Sudan	0.9	Rwanda	1.4	Togo	1.8
Angola	1.0	Eritrea	1.5	Nigeria	1.9
Mali	1.0	Senegal	1.5	Kenya	2.8
Mozambique	1.0	Benin	1.6	Lesotho	3.2
Zambia	1.0	Burkina Faso	1.6	Zimbabwe	3.3
Cameroon	1.1	Gambia	1.6	**Average**	**1.44**
Madagascar	1.1	Côte d'Ivoire	1.7		

291. This table calls for two types of commentary:

- The mobilization of financial resources varies widely from one country to another, with some figures three times others, even if countries in the most extreme situations are excluded. It is therefore clear that the choices in terms of the quality of the services offered are fundamentally linked to the financial contexts, which are very different from one country to the next.
- looking at the figures themselves and not the differences between countries, it is useful to reconcile the figures in table 9 with the reference to the order of magnitude of 2% identified as desirable in the analyses carried out within the framework of preparation of the "Fast-Track" initiative. Even if this reference can be considered as indicative only, it does nonetheless suggest that the majority of the countries are in a situation where primary education is more or less severely under-funded. This situation has consequences in terms of coverage of education systems in the sense that the average achievement rate for primary education for the countries was 46% only in 2000. It also places many countries in a delicate situation as far as quality is concerned, since the resources are often globally inadequate, whereas the pressure for coverage is obviously high.

292. Once the level of public resources for primary education to be allocated to primary education has been decided, education policy must identify the way in which they are to be employed. At this stage, the issue of the quality of the services provided becomes explicit. Two sequential structural trade-offs are taken into consideration[15]: i) the first trade-off to be made is of a global nature, and determines the balance between the

[15] These trade-offs are naturally the same for each of the different levels of education.

number of children in school and the volume of resources allocated to each of them on average; ii) the second trade-off to be made is more specific, and relates to determining actual methods of organization of schooling (grouping of children, teacher training, etc.) to use the previously determined volume of resources per pupil. This section deals with the first of these decisions, and the second section of this text is devoted more specifically to the second.

293. Concerning the first point, there are certainly trade-offs, because on the one hand it is desirable for the greatest number of children to be able to benefit from education, but on the other hand that the average resources allocated per child should be generous so that as favorable a context for learning as possible is created. In a situation where resources are scarce, these two objectives cannot be perfectly reconciled, and it is the search for a balance between the two goals that is at the core of decisions concerning education policy at this level of analysis.

294. In reality, different African countries do not make the same trade-offs between the coverage of the services offered to their young populations and the resources that they mobilize on average for each child in school. This is true for all levels of education. It is true for the primary sector, where there are extremely large differences in expenditure per pupil (between 6 and 35% of GDP per capita) between countries, and it is indeed the countries with the highest expenditure per pupil that also have the lowest quantitative coverage on average for their system. Once the global trade-off between the coverage of the system and the resources per pupil has been determined, the question is to determine how these unit resources will actually be used.

Organizational factors: impacts, priorities and optimum combinations

Identifying the choices to be made

295. A basic observation, at this level of analysis, is that for a given level of expenditure per pupil, there are a number of possible breakdowns between the various factors that characterize the actual organization of the education services offered. The following example (table 10) illustrates this.

296. If an expenditure level per pupil, of 500 monetary Units (MU) is selected, for example, it can be demonstrate that within this unit expenditure, the educational services can be organized in many very different ways by combing the use of more or less well-trained teachers, bigger or smaller class sizes and a larger or smaller amount reserved for costs other than teachers' compensation. The table below suggests a small number of these possible combinations. The factors analyzed here are the teachers [3 categories, A, B and C with respective annual compensation of 12,000, 16,000 and 24,000 MU], the expenses other than teachers' compensation varying between 50 and 300 MU; the class size is determined once the two other parameters are defined and the unit expenditure has been set.

Table 10 Teacher category, current resources excluding teacher compensation and class size for expenditure per pupil of 500 MU (hypothetical country)

Average expenditure per pupil (MU)		500		
Teacher category		A	B	C
Teacher's annual salary (MU)		12,000	16,000	24,000
Expenditure per pupil other than for teachers' compensation (MU)	50	26.7 (1)	35.6	53.3 (2)
	100	30.0	40.0	60.0
	200	40.0	53.3 (4)	80.00 (3)
	300	60.0	80.0	120.0

297. These choices can vary: in case (1), the class size is at an attractive level (26.7 pupils) but the teachers used are from the least-qualified category (A) and the current costs excluding the teacher's salary are minimal; well-qualified teachers may then be used (category C) but in that case it must be accepted (situation 2 in the table) that class sizes increase to 53 pupils; at this point, expenditure outside of the teachers' salaries remains so low (50 MU per pupil); situation (3), where the teachers are well-qualified and the operational resources are adequate must then be considered, but in that case there would be an average of 80 pupils per class. If it is decided that this figure is too high, the option would be using category B rather than category C teachers, which leads to case (4), where class size is reduced to 53 pupils.

298. It should be stressed that the possible options do not stop there, as the "other expenses" item also has to be broken down into several components: text books, pedagogical material, ongoing training for teachers, assessment of pupils, pedagogical support for teachers and administration. If it is assumed that 100 MU will be allocated to the global "other expenses" heading; this figure can be reached by allocating very little to text books and pedagogical support, none to ongoing training or assessment of pupils and a lot to administration; but this amount can also be distributed in a completely different way. All these options are available; they are equivalent in terms of expenditure per pupil, but they are probably not so from the point of view of the actual quality of the services provided. The main task is thus to identify the most efficient combinations in the sense that they enable us to obtain the highest level of pupil achievement for the same level of expenditure per pupil.

299. This presupposes that what the economists call a school production function has been identified, i.e. a function that links the way the different aspects of school are organized with the level of pupils' achievement. Work has been carried out to estimate this function in a significant number of African countries, either within the framework of international measures (in particular the PASEC-Confemen for the French-speaking countries, the SACMEQ for Southern African countries and Unesco's MLA for a certain number of developing countries[16], or within the framework of specific projects carried out autonomously in a given country. Before dealing with this point in detail, let us examine how the different African countries are positioned based on the results obtained by pupils.

[16] PASEC: Programme d'Analyse des Systèmes Educatif de la Confemen (CONFEMEN Education Systems Analysis Program); SACMEQ: Southern African Consortium for Monitoring Educational Quality; MLA: Monitoring Learning Achievement. All these calculations were carried out after 1995.

The levels of quality of African education systems based on their results

300. The results obtained by education systems can be assessed on one hand using direct measurements of pupils' achievement while they are still within the school framework, and on the other via measurements of the reading abilities of adults who benefited from schooling when they were young. Let us rapidly examine the information available on these two aspects of the results.

301. Concerning the measurement of pupils' achievement, empirical measurements have been performed in several contexts (MLA, PASEC and SACMEQ), but they are not directly comparable; nonetheless, since there are some countries for which have both an MLA assessment and either a PASEC or SACMEQ assessment, and all the existing measurements can be adjusted to fit them onto a single scale (that of the MLA) thus ensuring a reasonable comparison between the average scores of pupils in a fairly large number of countries. Table 11 below presents the estimations carried out using this procedure.

Table 11 Estimated average score of pupils' achievement in a sample of African countries[17]

Country	MLA Equivalent level of achievement	Country	MLA Equivalent level of achievement
South Africa	49.6	Mauritius	64.1
Botswana	51.7	Namibia	48.1
Burkina Faso	52.7	Niger	40.8
Cameroon	60.0	Uganda	58.0
Côte-d'Ivoire	51.3	Senegal	42.5
Gambia	40.4	Togo	52.1
Guinea	51.6	Zanzibar	41.7
Kenya	68.8	Zambia	43.3
Madagascar	58.4	Zimbabwe	57.7
Malawi	48.5	**Average**	**51.6**
Mali	50.8		

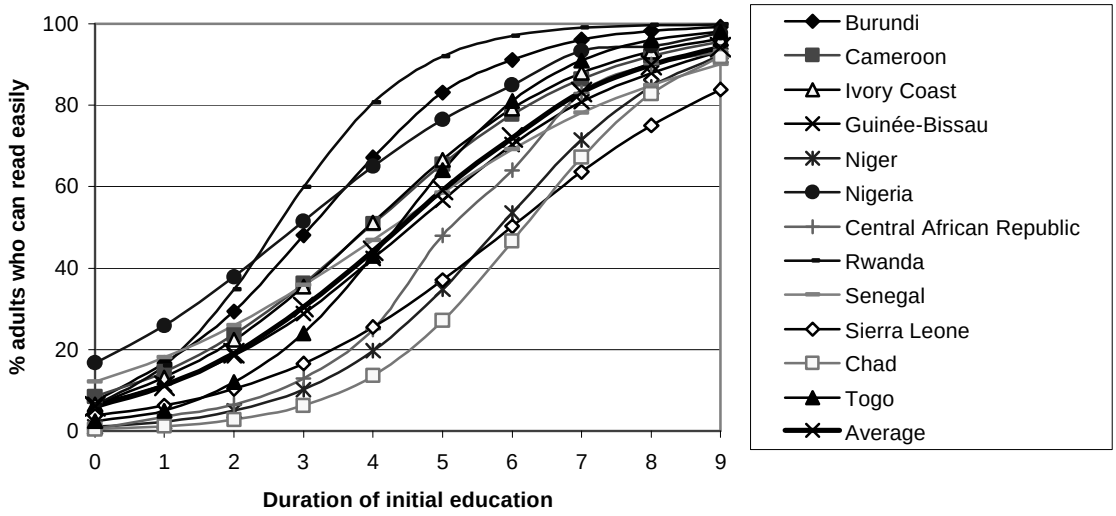
302. The data in this table once more highlights the huge variations between the countries in sub-Saharan Africa, with the average success rate varying from 40 to 69%. The best scores within this sample of countries were recorded in Kenya, Mauritius and Cameroon, and the lowest scores were recorded in Senegal, Zambia, Gambia and Niger. The average figure of 51.6% indicates that pupils acquire on average only approximately half of the target content. Comparative data that is both recent and wide-ranging that would make it possible to situate the achievement of pupils in sub-Saharan Africa in a global context are not available. Recently data show that, on the same scale, Morocco scores 63 and Tunisia scores 71. This suggests that the performance of African countries is likely to be relatively modest in comparative terms.

[17] The sample also includes Nigeria (MLA survey); the score has not been included in the table due to doubts as to the validity of the figure for this country.

303. Using a broader range of comparative data, which is older (71 countries worldwide around 1990), Mingat and Suchaut (2000) noted that the African countries had much lower scores than OECD and Eastern European countries, and also lower scores, though with less of a gap, than Asian and Latin American countries. However, when the level of economic development was taken into account in the analysis, the African countries' performance was found to be comparable to those of Latin American and Asian countries in this area. Moreover, the fact that the performances of African countries are so different from one country to the next gives us reason to be optimistic concerning the possibilities for improvements in the situation in many countries.

304. Another way of assessing school results is to target the literacy levels of adults who attended school when they were young. A primary education cycle to enable those who attended to at least be literate in the long-term. There is not abundant data available, but what there is worth examining. Graph 4 associated with it summarize the available observations[18].

Graph 4 % of adults who can read easily according to the duration of their initial education



305. The data presented above concerns those who attended primary school as it operated in the 1980s in that the data covers literacy in adults whose average age is a little over 30. There are both notable similarities between the different countries and quite substantial differences:

- Similarities include the general shape of the curve which is broadly logistic with i) very low proportions (approximately 6%) of adults able to read easily without ever having attended school, ii) numbers that increase as the number of years of education completed increase (on average 30% after three years, 59% after 5 years then iii) a progressive saturation and an extremely high proportion of adults who can read easily if they benefited from 8 or more years of education in their youth.

[18] A. Mingat: How many years of schooling to ensure retention of literacy in the countries of sub-Saharan Africa? PSAST/AFTHD, to be published, 2003. The data is taken from Unicef's various MICS surveys.

- As far as the disparities between countries are concerned, the figures are very different from one country to the next when it comes to the proportion of adults able to read easily after initial education of similar lengths of time. For example, with 5 years of education completed, 92% of adults can read easily in Rwanda, 83% in Burundi, approximately 65% in Cameroon, Côte-d'Ivoire and Togo, compared with only 35% in Niger and 27% in Chad. These are considerable differences. It is also interesting to note that this proportion of adults who are able to read easily after 5 years of education completed (observed in 2000, but a result of how primary schools functioned in the 1980s) shows a positive correlation (ñ=+0.66) with the achievement score of pupils in primary school in around 2000. It does therefore seem that retention of literacy in adulthood is related to the quality of the education they received.

306. In sum, by grouping together these two observations, it can be seen clearly that, although time spent in school is a fundamental ingredient for learning (which should encourage some countries to increase this time), and that the productivity of the time spent can vary greatly depending on how efficiently it is used. These two elements are, for the most part, controlled by the country's education policies.

307. After these general observations concerning the quality of primary schools in sub-Saharan Africa, let us examine which factors related to the organization of studies have an impact on the results obtained.

Factors related to the organization of schooling

308. This section covers two related topics: i) the first objective of this section consists of mobilizing the results of studies assessing pupils' achievement, not for the measurements themselves, but to identify the impact that organizational factors have on these measurements. It is through explicit and empirical correlations with the results obtained that a useful contribution can be made to the analysis of effective ways of organizing schooling; ii) the second objective of this section is to determine how far the impacts observed of each of these organizational methods are commensurate with the resources they involve. In a context of scarcity of resources, the fact that an element has a positive impact is not enough for it to be selected; the impact has to be sufficient taking into account the resources that it mobilizes. In a way, the starting point is not the impact of different factors, it is the resources, with reasoning as follows: taking into account the volume of resources per pupil identified, what combination of the factors leads to maximum pupil achievement?

309. In this context, it is the effectiveness of an additional monetary unit invested in a factor, **compared** with that of its alternative use for another factor, which is the rule that defines the priorities and enables optimum organization of schooling to be achieved in a given environment. Without wanting to go into unnecessarily complex issues of methodology, two essential aspects are worthy of mention:

- The first aspect is that it is not relevant to seek overall generic impacts; a **marginalist perspective should be adopted** when examining the issues of the impact and use of resources for a given factor. For example, the question is not whether teachers need training to do their jobs satisfactorily; this is known to be the case. Recruiting illiterate teachers is not an option; but this does not mean it should be assumed that recruiting the teachers with the most qualifications is the best solution. Indeed, it is probable that, although teachers are on the whole more effective in terms of student achievement if they themselves have a higher level of education, there may be a point where pupils at a given level of education will not particularly benefit from having better qualified teachers, whereas the budgetary costs will rise rapidly. There is therefore an optimum level of education for teachers, taking into account the impacts

and marginal costs. The definition of this optimum level is essentially determined by the fact that there is a point where the additional resources, instead of being allocated to a given factor (here the recruitment of better qualified teachers) would be better employed (would have a greater impact on pupil achievement) if they were allocated to the additional funding of other factors (text books, pupil assessment, pedagogical support for teachers, etc.).

- The second aspect its that, of course, an empirical stance must be adopted, and decisions based on fact rather than unfounded or unverified opinion, but it is important **to remain lucid** concerning such opinions. In fact, in a study that measures the impact of factor X on pupil achievement, both the validity of the concept on which factor X is based and the particular way in which the concept was implemented in the specific case is being examined. For example, the generic concept of in-service teacher training, can be applied in very different ways (depending on content and methods), while it is possible that some of these methods are satisfactory (cost-effective) and others are not. In these conditions it would not be prudent to conclude, for a given country, that the concept of ongoing teacher training is unnecessary because an empirical study showed that the formula implied substantial costs for little or no impact on student achievement. Examining the findings of various empirical studies involving different implementation methods (possibly conducted by different countries) is thus a desirable practice.

310. The next section examines a key element of analysis in this chapter, i.e. identifying the factors (and the conditions of their implementation) that should be given priority to maximize the quality of educational services for primary education in a situation of financial constraints.

311. This is a vast topic, and it will obviously not be possible to do it justice, with all possible details from all the literature and lessons learned from international experience on this point. This discussion is therefore selective and attempts to highlight the essential elements without resorting to caricature. To facilitate their presentation, the factors that directly concern the classroom context those related to the surrounding environment have been separated.

The factors characterizing the classroom context

312. The following five points will be covered: i) the teachers (education and training, gender and compensation); ii) the groups of pupils (class size, double shift system and multiple-level classes); iii) text books and pedagogical material; iv) the physical environment (buildings and equipment); and the time spent in school (scheduled and actual time, flexibility).

- **The teachers**

313. There are four complementary aspects related to the impact of teachers on student learning that appear important to take into consideration: academic level, professional training, gender and compensation.

314. ***Academic training***. As noted above, it is important for teachers to have good academic training that enables them to fully master the content of the teaching they are to transmit to the pupils. The findings of numerous empirical studies on this point, including the most recent ones, converge to identify a minimum desirable level of education of around 10-11 years of general education for primary school teachers (observations from Cameroon, Côte-d'Ivoire, Senegal, Togo, Mozambique, etc.). Above this level, the gains for the pupils are small or non-existent. It could be argued that it should not be a problem to employ teachers with better qualifications, reasoning that it is preferable to have teachers with a good academic level rather than those with just the minimum

requirements ("Who can do a big thing can do a lesser one"). Looking at the impact only, this would evidently not pose a problem. Whereas 10 years of general education corresponds approximately to the certificate of the first cycle of secondary education, we could, for example, as a certain number of countries do, use primary school teachers with 13 years of general education, which corresponds to the certificate of the second cycle of secondary education (high school leaving certificate)[19]. Analyses countries in Sub Saharan Africa suggest that the difference in compensation between teachers who have completed 10 or 13 years of education is between 25 and 40% (sometimes more, in certain cases such as Mozambique, for example). There is thus a considerable cost for the system if recruitment targets teachers with a higher level than that which is functionally necessary[20], because there are of course alternative uses for these funds whose impact on achievement is proven and whose funding is limited. Clearly, going beyond that which is functionally necessary would correspond to a non cost-effective use of public resources.

315. ***Professional teacher training***. Two complementary aspects are generally considered, pre-service training (just before and at the start of the teacher's career), and ongoing training during their career.

316. When ***the pre service training*** of primary school teachers is considered it is clear that extremely varied situations exist between the different countries on the continent and even within countries where different formulas often coexist, including clear variations in terms of duration, content and methods. For example, the length of training varies from very short periods, particularly for new categories of teacher (temporary teachers, contract teachers, voluntary teachers, "parent teachers") to pre-service training of up to three years; in addition, the training may offer, in varying proportions, content of a pedagogical nature (but there is general content and more directly professional content concerning handling a class) and general content related to the discipline to be taught. All these different activities fall under the generic header of "pre-service teacher training". Empirical studies assessed the impact of pre-service teacher training on pupils' achievement, but unfortunately they are insufficiently detailed and contextualized to allow the separation of the impact of pre-service training from the particular way in which the activities are implemented. An analysis of these results suggests that long training periods are probably not necessary if the training proposed is truly focused on the actual act of teaching, handling a class and organizing the teachers' work (preparing lessons, diversified planning of time and learning activities, organization of pupil assessment to adjust the way the class is run, etc.) The recent assessments conducted by the PASEC in Togo and Guinea back up this appraisal by underlining i) that an absence of pre-service professional training is not a good option, and ii) that professional training of a few months (probably 4 to 6 months) accompanied by support for the teacher during the year they begin is as good an option as a long pre-service training period[21] (2 years or more). Since short training is characterized by lower costs and a better capacity to produce the number of teachers necessary for EFA, it is quite clearly more cost-effective to operate this way.

[19] For French-speaking countries, 10 years of general education typically corresponds to the category of "assistant primary school teacher" whereas 13 years of general education corresponds to the category of "primary school teacher".

[20] This observation determines the category of teachers it would be desirable to recruit and the associated level of compensation. The minimum academic level for recruitment without preventing more qualified people from applying can thus be defined.

[21] This result was not, however, foreseen by the education specialists in Guinea, which had predicted that the new FIMG low-cost training would lower the quality of schooling.

317. ***In-service teacher training*** is strongly supported by education experts. They emphasize that teachers become trained, to a large degree, by teaching and building their professional skills through the conscientized and instrumentalized performance of their tasks. This task is not, however, spontaneous; it is greatly facilitated if the teacher is not left alone in this exercise. This is true in particular because outside technical contributions can provide precious help, because it is important for teachers to share experiences and also because it is not easy for an individual to mobilize their energy alone to conscientize their practices.

318. Once again, what is developed under the heading "in-service training" for primary school teachers may correspond to activities that differ considerably: at one end of the scale, this may mean standard subject-based training enabling primary school teachers to prepare for the competitive examination to teach in secondary schools; at the other end of the scale, it may cover teachers who work together with an inspector or a pedagogical advisor to structure their teaching in a concrete manner and deal with difficulties encountered in the class room this pedagogical support for teachers can be classified as an aspect of their ongoing training). In between the extremes, training may aim to introduce new curriculum content or new textbooks. In these conditions, and in particular due to the fact that empirical assessments of ongoing teacher training are not generally placed in context, it is not surprising that it is difficult to reach an unambiguous conclusion concerning their impact, and in the same way, to identify the most relevant formulas. It does not, however, appear imprudent to suggest that i) in-service training can have an impact, probably a significant impact, on the quality of education services offered and ii) that, again, the targeting of how classes function and the actual activities the teachers are exposed to is what should be targeted.[22]

319. The issue of the ***balance between initial and in-service training*** in the overall teacher training strategy is also worth examining. Taking into account the observations made above, it appears that a formula combining a short pre-service training period targeting how to handle a class with support organized during the first year of teaching and regular and structured ongoing training concerning actual class management issues could be a relevant formula with a view to the quality of education services. For many countries, this could bring a new balance, where the resources for initial training would be reduced but those for ongoing training increased. This formula could also lead to positive cost-related aspects. Indeed, that salary grids are often indexed on the initial training received, although long initial training periods are probably not very efficient. Recruiting teachers in a "lesser" category creates greater financial space to improve quality elsewhere, in particular by facilitating the funding of ongoing training and creating the space for a positive incentive structure for career development.

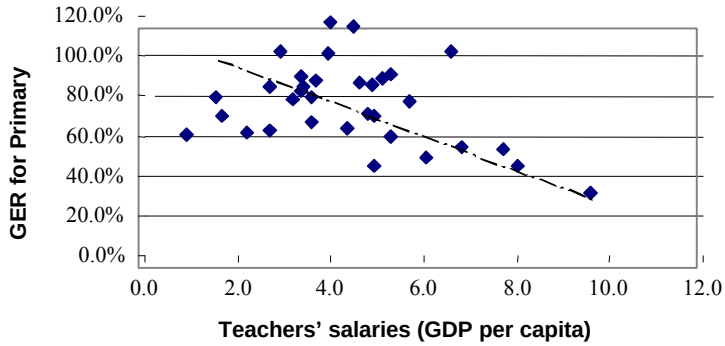
320. ***The teacher's gender.*** Teachers can, of course, be men or women. The proportion of women in primary education varies greatly from one country to another within sub-Saharan Africa (between 7% and 60%)and this proportion is significantly higher in English-speaking countries (approximately 45%) than in French-speaking countries (29%), whereas more than half of teachers are women in low-income countries in Asia and more than three-quarters in Latin America. The departments that manage teaching staff sometimes complain of the difficulties they encounter with women teachers (difficulties assigning them to rural areas, difficult to replace them during maternity leave). And yet, the results of empirical studies, both international comparisons including large numbers of countries and national studies on individual data (analysis performed on a sample of 9 African countries), demonstrate two things with no ambiguity whatsoever: i) the first is that there are no systematic differences according to whether the teacher is a

[22] The empirical observations are not of particular help in supporting this appraisal.

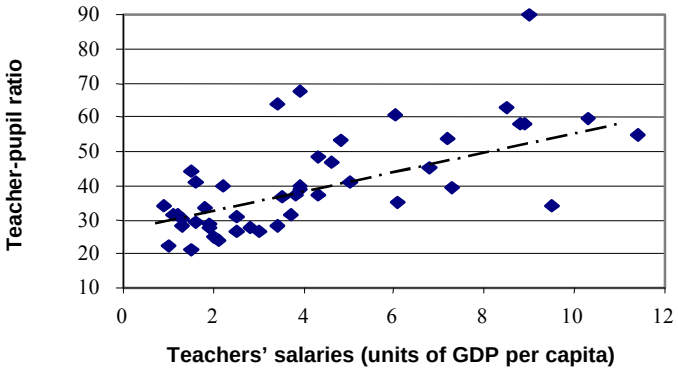
man or a woman; and ii) the second is that retention during the primary education cycle is significantly higher for girls when the teacher is a woman rather than a man (or the proportion of women among the teaching staff is higher, as far as the international comparisons are concerned). This supports the conclusion that despite possible "logistical management" difficulties that have to be dealt with, the recruitment of teaching staff with a gender balance is probably a desirable policy, as it does not imply any notable costs and offers proven advantages.

321. ***The issue of teachers' compensation***. This issue is delicate and difficult; and yet it has to be examined in the analysis of the financial viability of strategies for quality education. What are the principles and what are the empirical observations? The principles are doubtless quite simple (without necessarily being easy to implement): teacher's salaries should be sufficient to make it possible to recruit and retain adequately qualified teachers who will be happy with their profession. The conditions of the local employment market are an important reference in this respect. If the teachers are too poorly paid, a number of disadvantages are noted: i) it can be difficult to recruit the people needed in terms of quality and quantity; ii) high staff turnover may result, which is not desirable as a stable teaching body consisting of individuals who build their professional capacities over time is required; iii) in addition, teachers who are underpaid may be led to perform another activity and allocate less time to their teaching job; iv) finally, teachers who are underpaid may impose (illegally or in a disguised fashion) school fees on the parents of children in their charge. There are also major disadvantages inherent in setting pay levels too high. Indeed, setting salaries too high compared with the equilibrium wage of the national employment market, although it facilitates recruitment and retention of teachers, has the consequence either that the government budget will not permit recruitment of the number of teachers needed to develop the system (graph 5) or will lead the ministry to let the teaching conditions deteriorate, either in terms of upward pressure on class sizes (graph 6) or making non-wage resources, useful in ensuring quality of service, scarcer.

Graph 5 Relationship between teachers' salaries and the gross enrollment rate



Graph 6 Teachers' salaries and pupil/teacher ratio in primary schools



322. Based on this discussion, it clearly is not easy to identify the balance point between compensation that is too low and that which is too high. This issue must obviously be dealt with according to the national context (Lesotho is not in the same situation as Benin, for example). It can however be useful to note some international benchmarks. In 2000, the average salary of primary school teachers in low-income African countries varied between 1.5 and 9.6 times the GDP per capita (the average was 4.4 times the GDP per capita). The countries that performed best in terms of primary school enrollment and completion had average teacher salary values of 3.6. Eleven of the 33 low-income African countries have an average level of teacher compensation below this value, and 22 countries have a value higher than this reference.

- **Grouping of students**

323. There are three factors taken into consideration for grouping of children: class sizes, double shift organization, and multiple level organization.

324. ***Class sizes***. In the course of the first few years of school, there is a very broad consensus in favor of having the children taught by a generalist teacher who covers all of the subject matter in the program. This is justified by the fact that i) the content of the disciplines is simple and can be reasonably managed by an individual teacher, and ii) that the environment is more favorable for the students when there is a single teacher who knows them well and takes care of all of their needs. There is also agreement that, for higher education, the teachers should be specialized due to the specific nature of instruction and to the need for student autonomy. The question concerns the most suitable moment for switching from one to the other, and how gradual a transition should be planned. It appears that for the first six or seven years of education, the single generalist teacher is the most appropriate, due to i) the often significantly higher cost of specialized teachers who frequently belong to a category with higher pay levels and more limited working hours, and ii) the absence of evidence of benefits of this formula in terms student achievement. Furthermore, the use of specialized teachers means that schools have to be big, which imposes its own set of problems at the primary level in rural areas.

325. More specifically, regarding class sizes, the question is also loaded and often highly polemical. First of all, it should be pointed out that it is an important question, because the average unit cost is directly dependent on the numeric value for the average class size. A formula with a class size of 60 students per class costs barely more than half of one with only 30 students per class. So there are considerable savings to be found in organizing schools into classes that include more students (and therefore create alternatives concerning expenses other than those related to teacher compensation, or even for increasing this compensation[23]) or, symmetrically, very high additional costs for reducing the average number of students per class. Teachers always emphasize the fact that it is easier and better for the students to have smaller class sizes (the argument being that discipline is easier to manage and that the teachers can do a better job of diversifying their lessons according to the diverse capacities of their students). Empirical analyses based on student evaluation surveys (standardized testing) or on the success rates at national exams, for the African context, show surprising convergence in demonstrating that the impact of class size for a range, say from 30 to 60 students (there are probably no plans for classes of 15 students – financially unfeasible – or for classes of 100 students – hard to manage and often physically incompatible with the existing classroom sizes) is relatively modest. In view of these conditions, it no doubt seems preferable not to reduce the average size of classes below 45 to 50 students[24] unless the other factors in operating the school are considered as satisfactory. For many countries (though not all), reducing the average class size is probably not a first priority.

[23] Korea, like other Asian countries that have extremely high-performance education systems, has opted (even today although their level of development is much higher than 30 years ago) for a formula characterized by quite large class sizes (50-55 pupils) and relatively high teacher salaries.

[24] Above and beyond the management of class sizes, countries have to manage possible dispersion. We know that in the current situation this is often not satisfactory (disparities between allocation of personnel to the different regions or provinces, between urban and rural areas and ultimately between schools) and progress has to be achieved in this area in the great majority of countries in sub-Saharan Africa.

326. ***Double shift organization.*** The purpose of this organization is to get around the limited number of places available in densely populated urban areas. In order to avoid either classes that would contain 120 students (beyond the physical capacities of the existing structures and the concrete possibilities of running a class in a satisfactory way) or refusing to enroll a certain proportion of children, classes were organized to take in one group of students in the morning and another in the afternoon, with an attempt to maintain an acceptable number in each shift. A variety of measures were taken in order to put this formula into actual practice, with recourse to one or two teachers and with more or less reduction of classroom times in comparison with the standard organization.

327. Assessment of results in terms of quality generally show a loss in the students' learning levels due to the reduced amount of time in school (effective school time is often reduced by about one-third); this loss does not seem to have very significant consequences during the first two or three years of school, but may become substantial thereafter. Evaluations in terms of gains in educational coverage are also not very good; indeed, if the formula uses two teachers (effectively creating two schools in one building) there is no gain in operating expenses and only an improvement in the use of capital. If the formula uses just one teacher for both shifts, the gain is often illusory because the class size of each shift is then reduced (which reduces the quantitative impact of the formula) while the bonus paid to the teachers for handling two shifts (obviously well-deserved) often ends up eating into the benefits of the formula as far as plans for reducing unit costs go, and therefore into the plan's capacity for leading to the largest number of students enrolled within a fixed budget. On the whole, with losses (small or substantial, depending on the class where the formula is used) in student learning and few or no gains in terms of qualitative coverage, the plan should no doubt be used carefully. It should be closely analyzed for its advantages (especially the optimized use of infrastructures) and disadvantages before any commitment is made, with the understanding that rigorous assessment will be needed after the fact if the formula is implemented, in order to verify the balance of its advantages and disadvantages.

328. ***Multi-grade organization.*** This formula consists of combining, under the same roof and under the authority of the same teacher, the students belonging to several (two or more) grades of the primary cycle. While the preceding formula was devised for the densely populated urban setting, this one is aimed at rural settings with a low population density. In this context, the number of children who need to be enrolled locally is low, and unless one combines all of the children from a very large geographical area (imposing on some a distance to school that constitutes a deterrent to enrollment, especially for girls), the schools can have a very low enrollment. According to standard pedagogical organization, the number of students per class would then be very low, resulting in very high unit costs. In practice, it has often been observed, and not always just anecdotally, that all of the classes of a cycle are not offered (Mauritania, Mozambique, Benin, and Burkina Faso) and that this of course has very negative consequences on retention of the students until the end of the primary cycle (although it is known that this is essential for literacy to be retained later on). If the educational cycle is six years, grouping the students into two or three levels within three or two classrooms (headed by two or three teachers for the school) is a formula that makes it possible to provide complete enrollment at reasonable cost in schools that are nearby for the children.

329. The question then becomes one of quality of service. Assessments of this point show rather varied results, with the formula showing up as very negative in one place, while it turns out to be very positive in another. The reason is that it can be implemented in very different ways. At one extreme, there is the case of countries like Nepal or Madagascar, where the formula used is that of sequential organization of teaching; a teacher in charge of the students for the first three years takes the first year

students, for example, from 8 a.m. to 10 a.m., those of the second year from 10 a.m. to noon, and those of the third year from 3 p.m. to 5 p.m. (when they are not with the teacher, the children are sent home). This formula produces very negative results because it effectively amounts to a drastic reduction in classroom time, which is known to be very important for learning. At the other extreme, the formula can be implemented in a very organized way. While the teacher works with one group of students, the students of another group work, alone or in teams, on practical exercises or research. Then they are rotated and the teacher works directly with the group that was doing exercises before, having given work to the other group of students that he or she has just finished teaching directly. Some teaching sequences may be followed by both groups. The teacher has been trained to manage this formula and has a set of practical exercises and work to assign to the students who, in turn, have special notebooks for these activities. Under these circumstances, the evaluation results show that the formula is superior to the standard formula (the students work more, and more didactic variability is observed).

330. This is therefore a case of a good concept but conditions of application[25] that may be highly varied, and it is those conditions that are the key to success or failure of the formula from a qualitative standpoint. To the extent that the road that remains to be traveled by the countries aiming towards universal primary education is very much a "country road" (a large majority of the children who currently do not have a complete primary education is rural), the multiple level classroom formula should no doubt be subject to i) a decision on the part of a large number of education ministers in sub-Saharan Africa regarding its suitability, and ii) setting up the formula in ways that render it positive in practice for the students.

- **Textbooks and pedagogical materials**

331. In general, empirical studies concur in highlighting textbooks as the element with the best cost-effectiveness ratio for improving learning. Beyond this general observation, there are nevertheless some qualifying remarks to be made. These concern the number of titles that should be involved, the role of student workbooks and teachers' manuals, the proportion of students who should have textbooks and the issue of textbook prices.

332. School programs usually cover a relatively large number of disciplines or subjects, which are expected to be included in textbooks. The consequence of a large number of textbook titles is that the cost of textbook provision may exceed available resources. Under the circumstances, it is usually necessary to define priorities. Regarding the number of publications, it appears that the number should be different depending on whether one is considering the first years of school (where the reading primer is the book with the strongest impact and the impact of textbooks for other subject matter isnot always clear and probably highly dependent on the way it is used) or the more advanced classes (where three or four textbooks are probably justified, but probably not eight). Empirical evidence suggests that a student math textbook has little impact, but a workbook is probably crucial; on the other hand, the teacher's manual is very important. For the sciences, the textbook for students appears to be important, particularly since the teacher cannot usually illustrate the teaching content in any other way (illustrations, diagrams, etc.). More generally speaking, the teacher's manual is considered to have a substantial positive impact, because it provides a simple, instrumental way of clearly and unambiguously showing them the content of the program that they have to transmit to the students, and it ensures a minimum of homogeneity in the teaching dispensed by teachers with varying characteristics and training backgrounds.

[25] There are of course intermediate situations in between these two extremes.

333. The question regarding the proportion of students who should have textbooks has often been debated. Around 15 years ago it was thought that in situations with scant resources, one textbook for two students would be a reasonable compromise. More recent empirical studies suggest that it is important for all students to have these textbooks. It has been observed that if there are not enough textbooks for all of the students, the teachers tend to use a pedagogical approach in which their own words become the main source of knowledge; in this case, the textbooks only play a complementary role and the benefits are limited to those who possess them. However, when all of the students have the textbooks, the teaching approach can change and the teacher can use the book as support material, both for the lessons and for the students' individual work.

334. As for the price of textbooks, first of all for the students, it has sometimes been claimed that it is important that parents purchase the textbook, even at subsidized prices because they will then realize that it is a costly object that must be treated carefully by the students. The consequence of this policy has been that in particular students from deprived backgrounds do not obtain textbooks. Today it is considered preferable that these textbooks be supplied to the students at no cost. However, the books do cost money, and the price of a textbook with given characteristics may vary depending on the formula chosen by the buyer. A free textbook policy (and it is probably desirable to take this approach) probably requires a lot of vigilance, however, to identify the most economical way of procurement and distribution (see in particular Diop, 2002).

- **School buildings**

335. There are two basic observations concerning ***school buildings*** that are important to make: i) there generally is substantial variability in the types of construction used for classrooms, both between countries and within many of them, from classrooms built with local materials and having a very short lifespan to solid buildings built according to demanding specifications although using traditional materials for all or part of their construction; ii) there also are several different procedures used, from direct implementation by some aid organizations to municipal construction projects, and including formulas where the construction is done by small local builders under the supervision of government technical staff. It is worth noting that while the quality and durability of these formulas is not always comparable, they also correspond to extremely different unit costs for classroom construction (more than 1 to 10), knowing that it is often pointed out that it is more the type of institutional package involved than the type of construction that accounts for these cost differences (see in particular Theunck, 2002).

336. To the extent that, on the one hand, the investment budgets for classroom construction are heavy (and this is so independently of who provides the financing) and where, on the other hand there is so much variability in the unit construction costs, it becomes clearly worthwhile to examine whether there is a differential impact on the results obtained that would be associated with these different methods of building and of commissioning buildings. In the dimension of quality of educational services, as they may be appreciated either by the students' achievements according to standardized tests or by the results obtained at national exams, the characteristics of the classroom (as soon as there is one to receive the students), all of the results tend to show, do not have a significant impact. It is what goes on in the classroom that counts, more than the physical packaging in which the educational services are provided. Under the circumstances, the arguments in terms of priority actions are clearly in favor of a degree of frugality in construction methods and simplification in the methods of implementation. The argument for durability does not necessarily lean towards the choice of the simplest formulas but towards compromises that ensure acceptable durability and cleanliness with contained

costs. Recourse to community type formulas with technical support and essential materials should obviously be considered.

337. Apart from the school building itself, the ***furnishings*** are important to consider. In the African context, there are notable differences on this point from one country to another, as there are often large differences from one school to another within the same country. The empirical results concerning this aspect are also mitigated. They sometimes suggest a lack of impact (Togo, Ivory Coast) but also sometimes a positive impact of these material conditions for the students in their classrooms (Cameroon). On the whole, one can probably not expect a considerable impact on learning from these furnishings (the students in the BRAC schools in Bangladesh are seated on the ground – albeit in a clean room – and achieve acceptable academic results). It is still true that the cost of these furnishings can be relatively low (in particular by using locally produced items that have at least a ten-year lifespan) and that an equipped room that is clean and orderly helps create a favorable environment for discipline and for learning.

- **Classroom time**

338. ***The time provided.*** The analysis of literacy retention showed that classroom time is unquestionably a crucial factor in learning. This is confirmed by the numerous studies on effective schooling conducted in the developed countries. In the African context, the theoretical teaching time in the course of a year is variable from one country to another, but what probably makes the most difference is the extent of the difference between the theoretical time and the actual time (the latter may be significantly lower than the former). There are many reasons for this: one may consider i) the effective shortening of the school year at both ends and ii) the shortened school hours during the school year.

339. Regarding the first point, it is not unusual for the actual beginning of classes for a number of students to be delayed by one or two months because of the late assignment of teachers and the poor monitoring of the actual taking up of their duties; in addition, it is also not rare that classes are effectively suspended a month before the official end of the school year. As a result, the school year may average only seven months out of the nine months it is officially scheduled to last. On the second point, the teaching time in the course of the school year may be shortened because of the difficulty in finding replacement teachers, the absence of sanctions for the unjustified absences of some teachers, and the time taken by some teachers simply to go and collect their pay; in some countries, at least 20% of the classroom time is lost in these ways. If one combines the possibility of losing two months at the ends of the school year and that of losing 20% of the time during normal operation, one can arrive at a situation where the effective learning time provided amounts to barely more than 60% of the theoretical time allotted. In terms of quality, the drawbacks are obvious; yet improvements in these problems (undoubtedly occurring in the majority of sub-Saharan African countries, but probably to a varying extent, depending on the country) are more a matter of organization than of cost. Precise evaluations should be conducted in each country on these aspects of school operation in order to i) identify the extent of the problem and ii) identify the measures to be taken to make improvements and then verify that progress in this area has actually been achieved.

340. ***The time demanded***. A second aspect of classroom time also deserves examination. This is the same question, but from the students' perspective. While it is important for the classroom time to be offered, it is also important that there be a demand for this classroom time so that the students' actual presence at the school will result in the learning intended. But the scheduling in the course of the year and the hours in the school day are not necessarily in line with the ideal, considering the domestic chores expected of

the children (participation in farming throughout the year, fetching water throughout the day). Opportunity costs could sometimes be reduced by granting more flexibility for the calendar and the hours (in an organized manner, of course) without changing the theoretical volume of teaching, but increasing the actual volume and consequently the amount of learning and the quality of the school.

Characteristic factors in the educational environment

341. The three following points will be examined: i) the issue of repeated classes (quality, use and retention of resources); ii) acting on the demand (free schooling, school cafeterias); and iii) the role of pre-school education.

- **The issue of grade repetition**

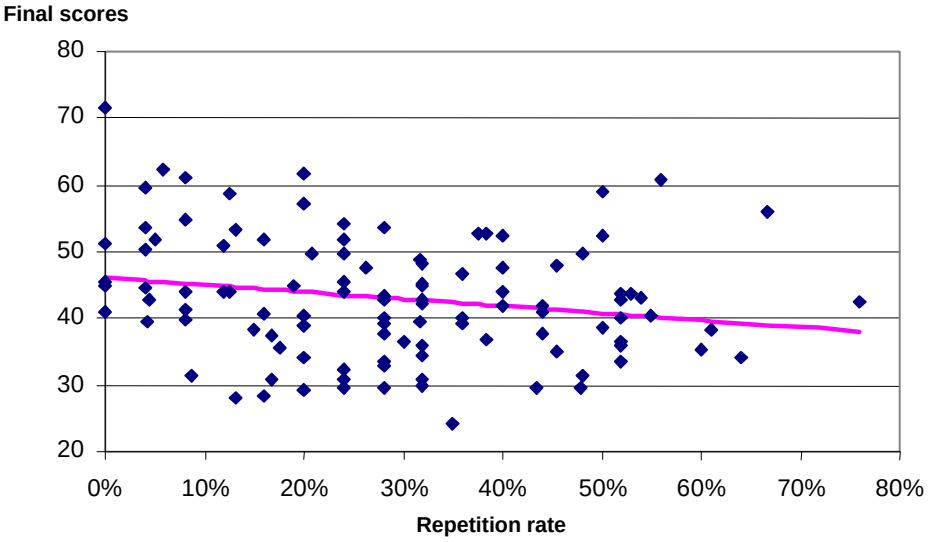
342. The practice of having students repeat classes is highly variable among the sub-Saharan African countries, since the frequency of repetition among enrolled students ranges from 1 to 36%. data show that i) on average, it is much more frequent in French-speaking and Portuguese-speaking countries (an average of around 25%) than in the English-speaking countries (an average of around 10%), ii) national averages have remained stable over time. There is no question that repetitions incur costs that, all other things being equal, create a burden on budgetary expenditures for primary school of more than 20% in the French-speaking countries. Considering the magnitude of these costs, it is important to examine the extent to which the possible benefits attributed to repetition are commensurate. The argument for maintaining the practice of repetition is that these costs are outweighed by the positive aspects of ensuring the quality of the educational services provided. The significance of this claim can be examined from three angles: an international comparison, a comparison between the schools within a given country, and between individual students:

343. In an ***international comparison,*** figures are available for several countries on the frequency of repetition (it is highly variable from one country to another) and that of students' average learning acquisitions (this also varies significantly; see table 11 above). If repetition were actually a means of ensuring quality education, the average level of student achievement in the countries that are rigorous in this practice (where repetition is frequent) would be higher than in the countries that take a more lax approach (low level of repetition). This is not what the evidence shows; in fact, no correlation has been found between these two figures. In contrast, the same analyses show that there is a very strong and significant negative relationship between the frequency of repetition and the levels of retention in primary cycle classes: one additional point in repetition implied an average decrease of 0.80 points in the rate of retention[26]. When separate analyses are done for boys and girls, girls are found to be more at risk for the negative consequences of repetition, since the coefficient was 1.05 for girls and 0.55 for boys.

344. At the level of ***comparison between schools*** in a given country, if it is assumed that repetition is a guarantee of quality, the rates of repetition can be expected again to be lower where the students' average levels are higher. But this is not what, the data in graph 7 show:

[26] This means that if a country has a 25% repeat rate and a retention rate of 65%, the retention rate could reach 77% [65 + 0.8 (25-15)] if the repeat rate was reduced from 25 to 10%. The reason for this is that, for a family, repeats lead to increased costs (direct and opportunity costs) by one (or several) additional years of study while indicating that the child is not adapted to school and will perhaps not benefit from schooling as expected.

Graph 7 PASEC test results by school, as a function of repeat rates in the class



345. ***At the individual student level***, the implicit idea is that if some students are made to repeat, it is for their own good. It is said that these students who are asked to repeat have not acquired the necessary foundations and that it would be a disservice to them to move them up to the higher class level. To test the empirical significance of this assertion, several studies have conducted longitudinal surveys of students, evaluating i) their levels at the time that the decision is made whether to repeat or move up to the higher class level, and ii) how they progressed later on in their education and learning, depending on whether they actually repeated or not. The results show that repeating does not usually enable students to progress more than they would have if they had been promoted.

346. On the whole, repeating is often seen as a method for managing the diversity among students, but it is twice as costly (due to the fact that two years must be paid for in place of one and to the fact that repetition is often the motive for quitting school early, particularly among girls) without actually delivering any benefits in terms of educational quality. It therefore does not seem that large-scale recourse to repetition constitutes a valid practice from a quality standpoint, either for the system or for the individual students. To continue the argument developed earlier in this text, it is even very harmful, since the method consumes resources that could be more usefully invested in other activities for improving the system in either quantity or quality. This does not mean that one should necessarily aim for reducing repetition rates to zero and promoting automatic passing. But for a number of countries, there is room for a substantial reduction in the repetition rates, which are clearly excessive[27].

[27] Here we will not cover the possible methods, but among these, it is probably relevant to mention the organization in sub-cycles without repeats within each, as well as support for teachers to better evaluate the progress of their pupils and set up positive management of their diversity.

- **Demand side policies**

347. To a large extent, the ideas expressed up to this point (with the exception of the point concerning classroom time) have been essentially concerned with the supply of education services. This is mainly the domain of educational policies, particularly those targeting the qualitative aspects of the system. But in order to talk about quality, the students have to be present, since classroom time (both supply and demand), as has been already stressed several times, is an important ingredient of learning. School systems have a natural tendency to grow quantitatively, beginning with the populations that are easiest to enroll (populations in which the demand for schooling is high, in urban settings), then extending their actions into populations that are less easy to include, finally encompassing the most difficult and most vulnerable at a later stage. In the current situation, those who do not have a complete primary school education are disproportionately the poor, the rural and, to a lesser extent, girls. If the objective of a primary school education for all is to be achieved, it means that these populations must be included. In order to do so, the usual actions for increasing the supply of education are not sufficient[28]; actions targeted on the demand will probably be necessary. Numerous measures and methods of action can be envisaged to meet this end; here, only two measures: free schooling and school cafeterias will be discussed.

348. ***Free education.*** In many African countries, parents are expected to contribute to providing their children with various materials (textbooks, writing instruments, uniforms, etc.) required by the schools for their enrollment, and/or for contributing directly to various types of school expenses, whether legal or not. Surveys of households reveal that these contributions can be substantial (even for public schools) and a large share of them is in monetary form. Even if there is some flexibility at the local level, it is still true that for poor families, the direct costs of educating their children often constitutes a difficult obstacle that is resolved by either non-enrollment or by intermittent enrollment, or by leaving school early before the end of primary school, thereby contributing to maintaining the cycle of poverty because these children later become illiterate adults. The point is empirically supported by analyses of the household surveys, but above all it is demonstrated by the countries that have developed a free education policy. In particular, this was the case in Malawi, Uganda and Cameroon in recent years. It has thus been empirically verified that the elasticity of demand for education compared to the price to be paid for the service is significantly negative, especially for the most vulnerable segments of the population. It is probably not fully consistent from one country to another, and it may be useful in many of them to conduct specific analyses to identify the extent of the constraints on achieving universal primary education that may exist on the demand side, and in the area of the costs in particular, then eventually to identify a strategy for targeted action for the populations concerned.

349. ***School cafeterias***. A number of countries, have established school cafeterias often (but not only) in connection with the very positive campaigns by the World Food Program. They offer two types of advantage: the first is that they help fight malnutrition. It is a known fact that nearly 30% of children under the age of five, in sub-Saharan Africa as a whole, are significantly underweight. From the point of view of schooling, the fact that the children do not suffer from malnutrition can only be beneficial for their attention and learning capacity, but this is probably not how the schools benefit the most from the cafeterias. They mainly benefit is that when the children receive food at school the parents send them more regularly; this has a positive effect on the amount that the children have achieved by the end of the school year. This being said, the school

[28] Targeted actions to ensure that reasonably qualified teachers are maintained in difficult areas are among the actions that could be useful, even indispensable.

cafeterias can turn out to be a relatively costly item (generally for the States which develop them out of their own budgets). There are two complementary lines of thinking that can be developed from this point: i) the first of these is a search for low-cost methods, and many of these undoubtedly call for implementation that involves working with the parents and the communities, since they are responsible for implementation although the State contributes to the operation, and ii) the second of these is to have a strategy for targeting the most vulnerable populations and areas[29] in order to maximize the impact of this help and the efficiency of the resources mobilized for this purpose. These two avenues should probably be pursued in a complementary manner.

- **The role of pre-school education**

350. The development of activities for very young children, and particularly pre-school education for children in the 4 to 5 year-old category, for the benefit of the most vulnerable populations, is the first objective covered in the Dakar Forum declaration on Education For All. There are a number of studies that highlight the benefits for the operation and quality of primary education (improved learning, reduced frequency of repetition and improved retention by students in the course of their primary education). For example, Jaramillo and Mingat (2003) estimated that 50% coverage for two years of pre-school in a typical African country could reduce the frequency of grade repetition by 20 to 14% and increase the retention rate by 65 to 80%. However, the fact that benefits can be expected is not sufficient justification for mobilizing the public resources for this purpose when budgets are tight or where there are equally ambitious alternative objectives (access to secondary education, adult literacy programs, etc.) that are potential clients for resource appropriation. Pre-school education, as it is currently organized, is expensive (the estimated unit cost for traditional pre-school education, on average in African countries, is 40% higher than that of primary education). The calculations show that this pre-school teaching, if one only measures the benefits of improvement at the primary level, is not cost-effective, and therefore cannot be recommended for public financing within the scope of a sector-based educational policy in many countries of sub-Saharan Africa.

351. On the other hand, one should not be too quick to reject a policy on the grounds that a particular application has not been recognized as cost-effective. In fact it is possible to seek out a community-based form of organization to develop such activities for young children, Comparative evaluations of the effects of formal and community-based pre-schooling conducted in Cape Verde and in Guinea showed that the benefits for children in terms of preparation for primary school were comparable (and even somewhat better for the community formula), but that the public costs for the community formula were significantly lower than those for traditional nursery school. Under the circumstances, the preceding conclusion that pre-school education as a strategy for improving the quality of primary education was not cost-effective should be revised. One then arrives at the conclusion that the benefits are probably much greater than the costs, making the development of community pre-school education (which must of course be defined in operational terms) a useful element of the overall strategy for the sector.

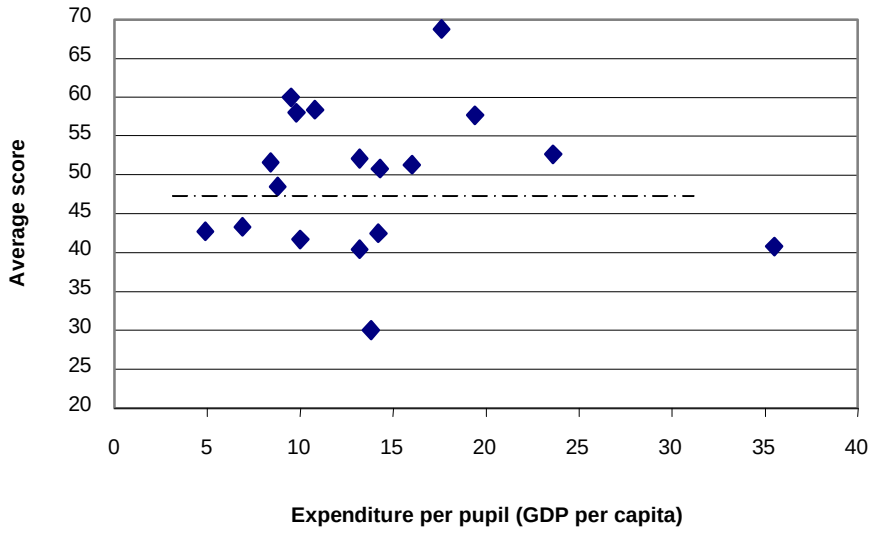
[29] Work carried out in almost all countries, based on analyses of household surveys, within the framework of preparing follow-up for the strategy for the fight against poverty could be used for this type of targeting.

Qualitative, pedagogical and management factors

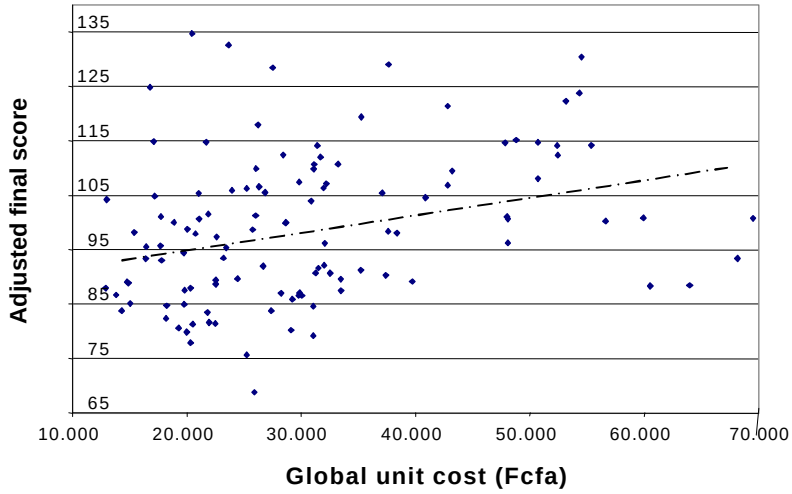
352. Up to this point in this document, the emphasis has been placed on education policies that correspond to tangible factors that are logistical in a certain sense. It is obviously reasonable to adopt such an approach because it is these major factors that "make the budget" and that is where the scarcity of resources is most acutely perceived. Nevertheless, one must stay aware of the limitations of a school quality policy that consists merely of mobilizing additional resources even if this is done with a strategy that is empirically well-justified, more or less following lines that are comparable to those previously laid out. The resources are only means that create a context that is more or less favorable for learning. They are not the learning itself. The latter is what matters and policies do not have direct access to this. The transformation of resources into results (the teaching of students) is an essential step. Of course it implies education policies, but they are of a different type, since this concerns actions involving pedagogical practices and management-type procedures.

353. Empirical evidence shows that in the present situation in African countries this capacity of systems to transform the resources that are actually mobilized into results that are actually obtained is not good. This is evident as much at the comparative international level as at the comparative level among schools within a given country (not mentioned here because it is illustrative of the general picture). The two graphs 8 and 9, below, illustrate the problem.

Graph 8 Average achievement level and unit costs in 15 African countries



Graph 9 Pupils' progress and global unit cost (CM1)



354. From the comparative international perspective, there is simultaneously a significant variability between the different countries both in terms of the levels of students' average scores (from 30 to 70) and of that of unit costs (from 5 to 35% of GDP per capita), but there is no relationship between these two measures, with the countries featuring higher expenditures per student, on average, showing no higher levels of student achievement. In graph 9, each point represents a class. On the vertical axis appear the achievement levels at the end of the school year of similar pupils in terms of their level of achievement at the beginning of the year and in terms of their personal and social characteristics. On the horizontal axis is the unit cost of each of the classes in the sample. Once again, there is very broad dispersion and very little relationship between level and unit cost of the class and the progress of students in this class in the course of the school year. At each level of unit cost, students' progress may be high in one class and low in another. This is a question of pedagogical practices as well as a management problem. This is suggested by the fact that there are schools with very few resources while others have plenty but also, and especially, that there are many schools with seemingly adequate resources (above average, in any case) that show modest achievement results. The problem here is that these "low performing schools are not known to the institution (because there is no information mechanism regarding this point), which consequently does nothing to remedy the situation. Pedagogical management is clearly inadequate.

355. When the question is viewed from the perspective of quality of educational services offered, it is found that resources are not sufficient to characterize this quality. When seeking to describe the diversity of student learning, measured by standardized testing, within a given country[30], the way in which resources are transformed into learning has an impact that is three to five times greater than the volume and distribution of the resources per se. This clearly underlines the fact that any strategy aimed at improving the quality of services that are effectively offered should consider substantial improvements in the management of this transformation of resources into results at the school level. It will probably be necessary to i) actually measure the students' results, and ii) see that the systems set up the appropriate response mechanisms (incentives,

[30] This work was carried out in over 10 countries in sub-Saharan Africa. The results presented here give a global overview. Although these figures do indeed differ from one country to the next, the orders of magnitude are very similar.

pedagogical support, sanctions, etc.) for schools that show poor performance levels. This will naturally require analyses in order to identify the relevant measurements, followed by resources for their implementation as well as for follow-up and evaluation of the results. But there is no doubt that this approach is necessary first as the only course for improving the quality of services and for justifying the mobilization of additional resources.

Conclusion

356. It is not easy to formulate a conclusion following this review of the numerous aspects that contribute to producing an education system that offers quality services to its users. What emerges most clearly is that there is no magical solution or remedy to certain specific points for resolving the question of school quality. All factors in education policy interact and intersect to form a system that offers good quality services to its users. The presence of these interactions in education systems is such that if a country deviates substantially from the appropriate approach to a particular point, there is a risk of ruining the entire mechanism, and this is all the more important when there are serious financial limitations, as is the case (and will continue to be the case for the next twenty years) in sub-Saharan Africa.

CHAPTER 6
A RELEVANT CURRICULUM FOR QUALITY BASIC EDUCATION FOR ALL[31]

Introduction: relevance, a shared preoccupation

357. The reforms analyzed in the national case studies for Burkina Faso, Burundi, Mali, Niger, Nigeria and Zambia refer to the adaptation of curricula with the explicit aim of reinforcing the relevance of learning or education. The experiments are generally presented as suitable responses to the needs of the local/national context that the existing education model did not take into account, or did so inadequately. The validity of the curriculum reforms, expressed in different ways, were related to needs linked to:

358. (i) realizing the endogenous potential for local/national economic development due to the acquisition of skills related to real life and/or opportunities for productive work in the local/national milieu; (ii) asserting cultural identity through introducing local/national languages, values, know-how and heritage into school education; (iii) promoting values and behaviors related to hygiene, health, nutrition, the environment, family life, social cohesion and democratic citizenship, taking local/national specificities into account; and (iv) improving learning achievement and strengthening the internal and external effectiveness of education systems based on strategic bilingualism.

359. To understand these moves towards relevance in curriculum reforms, it should be remembered that schools, in their current form, are not the product of the internal development of African societies. The system was imposed from outside by colonization. The ideology of colonial education rejected or devalued the local languages and cultures, relegating them to the level of "folklore" and "dialects". Consequently, they were disqualified from the realm of schooling and objective knowledge. Through the monopoly of the colonial language in schools and the programs oriented according to a Eurocentric vision, schools aimed to extend and complete colonial conquest by training, assimilating and coopting an elite of allies. In addition to the subjects with an ideological bent such as history, literature and possibly geography, even scientific disciplines were used to serve this mission. The other elements were oriented according to the need for future aides to the colonial administration: assistant administrators, African nurses and doctors, teaching monitors and others.

360. Following independence, most reforms were limited to removing the most obvious elements from the programs and *Africanizing content*, in ideology-related subjects in particular. This answered to the need to assert an African identity. African languages were introduced in schools for the same reason. Guinea was a pioneer in this area. In 1968, driven by Sékou Touré, Guinea opted for monolingual education in African languages and rejected the use of French for teaching purposes. The decision was taken in June and was implemented starting from October! As we know, this radical experiment with a cultural revolution as its backdrop was cut short with the death of Sékou Touré in 1984. It seems to have left marks which make it difficult to re-introduce national languages in schools today.

[31] This chapter is principally based on the basic documents prepared by Alidou and Maman, Halaoui, and Weva, and on case studies carried out for Burkina Faso, Mali, Niger, Nigeria and Zambia within the framework of the present study.

361. There were also attempts to *ruralize schooling* to answer to development needs. The most publicized example of this is that of Tanzania, where Julius Nyerere introduced the concept of Education for Self-Reliance (ESR) in the 1960s. In practice, this involved (i) restructuring of the school year to enable pupils to fully participate in agricultural work with their parents; (ii) the integration of the school and the fields so that children learned modern agricultural techniques and became aware that their living standards and those of the nation depended on agriculture; (iii) restructuring the curriculum to make space for subjects more relevant to rural development issues; and (iv) the diminishing of the importance of formal examinations as a way of evaluating pupils' performance.

362. However, the need to refinalize schooling in the view of the demands of the new nations has remained without a satisfactory response in most African countries. This recurring problem goes a long way to explaining the orientations of the reforms taken in the case studies, and also a greater awareness of the limits of the elitist colonial model in view of the massive demand for quality education and the major challenges Africa is facing today.

363. The increasing poverty of the populations, the ravages of the HIV/AIDS pandemic and malaria, catastrophes resulting from civil conflicts and the marginalization of Africa in the process of economic and technological globalization are some of the challenges that call for an educational response, since it is a primary factor and a sine qua non for social and economic development, peace and tolerance and scientific and technological competitiveness.

364. To what extent does increasing the relevance of education and training curricula prepare the young generations to face these challenges by offering them quality learning? Before answering this question, it is useful to clarify the concepts of curriculum and relevance.

Conceptual clarifications and functional definitions

365. The concept of the curriculum refers to several accepted meanings, which can refer to an education system, a level or sub-sector of the system, a discipline or a training school. In a systemic perspective, the inventory of the concept includes the orientations and aims of the education policy, the general goals and objectives of the programs, the training objectives and content, the teaching and learning processes, the organizational procedures and the physical and didactic support materials, and the assessment and decision-making systems.

366. Concerning the concept of relevance, it has to be distinguished from the neighboring concepts of quality and effectiveness. Quality is achieved through the processes and results of learning. But the fact that learners successfully learn what is specified in the programs does not in any way mean that what they have learned is relevant. The same is true for the effectiveness related to the internal productivity of systems, since the reduction in the number of repeats and drop-outs or the fact that a large number of students complete the full cycle in a normal time frame does not automatically mean that the curricula are relevant.

367. Indeed, there is no absolute measure of relevance. Relevance is always defined according to a state of reality or a need, in the sense of what is suited to this reality or this need. This relationship can be one of submission, match/compliance or utility.

368. From these various angles, we observe, in the case studies, that the understanding of what constitutes a relevant curriculum is related to (i) submitting to the reality of the lives of the learners in their social, cultural and economic milieu; (ii) a continuum between the experiences of the local environment and school learning; (iii) the usefulness and the utilization of learning achievements for and by the learners to resolve essential issues in the field of social practices.

369. When we say curricula are relevant, we need to ask for whom? In relation to what? In terms of decisions and influence on the orientations of the curriculum (by the State, pressure groups, international partners, etc.), the references of what is relevant may be diverse and even contradictory. Nonetheless, in relation to learning and reality and needs, three essential questions are raised:

- What are the students learning?
- Are they learning it well or badly?
- Of what use to them is what they are learning?

370. Considering the objectives of training and the educational content of basic education (as defined at Jomtien), relevant curricula should enable learners to: (i) master the instruments and strategies that enable them to learn how to learn by developing their cognitive capacities and enable them to access lifelong learning (reading, writing, arithmetic, communication, problem-solving); (ii) situate themselves in relation to the values and references of their society and culture in order to integrate it and learn to live in harmony with others; (iii) develop skills for everyday life to satisfactorily handle hygiene, health, nutrition, environment, family life, peace, tolerance and democratic citizenship issues.

371. Relevant curricula encourage successful learning in that they do not consider the learner as a "tabula rasa". On the contrary, they are based on learners' previous experiences, language, culture, environment and knowledge, to facilitate the shift from the known to the unknown, from family and community education to school education. They encourage learners to actively participate in building their knowledge and to establish an interactive relationship between school learning and life experiences. Relevant curricula use all these elements from the child's surroundings as support material for observation and experimentation, objects for investigation and exploration and fields of application and practical work in order to specifically develop methodological capacities and general skills that transcend learning situations and provide a gateway to the world and to development.

372. Relevant curricula must make learning meaningful. What is reading, and what is it for? What is writing, and what is it for? What is arithmetic, and what is it for? Learning, including instrumental learning, must be based on educational and training support material and content that makes it meaningful. People do not learn just for the sake of it. Learners are motivated to learn when they know how useful their learning is and what it can be used for - either for their personal development or for developing their local community. In a rapidly-changing globalized world that demands a capacity for adaptation and innovation to pursue social and professional mobility and to invent new solutions for new situations, one of the most essential characteristics of a relevant curriculum is its flexibility, i.e. its openness and adaptability to both the needs of the local context and development for the future.

Recent reforms to adapt curricula in sub-Saharan Africa

373. Since the 1980s, a second wave of curriculum reforms and innovations has begun in sub-Saharan Africa. These can be categorized as follows: (i) education orientation reforms, (ii) linguistic reforms, (iii) pedagogical reforms, and (iv) reforms related to the organization and management of classes and student numbers. The second and main part of this chapter provides an overview of experiences that fall into one or more of these categories.

Education orientation reforms

- *Social and professional predestination, (pre-)professionalization and productive work*

374. For many people, one of the basic indicators of the relevance of formal basic education is the degree to which it prepares the children to integrate their milieu and the world of work. Social and professional predestination, (pre-)professionalization and productive/manual work use this expectation as a justification, but are far from being consensual options.[32] Social and professional predestination and (pre-)professionalization raise ethical issues in that they bring with them the risk of enclosing children in their local environment, limiting their horizons and perpetuating social stratification, whereas schooling is perceived as an instrument for social mobility. They also implicitly exclude the preparation of children for post-primary studies. Concerning (pre-)professionalization in particular, we could argue that so-called basic education should provide the foundations for lifelong learning and therefore should not be (pre-)professional in nature. Basic education should be forward-looking and prepare children not for today's world, but for the world as we imagine it will be in several decades' time (Lewis, 1966). We could also argue that children who complete the primary cycle (aged 11 to 15) are still too young for the job market. Concerning manual/productive work at school, the problem lies in the aim of this work, which in turn determines the approach. Is this work designed to prepare the children for the productive processes of their milieu—which means its nature is social and professional predestination or (pre-)professionalization, or is the aim to use the productive work for pedagogical purposes? What impact could the productive work have on the time available for other learning? Is the productive work compatible with the principal mission of schooling, i.e. education?

375. 379. These questions are relevant in that productive activities, including agriculture, animal husbandry, market gardening, etc., after being left aside following unfruitful experiments just after independence[33], have re-emerged in a number of African education systems. This choice has to be thought out, to avoid transforming schools into small businesses.

376. In Burkina Faso, in the context of *bilingual education*, in two villages in particular, the curriculum included productive activities as performed in the region (Ilboudo, 2003). Such activities are welcomed enthusiastically by the children, who identify with the adults who perform these activities. Here, the activities were sheep and poultry breeding and growing beans and peanuts. This meant that sale of the products of these activities was assured.

[32] Social and professional predestination means the fact that existing social and professional activities determine the content of the education/training provided to children; (pre)-professionalization is a corollary of social and professional predestination in that it implies preparation for given careers; and by productive/manual work, we mean productive activities that generate income performed in school and involving the pupils.

[33] The experience of training for young farmers (FJA) in Burkina Faso is a case often cited.

377. In Niger, within the general program, the practical and productive activities are split into three specific programs, one for crafts and technology, one for farming, forestry, pastoral and fish breeding activities, and one for home economics (Niger 1990).

378. The case of Nigeria's *Nomadic Education Program* (NEP) is a special one (Nigeria 2003). The existing curriculum included productive activities such as rabbit and pig breeding. Nonetheless, the NEP targeted populations who did not do this type of breeding, in addition to this they were mostly Peul and Muslim, so this was replaced with sheep and goat breeding and shepherding, which corresponds more closely to the practices in the Peul community. The curriculum was therefore re-adapted to match the productive activities (see chapter 9 for more details on this program, in particular the results obtained).

379. The pedagogical use of the productive activities is not explicit in this case. This use should, however, be encouraged. The Ethiopian project *Popular Participation in Curriculum and Instruction* (PoPCI) appears promising.

Box 3 Community participation in adapting the curriculum and in teaching in Ethiopia

This pilot project involving 26 teachers from 15 schools consists of enhancing the official curriculum with local practices, productive activities such as carpentry, pottery, traditional mediation and agriculture. Using the model adopted for the project, the community communicates what it would like children to learn about their local context, particularly concerning trades, culture and history, and identifies the specialists who are in the best position to provide information. The project trains the teachers to work with the chosen specialists to create and teach lessons. Following this training, the teachers and the experts jointly design a document then a lesson on each chosen local topic, the specialists give the lessons as special classes, and the project then helps the teachers integrate them into the official curriculum. This is an example of adapting the curriculum to local realities by enhancement, by adding something.

The specialists and the community welcomed this initiative which values local professional activities in the eyes of the whole community and the pupils, thus helping eliminate prejudices against crafts such as pottery, weaving and blacksmithing, while benefiting children as far as cognitive learning, mathematics and history, for example, are concerned, and benefiting teachers from the academic and pedagogical viewpoints.

380. The issue of (pre-)professionalization is worth examining in greater detail because the primary cycle is unintentionally the last cycle for most children in schools in sub-Saharan Africa. In this context, it is easy to understand the expectation that primary education should prepare young people for the world of work and encourage entrepreneurship. In view of this situation, an option would be to **include content in the curricula for the last or last two years of the primary cycle that enables pupils to acquire knowledge, skills and attitudes that will enable them to successfully follow short-term post-primary vocational training**. The content in question would include practical applications in mathematics and science and skills for everyday life as priorities. The vocational training on offer should leave the door open for following other vocational training or pursuing secondary education later.

- *Education for sustainable development*

381. The major challenges sub-Saharan Africa is facing today require the introduction of new educational content in school programs. This content includes, among other things, the environment, demographics, health, nutrition, peace, tolerance, human rights, gender equality, democratic citizenship, and information and communication technologies (ICTs). In order to be brief, the environment, health and peace only will be dealt with in this chapter.

382. **Education and environment** . Over the last two decades, sub-Saharan Africa has experienced some harsh realities concerning the environment. These include thousands of square miles of previously productive savanna desertified by over-grazing, the destruction of forest by abusive use of slash and burn shifting cultivation; over-fishing in rivers and the sea; thoughtless use of pesticides so that vegetable production becomes dependent on them and too expensive, etc. Good knowledge of the environment and good use of this knowledge can contribute to avoiding these situations (Bajah, 1993).

383. Many countries have adapted their curricula to these realities in order to fight them at the source. The resulting education about the environment appears to be mostly distributed among the different subjects that make up the program. In Kenya, for example, it appears in the teaching of agriculture, science and geography (Ngige, 1993). *The Program for Training and Information for the Environment* (PFIE) initiated by the Permanent Interstate Committee for Drought Control in the Sahel (CILSS)[34] with the financial and technical support of the European Union is a promising experiment both from a pedagogical point of view and in terms of sub-regional and regional cooperation.

[34] The following countries are members of the CILSS: Burkina Faso, Cape Verde, Gambia, Guinea-Bissau, Mali, Mauritania, Niger, Senegal and Chad.

Box 4 Fighting drought in the Sahel through education related to the environment

The *Program for Training and Information for the Environment* (PFIE) is the first part of the Sahel Education Program (PSE) adopted by the CILSS Heads of State Summit in 1988. Launched in 1990, the PFIE aims to encourage children in school in the Sahel to adopt a more active and respectful attitude to the environment; and develop their sense of individual and collective responsibility in managing nature and its resources. A pluridisciplinary team (including pedagogical specialist, environmentalists, assessors and communicators) and a National Steering Committee have been set up in each country. A regional committee was set up to coordinate transnational exchanges.

Action in schools combined three approaches: a **pedagogical approach** through the official introduction of EE into school programs, the training of teachers, production of pedagogical material for teachers and pupils, the implementation of Environmental Action Projects (PAE) designed by the pedagogical teams, and the organization of pedagogical days; a **communication approach** aimed at raising awareness of parents, local authorities, teachers, etc. concerning environmental issues and obtaining their participation through environmental protection initiatives; and a **partnership approach** by developing the links between the school, technical departments, projects and other players committed to actions to fight desertification.

The experimental and consolidation phase of the PFIE (1990-1995) involved 78,066 pupils, 1,881 teachers and supervisors and 908 schools. For the second phase (1995-2000), the aim of which was to perpetuate environmental education in education systems in the Sahel, 672,000 pupils, 15,400 teachers and 3,015 schools and communities were targeted.

The PFIE was the subject of an impact study that covered 8 of the 9 member countries (see Ba and Tounkara, 2000). The study revealed significant results as far as pupils were concerned: most have a good mastery of the environmental content integrated in the curriculum in terms of hygiene, protecting and restoring the environment. For teachers and school heads, teamwork was identified as the main contribution of the PFIE. 70% of school heads believe the program contributes to improving their skills in terms of administrative and financial management of their schools, thanks to the training received for managing environmental action projects. Finally, the PFIE also contributed to improving relations between schools and the communities they serve and encouraged communities to commit more to activities to protect their environment. They also made it easier for schools to obtain areas or sites for demonstrations.

Source: http://www.insah.org/pfie/Enfant%sahelien.htm

384. **Education and health**. In terms of health, the HIV/AIDS pandemic is the major worry at present in sub-Saharan Africa considering the number of people affected. The symbiotic effect of this plague on the economy and education requires a joint effort by several development sectors, including the education sector. The case of Uganda eloquently demonstrates what education can do within the scope of the fight against the HIV/AIDS pandemic.

Box 5 The school education program on AIDS in Uganda

Uganda is one of the first countries to have introduced a school education program about AIDS. In 1986, the Education Ministry launched a major campaign including the preparation of curricula for primary and secondary education, seminars, training workshops for teachers, plays about AIDS and above all the introduction of education on HIV prevention as part of a national policy. Encouraging signs have been observed since then: decrease in the number of HIV infections, drop in the percentage of young (15-19 year old) pregnant women infected from 29.5% in 1992 to 10-14% in 1996, increase in the age of first sexual intercourse, reduction in the number of occasional partners and increased use of condoms.

Two programs are worthy of presentation. The newsletter *Straight Talk*, aimed at secondary school pupils, and Young Talk aimed at primary schools are widely distributed. In 1995, a survey showed that, out of 1682 adolescents interviewed, 43% obtained their information on AIDS from the radio, primary source of information and 8% got it from Straight Talk. The *Madarasa AIDS Education and Prevention Project* (MAEP) was carried out by the *Islamic Association of Uganda* (IMAU) and UNICEF with the aim of providing information and teaching how to behave with infected people. The association worked in 350 schools. The program included understanding adolescence, adolescent friendships, understanding of sexuality, facts and myths about HIV/AIDS, safe sex, responsible and safe living, discussing things with parents, etc. Training was given to Imams on teaching about HIV/AIDS. This program enabled 20,000 children to receive training between 1995 and 2001.

Source: Schenker, 2001

385. It should be noted that in almost all, if not all, national EFA plans, an important place is accorded to information/awareness training of students, teachers and parents concerning this social and health catastrophe, and dealing with children and teachers suffering from the disease. In view of the threat it represents for offer and demand for basic education in several countries, implementation of the strategies and actions provided for in these plans is of the utmost urgency.

386. **Education and peace**. As stated in chapter 1, sub-Saharan Africa is the region the hardest hit by armed conflict. From West to East and the Center to the South, several countries are experiencing emergency and crisis situations. As is the case for the AIDS pandemic, the education sector is among the hardest hit and is also called upon to contribute to national rebuilding and establishing sustainable peace. In Congo, a country known for having one of the most traditional education programs, the same value was given to education for peace and human rights as for French and mathematics following the civil war (Mandavo and Mallali-Youga, 2001). A more recent case of education for peace is that of Sierra Leone, where ten years of war caused enormous loss of human life, displacement of communities, traumatized the population and caused severe damage to national infrastructures. To tackle this situation, among other actions, education was chosen, and a curriculum was prepared for education for peace.

Box 6 Education for peace in Sierra Leone

The concept of peace on which the curriculum was based does not only imply rejecting war, but also asserting activities, practices, norms and values that are observed in societies not in conflict. In addition, the main objective chosen for education for peace is to encourage learners to think about the concept of peace in order to observe how this concept is applied in reality. On this basis, the curriculum was designed as a set of tools, including an introduction which introduces the philosophy of peace chosen, a set of cross-cutting units covering general questions, specific curricular units split according to topic and the age of the learners, and school community activities which aim to build a more peaceful school and community. *Facing trauma, communication, resolving conflict, and human rights and democracy* are the curriculum's four main topics.

Source: Bretherton, Weston and Zbar, 2003

Linguistic reforms: Bilingualism as a strategic choice

> *We solemnly declare our deep conviction that the promotion and use of African national languages in formal and non-formal education will ensure a greater success in the training of human resources and consequently drawing fully on the potentials of African countries for endogenous economic, social and cultural development. (The Accra Declaration, 29 August 1996)*

387. Whether teaching is unidirectional, bi-directional or multidirectional, it is in essence a communicative process. For the teacher and the learner to communicate effectively, they must use a language that both understand. In addition, and arguably more importantly, language mediates learning to the extent that it is primarily through words that one can access new information and connect it to what one already knows. It is also primarily through language that one can display what one has learned, if asked to do so or when the opportunity arises. Indeed, language and thought (and by extension action) are inextricably interwoven. Finally, if formal education is to effectively contribute to the advancement of the community it serves, it must take into account the medium of communication of/in that community, i.e., its language. In other words, the language that is used as medium of instruction plays a critical role in the teaching-learning process. It can be an enabling or a disabling factor in the process depending on how familiar both the teacher and the learner are with it.

388. In light of the foregoing, it is understandable that the introduction of African languages as media of teaching and learning or as school subjects has had a prominent position on post-independence reform agendas in most Sub-Saharan African countries, the majority being former colonies of France or England. Besides socio-political and cultural motives for doing so, there is a scientific (linguistic, psychological and pedagogical) case that has gained in robustness over the years (see for instance ADEA 1996a; Alidou and Maman, 2003; CONFEMEN, 1995, 2001; GTZ, 2003; Halaoui,

2003a, 2003b, 2003c).[35] But until the mid-seventies (and beyond in several cases), the introduction of African languages in schools was framed as an either/or choice vis-à-vis the language of the colonial powers. The experiences of Burkina Faso (then Upper Volta), Burundi, Guinea, Madagascar, and Tanzania, to name but a few, are illustrative in this respect. Since the mid-seventies and more recently however, the issue has been framed in terms of co-habitation of African languages and the "colonial" language as a strategy for improving the quality of education. Commonly referred to as bilingual education, this co-habitation has the following common features across countries:

- use of the African language (L1) as sole medium of instruction in the first or first two years of schooling;
- introduction of French, English, Portuguese or Spanish (L2) as subject matter towards the end of the first year or starting in grade 2;
- use of L1 as both subject matter and medium of instruction starting in grade 2 or 3;
- use of L2 as both medium of instruction and subject matter starting in grade 2 or 3; and
- progressive increase in the use of L2 as one moves up grades, with a corresponding decrease in the use of L1.

389. The modalities for switching from L1 to L2 vary from one country to another; so does time allocation to each language across grade levels. But the basic underlying principle is to lay the foundations in the language most familiar to the child to ensure more effective learning of and in L2 later on. The application of this principle is reported to have the following advantages, among others, over a situation where children, from day one in school, have to learn a language that has little in common with their mother tongue and simultaneously learn other subject matters through that language:

- It ensures a smooth home-school transition.
- It ensures the acquisition of early literacy.
- It facilitates high performance in L2 by grade 4 or 5 and in other subjects such as math and science.
- It contributes to making education culturally relevant.
- It ensures the link between cultural relevance and parental involvement in and demand for schooling as the use of mother tongue facilitates the integration of local knowledge and skills in school curriculum.
- It contributes to the emergence of a new kind of African citizen who accepts and experiences bilingualism and biculturalism as assets.

390. Additionally, bilingual education is reported to encourage instructional practices that are child-centered, active and participatory.

391. These advantages are exemplified in several country case studies commissioned by ADEA in the framework of the *Challenge of Learning* study. They include:

- the experience of **Bilingual Education in Burkina Faso** (Ilboudo, 2003),
- Mali's experience with **Pédagogie Convergente** (Fomba et al, 2003),

[35] It is worth noting that as early as 1951, UNESCO made a declaration on "The Use of Vernacular Languages in Education", thus canonizing the education principle that the best language of instruction is the mother tongue of the learner.

- the experience of **Bilingual Education in Niger** (Hamidou et al, 2003), and
- the **Primary Reading Program in Zambia** (Sampa et al, 2003).

392. All five cases provide a strong case for considering bilingual education as one of the most promising paths to follow for improving the quality of basic education in Sub-Saharan Africa. Although it is the youngest of the four, the Zambian program provides the strongest basis for opting for bilingual education in Sub-Saharan Africa.

Box 7 The primary reading program in Zambia: An example of simultaneous bilingualism

In 1995, Zambia organized a National Forum on Reading, in response to the observations made by several studies that children's performances in reading and writing were significantly below desired levels. Among other things, the Forum recommended literacy for children in African languages while maintaining the English language component of the basic education curriculum. The *Primary Reading Program* (PRP) resulted from the conclusions of this forum. The program's main objective was to facilitate learning how to read and write. Because of this, for these two subjects, the PRP uses, in first year, teaching of reading and writing of a Zambian language associated with the teaching of oral English, in second year, students pursue education in the Zambian language and oral and written English is taught based on what was learned in first year, and from year three to year seven, consolidation of the teaching of reading and writing of the Zambian language and English is carried out. The Zambian languages chosen, seven of them, and English are all languages of instruction, each is used to teach how to read and write in the given language. For other subjects, at all levels, English, which remains the official language, is the language of instruction. However, teachers and pupils may express themselves in English or in one of the Zambian languages taught, to improve communication.

Textbooks and teachers' guides have been prepared for this program. Teachers were trained to teach the two chosen languages - the Zambian language and English. The content of the training is included in a manual, the *New Breakthrough To Literacy Training Manual.*

Launched in 1998 as a pilot project in two districts involving 25 schools, 50 teachers and 2000 pupils, the PRP rapidly developed, and since the school year 2002-2003 has covered all 4,271 primary schools in Zambia. This rapid expansion is due to the excellent results recorded in terms of positive effects on learning. In first year, an improvement of 780% was recorded for the test in Zambian languages in 2000 compared with the data from 1999. In second year, a 575% improvement was recorded in the English language test. Finally, from year three to year five, the improvement in reading results varied between 165% and 484%. Overall, children read at the desired level in Zambian languages and are a year behind in English, whereas the previous data showed they were at least two years behind in both languages. These encouraging results contributed to reinforcing the role of literacy, particularly in the first two years, as shown in the curriculum framework for basic schooling adopted in December 2000 (see annex 1).

Sources: Sampa, 2003 and Zambia, 2000

393. Mali's experience, one of the oldest, raises issues of going to scale after a five-year long experimentation that began in 1987 with 2 first grade classes in 2 schools. With an addition of 2 new classes each year, by 1992, only 12 classes were involved. Incremental generalization began in 1994-95 and concerned 67 schools involved in a previous experiment with Malian languages since 1979. By 1999-2000, program coverage had reached 345 schools, 1000 classes and 1600 trained teachers and pedagogical advisors. The pace of generalization appears to have been set mainly by the challenge posed by the plurality of languages. There has been steady progress nonetheless, and 13 languages, spread over 8 regions, are now covered.

394. The results in terms of children's scholastic achievement have been consistently remarkable as it appears in the table below.

Table 12 Pupils' success rate in year 7 entrance examinations

Years	Success rate of pupils in PC schools (%)	Success rate of pupils in standard schools (%)
1994	56.52	40.62
1995	37.64	42.34
1996	75.75	54.26
1997	50.0	36.89
1998	71.95	48.30
1999	78.75	49.13
2000	68.57	52.34

Source: Statistics, MEN, Mali

395. These results must, however, be taken with some caution as they may be attributed in part to differences in conditions of learning (pupil/teacher ratio, textbook availability, teacher support and motivation) between PC and non PC schools. This cautionary note applies equally to the experience of Burkina Faso reported by Ilboudo (2003).

Box 8 Bilingual education in Burkina Faso

In Burkina Faso, bilingual education was conceived, designed and implemented in partnership by a community at the grass-roots level (the Manegdzânga Association), a team of university researchers members of the ELAN-Développement Association, a Swiss NGO (SLA), and the Ministry of Basic Education and Literacy (MEBA) through the National Literacy Institute (INA).

After experimentation in a limited number of schools showed a significant impact on students' learning achievement, the Ministry of basic education with the support of SLA has designed and validated a specific curriculum for bilingual schools. This curriculum covers the contents of the classical primary school in five (5) years instead of six (6). This economy of time and resources is made possible by the use of the children's first languages (L1) and the progressive introduction of French (L2), the latter with the ALFAA method. In the first year, 90% of the teaching is carried out in L1 and only 10% of the curriculum is devoted to oral French. The share of L1 is 80% in the second year, 50% in the third year, 20% in the fourth year and finally 10% in the fifth and last year where French becomes the main medium of instruction. To date, seven national languages are used in bilingual education: Mooré, Jula, Fulfulde, Lyélé, Gulmancema, Dagara and Bisa. In addition to the contents of the classical curriculum, children in bilingual schools carry out practical and manual activities carefully graded according to their ages.

Overall, the results have been quite positive. For instance, by grade 3, students are reported to reach a level in French equivalent to that of mainstream 4th graders. In calculus, in the first year, they are reported to master the four operations with numbers from 1 to 999 while their counterparts in mainstream schools have difficulties in handling the same operations with numbers from 1 to 20.

Source: Ilboudo, 2003.

396. Two findings are consistently reported across these cases and others: effective acquisition of early literacy and high performance in the second language. These findings are critical for the following interrelated reasons:

- Educators, including teachers, acknowledge that reading ability is critical to the extent that it is a learning tool.
- Ability to read is reported to be one of the best predictors of educational achievement and survival (see for instance Carnine, 1998; Hanson and Farrell, 1995; Juel, 1991; National Reading Panel, 2000).
- Yet various multi-country evaluations, e.g., UNESCO's *Monitoring Learning Achievement* (MLA), the *Programme d'analyse des systèmes éducatifs de la CONFEMEN* (PASEC), and the *Southern African Consortium for Monitoring Education Quality* (SACMEQ), indicate that literacy levels, especially reading ability, are very low among African students.

397. For these reasons, **one cannot insist unduly on the need to improve reading instruction and learning in Sub-Saharan Africa**. The practice of bilingual education, as summarized above, holds a lot of promise in this respect. However, a number of challenges have been reported. The main one has to do with managing the switch from L1 to L2. This issue, according to Alidou et al (2003), has received little attention. "Yet this pedagogical aspect of bilingual education is a fundamental problem that must be understood resolved so that learners in bilingual or trilingual program can effectively transfer to the second or third language the knowledge and strategies they acquired in the first language. This is all the more important as the most common form of bilingual education adopted in Sub-Saharan Africa is premised on the assumption that "when students develop oral and written language aptitudes and skills in African languages, they can re-utilize these in learning other languages as well as to acquire knowledge in the latter (Alidou et al, 2003, p. 13). Halaoui (2003) identifies two other challenges including (i) the difficulty of teaching reading in tone languages[36]; (ii) the challenge in teaching arithmetic caused by differences between French and several African languages in the organization of numeral syntagms, and by the fact that some African languages do not use the decimal system in counting but a base 5 system.

398. Countries considering adopting bilingual (or multilingual) education need also to be aware of the steps involved. These include mainly (i) language policy formulation; (ii) curriculum development, including textbooks, teacher guides, supplemental materials, and approaches and tools for assessing learning; and (iii) professional development for both prospective and practicing teachers.

399. Each of these steps poses particular challenges that must be addressed. For instance, a critical aspect of language policy is language selection. This can be a highly sensitive issue, with socio-political implications. To develop a curriculum in a language presupposes that the latter has a written code and the capacity to convey key ideas from the collective knowledge base of humanity. For some, if not most African languages, this entails substantial background work, before even thinking about textbook development, production and distribution, and teacher development. The number of languages has implications for costs of textbook development and production; and these can be high if mass production is precluded by the size of the target population. A multi-country strategy may be a wise option in this respect, for languages that are spoken in more than one country, even when allowing for variation[37]. As far as teachers are concerned, a critical issue that several countries must face has to do with having a sufficient number of competent speakers of each of the languages selected.

400. While these are all formidable challenges, they should not halt ongoing experiences or discourage countries that are considering experimenting with the use of African languages as media of instruction, especially in the foundational years of the formal educative process.

[36] Except for Wolof, Pulaar and Sereer, African languages are tone languages. Two words with the same spelling but pronounced differently are not exceptional in such languages. Reading therefore requires knowledge of context in most instances.

[37] For instance, just keeping the same layout and illustrations generates significant cost savings.

Pedagogical reforms: from teaching strategies to learning strategies

401. The history of the curriculum from South Africa to the Southern Sahara, with a few exceptions, has followed the same path as in countries of the North, the former colonial powers in particular. In most countries, programs focused on teaching encyclopedic type content simply juxtaposed with no links between different subjects has progressively been replaced by an approach focused on pedagogical objectives. More recently, since the 1990s, we have seen wide-ranging support for the skills-based approach, both in the North and the South[38]. This approach, which does not call into question objectives and disciplinary content, has the advantage of encouraging the decompartmentalization of disciplines and reinvesting learning in practical applications (CONFEMEN, 2001). However, it has to be admitted that "its actual application brings up numerous obstacles that have to be overcome: the concepts require clarification and need to be rendered operational; the situations and problems the best adapted to different cultural contexts need to be devised; the assessment methods need to be renewed. A vast pedagogical research and experimentation project must be undertaken if we are to get past the stage of talk and prepare study programs that comply with the skills-based approach" (CONFEMEN, 2001, pp. 31-32).

402. "Giving priority to skills", according to the Quebec Education Ministry (MEQ), "means encouraging a different relationship to knowledge and refocusing on training people to think. The idea of skills indicates the desire to initiate the development of complex skills starting at school, these skills being essential for the individual's subsequent adaptation to a changing environment. It assumes the development of flexible intellectual tools that can adapt to changes and encourage the acquisition of new knowledge. The concept of skills used for the Training Program is defined as follows: **a practical know-how based on the mobilization and effective use of a set of resources**. […] Skills are complex and constantly developing. They go beyond simply adding or juxtaposing elements, and the degree of mastery of a skill can increase throughout schooling and beyond it" (MEQ, 2001, pp. 4-5).[39]

403. Clearly, this option has important implications for the other main components of the education system, i.e.: (i) organization of schools and classes; (ii) textbooks, teachers' manuals and ad hoc pedagogical material; (iii) the system and procedures for assessing achievement and for certification; and (iv) pre-service and in-service teacher training. In the African context, in the light of the bilingualism recommended above, the question of the choice of languages for teaching/learning has to be added to the list. Curriculum reform is a huge undertaking! This must be borne in mind, especially the fact that it takes several years (between a decade and 15 years according to specialists) and requires a significant volume of financial and human resources. Senegal's experience is instructive in this respect (see Plante, 2003).

404. Whatever the direction taken, one of the essential conditions for the effectiveness of a curriculum is the synchronization between the program of study and the other components. "Research shows that those who decide on education policy, textbook publishers and teachers often focus so much on the content to cover or the learning activities that they lose sight of the objectives that should guide curriculum planning. […] The goals and objectives of a curriculum are more likely to be attained if all the components of the curriculum (content fields, pedagogical methods, learning activities and assessment tools) are selected because we believe they are the means to help pupils achieve the overall goals and objectives" (Brophy, 1999, p. 14).

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[38] It should be noted that the skills-based approach was highly popular in the United States of America in the 1970s and 1980s.

[39] For a critique of the skills-based approach, see Boutin and Julien (2000).

405. One of the criticisms leveled at African schools is that pupils do not learn how to learn or how to take the initiative. Research on learning indicates that effective learning strategies, including meta-cognition, and working methods are just as important as the content to be learned. They can and should be taught to pupils (Brophy, 1999; MEQ, 2001; Vosniadou, 2001; Walberg and Paik, 2000), since when mastered, they can be applied to other learning situations or to tasks to be performed. This is the condition that makes lifelong learning possible and enables learners to adapt to new situations. The curricula renovations underway within the scope of the EFA programs should take this into account and put an end to the encyclopedism that characterizes school programs in numerous countries. In concrete terms, putting an end to encyclopedism means moving from an approach focused on book knowledge to an approach based on learning strategies and the development of cross-cutting skills.

Reforms related to the organization and management of classes and student numbers

- *Multigrade classes*

> *If 'Education for All' is to be achieved then the establishment and continuation of schools with multigrade classes must be encouraged. The policy question is not whether multigrade schools should be closed and students accommodated in monograde schools. It is whether multigrade schools can be supported to offer learning opportunities for all in situations where the alternative is no access to education (Little, 2001, p. 486).*

406. Age-specific grouping of learners following curriculum grades sequentially is the dominant and most visible form of school organization in both developed and developing countries. As educational systems begin to reach out to the hard to reach children, after catering to the easy-to-reach, they need to face the reality of small, remote schools with sometimes very small class sizes. Multi-grade teaching stands as an effective response to this end, both pedagogically and in terms of human, financial and infrastructure resource management (CONFEMEN, 1999; Little, 2001).

407. In Sub-Saharan Africa, several countries, e.g., Burkina Faso, Cameroon, Côte d'Ivoire, Guinea, Madagascar and Senegal have adopted this approach. Overall, quantitative rationale, not pedagogical soundness, has motivated the decision to do so. Indeed, multi-grading is often presented as a strategy that helps increase access indicators to the extent that it allows annual intake in some rural areas and is a response to dwindling numbers of students in others due to migration or parental decision not to send children to school.

408. Just as the modalities for switching from L1 to L2 vary from one country to another (see above), so do the modalities for constituting multi-grade classrooms. In practice there is a range of modalities, from single teacher schools where one teacher teaches all grades to schools where there are only two grades that are combined. The most commonly found combinations are as follows:

Grades 1 and 2	or	Grades 3 and 4	or	Grades 5 and 6

409. Regardless of the grouping arrangement adopted, multi-grade teaching has the following as central features:

- Self-guided learning materials.
- Cooperative learning through group work.
- Peer tutoring among children.

410. To make the most out of peer tutoring, the most commonly found combination may not be the best. Peer tutoring may be more productive when age and/or grade difference is bigger than this arrangement allows. Of course one must recognize that this can place more demands on the teacher, as he or she must deal with a wider range of contents. The availability of self-guided learning materials can significantly alleviate such demands. These materials can also ensure a high level of time on task or content engagement time despite an unavoidable reduction of contact time with the teacher in a multi-grade setting. As well, learning time can be ensured and its quality enhanced by cooperative learning through well-designed and targeted group work.

> *Co-operative learning promotes affective and social benefits such as increased student interest in and valuing of subject matter, and increases positive attitudes and social interactions among students who differ in gender, race, ethnicity, achievement levels and other characteristics. Co-operative learning also creates the potential for cognitive and meta-cognitive benefits by engaging students in discourse that requires them to make their task-related information-processing and problem-solving strategies explicit (and thus available for classroom discussion and reflection). Students are likely to show improved achievement outcomes when they engage in certain forms of co-operative learning as an alternative to completing assignments on their own. […] It is perhaps most valuable as a way of engaging students in meaningful learning with authentic tasks in a social setting (Brophy, 1999, pp. 27-28).*[40]

411. It is arguable that for many Sub-Saharan African countries achieving and maintaining quality education for all will require paying more attention to the practice of multi-grade teaching than seems to be the case. In fact, as Farrell (2002) argued, multi-grading "is not simply a second-best expedient for use when there are not enough children in a school catchment area to support age-graded schooling. It is, in and of itself, pedagogically superior to age-graded schooling; it matches much more closely what we now know about how children actually develop. It permits cross-age peer tutoring and continuous-progress learning" (Farrell, 2002, p. 259). In other words, multi-grading can be adopted in the large classes, not to say overcrowded classes, that one finds in many urban areas.

412. Multi-grading can also be used to equalize as much as possible the number of students assigned to each teacher within a school. Take for example a school with the following enrollment pattern from grade 1 to grade 6: 100-70-50-35-20-25 for a total of 300 students with 6 teachers. It would make a lot of sense in such circumstances to combine grades 5 and 6 and reassign the grade 5 or grade 6 teacher to a second grade 1 class (with 50 students). One could even go further by placing 15 grade 3 students in

[40] For further reading on cooperative learning, see Brophy (1999), Cohen (1986), Vosniadou (2001) ; Walberg and Paik (2000). For ideas on classroom organization for cooperation learning, see Valérien (1991).

grade 4 and 15 students of grade 2 in grade 3. Managing the student population this way can help improve quality significantly.[41]

- *The double-shift system*

413. Double shift emerged in the eighties and nineties as the solution to overcrowding of classes in urban areas. In practice, it means that a class is divided up into two groups; the same teacher meets group A in the morning and group B in the afternoon. A variation on this strategy, in response to lack of facilities, consists in using the same classroom for two different classes. In this case, the two classes are not divided up, but they each have access to the classroom with their teacher half of the day. Contrary to multi-grading, double shift arrangements have been reported to have a negative impact on student learning (CONFEMEN, 1999; Kim, 1999). In her exploratory comparative study of instructional hours in primary education in West Africa, Kim for instance found that the double shift system resulted in an average of 32.2% loss of instructional time, and that the gap between intended hours of instruction and implemented hours may be as high as 25-30%.

	COUNTRY					
HOURS	**Mali**	**Guinea**	**Senegal**	**Côte d'Ivoire**	**Burkina Faso**	**AVERAGE**
Standard Classes	888	747	675	754	858	784.4
Double Shift Classes	645	585	547	580	603	592
% difference	37.7%	27.7%	23.4%	30%	42.3%	32.2%

Source: Kim (1999).

414. It is evident from the data in the table above that students participating in double shift are at a clear disadvantage compared to those who profit from an average of 200 hours more per year. This is critical as actual (not intended) instructional time has been consistently reported to be a strong determinant of how much children learn at school (Brophy, 1999; Lockheed and Verspoor, 1991; Scheerens, 2000). Kim's recommendation to consider double shifting as a *temporary* and *transitional* mean of increasing student enrollment makes a lot of sense in this respect. However, the phenomenon of large classes may persist for some time still. Learning to teach large classes may therefore be an alternative, promising solution. Burkina Faso, Cameroon, and Senegal have been experimenting with *large class pedagogy* for several years but on a small scale.[42] As already indicated, multi-grade teaching strategies can be equally effective in such circumstances. Little (2001) rightly argued that **knowledge of multi-grade teaching strategies is needed by all teachers and not simply by those who are in charge of classes designated as multi-grade**. This has obvious implications for teacher initial and continuous professional development programs, and for teacher educators themselves: **multi-grade teaching should be part of the curriculum and pedagogy of teacher education**. In particular, teacher education programs must develop

[41] This kind of arrangement is quite common in the US, and parents never mind when their child is placed with a higher grade.

[42] Cameroon for instance reported on its experience in the framework of ADEA's stocktaking exercise (see ADEA, 2001).

teachers' capacity to design curriculum, to manage classrooms, and to prepare and evaluate teaching materials (Catz, 2002). Programs must also help teachers develop a positive attitude toward multi-grading (Little, 1995).

Assessment and review of experiences in Africa

415. What trends emerge and what are the results of the reforms and adaptations of curricula that have been covered above? What overall orientations can be deduced for education adapted to the needs and demands of the African context? What are the obstacles and risks that are slowing progress? The third part of this chapter attempts to answer these questions.

Education orientation reforms

416. Among the education orientation reforms mentioned above, the reform related to environmental education (EE) is the only one that has been subject to systematic evaluation. The results are globally positive, and permanent adoption of this reform has begun. The review established by the ministers for education and the environment in 1999 when reviewing the Dakar declaration indicates that States have shown a strong interest in carrying out the commitments made. This interest is shown, among other things, by the integration of EE in curricula being renovated and in pre-service teacher training, and by the fact that EE has been taken into account in education laws (Ba and Tounkara, 2000).

417. The other reforms mentioned here are too recent for an opinion to be formed, or they are difficult to evaluate using conventional approaches. However, except perhaps for productive activities, they are all being adopted. Restoring and maintaining peace are not presented as choices to be made but as inevitable necessities for the development of the countries concerned. This is also valid for the fight against AIDS, and concerns all countries. Productive activities are not imposing themselves in the same way. They would be less controversial if the pedagogical reasoning held sway over the economic and social and professional predestination and the (pre-)professionalization reasoning. Ethiopia's experience is noteworthy in this respect. The main objective of the project in question is not to prepare young people for work in their area, but to raise their awareness of it through pedagogical processes. The integration of local knowledge in the content taught in schools is the main objective of the project. It is to be hoped that the project will not stop at the pilot phase, like many others in the African educational landscape since the 1960s.

Linguistic reforms

418. The results of linguistic reforms covered here are globally positive in several respects. In the light of these results, it is logical to ask why the use of African languages for teaching and learning is not more widespread in sub-Saharan Africa[43] and why the phenomenon of never-ending experimentation continues. A number obstacles and risks could explain this situation. The skepticism, of the elites in particular, concerning the capacity of African languages to convey the messages of science (universal knowledge) is the first obstacle. This stems from, and is linked to, the artificial opposition between African languages and foreign languages "whereas what is needed is promotion of the functional complementarity between them" (Ndoye, 2003).

[43] Over half of the region's 39 countries continue to practice monolingual education in the colonial language (Komarek, 1997, quoted by Pillai, 2003).

419. The second obstacle is multilingualism in African countries being shown as an unwanted element in two ways. On one hand, the usual argument is that in such a context, the choice of the language or languages to use in schools is a potential threat to national cohesion and social peace. On the other hand, it is argued that multiplying the number of teaching-learning languages brings huge costs and the resources available are not sufficient for even the monolingual model to function. The case studies presented above (Burkina Faso, Mali, Niger, Zambia) and the experiences of other countries (Namibia, Democratic Republic of Congo, Zimbabwe) open a huge breach in these arguments. Adult literacy programs solved the multilingualism issue a long time ago at reasonable cost, and formal basic education could learn from this. In fact "it does not mean imposing the African language but seeking and creating the conditions so that everyone begins learning in the language they speak to better approach learning the [so-called] official language [and successfully complete their schooling]" (Ndoye, 2003). In addition, the micro-publishing and the savings achieved by improving the internal productivity of the education system (fewer repeated years and drop outs or expulsions) relativize the question of costs.

420. The third obstacle concerns the recruitment, training and deployment of teachers. Decentralization is a path towards a solution in this respect, in the sense that it enables the problem to be solved at the most relevant level, i.e. the local level. Nonetheless, this obstacle remains a major one in several respects. First, as mentioned above, due to the monolingualism in force since the colonial era, it is in many cases difficult to find enough applicants for teaching jobs who have both the desired academic level and adequate mastery of African languages. Bilingual education would solve this problem in the medium or long term. Second, bilingual education has implications for training programs (pre-service and in-service) for teachers. Generally, teacher trainers are badly, little, or not at all prepared for teaching in African languages. The adoption of bilingual education thus requires action at this level and also in-depth changes in the training programs - a challenge in itself.

421. On final analysis, the solutions to the obstacles reviewed will have a limited impact if there is no encouragement to establish a national environment favorable to African languages. This means a literate environment "enabling regular access to information, continuous development of knowledge, use of public services and answers to everyday needs through reading and writing in these languages" (Ndoye, 2003).

Pedagogical reforms

422. Current philosophy is dominated by the skills-based approach to the issue of pedagogical reform. Unfortunately, globally we are still at the talking stage. Only Djibouti has made a move forward, but the experience is too recent for lessons to be learned from it. The other countries are still designing or preparing their skills-based curricula. The skills-based approach is a meaningful and even attractive one. Nevertheless, we should be aware that this option introduces constraints for the education system, teachers in particular. As far as the teachers are concerned, any innovation or reform that requires the slightest change in their classroom practices must take into account their current skill levels, or it will literally miss the target.

Reforms related to the organization and management of classes and student numbers

423. In terms of the organization and management of classes and student numbers, two reforms, in fact, innovations, have been reviewed: multigrade classes (CMG) and the double-shift system (CDF). From assessments carried out, by the PASEC in particular, in emerges that, unlike the CDF, the CMG do not have negative affects on students' learning. Unfortunately, demographic pressure means that the CDF attract more

attention than the CMG, the consequence being that the pedagogical potential of the latter is not sufficiently exploited. The main obstacle to the large-scale adoption of the CMG is that they turn the idea of what most people, including school authorities and teachers, have of a "real" class on its head. The demonstration of the pedagogical effectiveness of this form of class organization and management necessarily requires adequate teacher training, motivation, and the setting up of the minimum conditions required for this type of class to function.

424. It should also be noted that the pedagogical strategies used for a CMG can also be used for over-full classes. In the absence of a specific proven pedagogical approach for large groups, preparing all teachers to tackle CMGs is a serious option to avoid the use of CDF in the long run, given the documented pedagogical ineffectiveness of the latter.

What overall orientations can be deduced for education adapted to the needs and demands of the African context?

425. The main orientation that emerges from this review is that of bilingual education. This education model has the advantage of fulfilling a number of expectations simultaneously: pedagogical effectiveness, assertion of cultural identity through language, integration of local knowledge in school programs, highlighting the value of endogenous potential, social and cultural anchoring of young people in school and providing a gateway to the world through a foreign language they master better due to the literacy acquired in their mother tongue or first language.

426. At the organizational level, multigrade classes appear to be a promising option in that they do not have a negative effect on learning, and they enable rationalization of the infrastructures and the use of teaching staff while improving access indicators. In addition, the pedagogical strategies that underpin them can be applied to contexts of large classes. Nonetheless, the initiatives currently being developed for a pedagogical approach specific to large groups, particularly in Senegal, Burkina Faso and Cameroon are worth pursuing.

Conclusion

427. In the second part of this chapter, we above all dealt with the content of reforms and curriculum innovations. But we cannot conclude without mentioning the actual process of reform or curriculum innovation, in that the approach to curriculum design and the approach to testing and generalization are factors that lead to success or failure. Plante's contribution to the current study has much to teach us in this respect. The establishment and successful operation of a partnership in multiple forms, the clarification of the *roles and responsibilities* of the different players and entities involved, the modulated *participation* of these players and entities, the *realistic* nature of expectations and the taking into account of the *realities of classroom practice* are the sine qua non for the success of any curriculum reform or innovation operation. In addition to these conditions, two risks are worthy of mention: *terminological vagueness* and *overloading* of school programs, the second element being a result of tendency to not take classroom realities into consideration when preparing the curriculum, with each group of specialists defending their own corner.

428. The absence of the conditions listed above, participation in particular, brings a twofold risk: the risk of perceiving curriculum reform as "a purely political and administrative activity that can be carried out without the true participation of all those concerned. More seriously, the risk is that a narrow pragmatic vision will be adopted that will reduce the implementation of a curriculum reform, originally designed as a

pedagogical activity that may have administrative consequences, to an administrative activity that may have pedagogical consequences" (Plante, 2003, p. 28). In other words, the pedagogical should take precedence over the political and the administrative in any curriculum reform process. The success of such a process does depend, on final analysis, on the commitment of teachers and the support of families and communities. At the implementation level, it is teachers who make or break a curriculum. It is therefore in everyone's interest that they are closely associated with any curriculum reform. Parents and other community members also have their say in the sense that it is the education/training and the future of their children that is at stake.

429. These lessons are of even greater importance if the reform is of a controversial nature. Linguistic reforms, bilingual education in this case, are a glaring example. Nevertheless, these reforms are today seen as a critical step forward in refinalizing African schools, if we want them to become a true instrument for personal, social, economic and cultural development. A wealth of data is available for enlightened decisions to be made. Only the political will can fail at this stage!

Annex A: Curricular framework for basic schooling in Zambia (adopted in December 2000)

Grade 1 subjects

	Subjects:	Hours per week:
1.	Literacy in local language	5
2.	Zambian language	3
3.	Oral English language	1
4.	Numeracy	4
5.	Social Studies	3
6.	Physical Development	3
	Total:	**19**

Grade 2 subjects

	Subjects:	Hours per week:
1.	Literacy in English	5
2.	Zambian language	4
3.	English language	2.5
4.	Numeracy	5
5.	Environmental Science	3
6.	Social Studies	3
7.	Physical Development	3
	Total:	**25.5**

Grade 3 and 4 subjects

	Subjects:	Hours per week
1.	Literacy : English/ local language	5
2.	Zambian language	3
3.	English language	3
4.	Mathematics	5
5.	Environmental Science	3
6.	Social Studies	3
7.	Physical Development	3
	Total:	**25**

Grades 5-7 subjects

	Subjects:	Hours per week
1.	Literacy in English/ local language	2.5
2.	Zambian language	4.5
3.	English language	4.5
4.	Mathematics	5
5.	Science, Environmental, Home Economics	4
6.	Social Studies	4
7.	Technology Studies	2
8.	Expressive Arts	2
7.	Physical Development	2
	Total:	**30.5**

CHAPTER 7
BREAKING THE MOLD: TEACHER DEVELOPMENT FOR PEDAGOGICAL RENEWAL

430. Research evidence accumulated since the 1970s suggests that teaching is a strong determinant of student achievement (Gauthier et al, 2003). Yet, teaching in most classrooms in Sub-Saharan Africa is reported to be ineffective because it places students in a passive role and limits their activity to memorizing facts and reciting them back to the teacher. The kind of teaching that is thus decried is described as being rigid, chalk-and-talk, teacher-dominated, and lecture-driven (Kellaghan and Greaney; 2003). There is substantial evidence that this kind of teaching does not help students develop conceptual understanding, critical thinking and problem solving skills; that it merely fosters formulaic, rote-learning. There can be little doubt that that this kind of pedagogy is in large part responsible for the low levels of student learning as reported in chapter one.

431. The research literature indicates also that teacher effect on student achievement is both cumulative and residual (Sanders et al, 1996). In a nutshell, this means that teacher effect not only adds up but leaves long term marks. Consequently, it is doubtful that an effective teacher can counterweigh earlier negative impact on students caused by an ineffective teacher. These interrelated findings have critical implications for Sub-Saharan African primary students in particular, as in a given year they are typically taught by the same teacher; for those who move up the grades with the same teacher, as is the case in some schools, the consequences could be dramatic if this teacher is ineffective. Practically, this means that successful completion of primary school and access to and success in secondary school may depend on whether or not one had (an) effective or ineffective teacher(s) in the early grades.

432. This chapter takes its rationale from these findings. It is premised on two basic assumptions: **First**, unless teachers provide effective instruction and create a classroom environment conducive to learning, students will not achieve at high levels, even when essential material inputs are available and the curriculum is relevant and well designed. This is particularly the case in Sub-Saharan Africa where sources of school-sanctioned knowledge and skills are less varied than in developed countries. Teachers play a central role in student learning in such a context. But, as in any context, one finds desirable and undesirable teaching practices. The chapter therefore explores instructional practices that are reported to be effective in African classrooms as well as in other parts of the world.

433. **Second**, knowledge of demonstrably effective instructional practices is a necessary but not sufficient condition for improving instructional practice. Without teachers who are able and ready to adopt and adapt such practices, successful quality improvement in education will remain an impossible dream. Evidence from industrialized countries suggests that students of teachers with no professional preparation for teaching learn less than students who have fully prepared teachers (Darling-Hammond and Post, 2000) and that more effective instructional methods are key to improving student learning (Stigler and Hiebert, 1999). Teacher education, both pre-service and in-service, is thus central to quality improvement in education. Consequently, the chapter also addresses the question of how in-service and pre-service teacher development programs can contribute to the adoption of desirable teaching practices.

Visions of effective teaching practice

434. That human beings learn by constructing knowledge through accommodation and assimilation is a generally accepted proposition among professionals of education (Bruner, 1966; Glaser, 1991; Wood, 1998). There is also general agreement that essential, besides a competent teachers, requisite conditions for learning include the relevance of what is to be learned and opportunities to learn it in a safe environment where there is a sufficient supply of teaching and learning materials, and where time is optimally used on task and assessment is continuous (Scheerens, 2000). The issue that divides educators has to do with how the process of knowledge construction is best supported in classrooms. Current discourse and practice are dominated by two main competing visions in this respect: open-ended instruction versus more structured instruction.

Open-ended instruction

435. Proponents of open-ended instruction argue for participatory, more interactive, child-centered, discovery-oriented and adventurous pedagogy, with cooperative learning and inquiry as its central features. Based on various versions of constructivism, this kind of pedagogy tries to induce students to construct knowledge by inquiring into subject areas intensively. "According to the constructivist approach, independent learning, meta-cognition (e.g., learning to learn), 'active learning', learning to model the behaviour of experts ('cognitive apprenticeship') and learning from real-life situation ('situated cognition') should be emphasized, although the effectiveness of teaching and learning according to these principles has not yet been firmly established" (Scheerens, 2000, p. 51).

436. Gauthier et al (2003) take Scheerens' cautionary note further by providing evidence that this kind of teaching is not as effective as structured instruction. Several researchers report that it is proving extremely difficult to implement open-ended instruction on a large scale, even in developed countries with well endowed education systems, where certain conducive conditions exist, including small class size, abundance of teaching and learning materials, a teacher corps with university education, etc. (see Cohen, McLaughlin and Talbert, 1993; Elmore, 1996; Fullan, 1982 and 1991)[44]. The fact that different people interpret these practices differently adds to the implementation challenge. Designers and teachers may attach different or opposing meanings to the concept. For example, inducing students to construct knowledge by inquiring into subject areas does not necessarily imply child-centeredness, if the latter is construed as designing learning activities around the child's interest. As well, one could argue that child-centeredness and interactivity does not necessarily imply open-endedness. Hopkins (2002) captured the issue well in his review of school improvement projects (SIP) supported by the Aga Khan Foundation in East Africa, "there are many concepts in education that generate passionate support, but, in practice, lack operational clarity. Child-centered learning is one of these concepts. " (p. 280). On the one hand, according to Hopkins, it "most usually refers either to a particular ethos within a school or classroom that prizes individuality of the learner, that respects the current phase of their learning history, and that creates conditions within the school and classroom where the learner feels accepted and secure. In simple terms, this approach to child-centered learning refers to a caring, accepting and happy school environment" (p. 280). On the other hand, "child-centered learning is more technical and precise insofar as it relates to

[44] See chapter 3 in Lockheed and Verspoor, 1991, and chapter 2 in this paper for a discussion of these conditions.

cognitive development. This approach works within the broad parameters of developmental psychology and, consequently, views the child as an active learner and the teacher as the one who promotes learning skill and capability. The aim of the teacher working within this approach is to develop powerful learners who can respond successfully to tasks that they are set, as well as tasks they set themselves. The key point is that, within whatever context learning takes place, it involves 'active construction of meaning'" (Hopkins, p. 281).

437. The above-mentioned SIPs appear to be exemplars of the first view of child-centeredness. For Farrell (2002), it is a rather limited version of 'child-centered or activity-based' learning; but even moving that far from the traditional model, i.e., greater student participation in activities and group discussions, has been quite difficult. The evaluation of the Mombasa SIP for example, showed that "the fidelity (closeness to 'ideal' child-centered practice) of teacher implementation remained highly variable in project schools [in the fourth year of the project].... The proportion of project school teachers who did not engage pupils in activity-based learning tasks was... high (59%)" (Anderson and Nderitu, 2002, p. 171). Obviously, training alone does not suffice. According to Hopkins, educators who embrace child-centered learning approach, be it of the first or second type, must meet two formidable interrelated challenges: Bringing about changes in traditional measures of student learning constitutes the first challenge; the second challenge has to do with students' own beliefs and approaches to learning. With respect to the first challenge, Hopkins concludes that, "there is little evidence from the case studies that the Aga Khan Foundation projects have either:

- successfully demonstrated the power of constructivist teaching methods to improve the quality of student outcomes on traditional measures of student performance (such as national examinations); or
- attempted to significantly alter local or national expectations and norms that define effective student learning in an East African context" (pp. 281-82).

438. Mali's experience with *Pédagogie convergente* is, in theory and in principle, an exemplar of the second view of child-centeredness. However, as discussed in chapter 6, important challenges lie ahead in enlarging the scale of this innovation; and having a sufficient number of competent teachers constitutes one of these challenges. There are many other examples of school improvement programs or projects that (claim to) embrace child-centered, activity-based teaching and learning. These include the following, among others:

- the ***Escuela Nueva program*** in Colombia;
- the ***Non-Formal Primary Education program*** of the Bangladesh Rural Advancement Commission (BRAC);
- the ***Escuela Nueva Unitaria program*** in Guatemala;
- the ***Fe y Alegria schools*** in Latin America;
- the ***multi-grade programs*** in Guinea and Zambia;
- the Convergent Pedagogy in Mali;
- the UNICEF-sponsored ***Community Schools*** program in Egypt;
- the ***MECE Rural program*** in Chile; and
- a ***Network of 'education for production' programs*** in Latin America.

439. As noted above, it is proving quite difficult to implement child-centered, active pedagogy as a desirable practice on a large scale. The main reason is that this kind of teaching goes against the grain, to the extent that it challenges what Tyack and Cuban (cited by Farrell, 2002) call a standard 'grammar' of schooling, i.e., "a set of expected patterns we have historically constructed regarding what a 'real school' is. Anything that deviates substantially from that 'real school' or 'grammar-of-school' image will, by [Tyack and Cuban's analysis] be resisted by teachers, parents and students" (p. 252). As far as teachers are concerned, it may be less an issue of resistance than one of preparedness. Indeed, teachers are typically unprepared and lack needed support from school heads and supervisors to espouse and enact such a practice. In fact, in most cases, the latter may not be better informed about child-centered pedagogy than the teachers themselves. The case of Namibia's Basic Education Teacher Diploma is illustrative in this respect (see van Graan et al, 2003). So are the Aga Khan Foundation-supported Dar-es-Salaam Primary Schools Project (see Anderson, 2002), and Botswana's University-Based Teacher Education Model in the framework of this country's Primary Education Improvement Project (see Craig et al, 1998, Hopkin, 1997). In addition, success may depend largely, and perhaps paradoxically, on considerable structure in the programs or projects, the instructional materials and teachers' guide.

440. The foregoing does not mean, however, that the idea of child-centered pedagogy should be abandoned. It is simply a call to be cognizant that implementation of such a pedagogy poses formidable challenges, even in contexts where the requisite conditions are in place. It should also be noted that, except for the Colombian *Escuela Nueva* and The Bangladesh Rural Advancement Committee (BRAC) program, most of the above-listed alternatives are in their infancy and on a small scale. And while both these two programs are applied in a large number of schools, their coverage is far from universal.[45] Moreover both use highly structured materials and teacher training and support to promote a child centered pedagogy. In Escuela Nueva, children are active, self-directed learners working with highly structured materials. BRAC works with much less qualified teachers and provides highly structured frequent training and directive supervision.

Structured instruction

441. Between "traditional" teaching and open-ended pedagogy, one finds proponents of direct instruction, characterized by structure and some directivity, and having mastery learning as guiding principle (Brophy, 1999; Doyle, 1987; Good and Grouws, 1977; Hopkins, 2002; Rosenshine, 1997a, 1997c, 1986a, 1986b; Rosenshine et al 1986; Scheerens, 2000; Walberg and Paik, 2000). According to Walberg and Paik (2000) the central features of this kind of teaching include: 1) daily review, homework check and, if necessary, reteaching; 2) presentation of new content and skills in small steps; 3) guided student practice with close teacher monitoring; 4) corrective feedback and instructional reinforcement; 5) independent practice in work at the desk and in homework with a high (more than 90 %) success rate; and 6) weekly and monthly reviews (p. 12). In his 1983 review of teaching behaviors most closely associated with student achievement gains, Brophy (cited in Hopkins, 2001, p. 83) came to the similar conclusions:

[45] BRAC for example employs 30,000 part-time teachers and operates 66,000 villages. Even so, it reaches fewer than 10 per cent of children of primary-school age" (Watkins, 2000, p. 311).

- *Content coverage* Students learn more when their teachers cover more material.
- *Time allocated to instruction* Students learn more when teachers allocate available class time to academic activities.
- *Engaged time* Students learn more when they are on task as high proportion of class time.
- *Consistent success* Student learn more when their success rates (responses to questions, answers to written work at desk) are high.
- *Active teaching* Students learn more in classes where their teachers spend most of their time actively teaching them rather than having students work on their own without direct teacher supervision.
- *Structuring information* Students learn when teachers structure information using such techniques as advance organisers, reviewing objectives, outlining content, signaling transitions between lesson parts, drawing attention to main ideas, and reviewing main ideas. Clarity of presentation and enthusiasm in presenting material, are also associated with achievement gains.
- *Effective questioning* Students learn more when questions are asked frequently and are relatively easy. Waiting for responses, acknowledging correct answers and working with students who give partial or incorrect answers to give them a chance to improve their answers are all associated with achievement gain.

442. More recently, Boyer (2001) developed a cognitively guided version of direct instruction that combines the latter and strategy instruction. He refers to it as *explicit teaching*. Its central features include advance organizers, modeling, guided practice, and independent practice. According to Boyer (cited by Gauthier et al, 2003), "explicit teaching involves making explicit to children the cognitive processes underlying the use of a skill or the accomplishment of a task". In the area of reading for instance, explicit teaching proposes "activities and concrete procedures that foster the development of skills such as information selection, question analysis, formulation of hypothesis triggered by a comprehension gap, establishing relations between sets of data, drawing inferences, and self-questioning" (p. 45).

443. Gauthier et al (2003) provide ample evidence that structured instruction, as summarized above, is more effective than open-ended pedagogy. This evidence shows that, especially with children from disadvantaged socio-economic backgrounds, one must first and foremost lay emphasis on learning that helps them develop their cognitive and affective skills. "When one attempts to do the opposite, i.e., to commence with the affective and the cognitive using discovery methods, as advocated by proponents of child-centered approaches, children from disadvantaged backgrounds are those whose educational success is jeopardized the most" (p. 40).

444. Gauthier et al also call for prioritizing reading ability as a strong determinant of educational success and survival. They conclude with the following recommendation:

> *Between the weaknesses of traditional teaching and the extremely high cost and intensive personal teacher commitment in discovery methods, we consider explicit teaching and direct instruction as a juste milieu. Its effectiveness as well as its efficiency have been demonstrated. It does not deviate too much from what teachers already know how to do but brings them to do it better; it does not require sophisticated materials and can be adapted to large classes. [...] When it comes to instructional practices, we believe the wider the gap between existing*

> *teachers' skills and what one wants them to learn, the higher the risks of failure. Various discovery methods are interesting but hard to master. In addition, as we have seen, their actual effectiveness is questioned. We therefore believe that it is more reasonable to opt for instructional practices that are simpler but whose effectiveness has been largely established (p. 82)*

445. As opposed to child-centered, activity-based teaching and learning, the Sub-Saharan African experiences available do not include examples of attempts to put in practice structured instruction or explicit teaching. Given what Gauthier et al argued in the quote above, one possible course of action may be to engage in experimenting with this kind of teaching.

Bringing the visions together?

446. The "*juste milieu"* that Gauthier et al propose makes a lot of sense, especially in the context of Sub-Saharan Africa where large classes are a common reality, particularly in urban areas, and where the majority of teachers have on average 10 years of general education (the quality of which is reported to be abysmally low), little or no professional preparation, and only episodic opportunities for further professional development. However, it may be more productive not to think about open-ended pedagogy and structured instruction in dichotomous terms. In other words, there must be room for both student-centeredness and teacher directivity in the teaching-learning process. As Scheerens (2000) put it,

> *a straightforward comparison [of open-ended instruction] with more structured teaching approaches may be complicated, since constructivist teaching emphasizes different, higher order, cognitive objectives. Moreover, structured versus 'active' and 'open' teaching is probably better conceived as a continuum of different mixes of structured and 'open' aspects, rather than a dichotomy (Scheerens, 2000, p. 51).*

447. Instructional practice in Japan is insightful in this respect. The work of scholars such as Fernandez (2002), Le Tendre (1999), Lewis (1995, 2002), Sato (1992), Sato and McLaughlin (1992), Stevenson and Stigler (1992), Stigler and Hiebert (1999), Tobin, Wu and Davidson (1989), etc., has brought worldwide attention to Japanese education. There is a convergence of viewpoint among these scholars that the kind of teaching that one finds in Japanese classrooms is a key explanatory factor of high student achievement in that country. Its central features are as follows: it is both student-centered and teacher-directed; anticipating children's thinking is prominent in it, especially in mathematics and science; it strives to help student attain conceptual understanding of subject matter.

448. Ultimately, it may well be that the heart of the matter is not child-centeredness or teacher direction per se, but *learning-centeredness*, i.e., how best to help children learn more than unconnected facts; how to create intellectually challenging learning situations for them. For sure, teaching as mainly information delivery is not effective in this respect. As Hopkins (2001) put it, "teaching is more than just presenting material, it is about infusing curriculum content with appropriate instructional strategies that are selected in order to achieve the learning goals the teacher has for her students" (p. 73). In other words, variety in strategies may be the key for teaching that helps all students achieve learning goals. This requires that teachers have a repertoire of strategies that they use selectively, according to learning goals and the topic(s) being covered. Joyce et al (1997) is helpful in this respect (see annex 1).

449. Effective teachers understand how children learn; are attuned to student thinking and learning; have high expectations for and care about all of their students; create and sustain an effective learning environment and community; plan regularly for instruction; use instructional time optimally; seek the active participation of students in learning; encourage them to share responsibility for their own learning and help them do so; give frequent homework; carry out classroom assessment frequently and provide feedback; and reflect on their teaching. Most importantly, they try to build bridges between their sophisticated understanding of subject matter and their students' developing understanding, and adapt instruction to the variations in ability and background presented by their students. This requires what Shulman et al have termed *pedagogical content knowledge* (PCK) or knowing subject matter from a pedagogical perspective (Shulman, 1986, 1987; Wilson, Shulman and Richert, 1987). Shulman (1986) defines PCK as a special kind of knowledge that distinguishes teachers from lay people and other educators. It includes "for the most regularly taught topics in one's subject area, the most useful forms of representations of those ideas, the most powerful analogies, illustrations, examples, explanations, and demonstrations – in a word, ways of representing and formulating the subject that make it comprehensible to others" (p. 9). Developing this special kind of knowledge is therefore an important part of the agenda of teacher education.

Teacher development for pedagogical renewal

> *Many countries will have to reevaluate pre-service and in-service training. Teacher training can no longer be perceived as an extension of secondary education, only loosely connected to rural classroom conditions and practice. In-service training cannot continue to be an event that teachers participate in for a few days every 5-10 years (Verspoor et al, 2001, p. 39).*

The issues

450. Regardless of what a country adopts as desirable instructional practice(s), be it direct/explicit instruction or child-centered, activity-oriented pedagogy, the availability of a corps of competent teachers stands as a *sine qua non* condition for successful implementation. In the current context of calls for pedagogical renewal in order to achieve at least universal primary education (UPE) that is equitable and of acceptable quality in Sub-Saharan Africa, this is one of the critical issues and challenges that most countries need to face.

451. "Improving teacher status, morale and professionalism" was adopted as one of the twelve main strategies for achieving the objectives set by the Dakar Summit. Obviously, the implementation of this strategy poses different challenges to different countries in Sub-Saharan Africa, as a function of the developmental stage of their educational system, the situation of the labor market and the economy. The sheer number of teachers needed to achieve UPE (see chapter 1) makes the challenge a formidable one, not only from the perspective of the financial resources that this will require but also from the perspective of human resource availability; for even if financial resources abound, ***how to attract and retain talented individuals in the teaching profession*** remains an issue.[46] This is especially true in a context where the profession's image has been adversely affected by a set of interconnected factors: deteriorating working and living

[46] Note that this is not an issue in Sub-Saharan African only. All over the world, the teaching profession does not, on the whole, attract the best and brightest. In many ways, the challenge of teacher education is to prepare ordinary people to do extraordinary things!

conditions due to a decade plus of economic hardships and structural adjustment, widespread dissatisfaction with the current situation of schooling (and with teachers by extension), and the creation of a second class (in the double sense) of teachers in several countries. Redressing this image stands as an important strategic direction toward UPE. This is all the more important insofar as it influences an education system's capacity to attract and retain academically strong and motivated people in the teaching force. It is important as well because experience counts in teaching (Avalos, 1992; Avalos and Haddad, 1981); and experience is closely linked to age (Husén, Saha and Noonan, 1978). The proportion of teachers under 30 years of age is reported to be very high in the least developed countries (Siniscalco, 2002), more than two-thirds of which are Sub-Saharan African countries.[47] In Burkina Faso, Cape Verde and Ethiopia for instance the proportions varied between 55 and 65% (Siniscalco). Relative youth, coupled with contract teacher status, goes arguably hand in hand with high attrition rates and with staff instability. In addition, it may have cost implications as it usually implicates more supervision and professional support in the early years of a career; and if this career is prematurely interrupted by attrition or death (due increasingly to AIDS), the investment may be considered lost.

452. To sum up, the dual challenge of quantitative expansion and quality improvement of education is the same that is posed as regards the teaching force. It needs to be both improved and expanded in size. Reconciling the need to deploy large numbers of competent teachers and financial sustainability is the dilemma to be managed. As argued at the beginning of this chapter and in chapter 2, teaching and by extension teachers constitute a strong determinant of student achievement; but at the same time, teachers' salaries constitutes the single most important item in educational expenditures, reaching two-thirds or more of education budgets in most countries. The question therefore is: *How best to prepare teachers for teaching and provide for their further development in service, in a financially sustainable way?*

Teacher development: a conceptual framework

453. There are no clear cut, definitive answers to this question. In fact, there may never be such answers, as schooling, teaching and teacher education must, in principle, adapt to societal changes. However, the literature is replete with useful conceptual frameworks for thinking about and designing teacher education. As well, the literature contains promising practices that can inspire. From a conceptual perspective, what we know can be stated in a nutshell as follows:

- **Learning to teach involves the dual task of constructing a practice and a professional identity**. In more practical terms, it entails learning (to accomplish) the central tasks of teaching, and learning the professional norms and ethics associated with desirable practices. Notwithstanding the fact that desirable practices in teaching are context-bound, it is agreeable that the central tasks of teaching include planning for instruction, managing instruction (including the learning environment), and assessing student learning. Each of these tasks can be further broken down and associated with particular aspects of "what teachers need to know, care about, and be able to do in order to promote substantial learning for all students" (Feiman-Nemser, 2001, p. 1016).

[47] The group of least developed countries includes 45 countries, according to UNESCO's classification. Thirty-three (33) of them are in SSA, including Angola, Benin, Burkina Faso, Burundi, Cape Verde, CAR, Comoros, Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, The Gambia, Guinea, Guinea-Bissau, Equatorial Guinea, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Uganda, Rwanda, Sao Tome and Principe, Sierra Leone, Somalia, Sudan, Tanzania, Chad, Togo, and Zambia.

- **Constructing a practice is not a one-time event; hence the need for opportunities to learn as one practices**. In fact, given the ever changing nature of schools and teaching, one must periodically reconstruct one's practice. But the reconstruction of practice is hard because it requires changes in deep-rooted ideas that form the basis of one's practice. This has implications for in-service teacher education, beyond the early years (Ball, 1988; Cohen, 1988; Craig et al, 1998; Day, 1999; Elmore, 1996; Hargreaves and Fullan, 1992; Lieberman and Miller, 1979, 1992 and 2001; Ross, Cornett, and McCutcheon, 1992; Thompson and Zeuli, 1999).
- **Constructing a professional identity or learning the professional norms and ethics associated with desirable practices requires being in a community of practice and being enculturated into that community** (Britton, Paine, Pimm, and Raizen, 2003; Feiman-Nemser, 2001; Gallimore, Tharp and John-Steiner, n.d.; Martinet et al, 2001; Grant et al, 1996; Lave, 1991). This also has implications for teacher education. In particular it implies thinking differently about practical experience at the pre-service level; as well, it makes a case for structured induction.

454. Based on a broad review of the literature and the evaluation of various programs, Craig et al (1998) argued for seeing teacher development as "a continuum of learning, with teachers located at various places along the continuum" (p. 1). Feiman-Nemser (2001, p. 1050) provided a useful framework that operationalizes the idea of a continuum of learning to teach as follows:

Table 13 Central tasks of learning to teach

Pre service	Induction	Continuing professional development
1. Examine beliefs critically in relation to vision of good teaching	1. Learn the context – students, curriculum, school community	1. Extend and deepen subject matter knowledge for teaching
2. Develop subject matter knowledge for teaching	2. Design responsive instructional program	2. Extend and refine repertoire in curriculum, instruction, and assessment
3. Develop an understanding of learners, learning, and issues of diversity	3. Create a classroom learning community	3. Strengthen skills and dispositions to study and improve teaching
4. Develop a beginning repertoire	4. Enact a beginning repertoire	4. Expand responsibilities and develop leadership skills
5. Develop the tools and dispositions to study teaching	5. Develop a professional identity	

455. This task-oriented framework forms a practical agenda for both teachers and teacher educators. Feiman-Nemser (2001) proposes as well, a set of essential elements of well-designed pre-service teacher education programs, including: (i) *conceptual coherence*, (ii) *purposeful, integrated field experiences*, and (iii) *attention to teachers as learners*.[48] At the induction phase, she proposes the following: (i) *appropriate assignments*, (ii) *a developmental stance, time frame, and curriculum*, (iii) *integration of assistance and assessment*, (iv) *a strong mentorship component*, and (v) *partnerships and collaboration*. Finally, essential elements of well-designed programs for teacher development beyond the early years, include: (i) *serious talk about teaching, learning, learners and other aspects of schooling as a medium of professional development*, (ii) *professional communities of practice*, and (iii) *grounding in the particulars of teaching and learning*. It may be difficult for a given program to have all these elements, but they provide helpful guidance for designing opportunities for teacher learning at each phase of the learning-to-teach continuum.

456. One of the central tasks of learning to teach that deserves particular attention but that is often neglected in teacher education programs is the first task at the pre-service stage. *Analyzing beliefs and forming new visions* is based on the "well established fact that the images and beliefs which pre-service students bring to their teacher preparation influence what they are able to learn" (Feiman-Nemser, 2001, p. 1016). In other words, the construction of practice can be said to begin well before formal teacher preparation (see also Ball and McDiarmid, 1990; Calderhead and Robson, 1991; Craig, Kraft and du Plessis, 1998; Evans, 1999; Lortie, 1975; Nemser, 1983). Consequently, prospective teachers' entering beliefs must be part of the curriculum of teacher education. In fact, this first task is relevant as well for experienced teachers engaged in learning new practices, as most of them have been taught and must have been teaching in ways that are very different from the kind of practices that are currently advocated by reformers as desirable. According to Thompson and Zeuli (1999), simply getting experienced teachers to internalize and act upon the fact that what is called for is *not* **helping students learn to think** *but* **making them think to learn** is a major challenge in in-service teacher education.

457. *Developing tools to study teaching* is also a task that is not often well accomplished in teacher education programs. It involves developing skills of observation, interpretation, and analysis, and can "foster norms for professional discourse such as respect for evidence, openness to questions, valuing of alternative perspectives, a search for common understandings, and shared standards" (Feiman-Nemser, 2001, p. 1019). The rationale for this task can be traced back to Dewey's conception of reflection – a conception that was popularized in the early eighties by Schön (1983, 1987) as reflective practice, and that then caught the imagination of the teacher education community (see for instance Clift, Houston, and Pugah, 1990; Loughran, 1996). In Dewey's view, if they are to foster student growth, teachers must be students of both subject matter and "mind activity". Dewey took seriously "the injunction that teachers should be engaged in genuine intellectual activity and sought ways to involve them in research investigations. [His] notion of the classroom laboratory placed the teacher squarely in the center of efforts to understand educational practice and develop educational theory" (Ross, Cornett and McCutcheon, 1992, p. 11).

[48] See Craig et al (1998) for a comparable set of "essential elements of coherent and successful [pre-service] teacher education programs (pp. 60-63). They also provide a 64-item comparative list of "more and less effective teacher education strategies in developing countries" (pp. 147-151).

458. One may think that the foregoing is beyond the reaches of developing countries, especially Sub-Saharan African countries. This is not totally the case as it appears in what follows, notwithstanding the challenges encountered and shortcomings reported.

Reforming pre service teacher education

459. The pre-service education of primary school teachers in most Sub-Saharan African countries has been criticized as being overly academic and theoretical in nature, ineffective and costly. Its length – two to four years beyond 10^{th} or 12^{th} grade – has also been questioned. Such criticism is not new. It has simply been heightened recently by the drive towards quality universal primary education in a resource-scarce context. Some countries have had to recruit teachers with less than 10^{th} grade education equivalent and place kids in their charge, with no professional preparation and ongoing support. This is certainly not a commendable move. Others have maintained pre-service teacher education but reduced its length so much that designing a worthwhile program is practically impossible. Still others have re-evaluated their programs and come up with radically different models, or improved existing programs. Guinea's new pre-service teacher education program is a case of a radically different model.

Box 9 Pre-service primary teacher education reform in Guinea

From 1992 until 1998, Guinea recruited its prospective primary teachers among grade 12 students and provided them with a 3-year program that was principally focused on content knowledge and made little room from pedagogical knowledge and educational psychology. Student teaching was carried out in the cozy context of the laboratory school attached to each Normal School. The student teachers/normal school teacher ratio was as low as 10/1 on average, which resulted in high unit costs and low outputs in terms of trained teachers. It was in the context of a projected shortage of 2,000 teachers for the 1998-1999 school year that Guinea, with funding from the World Bank and technical support from a University of Quebec, designed a two-year model based on the German dual system of professional training, and conceptually oriented by active pedagogy, learning-centeredness, reflective practice, and socio-constructivism. The challenge was to provide the country with 6000 contract teachers in three years and at lower unit costs while preserving quality.

Minimal entry level was set at grade 11. The first year of the program consists of coursework at the ENI (focused on the teaching of the basic subjects such as French, mathematics, science and technology, and humanities, as well as on educational psychology and learning assessment). The year of coursework is interspersed with periods of student teaching in specially selected ordinary schools. Courses at the ENI are taught by the normal school teachers and periods of student teaching are supervised by pedagogical advisors in collaboration with the host/mentor teacher and school head. The second year is a school year-long student teaching experience where the prospective teacher assumes full responsibility for a classroom. During this year, he or she still receives support from a pedagogical advisor as well as a mentor teacher. Several student teachers are placed in a given school so that they can support each other as well as engage in peer socialization.

The quantitative objective was met beyond expectations as the program delivered 7,162 new teachers (37% of whom are women) by June 2003. Put differently, the program delivered 2,496 new teachers per year, compared with less than 200 previously. The unit cost is estimated to be 1,484,288 Guinean Francs, or approximately US$677. Beyond these figures, the graduates of the program are reported to be at least as good as graduates of previous programs. This assertion is based on an evaluation conducted in 2002 by the *Programme d'Analyse des Systèmes Éducatifs de la CONFEMEN* (*PASEC*). Teacher effectiveness was measured by the student scores on two written tests (a French test and a mathematics test) administered to a national sample of 2880 grade 2 and grade 5 students at the beginning and end of the school year. The results of the analysis of student test data revealed the following:

- 5^{th} grade students taught by the graduates of the new program (FIMG) scored higher than students taught by graduates of former teacher education programs.
- The reverse is obtained in grade 2, even though the scores of students taught by FIMG graduates are very close to the scores of students taught by graduates of the previous ENI model.
- But overall, students taught by FIMG graduates performed better than students taught by graduates of non-FIMG graduates.
- Interestingly, students taught by the 2^{nd} FIMG cohort scored higher than students taught not only by the 1^{st} FIMG cohort but also by graduates of the previous programs, which suggests that the new program is gaining in effectiveness.

Source: Diané et al (2003)

460. This program holds promise in terms of both effectiveness and efficiency, insofar as it manages to provide in a shorter period of time and at lower unit costs teachers who are as effective as graduates from previous models. The program appears responsive to Feiman-Nemser's set of essential elements of well-designed pre-service teacher education programs. Efforts deployed in the program to make field experiences formative are particularly noteworthy. In terms of duration, the program reflects Lockheed and Verspoor's (1991) argument for recruiting teachers with more general education and providing them with a shorter pre-service training.

461. An issue that needs urgent attention, and that is beyond the reach of program designers, has to do with a career plan for contract teachers, promised since the inception of the program but yet to be seen. Other issues that need attention as well include difficulties encountered in implementing practice teaching in associated schools and reflective practice on the one hand, and lack of preparation of prospective teachers for the reality of large classes, double shift, multi-grade teaching, and lack of instructional materials on the other hand.

462. The issue of a career plan for contract teachers is one that several other countries face. For instance, Burkina Faso, Chad, Cameroon, Mali, Niger, Senegal, Togo, etc., are also having to resort massively to contract, volunteer or community teachers, in response to teacher shortage and economic hardships. This category of teachers is likely to outnumber regular teachers rapidly (they may have already in some cases), as countries strive to achieve UPE by 2015. It is important to think prospectively about how to deal with the consequences of this unavoidable situation, including, among others, the changing composition of the teaching force and the potentially harmful instability of the teaching staff in many schools, especially in areas where there are competing job opportunities. In this respect, the experience of Senegal is worth looking at. This country has since the mid nineties resorted to volunteer teachers to face a severe teacher shortage. Initially, there was no career plan for these teachers, many of whom had completed three or four years of higher education. Pressure from various stakeholders, including the critical mass of volunteer teachers themselves, led to the establishment of a career ladder. This retention incentive has financial, administrative as well as legal implications. How these implications will be handled in the long run remains an open question. The point here is that the hiring of contract, volunteer or community teachers is not a panacea to the problem of teacher shortage and to the financial burden that teachers place on the budget of the education sector. Countries considering this solution need to be cognizant of its limitations and consequences.

463. Uganda is another country that has revamped its teacher education program and apparatus. In 1993, after an extensive education sector review and consultations with key stakeholders that began in 1987, Uganda launched its *Primary Education Reform Program* (PERP). This program was designed to: (i) increase access to quality learning opportunities; (ii) improve school management and instructional quality; and (iii) strengthen planning, management and implementation. The *Teacher Development and Management System* (TDMS) was set up to contribute to the achievement of the first two objectives of the PERP. Among the issues to be addressed by this system were: high attrition rates among teachers, the presence of a large number of unqualified teachers (40-50%) in the system, the demoralization of the teaching force due in part to low salaries, low attractiveness of the teaching profession, an inadequate human and material base of Primary Teacher Colleges (PTCs), PTCs' reliance on an overly academic curriculum.

Box 10 Improving Teacher Development and Management in Uganda

TDMS is a primary teacher training delivery mechanism centered on a reformed Primary Teachers' Training College called a Core Primary Teachers' College (Core-PTC). In terms of content, it is important to note that (i) the teacher education curriculum was revised to align it with the primary school study programs and (ii) pre-service and in-service teacher education were integrated for uniformity and effectiveness.

A total of 23 Core-PTCs were established, and each of them has two departments, namely the Outreach department and the traditional pre-service department. The pre-service department runs the Primary Teacher Education (PTE) two-year residential course for prospective teachers recruited at O' Level and above, and a three-year, on-the-job training course intended to upgrade untrained and under trained teachers. The pre-service course leads to the award of a PTE Grade III Certificate, a minimum requirement for teaching in primary schools in Uganda. The outreach department employs a combination of distance education and short residential face-to-face sessions during the holidays to deliver in-service training and professional support for all serving teachers, head teachers, outreach tutors, education managers (particularly district inspectors of schools), school management committees, PTAs, and community mobilizers. Head teachers undergo a special one-year certificate course in basic management skills. It is important to note here that the outreach component of TDMS had no predecessor.

The outreach programs are implemented through a network of coordinating centers, each of which coordinates a cluster of an average of 22 outreach schools. One school in each cluster is selected to serve as a coordinating center school. The coordinating center tutors (CCTs) are provided with motorcycles and/or bicycles to facilitate their mobility. They are expected to visit each outreach school for at least half a day each month. They also relate with their local communities through Coordinating Center Committee meetings and are in regular contact with their respective District Education Offices.

The implementation of the PERP, especially the TDMS, is reported to have boosted teachers' morale, promoted equity in the distribution of qualified teachers across the country, and revitalized the primary teaching profession in Uganda by:

- restoring the status and integrity of teachers through training, continuous professional support, targeted incentives and better management of the teacher payroll;
- increasing the output and supply of qualified teachers (the percentage of unqualified teachers has decreased by half from about 50% in 1993 to 25% currently);
- ensuring a fairly equitable distribution of primary teachers across the country through implementation of school staff ceiling formula – a system that has provided a framework for systematic staffing of primary schools and that has been used to determine the annual recurrent budget for the primary teachers wage bill and to detect "ghost teachers";
- improving the welfare of teachers by up-grading the salaries of qualified teachers from Ug. Shs. 11,000/ in 1992/1993 FY to Ug. Shs. 105,000/ presently, representing a ten-fold increase in nominal terms over a period of ten years; and,
- providing incentives for untrained and under-trained teachers to upgrade to Grade III Certificate.

Source: Eilor et al, 2003

464. A related outcome of the implementation of TDMS worth highlighting is that it has improved the human resource base of the Core-PTCs. In the early 1990s, PTCs were under-staffed and the tutors in post were mainly under-trained and worked part time. Under the TDMS, a network of Core-PTCs and associated Coordinating Centers have been created. Tutor training wings have been added to two Core PTCs to specifically train tutors for deployment at Coordinating centers. As a result, these institutions are now reported to be staffed with a large team of well-trained tutors who have been specially inducted to implement both pre-service and in-service teacher education programs. In sum, the country now has a sustainable pool of qualified teacher educators.

465. This is an important outcome insofar as the quality of teacher education depends in part on the quality of those who teach teachers. This is an issue that other countries need to tackle, especially those that do not have a formal cadre of teacher educators per se but appoint inspectors and pedagogical advisors – in some cases former secondary school teachers – as teacher educators. Just as being a good teacher is a necessary but insufficient condition for being a good mentor of novice teachers (Dembélé, 1995; Feiman-Nemser et al, 1993; Feiman et al 1992a, 1992b), being an inspector or a pedagogical advisor does not automatically qualify one as a teacher educator. What this suggests is that countries need to be mindful not only about teachers, but also about the people who teach teachers and those who teach teacher educators. Strengthening individual as well as organizational capacity in the higher education institutions in charge of preparing teachers and other education personnel stands therefore as a policy option. Such institutions include the *Faculties of Education, Écoles normales supérieures*, *Higher Institutes of Education,* etc.

466. As indicated earlier in this chapter, it is proving extremely difficult to implement child-centered pedagogy on a large scale. Botswana and Namibia are two of the few countries that have attempted to do so. Tabulawa (1998, 1997) reflects on the "disappointing results" in Botswana (see also Craig et al, 1998). As reported by van Graan et al (2003), the results of Namibia's pre-service and in-service Basic Education Teacher Diploma (BETD) programs are at best mixed. However, what is striking and remarkable about these programs is the strong link that the program designers have tried to establish between teacher education and school curriculum reform. The BETD programs are also commendable for attempting to help teachers develop the tools to study teaching. In a nutshell, the Namibian case is a good example of system coherence, something that is not present in many Sub-Saharan African countries. As a matter of fact, in many cases, teacher education does not reflect at all the curriculum and instructional practices that future teachers will encounter in schools, let alone ongoing educational innovations. Teacher education does not influence curriculum and teaching in schools either. The mutually influential relationship between schools and teacher education is clearly an area of needed improvement.

Continuous professional development

467. "Recognizing the inevitable limitations of pre-service preparation provides an important justification for induction programs. Educators still have to figure out how to help novice connect the "text" of their pre-service program to the "contexts" of contemporary classrooms.... New teachers have two jobs – they have to teach and they have to learn to teach. No matter how a good a pre-service program may be, there are some things that can only be learned on the job.... The first encounter with real teaching occurs when beginning teachers step into their own classroom. Then learning to teach begins in earnest" (Feiman-Nemser, 2001, p. 1026). Yet, programs designed to assist entry into the profession are a rare and arguably absent phenomenon in Sub-Saharan Africa. Lesotho is one of the rare countries that attempted to implement a formal teacher

induction program. The program was eventually phased out because of its unsustainable cost. But induction, as a critical phase in a teacher's career – a phase of development or consolidation of professional identity and of commitment to teaching, need not be a luxury for Sub-Saharan Africa. "Appropriate assignments" – one of the essential elements proposed by Feiman-Nemser (2001) – are arguably within reach. School heads can see that beginning teachers get assignments where they are most likely to succeed. This means assignments that can be handled at a level appropriate to their developmental stage. As well, school heads can restructure the school timetable so that beginning teachers have opportunities to consult and collaborate with experienced colleagues on a periodic but regular basis. Of course this requires that schools have some autonomy about how they use time!

468. Restructuring the timetable for teacher consultation and collaboration is equally effective for teacher learning and development beyond the early years. In fact, this can serve the dual purpose of assisted entry for beginners and continuous professional development for experienced teachers. This is all the more important as teacher learning beyond the pre-service years is reported to be most enhanced when professional development (1) is a team rather than an individual effort; (2) focuses on what teachers feel they need, with priority given to the teaching of basic subjects, and (3) is conducted in or close to the classrooms of participating teachers, with extensive practice, follow-up, and formative evaluation as well as sufficient material support and outside expertise provided in a non-directive manner (Craig et al, 1998; Colleta and Perkins, 1995; Darling-Hammond and Sykes, 1999; Day, 1999; Elmore, 1996; Fullan, 1982; Hargreaves and Fullan, 1992; Lieberman and Miller, 1999; and McLaughlin, 1991).

469. In general, continuous development in most Sub-Saharan African countries has been characterized by the one-size-fits all, one-shot, top-down model. In addition, it has been a fragmented enterprise, with no guiding policy. More recently, however, programs that exhibit the above-listed features of enabling teacher continuous professional development have been emerging and increasing in number. The School Improvement Projects supported by the Aga Khan Foundation in East Africa are illustrative in this respect (see Anderson, 2002); so are Guinea's small grants program for teacher-led professional development and school improvement projects (see Diallo et al, 2001 and Schwille et al, 2001), USAID-supported school Self-Assessment System in Namibia (see van Graan et al, 2003), Uganda's TDMS (see Eilor et al, 2003), Zanzibar's Teacher Resource Centers (see Abdulla et al, 2003), etc. This appears in line with the move toward decentralization and school-based management. It is a promising development to the extent that the anticipated expansion of most education systems in the region will rule out centrally-delivered professional development for large numbers of teachers. In addition, the growth of the teaching force will most likely exacerbate the already decried lack of district level professional support to schools and teachers. This provides further justification for school-based teacher development.

470. With respect to school-based teacher development, there is much to learn from China (Paine, 1990; Paine and Ma, 1993) and Japan (Fernandez, 2002; Lewis, 1995, 2002; Sato, 1992; Sato and McLaughlin, 1992; Stevenson and Stigler, 1992; Stigler and Hiebert (1999). In both countries, norms of collegiality and collaboration permeate teachers' work. In particular, the Third International Mathematics and Science Study (TIMSS) has brought much attention to Japan's approach to the improvement of classroom teaching. According to Stigler and Hiebert (1999) :

> *Japanese educators have instituted a system that leads to gradual, incremental improvements in teaching over time. The system includes clear learning goals for students, a shared curriculum, the support of administrators, and the hard work of teachers striving to make gradual improvements in their practice. Japan has given teacher themselves primary responsibility for the improvement of classroom practice. Kounaikenshuu is the word used to describe the continuous process of school-based professional development that teachers engage in once they begin their teaching career.... Participation in school-based professional development groups is considered part of the teacher's job in Japan. These groups play a dual role: not only do they provide a context in which teachers are mentored and trained, they also provide a laboratory for the development and testing of new teaching techniques.... Teachers spend a considerable amount of time each month on Kounaikenshuu. One of the most common components of Kounaikenshuu is lesson study (jugyou kenkyuu). In lesson study, groups of teachers meet regularly over long periods of time (ranging from several months to a year) to work on the design, implementation, testing, and improvement of one or several "research lessons" (kenkyuu jugyou).... The premise behind lessons study is simple. If you want to improve teaching, the most effective place to do so is in the context of a classroom lesson. If you start with lessons, the problem of how to apply research findings in the classroom disappears (pp. 109-111).*[49]

471. In other words, lesson study is a strategy for improving teaching in context. It is reported to have the following features:

- It is based on a long-term continuous improvement model.
- It maintains a constant focus on student learning.
- It focuses on the direct improvement of teaching.
- It is collaborative.
- Participating teachers see themselves as contributing to the development of knowledge about teaching as well as to their own professional development.

472. Just as Feiman-Nemser's framework of central tasks of learning to teach and essential elements of well-designed teacher development programs, one might think that how Japanese teachers work together to improve their practice and contribute to knowledge about teaching is beyond the reach of their Sub-Saharan African colleagues. This too is not totally the case, despite obvious differences in resource availability and primary school teachers' educational attainment in the two contexts. As a matter of fact, although in their infancy, several teacher development programs in Sub-Saharan Africa have features that are close to those listed above. Guinea's small grants program for teacher-led professional development and school improvement projects in an example (see Schwille et al, 2002). The LCE Forum in Namibia is yet another one.

[49] The following Web sites provide ample information on Lesson Study: www.rbs.org/lesson_study ; www.tc.columbia.edu/lessonstudy ; www.lessonresearch.net ; www.lessonlab.com ; www.globaledresources.com.

Box 11 Using video technology to facilitate reflective practice and empower teachers in Northern Namibia

Namibia has experimented with a school Self Assessment System (SAS) since 2002, as part of a School Improvement Program (SIP) targeting grades 1-4. SAS is designed to bring teachers, parents, and principals directly into the process of asking the "why? how? what can be changed?" questions that emerge from critical inquiry. It is seen as a mechanism, a framework, for guiding locally initiated and implemented school improvement activities. As a complement to the SAS instruments, the SIP teacher support providers have been using video technology as part of the process of helping teachers become reflective practitioners. Starting in February 2003, a group of four female lower primary teachers have been meeting on an average of every two weeks with several support providers. The original purpose of the meetings was to collaboratively develop one or more video tapes in the teachers' classrooms to be used as models of good practice in the use of Learner-Centered Education (LCE) and Continuous Assessment (CA). During the first session, the teachers decided they wanted to focus on specific aspects of LCE, practice those strategies, and then develop a training tape once they were comfortable with their level of skills.

One early strategy was to estimate the amount of teacher talk compared to the amount of learner talk in the lesson. It very quickly became clear to the teachers that the more they heard their own voices in the lesson, the less time was available to learners for questioning and discovering. Since that first meeting, the teachers themselves as well as the support providers have been truly delighted and amazed at the degree of improvement in their instructional practices.. One teacher confidently and eloquently discussed how she and a colleague planned and presented a particular lesson; she pointed out the key LCE strategies she used, and why she chose the particular CA technique for the basic competency related to categorizing and identifying the names of domestic animals and wild animals.

During the most recent meeting of the LCE Forum one member of the group proudly reported that she and her colleague were now being asked by other lower primary teachers in their school to help them plan more learner-centered lessons. On their own initiative, they have made arrangements with the principal and the Resource Teacher to assist them with scheduling so that they can team-teach in both their classrooms. Their accomplishments are beginning to be recognized by the principals and their peers. With the impetus of systematic reflection via the SAS, video taping as a tool that allows review of actual classroom situations, and the opportunity for collaborative problem solving, the experience of these four teachers is a model of what reflective practice can accomplish toward improving the quality of education. The teachers are no longer waiting to be told how to improve their use of LCE and CA but are directly informing and choosing the kinds of professional development support they require. Furthermore, on their own they are developing and researching a variety of teaching materials and strategies that they have discovered they need.

Source: van Graan et al, 2003 (adapted).

Using alternative delivery modes to achieve results

473. The issue of institutional in-take capacity, and cost and financial sustainability has been tackled by several countries via alternative delivery modes, including primarily distance education and Teacher Resource Centers. Regarding distance education, ADEA/WGDEOL (2003) provides a state of the scene and argues that "it is fully acknowledged that distance education is particularly appropriate to reach dispersed teacher populations without disrupting their personal, professional and social lives. It suits best countries where face to face institutions cannot respond urgently and adequately to increasing demands for teacher education due to lack of space and facilities following the introduction of Free Primary Education" (p. 3). Print remains the predominant medium but increasingly other technologies are being used, including interactive radio or video, computer-based instruction, and internet-based learning. These media are used both independently and in combination.

Box 12 Upgrading primary school teachers through distance education in Mauritius

Upon reaching the objective of UPE in the late 1980s, the government of Mauritius committed itself to quality improvement of teaching and learning in primary schools. One of the decisions made to this end was to upgrade practicing teachers through a part-time Advanced Certificate in Education (ACE) course at the Mauritius Institute of Education (MIE). The ACE is an 18-month programme comprising five courses on the subject areas of primary school curriculum and one Educational Core component on Education and Curriculum Studies. The first cohort enrolled in February 1991 and graduated in December 1992.

The originally planned ACE, required teachers to attend lectures on the MIE campus on two full days a week and Saturday mornings. However, it was soon realized that this was impracticable because of the large number of classes that were left unattended in primary schools during school hours. The contact time was therefore reduced to one full day a week during term time and some days during the holiday period for intensive training. Nevertheless, it became clear that at the rate at which the training was proceeding (i.e., 700 every 2 years) it would take more than 10 years to offer the programme to all the 4000 primary school teachers. Furthermore, the acute shortage of teachers prevailing during that period prompted the Ministry of Education and Science to review its decision to release teachers on a one full day per week basis as this meant that a large number of classes would be left unattended. Distance Education was proposed as the best alternative.

Following visits to Distance Education Centres in India, Kenya and Australia and a 4-week training of trainers session conducted at the MIE by a team from the Indira Ghandi National Open University, 90 DE Units of about 20 pages each were written and produced in the core subjects and in Education Studies. A mixed mode approach was adopted which required trainees to undertake self study of course materials and to attend face-to-face sessions on the MIE campus for 12 full days every year. An agreement was reached between the Ministry of Education and Science and the Teachers' Union for the release of teachers on six full days during term time and teachers would come voluntarily for six days during their holiday time to attend the face-to-face sessions. This formula proved to be quite practicable and has been maintained to date.

The distance based ACE began in 1993 and it has, to date, upgraded 2769, not including the current cohort of 440 teachers. More than half of the graduates view that their own learning experience through the ACE program has contributed in developing and applying new teaching and learning approaches in their classes. After having gone through the distance delivered ACE, some teachers realized that they *"also can promote new learning in their classrooms if they can adopt clear objectives and appropriate teaching strategies as they benefited from the ACE"* (Teacher's comment). Most of them, however, found the Educational Core more useful than the subject matters courses.

The direct relation between upgrading teacher qualification and pupils' achievement is difficult to establish. However, the enhanced performance of teachers may have contributed to sustain that of pupils who took the at the primary school leaving certificate examinations (CPE) from 1994/95 onwards. From 1994 to 2001, the pass percentage has increased sensibly, except in 1999, from below 60% to almost 65% in 1998, 2000 and 2001.

Source: ADEA/WGDEOL, 2003 (slightly adapted).

474. There are several important lessons to be drawn from this case:

- *One size does not fit all*. Teachers have different entry profiles and thus different learning needs. For a teacher development program, be it residential or by distance, to be useful, it needs to focus on classroom practice and linked to real classroom situations.
- *The developmental path from subject matter knowledge to pedagogical knowledge to pedagogical competence is far from automatic and needs to explicitly addressed*. Making a shift from professional knowledge (including subject matter knowledge and pedagogical knowledge) to pedagogical competence may depend to a great extent, on teachers' commitment to career-long improvement.
- *There are limits to what can be achieved by distance education mode of delivery*. Follow up by inspectors, head teachers, and pedagogical advisers is important; so is teacher collaboration in context.

Concluding thoughts

475. In the first part of this chapter instructional practices that are reported to be effective in African classrooms as well as in other parts of the world have been explored. Instead of taking sides for one or the other of the main competing visions of effective teaching (open-ended instruction and structured instruction), the main message from this part is to resist dichotomous considerations and embrace learning-centeredness as a framework for thinking and acting in the best interest of children. Having established that teaching as delivery of information is not effective in helping children make connections between what they bring to school and what is proposed at school on the one hand and between ideas embedded in a given lesson and across lesson, the question to be posed is: *How best to help children learn more than unconnected facts?*

476. The question that has animated the second part of the chapter is *How best to prepare teachers for teaching and provide for their further development in service, in a financially sustainable way?* Some tentative answers have been provided, drawing on research and experience in both Sub-Saharan African and other parts of the world. The following set of key messages can be drawn from this research and experience base: 1) The curriculum and pedagogy of teacher education need to be informed by as well as (ideally) inform curriculum and pedagogy in schools. 2) Focusing pre-service teacher education exclusively on academic content is misguided. It is more productive to recruit prospective teachers with strong content knowledge and focus their preparation on the central tasks of teaching. 3) Guided practice in the field is critical at the pre-service phase of the learning-to-teach continuum. 4) The classroom and the school are the best place for acting toward improving teaching practice. 5) Practicing teachers learn more effectively in context from each other, in the framework of learning communities, but this does not rule out support from outside the school.

477. Some, if not all, of these messages are already reflected in teacher education policy and practice several Sub-Saharan Africa countries. What stands out from the glimpse of changes provided is that there are efforts to reform pre-service teacher education and to systematize continuous professional development for practicing teachers. With respect to pre-service teacher education, the general tendency is toward shortening the length of training and making more space for the practical aspects through field experiences. As regards continuous professional development, there is a clear tendency, at least based on the programs reviewed, to bring training closer to teachers'

workplace, and to involve them in decisions regarding the content and organization of such training. However, there remain, unsurprisingly, formidable challenges and weaknesses of various kinds. These include, among others:

- limited attention to multi-grade teaching and teaching large classes;
- the absence of incentives for teachers in remote rural or difficult areas; and
- the issue of a career plan for contract teachers.

478. As argued in chapter 6, multi-grading is a promising strategy that needs more attention if quality UPE is to be achieved by 2015. It is a practice that can serve both large and "normal" classes. Paying more attention to it should begin at the pre-service level.

479. Given that attaining UPE will depend in large part on boosting enrolment in hard to reach areas, special attention needs to be accorded to teachers who are appointed to serve in those areas. This raises issues of both incentives and personnel management.

480. Finally, having a career plan stands as a critical, motivational factor for contract teachers. As a matter of fact, in a context of relatively low salaries, it can be an effective strategy for making teaching an attractive career, sustaining the enthusiasm of prospective teachers, and retaining them in teaching upon graduating from their pre-service program.

Table 14 A selection from the four families of models of teaching

Model	Developer (redeveloper)	Purpose
Information processing models		
Inductive thinking (classification)	Hilda Taba (Bruce Joyce)	Development of classification skills, hypothesis building and testing, and understanding of how to build conceptual understanding of content areas.
Concept attainment	Jerome Bruner Fred Lighthall (Bruce Joyce)	Learning concepts and studying strategies for attaining and applying them. Building and testing hypotheses.
Advanced organiser	David Ausubel (and many others)	Designed to increase ability to absorb information and organise it, especially in learning from lectures and readings.
Mnemonics	Michael Pressley Joel Levin (and associated scholars)	Increase ability to acquire information, concepts, conceptual systems and meta-cognitive control of information processing capability.
Social models		
Group investigation	John Dewey Herbert Thelen Shlomo Sharan Rachel Hertz-Lazarowicz	Development of skills for participation in democratic process. Simultaneously emphasises social development, academic skills and personal understanding.
Role playing	Fannie Shaftel	Study of values and their role in social interaction. Personal understanding of values and behaviour.
Structured social enquiry	Robert Slavin and colleagues	Academic enquiry and social and personal development. Co-operative strategies for approaching academic study.
Personal models		
Non-directive teaching	Carl Rogers	Building capacity for personal development, self-understanding, autonomy and esteem of self.
Behavioural models		
Direct teaching	Thomas Good, Jere Brophy (and many others)	Mastery of academic content and skills in a wide range of areas of study.

Source: Joyce *et al*. 1997, chapter 2

CHAPTER 8
IMPROVING THE EFFECTIVENESS OF SCHOOLS: THE AFRICAN EXPERIENCE

Educational reforms live or die by the success of their implementation at the school level (Verspoor, 1992, p. 23).

481. Chapter 2 provides an integrated perspective on the evidence from the school effectiveness and school improvement research as the first step towards a framework for quality improvement. This chapter examines the practice of quality improvement in Sub-Saharan African. It reviews efforts to ensure and improve the effectiveness of schools, and how these have been and are being informed by international research and experience.

482. The analysis in this chapter uses the following input and process factors as the analytical framework (inspired by Heneveld and Craig, 1996) to review a set of school improvement programs or projects underway or completed in 12 Sub-Saharan African countries.

- the material conditions of teaching and learning
- teachers' professional development
- the curriculum and instructional practices
- classroom and school level assessment
- school leadership
- supervision and support mechanisms
- parental and community involvement in and support to school.

483. This list is expanded to include two school improvement design principles that have already been highlighted in chapter 2: *focusing on student learning* and *viewing school as the unit of change.*

484. As to the programs, they include:

- Improving Educational Quality (IEQ) in Malawi and Uganda
- School Improvement Projects (SIP) in Kenya, Tanzania, Uganda, and Zanzibar
- Teacher Development and Management System (TDMS) and Instructional Materials Supply (IMS) in Uganda
- Small Grants Program for Teacher-led Collaborative Professional Development and School Improvement Projects (known by its French acronym PPSE) in Guinea
- Cahier des charges (CdC) and Projet d'école (PE)/Fonds de Développement Scolaire (FDS) in Sénégal
- Contrats Programmes (CP) in Madagascar
- Head Teacher Support Groups (HTSG) in Kenya
- École de Qualité Fondamentale (EQF) in Benin
- School-Self Evaluation (SSE) in Swaziland
- School-Self Assessment (SSA) in Namibia
- Results-Based School Management (GAR) in Burkina Faso.

485. The review begins with an attempt to answer the following questions:

- To what extent does the program or project have student learning as a central focus?
- What strategies (combination of input and process elements) were deployed to reach those objectives?
- Is the school considered as the unit of change?

486. The answers to these questions were drawn from the documentation available on each program and are summarized in table 15 below. This is followed by a selective cross-case analysis of the programs, built around the input and process effectiveness factors proposed by Heneveld and Craig and two key program design features proposed in the school improvement literature.[50] The review ends with a commentary on the patterns of focus, with implications for policy and planning.[51] It is important to note here that the fact that a program or project does not take into account one or several factors is no indication that it is not of value. It may be that in the country in question, there may be other ongoing programs whose designs include these factors.

[50] Classroom and school level assessment will not be dealt with as they are a focal point of chapter 11. So won't curriculum as it is the focus of chapter 6. As well, instructional practices will not be dwelt upon as such, for they are dealt with in chapter 7.

[51] As it will be apparent, the discussion of the programs and the commentary are much influenced by Hopkins' (2001) explication of School improvement for real.

Table 15 A quantitative overview of the programs/projects

Initiative	Country	Explicit focus on student learning	Material conditions	Teacher development	Curriculum and Instructional practices	Assessment of student learning	School leadership	Supervision and support	Parental & community involvement and support	Whole school as unit of change	Total # of factors taken Into account
IEQ	Malawi	√	√	√	√	√			√	√	7
	Uganda				√	√	√		√	√	5
SIP	Kenya (Kisumu)			√	√			√	√	√	5
	Kenya (Mombasa)			√	√		√	√	√	√	6
	Tanzania (Mzizima)			√	√		√				3
	Tanzania (Dar)			√	√		√		√	√	5
	Uganda (Kampala)		√	√	√						3
	Zanzibar	√	√	√	√						4
TDMS, IMS	Uganda		√	√	√	√	√	√			6
PPSE	Guinea	√	√	√	√	√		√		√	7
CdC, PE/FDS	Senegal	√√	√			√	√	√	√	√	7
CP	Madagascar		√	√			√	√	√	√	6
HTSG	Kenya						√	√	√		3
GAR	Burkina Faso	√		√		√	√	√		√	6
EQF	Benin		√	√		√	√		√	√	6
SSA	Namibia			√	√		√	√	√	√	6
SSE	Swaziland						√	√		√	3
Total # of Instances		6	8	13	11	7	12	10	10	12	

Focusing on student learning

487. There is a convergence of views that focusing on student learning must be the linchpin of any school improvement effort. In a way, this is not new as student learning is the *raison d'être* of any educational enterprise. Most, if not all education projects or programs aimed at quality improvement claim that ultimately they want to have a positive impact on student learning. What is new is a call (i) for investment choices to be informed by explicit student learning objectives (Heneveld and Craig, 1996); (ii) for embracing a vision of teaching and learning that will help attain these objectives; and (iii) carefully monitoring student learning and using it as a key input in formative evaluations

488. As it appears in the table above, student learning constitutes an explicit focus in only 6 out of 17 programs. These include the *IEQ* initiative in Malawi, a *School Improvement Project* in Zanzibar, Guinea's *Small Grants Program for Teacher-led Collaborative Professional Development and School Improvement Projects*, Senegal's experience with *job descriptions* for teachers, school heads and inspectors, and with *School Development projects*, and finally Burkina Faso's *results-based management system*. Zanzibar's SIP, for example, was designed to develop and implement a program that would support the English language development of students in Form I, i.e, the first year of secondary school.

Box 13 Improving student learning through English language in Zanzibar

In Tanzania the official language of instruction shifts from Kiswahili to English when students enter secondary school. English is only taught as a subject in primary schools. The change to English across the curriculum presents an extremely challenging teaching and learning situation which adversely affects student learning. The Secondary English Language Orientation Project (SELOP) in Zanzibar was established to provide a practical response to this problem. The project embodied a 'packaged teaching and learning' approach to pedagogical change, and had two major components. The first consisted of the production of English language curriculum-based materials designed to promote a process-based, interactive style of learning. Using these materials, teachers in all core subject areas (English, social science, mathematics, general science) act as teachers of English through the medium of their subject specialties... The second major component was the establishment of an in-service training strategy to support implementation of the program by all teachers. The in-service training, included four half-day workshops per year for all teachers, delivered through a decentralized network of existing teacher centers, and individual classroom visits by a specialized team of part-time district program consultants, head teachers, and other users of the project within and between schools (i.e., peer coaching). An evaluation of the project was conducted near the end of the initial phase (1994-1997). By that time, the program materials had gone through several cycles of locally managed development, field testing, and revision, and had reached all 95 secondary schools and 11,000 Form I students. Overall, the evaluators were positive in their judgment of the program materials (clarity, simplicity, curriculum fit), though they questioned the quality of 'active learning' embodied in some of the pupil activities built into the lessons.. The in-service training strategy appeared to be working efficiently, and had resulted in a common facilitative teaching style in the context of program implementation. Teachers' lack of confidence in their own English-language proficiency was identified as a major constraint on the effectiveness of implementation.. There was little evidence that the SELOP teachers transferred teaching methods embedded in the program to other classes, or that non-program teachers visiting SELOP classes adopted those methods without any supporting curriculum materials. As in several other school improvement programs, there was no valid longitudinal measurement of student learning since materials were constantly evolving until the final year in response to feedback from the field and new tests developed accordingly. However, end-of-year skill-based tests (adapted from a series of tests approved as reliable and valid) were administered. The overall scores were extremely low (from 28.8% down to 3.8%), suggesting that the tests were too difficult. A supplementary analysis of the national Form II examination results showed significantly higher scores. In addition to these learning outcomes, impressionistic and anecdotal data suggest that the lessons taught following the SELOP approach were generally found by students to be enjoyable and motivating. Both teachers' and students' comments can be summarized as follows: "All the time we speak English... You can see the difference... The program feels positive.... Teachers can speak now in English... Students can talk to each other... though their language is broken, something is better than nothing".

Source: Anderson, 2002, pp. 13-14 and chapter 8 (slightly adapted).

489. Notwithstanding the concerns raised by the evaluators and their questioning the quality of 'active learning' embodied in some of the pupil activities, this project can be regarded as promising. Its design and investment choices appear to have been informed by student learning objectives, in response to a practical problem facing students as well as teachers: an abrupt and challenging shift from instruction and learning in Kiswahili to English. The problem arose out of practice and practitioners were involved in the process of attempting to solve it.

490. The same can be said about Guinea's *Small Grants Program for Teacher-led Collaborative Professional Development and School Improvement Projects*. Indeed, in this program, teachers were organized in teams within the same school or across schools to (i) reflect on student performance, (ii) take a serious look at their own practice as a possible source of unsatisfactory student performance, (iii) draw a pedagogical renewal project aimed at improving that performance, including a plan for evaluating such performance, (iv) program the activities to be undertaken, (v) identify the material resources needed to carry out their action plan, (vi) budget these resources, (vii) implement the plan while documenting it, and (viii) report back on how the grant they were awarded was used. To this end, all teacher projects have explicit objectives for student learning of a specific subject matter or aspect of the subject on the one hand, and for teacher learning (linked with student learning) on the other hand.

Box 14 Building capacity to improve student learning in Guinea

The small grants program consists of a set of planned activities, initiated, developed and implemented by teams of 4 to 10 teachers organized into units for education renewal (CRE). The first year is taken up by designing and selecting the projects, followed by implementation. during the second year, with the possibility of extension for two additional years. The teams whose projects have been selected by a regional jury receive the funding they ask for and also benefit throughout the project's duration from special support in the form of participation in a workshop on project management and evaluation at the beginning of the school year; followed by extra support from a facilitator or other resource persons as required; and by three visits a year from an evaluator. Project results are presented at the end of the school year by members of the educational renewal teams during regional dissemination seminars.

Six years of implementation have allowed PPSE to develop the capabilities of 300 pedagogical support personnel who are able to lead the quality improvement activities at the school level and support teachers in their efforts to change. Thanks to PPSE, nearly all primary school teachers (more than 15000) have been sensitized to educational renewal and introduced to project design. More than half of these teachers have taken part in writing final project proposals and more than 6000, distributed among 1200 teams, have had a chance to implement a project between 1996-1997 and 2000-2001. The reasons for the broad participation are varied, but include the following:

- an organization that promotes accountability from school level to the central administration;
- the rigor inherent in action research and experimentation, accompanied by incremental expansion;
- responding to teachers' felt needs by providing them modest material and financial assistance;
- an integrated training system for all program participants resulting in the strengthening of the capacity of support personnel to provide non-directive assistance to teachers;
- an impartial means of assessing and selecting projects a involving the many educational leaders;
- the importance given to making evaluation an integral part of the program;
- the building of partnerships among participants at various levels based on mutual respect;
- regular schedule of regional dissemination seminars, capped by an additional national seminar
- a long term continuous improvement perspective, with an eye on short term goals.

Source: Diallo et al, 2001, pp. 3-5.

491. Finally, it is worth saying a few words about Burkina Faso's *results-based school management system*.

Box 15 Improving student learning in Burkina Faso

Burkina Faso's introduction in the late 1990s of results-based management in schools on a national scale is perhaps an example of Myers' (1984, 2000) notion of expansion by explosion. In contrast to the existing inspection system, this new approach called for using data on school achievement to improve quality and for providing teachers with more appropriate support in ways that recognize their importance and motivates them to pursue their efforts to improve quality. To this end, two instruments were developed, one for "Chefs de circonscription" (district officers) for supervising and supporting whole schools, and the other for pedagogical advisors for supporting individual teachers in their classrooms. School heads and teachers were seen as key actors in this approach, expected to lead the design and implementation of school and classroom improvement action plans. In this case, the approach to implementing education change appears to have been rather administrative and bureaucratic to the extent that making the instruments available to schools and teachers eclipsed attention to soliciting the input of those involved and providing them adequate training. In the event, despite some encouraging outcomes, after three years of implementation results-based school management seems not yet to have taken strong root.

The epilogue to this assessment by Samoff et al.(2001, p. 19) is that this new school management and support system continues and seems to be impacting quality positively in Burkina Faso. In 2003, the success rate at the end-of-primary school national examination reached 70% for the first time (from an average of 50-60% before). In addition, gross enrolment reached 47.7% in 2002/03, against 38.6% two years before. The Ministry of Basic Education and Literacy has attributed these indicators to a set of factors, including implementation of the results-based school and teacher management and support system. Notwithstanding the fact that association does not prove causality and the fact that there are other quality improvement interventions, it is plausible that the school and classroom improvement plans that school teams and individual teachers designed and implemented has contributed to these results.

492. The three programs thus reviewed briefly have in common what Hopkins (2001) describes as a new wave of collaborative school development planning. It "begins with learning goals for students. A teaching strategy for achieving them is then produced. This strategy is supported by any necessary adjustments to the school's management arrangements: for example, modifications to curriculum policies and schemes of work, changes to the staff development programme and the timetable and any re-allocation of budgets, roles and responsibilities needed to achieve the goals set.... It is as if they [schools] asked 'what changes in student performance do we wish to see this year?' Having decided these changes, they then devise a strategy for bringing them about." (pp. 103 and 112). In this process, **collaboration and teams, not individualism and hierarchies, are the keys to success**! In this respect, these three programs exemplify effective process. Their next challenge is to ensure that the impact of the programs on student learning is carefully monitored and used as a key input in the formative evaluations.

Improving the material environment of teaching and learning

> *If basic resources and facilities are not present this will obviously be detrimental to the educational endeavour as a whole (Scheerens, 2000, p. 60).*

493. As demonstrated in chapters 2 and 5, and indicated above, an adequate supply of material inputs are essential to create an environment in which effective teaching and learning can occur. These include textbooks, supplementary reading materials, teacher guides, classroom equipment and furniture, and a secure and comfortable school and classroom physical environment. About half of the programs include this factor. Among these programs, Uganda's IMS, Zanzibar's SELOP, Guinea's PPSE and Senegal's FDS are worth highlighting.

Box 16 Improving input provision in Uganda

A reform of Instructional Materials Supply was undertaken in the framework of Uganda's Primary Education Reform Project (PERP). The overall objective of this reform was to enhance quality of instruction and learning in primary schools through (i) timely procurement and supply of the recommended Learning Materials, including four approved textbooks (one per subject) in a ratio of 1:3 students, teacher guides for primary schools and teacher colleges; and (ii) prolong the useful life of textbooks through a book management course in the pre-service and in-service teacher training curricula.

Head teachers, in collaboration with the subject heads and class teachers are in charge of identifying the lists of textbook requirements at the school level. At the district level, DEOs are responsible for consolidating individual book orders for schools, submitting the consolidated book orders to IMU and monitoring textbook utilization at the school level. The independent Instructional Materials Unit (IMU) consolidates textbook orders, undertakes central bulk purchasing, distributes the textbooks to the districts, trains the district education staff on utilization and conservation of instructional materials, and monitors their utilization, conversation and stock management. Finally, capitation grants were awarded to school for purchasing supplementary materials. For the first time in Uganda, a recurrent budget for supply of instructional materials was created in the 1998/99 FY. As a result of this reform, the problem of shortages in supply of material resources, e.g., textbooks and teacher guides, has been reduced. This and other improvements in material conditions of teaching and learning, including equipment, school buildings, construction of teachers' houses within the vicinity of schools, have positively impacted on the teaching-learning environment and on teachers' motivation and commitment to the profession. The impact of PERP on learning materials provision is multifaceted:

- *Establishment of an open competitive bidding process for all learning materials. This has resulted into over 50% reduction in the price of textbooks.*
- *Teachers participate in the selection of learning materials.*
- *Monopolies in textbook development, publishing and distribution have been broken.*
- *Local authorship and publishing has been revived. Before the reform, there were only 2 local publishers but today, there are over 20.*
- *Stimulation of retail-outlets for learning materials throughout the country. Before the reform, all retail-outlets were based in Kampala today there is at least one in each district.*
- *The quality of learning materials has been enhanced, aligned with the curriculum, based on local experiences and is gender sensitive.*
- *The procurement cycle for book has been reduced by more than 3 months.*
- *The establishment of the line item in the Education Sector recurrent budget and the reforms undertaken have created a base for sustainable provision of learning resources.*

Source: Eilor et al, 2003, pp. 20, 27 and 29 (slightly adapted).

494. The process of consolidation, central bulk purchasing and distribution, coupled with grants to schools, was also a feature of Guinea's PPSE (box 14).

495. Benin's *École de Qualité Fondamentale* (EQF) is another example of a Ministry's effort to improve the quality of education through provision of textbooks and other material resources to schools and classrooms (see Dewanou et al, 2003)[52]; so is Senegal's smaller scale *Fonds de Développement Scolaire* (FDS) (see Guèye et al, 2003).

Box 17 Improving input provision in Benin

In the mid-eighties, and as part of a broad sector reform program, the Ministry of National Education (MONE) of Benin initiated a participatory process that led to the definition and adoption of a set of 50 quality norms. A nationwide assessment of the conditions of teaching and learning using these norms as indicators revealed that on average schools were below one third of the desired minimal level. As a result of regional workshops held to share the findings of this assessment, ten priority norms were identified and used as a tool for designing 3-year intervention and investment plans in priority zones to increase or maintain school characteristics at minimal level. This included printing and provision of 1 French and 1 math textbooks for 2 pupils, 1 workbook per pupil, and 10000 teachers' guides per subject for all subjects. The implementation of these plans is reported to have improved indicators such as GER (68.84% to 88.49%), gender parity (0.61 to 0.69), grade repetition (25.11% to 19.84%), retention (41.8% to 49.2%), and completion (34.3% to 36.1%) between 1996 and 2001. However, these results are consideted below norms. Explanatory factors include a 35.7% increase in the number of schools during the period, teacher shortage, a dysfunctional teacher development network, the presence of 40% unqualified teachers in the teaching force, and lack of textbooks and limited use of those made available.

Source: Dewanou et al, 2003

496. While the objectives of FDS are different in kind, as compared with those of EQF, both had provision of teaching and learning materials as a key feature during implementation. In both cases, the narrow focus on input factors was put forward as a weakness (Dewanou et al, 2003 and Guèye et al, 2003). In the case of FDS, school libraries eclipsed other objectives and expected outcomes.

497. Notwithstanding t this critique, these two programs are reported to have had a positive effect on the quality of primary education in both countries, through an improvement of the material conditions of teaching and learning (Guèye et al, p. 18; Dewanou et al, pp. 23-34). As Carron and Châu (1996) argued, schools cannot function effortlessly without the bare necessities. Arguably, ensuring that these are present has guided much of donor support to education in Sub-Saharan Africa until the nineties; and the World Bank has been a major player in this respect (see Moulton, 2003, for a review of the Bank's experience). Ensuring that the bare necessities are available is obviously laudable; however, "to believe that the mere provision of those necessities, without attention to how they will be used in school and in the classroom, will guarantee a high-quality teaching process, is unrealistic" (Carron and Châu, 1996, p. 203).

[52] Guinea has been implementing a somewhat similar USAID-funded project (Niveaux Fondamentaux de Qualité de l'Éducation (NFQE)) since 1997.

Building teacher and school capacity for improvement

> *A systematic and integrated approach to staff development, that focuses on the professional learning of teachers and establishes the classroom as an important centre for teacher development is central to authentic school improvement*
>
> *(Hopkins, 2001, p.96).*

498. As argued in chapter 7, knowledge of demonstrably effective instructional practices is a necessary but not sufficient condition for improving instructional practice. Without teachers who are able and ready to adopt and adapt such practices, successful quality improvement in education will remain an impossible dream. Teacher education, both pre-service and in-service, is thus central to quality improvement in education. As this topic is amply developed in chapter 7, it will not be dwelt upon here. What needs highlighting is that 13 of the 17 programs reviewed involve teacher development as a cornerstone of school improvement. Uganda's TDMS, Guinea's PPSE and the SIPs supported by the Aga Khan Foundation (AKF) in East Africa are illustrative in this respect. All three focus explicitly on teacher learning and professional development (and management, in the case of TDMS), without neglecting other input or process factors.

499. Two of these programs, namely PPSE and AKF-supported SIPs have the distinctive feature of being whole school-oriented. In other words, improvements efforts in both cases target all the teaching and management staff in each participating school. This is important to the extent that there is a dialectical relation between classroom change and school change. Put differently, individual teacher change efforts may be inhibited, abandoned or neutralized if they are not nurtured by a community of learning practitioners. As argued by Hopkins and West, "Schools will not improve unless teachers, individually and collectively, develop. While teachers can often develop their practice on an individual basis, if the whole school is to develop then there need to be many staff development opportunities for teachers to learn together" (Hopkins and West, 1994, cited in Hopkins, 2001, p. 104). Elsewhere, Hopkins (2002) argued that "conditions need to be created within the school that ensure that individuals are supported through the inevitably difficult and challenging process of altering their ways of thinking and doing" (p. 276).

500. Altering ways of thinking and doing has indeed been a difficult and challenging process in many of the programs where such changes were targeted. School improvement projects supported by the Aga Khan Foundation in East Africa are cases in point in this respect. Highly variable and novice understanding of child-centered, activity-oriented teaching methods was reported. In one of the projects, this was due in part to the bias of the in-service component toward supporting individual teachers, contrary to initial plans (see Anderson, 2002, chapters 5-7).

501. The cases of Namibia's Basic Education Teacher Diploma reported by van Graan et al (2003) are also illustrative of the inevitably difficult and challenging process of pedagogical renewal (see chapter 7). Tabulawa (1998, 1997) provided a compelling explanation of why it is proving so difficult to implement child-centered pedagogy in Botswana. In his view, the inconclusive results have often been rationalized in simplistic, technical terms such as lack of resources and/or poorly-trained teachers, whereas the real explanatory factors have to do with teachers' assumptions about the nature of knowledge and how it ought to be transmitted, their perceptions of students, and what they consider to be the goal of schooling. Social factors such as authoritarianism inherent in Tswana society must also be factored in. Teachers' assumptions, Tabulawa argued, are incongruent with the basic tenets of child-centered pedagogy; taking them for granted

when affecting change in classroom practices can lead to disappointing results. Challenging and altering these assumptions is a formidable task that may be beyond the capacity of most schools in Sub-Saharan Africa.

502. In his review of the appropriateness of the design principles of AKF's school improvement program in East Africa, Hopkins (2002) referred to "capacity building" as a necessary companion of the principle of 'the whole school as the unit of change'. "Without an emphasis on capacity," he argued, "a school will be unable to 'transform' itself and sustain continuous improvement efforts that result in student attainment" (p. 287). School capacity is defined by Newman, King and Young (2000, cited by Hopkins, p. 287), as "the collective competency of the school as entity to bring about effective change." Capacity, in their view, has the following core components:

- knowledge, skills and dispositions of individual staff members;
- a professional learning community in which staff work collaboratively to set clear goals for student learning, assess how well students are doing, develop action plans to increase student achievement, while engaging in inquiry and problem-solving;
- program coherence – the extent to which the school's program for student and staff learning are coordinated, focused on clear learning goals and sustained over a period of time; and
- technical resources – high quality curriculum, instructional materials, assessment instruments, technology, workspaces, and so on.

503. To these, Hopkins added "transformational leadership approaches" and "effective co-ordination strategies". Taken together, these components of capacity constitute the internal enabling conditions or management arrangements that must be in place for the school to get work done and to develop.[53] They must be balanced with teaching and learning, if changes in classroom practice are to become school wide and sustained into the medium term. However, it would be unrealistic to expect that this balancing of capacity building and teaching and learning can be achieved in a uniform manner in all schools. Obviously, if a school is under resourced and has little experience of school improvement efforts, focusing solely on classroom practice and student learning would be misguided. "In such circumstances [...] it is also important to build the 'capacity for sustained improvement'" (Hopkins, 2001, p. 151). Conversely, in "schools where the internal conditions are sufficiently robust and established", classroom change can be the focus of school improvement efforts, while nurturing the enabling conditions. Schools in between will need to pay equal attention to both. In other words, school improvement is a process, not an event. It can be visualized as a continuum, with schools placed at different spots reflecting their 'growth state' and readiness to move up to higher grounds.[54]

504. The idea of a continuum may help explain some of the shortcomings of the AKF-supported SIPs and of other school improvement programs in Sub-Saharan Africa. Could it be that these programs have attempted to apply strategies appropriate for type 3 schools in an environment that in fact would allow at best strategies for type 2 schools? This is not a rhetorical question. It calls for school improvement program designers to have a good understanding of types of schools and corresponding strategies. Hopkins'

[53] Research capacity building at both central and school level has been the strategic drive of USAID-funded Improving Educational Quality (IEQ) project. For details, see Pathways to Quality (IEQ, 2002). Capacity building is also dealt with in the final chapter of this discussion paper.

[54] Hopkins (2001) has identified three types of schools, with type 1 at the lower end and type 3 at the upper end of the capacity continuum.

discussion of 'differential school improvement' is helpful in this respect (see Hopkins, 2001, pp. 159-178).

Strengthening school leadership and school autonomy

505. "One of the major growth areas in education in recent years has been in the field of leadership training. While most of this could be criticised as being too narrowly focused, competency-driven and de-contextualised, it has reinforced the centrality of the headteacher's role in leading school development and improvement" (Hopkins, 2001, p.115).

506. As it appears in table 15, 12 out of the 17 improvement programs selected for review have school leadership as a component. One even has it as exclusive focus, i.e., Kenya's Head Teacher Support Groups (HTSG) (see box 18 below). This is consistent with the findings from school effectiveness and school improvement research conducted in both developed and developing countries (DSE/Gambia, 2003; Gauthier et al, 2003; Weva, 2003; Hopkins, 2001; Scheerens, 2000). Like in any social organization, goal achievement by and change capacity of a school depend to a great extent on the leadership provided by the school head.

507. Located between the hierarchical administrative structure and the school, school heads are in a way bi-directional change agents. They are oriented both toward the bottom and the top of the educational pyramidal structure. They are polarized, on the one hand, by the multidimensional aspect of their school's pedagogical activities, which require high quality instructional leadership, and, on the other hand, by the increasingly numerous and ambitious administrative mandates of their superior, which require more advanced management skills (Weva, 2003, p. 1).

508. School heads set the tone by setting a clear vision or a set of purposes for their school, involving all stakeholders, including pupils, teachers, parents and members of the local community, in vision formulation and other aspects of school life, managing the curriculum, ensuring a climate conducive to learning, setting and having high expectations for all students, paying attention to both student learning and teacher professional learning and development, etc. According to Hopkins (2001), this requires a combination of transformational (as opposed to transactional)[55] and instructional leadership. Transformational leadership "focuses on the people involved, their relationships, and requires an approach that seeks to transform feelings, attitudes and beliefs. Transformational leaders not only manage structure, they also purposefully seek to impact upon the culture of the school in order to change it" (Hopkins, 2001, p. 116). Instructional leadership "emphasises 'the behaviours of teachers as they engage in activities directly affecting the growth of students'" (Leithwood et al, 1999, cited by Hopkins, 2001, p. 119).

509. What emerges from these definitions of leadership is a complex set of roles that a school head is to play. The kind of school leadership thus briefly described may be thought to be beyond the reaches of Sub-Saharan African education systems, where the majority of school heads are usually untrained for the job; where the administrative mandates and extra-school responsibilities of school heads tend to eat up their time, making it almost impossible for them to pay attention to their essential role, that of ensuring that their school achieve goals (that are typically set by the hierarchy), as well as promoting pedagogical renewal. But this needs not be the case. Though not a panacea, school-based management, an approach that is consistent with moves towards greater

[55] Transactional leaders promote the interest of the system, i.e., central level, and are concerned with managing structures and systems in order to ensure conformity rather than encourage creativity.

decentralization and local autonomy in delivery of educational services (see chapter 10), stands as an effective vehicle for transforming school leadership toward what is called for above. There already exist examples that provide images of what could be. These include:

- Burkina Faso's results-based school management system, whereby the school head is considered the first instructional supervisor and support provider at the school level (see box 15).
- Kenya's HTSG, where head teachers met as a group with other actors, including zonal inspectors and community members to discuss school management issues (see box 18).
- Guinea's PPSE, where school heads are members of and not necessarily heads of teacher teams – an example of dispersed leadership and of building teacher leadership.
- Senegal's Projets d'école, whereby School Management Committees were set up, with membership including school personnel and community members, to (i) design, implement and evaluation a school improvement projects; (ii) mobilize all stakeholders around the objectives of the projects; (iii) manage the resources necessary to attain project objectives; (iv) support implementation of pedagogical innovations (see Guèye et al. and Sow, 2001).
- Madagascar's Contract Programs – inspired by Malagasy customary law, i.e., the Dina, and whereby SBM was used as a vehicle for better integrating the community in school planning and management in order to (i) improve access and subsequently quality; (ii) improve teacher quality and management of schools; (iii) strengthen supervision and support; and (iv) develop various replicable quality enhancing innovations. To this end, the missions, roles and responsibilities of various tiers of the education system were redefined; school grants were provided to and managed by the community; and various local structures were created or strengthened, e.g., parent associations, Local Management Committees, School Councils, Local steering Committees, to take part in the implementation of contract programs; and training was provided to school heads and district officers and other educational leaders accordingly (see Ratrema et al, 2003).

510. These programs and others selected for review include some training for school heads, as a measure for strengthening school leadership. Kenya's HTSG is worth highlighting in this respect.[56]

[56] Weva (2003, p. 20) has identified three other encouraging initiatives . They include: Lesotho's on-the-job training program for primary school heads; On-the-job training for school heads and inspectors offered by Nigeria's National Institute of Educational Administration and Planning; and Swaziland's national training program for school heads (a compulsory program for all newly appointed school heads)

Box 18 Head teacher support group in Kenya

Following an analysis of the training needs of school heads, Kenya's Ministry of Education concluded a bilateral agreement with the United Kingdom's DFID for the training of school heads. The Primary School Management (PRISM) program was launched in 1996 with the goal of developing the competence of all 16,700 school heads in key areas of school management, including curriculum management, personnel management, and management of material, financial and physical resources. At the outset, the program was designed to rely entirely on local resources and on the community and school environment of each school head. This was considered a basic condition for success, sustainability and institutionalization of the development of school heads' administrative potential. An organizational structure was created to this effect, namely the *Head Teacher Support Group* (HTSG), under the leadership of zonal inspectors. HTSGs are places where school heads meet on a regular basis with other educators, particularly inspectors and community members, to discuss various issues related to pedagogy and school administration.

Various studies conducted in Kenya have revealed that HTSGs have a positive impact on several indicators of improvement of basic education, 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 contribution; instructional leadership of school heads; implementation of effective strategies for decentralizing the training of school head; design and implementation of teacher development activities by school heads; etc.

Source: Weva, 2003, pp. 26-28.

511. The move to strengthen school leadership both reflects a conscious recognition of a changing role and has to do with the fact that, up to recently, the vast majority of Sub-Saharan African school heads were, and in fact are still, appointed, based on teaching experience while receiving little or no training before taking office. Whatever on-the-job training opportunities they are offered tend(ed) to focus either on management issues at the expense of pedagogical ones, and vice versa, and rarely on both. There is little in the cases reviewed on school leadership in action, the Gambian case and the AKF-supported project in Mzizima (Dar-es-Salaam, Tanzania) being exceptions. This void should be filled so that we can have a better sense of the potential and challenges of school-based management in the region. Another reason for filling this void is that school leadership, as teaching, is very much influenced by the context in which it takes place. As Hopkins (2001) put it, "instead of models of leadership being cumulative, they tend to be relative and possess a distinctive historical flavour. All this is to say that leadership is a relative concept that is contextually bound" (Hopkins, 2001, p. 116).

512. We need to understand how African school heads act upon the autonomy that comes with SBM; whether it enhances student learning and to what extent; what difference it makes in parental/community involvement and participation in school affairs, and in their support to school; what conditions must be in place for schools to reap all the benefits of SBM. The case study conducted by the Gambian Department for Education in the framework of the Challenge of Learning study provides preliminary answers to these queries, notwithstanding its limitations.

513. This case study investigated the following question: Why did private schools outperform government and mission schools during the 2000 Monitoring of Learning Achievement (MLA) survey and similar national assessments? A re-analysis of the MLA data and of additional qualitative data gathered in two private schools as part of the case study highlights striking differences school management style:

- Private school heads have greater autonomy than government school heads and this enables them to take initiatives without fear of being reprimanded.
- Heads of private schools have high expectations for both students and teachers; they prioritize student learning and don't make no room for complacency.
- Heads of private schools "know what is happening in every class and can assess their teachers in terms of quality delivery. There is constant monitoring." Teachers are aware of this and do not take any chance.
- The regularity of checking teachers' work is greater in private schools (66,67% daily and 33.33% weekly) than in government schools (21.43% daily, 42.86% weekly, 16.67% fortnightly, and 19.05% occasionally).

514. In all areas of head teacher's assistance to teachers (checking lesson notes, suggestions about teaching aids, and school-based workshops), private school heads do better than their government school counterparts; in particular, lesson preparation and teaching aids are given prominent attention by private school heads, as it appears in the table below.

Table 16 Head teachers' assistance to teachers in the Gambia

School Type	Assistance in the form of Checking of lesson notes		Assistance in the form of Suggestion about teaching aids		Assistance in the form of School-based workshops	
	No	Yes	No	Yes	No	Yes
Government	27.50	72.50	16.28	83.72	16.28	83.72
Mission	37.50	62.50	33.33	66.67	33.33	66.67
Private	11.11	88.89		100	11.11	88.89
Total	26.32	73.68	16.39	83.61	18.03	81.97

Source: Department of State Education (2003, p. 32)

515. In addition, the Gambia study shows that:

- 71% of private school teachers report having a "very cordial" relationship with their school head, against 56% in government schools.
- There are shared responsibilities in private schools; roles are spelt out and each teacher has a stake in the administration of the school.
- Leadership seems dispersed in private schools, whereby senior teaching staff (and two deputies in addition, in one school) assist head teachers to monitor, supervise and support other teachers.
- Education inspectors visit government schools more often than they do private schools.

516. This case can be regarded as an example of good management practices in an environment with considerable autonomy. How to strike a balance between school/local autonomy and central direction and regulation stands as one of the main challenges of the move toward more decentralization of the management of educational systems in Sub-Saharan Africa. The challenge applies particularly to the public school system given its historical highly centralized and bureaucratic nature.

Restructuring supervision and support mechanisms

> *The impact of supervision and support on classroom teaching and on student achievement is far below expectation. […] That dissatisfaction is shared by many teachers in better off countries, with better organized resources (Carron and De Grauwe, 1997, 41).*
>
> *Supervisors often ask how they can both help teachers grow as classroom instructors when they must also make a written evaluation of their effectiveness. This conflict is so great, that some countries have attempted to separate the roles, with some supervisors evaluating teachers in a traditional inspector role and others promoting teacher development (Craig, Kraft and du Plessis, 1998, p. 72).*

517. Administrative and instructional supervision and support play an important role in improving what goes on in schools and in classrooms. There is also, and paradoxically, evidence that the supervision and support that schools and teachers typically receive from inspectors and pedagogical advisors are insufficient and ineffective. This is particularly the case in most Sub-Saharan African countries. From a quantitative viewpoint, the situation has deteriorated with the expansion of educational systems. There are simply not enough inspectors and pedagogical advisors to cater to all schools and teachers on a regular basis. Small, remote schools are especially ill-served (Carron and Châu, 1996). The situation will most likely get worse as countries make progress toward EFA; and for a few countries, this means doubling the current gross enrollment rate

518. One of the vexing problems of inspectors' and pedagogical advisors' work is that they have to reconcile two tasks that are construed by school personnel as dichotomous: teacher support and teacher evaluation. Typically, the tendency has been to give priority to evaluation and administrative control, thus postponing pedagogical support (forever in some cases). Finally, inspectors and pedagogical advisors are caught between mandates they receive from central administration and the expectations of schools and teachers. Since they perceive themselves as being in the service of central administration, they often opt to attend first and primarily to the mandates of the latter. As a result, they are perceived by schools, including both school personnel and parents, as strangers at best and intruders or enemies at worst.

519. If one adds poor working conditions (in both schools and inspectorate offices) and work overload to the above problems, one can easily understand why "the impact of supervision and support on classroom teaching and on student achievement is far below expectation" (Carron and De Grauwe, 1997, p. 41). But, as Carron et De Grauwe put it, notwithstanding limited resources, the main difficulty faced by school supervisors has to do with diversity of roles, tasks and expectations. As a matter of fact, they are torn between schools' claim for actions tailored to their needs and central administration's preoccupation with providing standardized services for all schools (p. 30).

520. In the foregoing, inspectors and pedagogical advisors are lumped together. This is not an oversight. It reflects the fact that, in reality, they pretty much play the same roles in most Sub-Saharan African countries. As Carron and De Grauwe (1997, p. 16) suggest, work division among these two categories of personnel is typically imprecise. Despite attempts to distinguish their roles – in particular by separating pedagogical support from evaluation leading to promotion (Brunet 2003) – personnel shortage leads to their sharing the task at hand, thus erasing the hoped for distinction of function in practice.

521. Carron and De Grauwe (1997, pp. 55-64) suggest five actions that can lead to improved supervision services:

- A more coherent description of the roles, tasks and functions, separating control from support activities, and administrative from pedagogical tasks
- More openness and transparency, by making evaluation reports available to the school and the community and communicating information to relevant individuals
- Strengthening follow up, through action plans derived from school visits
- Emphasis on school evaluation rather than teacher evaluation
- More involvement in system evaluation.

522. According to Carron et al (1997), the main challenge in implementing these actions will undoubtedly have to do with changes in the mindset of inspectors and their adopting a genuine attitude of facilitation and support instead of control and sanction.

523. Attempt to bring middle managers, including inspectors, and staff developers (pedagogical advisors and normal school teachers) to adopt and develop such an attitude was a key feature of Guinea's PPSE. The same attitude was encouraged in Burkina Faso's Results-based management and support system. In both countries, and arguably elsewhere in Sub-Saharan Africa, progress on this front is a slow process as it calls for a paradigmatic change and therefore meets resistances of various kinds. The cultivation of this attitude may be more successful during professional preparation. Unfortunately, in many countries, just like school heads, inspectors and pedagogical advisors are administratively appointed and often receive little or no training before taking office; and once they take office, the myriad of responsibilities makes it practically impossible for them to engage in meaningful professional development.

> *Arguably, what is most striking when considering the history and present situation of school supervision and support services, is the endurance of the idea that school supervision is necessary and useful (Carron and De Grauwe, 1997, p. 18).*

524. However, for the potential of school supervision to be realized, **education systems in the region will need to revisit how inspectors and pedagogical advisors are selected, and trained before taking office and on the job**.

Increasing parental and community involvement and support

525. The school effectiveness and school improvement literature is replete with calls for bringing the school closer to the community it is supposed to serve (Anderson, 2002; Carron and Châu, 1996; Heneveld and Craig, 1996; Lockheed and Verspoor, 1991). This is particularly important in contexts, such as Sub-Saharan Africa, where formal school as it currently exists, is a foreign institution; and where most parents cannot take part in helping their children learn school sanctioned knowledge, skills and attitudes, not only because they are illiterate but also because what is valued at school is in general not relevant to their lives.

526. Parental and community involvement and participation in school affairs has become another strategic drive of school improvement efforts across Africa. School Management Committees, with membership including parents and community members, are a key feature of most donor-supported programs or projects in the 1990s. The importance of parents and communities, in fact civil society at large, in achieving the Education For All goal was re-affirmed at the World Summit on Education in Dakar in 2000. It is therefore not surprising that parental and community involvement and participation in school affairs is included in ten of the programs selected for review in this chapter. Work done in Uganda in the framework of the IEQ project is worth highlighting in this respect.

Box 19 Community support in Uganda

In 1995, IEQ/Uganda began with a National Forum to discuss the information needs of the education system.–As a follow-up two large-scale baseline studies were commissioned which revealed, among other things, significant shortcomings in all components of school effectiveness and proved to be invaluable to the information demands of the education reform. With the stress of UPE on local schools, a research methodology was sought that could not only inform policymakers about the complexities and possibilities of community participation, but improve quality learning at the selected schools participating in the study. In collaboration with IEQ core research team members, three target groups in three rural schools – community members, teachers and pupils – began Participatory Action Research (PAR). As trust and relationships developed, IEQ researchers began guiding teachers, community and pupil groups through an iterative process of assessment, analysis, and action – back to assessment – leading to improved education quality. Much of the initial discussions with community members were related to quality education but were somewhat removed from school life. Community members began getting a bit closer to schools when they decided to visit some classrooms. They noticed that the classrooms had no desks, benches or lockable doors and window shutters. They were concerned with these conditions. This may have been the catalyst for the community to contribute money and labor to upgrade the classroom conditions. During the next few months, they made desks and benches for P 1, 2, and 3 classrooms. After a year of engaging in PAR activities community members have taken further concrete action to improve education quality. They have collaborated with the nation's TDMS to construct classroom blocks and have begun construction of additional teacher housing. Community members at one school have gone beyond school infrastructure and have begun to seek the assistance of various state and voluntary agencies, e.g., to get a dependable source of sufficient clean water and medical services for the schools. Community members have also become more involved in academic activities. In two schools, they have started monitoring the time that school open and the time that classes begin. A few of them have observed classes and are beginning to discuss their findings with teachers. These are promising developments as one of the goals of the IEQ-initiated PAR is to eventually bring the community, teachers, and pupils together so that they can begin to exchange ideas and take suitable action to improve education quality.

Source: IEQ, 2002, pp. 118-126 (modified)

527. This is obviously a time-consuming and labor-intensive enterprise; but the results are worth the effort. In many instances, parental and community involvement and participation in school affairs has been framed as a problem of structures; hence the creation of parents' associations, school management committees and the like. As Carron and Châu (1996) argued, "such organizations usually exist on paper but function poorly or not at all. In and of themselves, they do not guarantee a more positive attitude of teachers to parents, nor a sense of ownership on the part of parents vis-à-vis the school" (p. 278).

528. Carron and Châu argue further that, in order to break out of the vicious circle whereby parental discouragement is met with teacher defeatism, "the most urgent task is probably simply to make the school more welcoming for its users" (p. 278). In the Ugandan case summarized above, this task has been accomplished, and parents have entered the classroom in the both the proper and figurative sense.

Implications for policy and planning

> *The effectiveness of schools is seen not to lie in the specific list of characteristics of discrete additive elements, but in the creation of a whole efficient working system, which includes its people, structure, relationships, ideologies, goals, intellectual substance, motivation and will (Lightfoot, 1983, cited in ADEA, 1995).*

529. Assuming that table 15 does justice to the programs reviewed, one can make two interrelated general observations to start with: First, none of the factors is taken into account by all the programs. Second, none of the programs takes into account all the factors.

~~530.~~ Furthermore, at a more fine-grained level, the table shows that there is wide variation in number of factors taken into account.

531. The fact that only 6 programs have "student learning" as an explicit focus is consistent with the findings reported by several authors (Heneveld and Craig, 1996; Hopkins, 2001). Clearly, **focus on student learning is a factor as well as a design and implementation principle that should figure prominently in emerging quality improvement programs**. But simply focusing on student learning may not suffice. Having a shared vision of the teaching-learning process should be a concern as well, whereby learning is viewed as resulting from the coordinated implementation of input supply, curriculum reform, teacher development, leadership training and training of inspectors and pedagogical advisors, just as Lightfoot (1983) argued. Indeed, no single school effectiveness-enhancing factor/condition, even if its power is statistically demonstrated as determining, can do the job. School effectiveness-enhancing factors/conditions interact and influence one another to achieve results. Consequently, **paying attention to interactivity and mutual influence of factors/ conditions at both program design and implementation phases should be ever present in the minds of all categories of actors**. In short, this is a call for embracing a systemic approach, acknowledging that the whole is bigger than the sum of its parts. This in turn calls for capacity-enhancement/building at all levels, given the complexity of the systemic approach.

532. **A second factor that deserves more attention than it appears to be receiving is "assessment of student learning".** In fact, if school improvement is for real, this should be built into any school improvement effort as a matter of course. The focus of the assessment and the ways of assessing will obviously vary from one context to another. Nevertheless, **it is reasonable to argue that assessment should go beyond cognitive outcomes, to include the affective and social outcomes of schooling.** Because they are more context-bound than the former, the latter two categories of outcomes pose a great challenge to assessment, but that should not lead to focusing solely on cognitive outcomes, which are more easily measurable. We must bear in mind that in education, and in other practices of human improvement for that matter, not all that

counts can be measured necessarily, and all that can be measured does not count necessarily!

533. A third observation on the table is that less than half of the school improvement programs reviewed have "material conditions" as an explicit component. Instead, material inputs such as textbooks, supplemental materials, small classroom equipment, etc., are integrated in a support package, as in PPSE for instance. This may be said to reflect the general trend of focusing more and more on process factors than only on input factors – an encouraging trend. As we saw in Benin's EQF and Senegal's FDS, making material conditions an exclusive strategic drive may be misguided. In the case of FDS, limited attention to pedagogical processes and community involvement were reported as important reasons why the provision of material inputs did not produce the expected results (Guèye et al, 2003). In both cases, subsequent steps were taken or are planned to shift gears. There are many other examples where this happened, e.g., in Madagascar's *Contract Programs* (see Ratrema et al, 2003). A supply of essential material inputs is a necessary but not a sufficient condition for effective schooling. On the other hand, given that many Sub-Saharan African schools are type 1 schools (in Hopkins' taxonomy), too much emphasis on level 3 processes may be futile or even counterproductive.

534. The trend to focus more on process factors is further illustrated by the fact that the "highest scoring" factors in the table are (i) teacher development, (ii) school leadership, (iii) curriculum and instructional practices, (iv) supervision and support, and (v) parental and community involvement and support. It is also worthy of note that in 12 of the 17 programs, school is considered the unit of change. This is a very hopeful shift in policy and planning to the extent that it acknowledges the primacy of the human factor in education. It behooves all stakeholders, including international technical and financial partners of African education, to nurture this trend.

CHAPTER 9
DIVERSITY WITHIN AN INTEGRATED EDUCATION SYSTEM

535. A central item on the EFA agenda is the challenge of providing an education of acceptable quality to those that so far have been excluded. These are for the most part the most disadvantaged populations, often living in remote and sparsely populated areas. Schools as they are traditionally organised find it difficult to respond to the wants and the needs of these population and take account of these constraints of their living condition. A wide variety of of pilot, experimental and research projects that chapter 4 mentions and that continue to spring up in almost every country, and in the continual reforms of curricula and teaching materials for both children and adults. As the account from Burkina Faso reports, in that country alone there have been and are a dozen or more efforts undertaken by a similar number of agencies, governmental and non-governmental, local and international, with financial and technical support from a variety of bilateral and multilateral bodies. All of them aim to organise good quality education for poor children and adults in disadvantaged areas, both urban and rural. This chapter reviews what has emerged from the range of efforts to provide education for children and adults through channels other than the usual school.

Diversity in provision

536. A first observation, supported by the "EFA Global Monitoring Reports", is that all these efforts referred to above seem not to be 'coming together' as coherent systems that will ensure that countries reach the goals for 2005 and 2015. Indeed, in its list of 14 operational defects, the Burkina Faso report notes the inadequate integration of two sub-systems of 'formal' and 'non-formal' education, despite the step of forming an 'integrated' Ministry of Basic Education and Literacy that is intended to coordinate them. Such inadequacy is of course not unique either in Africa or in the rest of the world. Yet it does mean that whatever benefits the array of small projects is generating, remain confined to relatively small populations and denied to the population at large. They do not enter into system-wide currency.

537. With the diverse patterns of living found in Africa, gender imbalances and ranges of groups in difficult circumstances, diverse patterns of educational provision can reasonably be expected to be the norm. Small communities and relatively isolated single families practising small scale agriculture and scattered over large areas, along with migratory fisher and pastoral communities need different arrangements from urban or larger rural groupings. Chapter 3 has already spelled out the stark and unfair inequalities between the provisions, processes and attainments between the rural poor – and particularly poor rural girls – and the rest of the population in most countries of sub Saharan Africa.

538. Special arrangements are even more necessary where poverty means that some working children bring in up to 40 per cent of a family's food supplies, as Dachi and Garrett (2003) found in their study of four districts in Tanzania. While these children may be exceptional, it is worth bearing in mind that the ILO's International Programme for the Elimination of Child Labour estimates that some 40 per cent of children in Africa spend two to three hours a day working and that the amount of work is positively correlated with rural residence. To free these working children for education would require measures to reduce their families' reliance on their labour.

539. It may be helpful here to stress that such measures would be necessary less to ensure access and enrolment, and much more to ensure regular attendance, good nutrition and health to underpin effective learning and successful completion. In short, systems aiming to attain quality education for all should accommodate working children through much more diverse and flexible arrangements than are currently characteristic of school systems.

540. In addition to the working children, most countries need to consider children and adults with a range of disabilities, who cannot be readily accommodated in ordinary schools, as well as those in difficult circumstances, such as refugees, orphans, AIDS orphans and children caring for parents and other family members suffering from HIV/AIDS and prevented by such commitments from sustaining regular attendance at school.

541. From the perspective of gender imbalance, the paper on the gender dimension describes three diverse efforts to promote gender equity in both access and quality. They include a direct challenge to a well established culture in Kenya, a campaign in 12 countries to transform girls' attitudes to subjects traditionally thought to be domains for boys – science, maths and technology – and a programme of complementary basic education for out-of-school adolescents, both boys and girls, but with an emphasis on aiding girls to exceed societal expectations. As so often, the leadership for these initiatives came not from ministries of education, but from a non-governmental body, in this case FAWE. On the other hand, it is clear that at least the benign acquiescence of the ministries was essential.

542. The country case study of Mauritius illustrates how emerging technologies can be harnessed to support diverse approaches to access, quality and effectiveness in education, particularly in basic education. Moreover, experience in using both local and world-service radio to support adult education in Ghana and Somali-speaking countries suggests that possibilities analogous to the Australian radio schools should not be abandoned. Similarly, the World Bank's experience with networking secondary schools in computer exchanges, coupled with advances in solar, wind-up and wireless technologies, needs to be constantly monitored for potential cost-effective applications to basic education for children as well as younger and older adults. Could this range of technologies eventually be stretched to organise distance learning for children caring for sick parents and other family members? Or for working children, whose commitments do not fit the ordinary schools' timetables? Or for communities so isolated and so small that the numbers of their children could not meet even the minimum criterion for a single teacher? A vital question that shadows all these possible options is of course the issue of cost-effectiveness and the concomitant issue of long term sustainability using only indigenous resources. But that question comes into play only after the technical feasibility of an option is tested.

Coherence in objectives

543. To say that diversity, flexibility and openness to new technologies are required is not to suggest that there should be parallel education systems, independent of each other, where the state runs traditional schools, while other bodies devise other forms of education for groups who cannot use the ordinary schools. It suggests rather what Torres (2001) observed about the Colombian *Escuela Nueva* and its relation to the Colombian state: the 'new school' with its new organisation and approach was not an alternative *to* formal or state education but an alternative *within* the formal and public education system. That is to suggest that each government should – doubtless in cooperation with appropriate partners – develop and deliver a range of educational vehicles to fit the range of communities and groups of learners within the country, even as it permits and possibly enables a range of providers to set up and run ordinary schools alongside its own.

544. However, within most education systems in Africa, the actual norm is not diversity. Instead, a single dominant pattern of schooling provides for children, with minor provisions for adults. There is no denying that some diversity does exist, for example, in the form of special provisions for nomadic pastoral peoples or migratory fisher-folk, as the Nigerian case describes, or for small scattered rural communities, like the Save the Children work in Mali, or to help very poor children use their own languages to qualify for government schools, like the work of Tin Tua in Burkina Faso. Yet, equally, there is no denying that diversity in these forms tends to be exceptional and marginal to the main bodies of schools and corps of professional, career schoolteachers. The insufficiency of diversity is a failure on the part of the state to make education accessible to all and is in effect another form of remediable inequity.

545. A constraint upon diversity from another direction is what poor people and cultural or religious minorities perceive as a "proper education". Attempts at 'relevance' have only too often come to grief as their authors' concepts of what constituted a useful and valuable education diverged from the concepts that their clients held. Foster's 1966 insight into the vocational education fallacy has been amply validated by later research – see Bergmann. 2002 – while Boyle's team (2003) in their study of six countries, three of them in Africa (Kenya, Uganda and Zambia) found that poor parents tended to define quality in education mainly in terms of the availability and reliability of competent teachers within the frame of just the kind of school and curriculum available to the rest of the country. The clear inferences are that any attempt at diversity in education would need to make sure that it satisfied or convincingly reshaped local preconceptions of education and that the people it recruited as teachers were both competent and reliable – Burkina Faso's less than satisfactory experience with the instructors it posted to its Non-Formal Basic Education Centres (CEBNF) is an example that merits study.

546. What would "diversity within an integrated system" entail? Before that discussion begins, two cautionary point need to be firmly made. First, 'diversity' must not imply less than the ordinary accepted standards of quality and attainments in learning. Any hint that diversity offered only second-rate education or education that opened up no possibilities of advancement in directions desired by the learners, would doom the concept to rejection by the people it proposed to benefit. Second, 'diversity' need not connote a cheap option, but, equally important, neither should it connote an option so expensive as to risk inequity and, worse, infeasibility for introduction on a scale sufficient to improve a situation substantially. For instance, if arranging quality education for the children of nomadic communities or families cost 15 per cent more than the costs of urban primary schools, the additional investment would likely be deemed acceptable and

equitable. However, if it cost 50 per cent more, it could well be rejected as both inequitable and impossible, even if it ensured high achievements.

Box 20 Flexibility for nomadic and fishering communities in Nigeria

In 1989, some 3 million children of school age in Nigeria's nomadic and migratory fishing communities had no schools or education programmes that addressed their particular conditions. They had either to attend the traditional static schools or go without. Virtually all went without. In that year the authorities launched an initiative especially adapted for their ways of life. Between 1989 and 2002, enrolments climbed by a factor of 12, from 18,831 to 229,944 pupils. Further, the Gender Parity Ratio had improved form 0,54 to 0.85. Impressive growth, impressive gender equity! What was the situation for quality?

Relatively disappointing outcomes in the early years, led in 1992 to several subsidiary initiatives. The first, "Community Sensitisation and Empowerment" (CSE), aimed to gain the active support of parents and communities. It deployed a range of media, including literacy classes, extension services and cooperative societies for the adults. The second thrust, "Pedagogical Renewal and Teacher Development" aimed to orient mainstream teachers to the culture and values of the pastoral and fisher communities and to introduce more effective teaching methods and materials. Perhaps more important, it worked to recruit, train and retain teachers from the pastoral and fishing communities themselves.

Alongside, 700 mobile collapsible classrooms were imported to move with the pastoral communities, while 25 motorised boat schools were introduced to follow and fetch the children of the migrant fisher communities. New incentives for the teachers comprised better housing, motorcycles and bicycles.

The outcome was that the transition rate from primary to secondary school rose from 45 per cent of 1274 pupils in 1992 (534 pupils) to 54.6 per cent of 9,120 pupils in 2002 (4,976 pupils), an absolute increase of more than nine times.

The total development cost over the period 1990-2003 amounted to US$2,217,743, while the recurrent costs amounted to $4,156,607 or approximately $1.06 per pupil. The Federal Government of Nigeria bore all the recurrent costs and 96.3 per cent of the overall development costs: these were apportioned 49 per cent to curriculum and materials development, 45 per cent to buildings and furniture and 6 per cent to teacher development. UKDfID assisted with 27 per cent of the teacher development costs

Paradigm shift: getting education to the learners

547. Subject to these two provisos, diversity would require first a 'paradigm shift' in thinking about educational provision. The current dominant paradigm is largely supply driven: "*getting learners to come to school or class*". The complementary paradigm is demand focused: "*getting education to reach the learners*". That would entail looking at where the learners actually are, negotiating with them or their families what they would accept as worthwhile education, and examining how best to arrange it within the possibilities of the learners' environment, means and commitments. This second paradigm already operates in adult education – for example, in the REFLECT approach described in the Burkina Faso case, and now practised in many more countries. It also operates here and there for children, for example, in the 'Save the Children' work in Mali, in Nigeria for some of the children of nomadic and fishing communities and possibly in the COBET pilot for a few communities in Tanzania. In these instances, education is organised in places and at times that children can manage easily.

548. Such a shift in approach would likely foster or even demand an openness to what has been called 'mutual learning' or 'non-formalizing the formal while formalizing the non-formal'. A good example of what is meant has taken place in Burkina Faso, where non-governmental agencies have led the way in demonstrating that using the local language as the medium of instruction so far from hindering effective learning in primary school actually promotes it. The classes are non-formal in the sense that they are not part of the ordinary system of public and private schools, but entirely formal in the systematic way they structure the curriculum and learning. Their results are moving the school system to reconsider the current language policy.

Box 21 An Integrated Approach Banma Nuara in Burkina Faso

In 1992, the Tin Tua Association entered the 30-year struggle in Burkina Faso to develop a system of education that would be relevant for all age groups in the country. It began with just some 40 adults who had mastered literacy in their own language and wanted to learn basic French. The results of the first eight months encouraged further development into three branches: one for children aged 7-9 years, the second for youngsters aged 10-15 years and the third for adults aged 15-30 years.

Branch 1 (7-9 years) opened a 'satellite school' of three classes and offered five years of systematically bilingual schooling using the local language and French.

Branch 2 (10-15 years) offered a course of 20 months in four sessions each of five months. Its students acquired a normal basic education plus two future options: either to start earning a living or to go on to secondary education.

Branch 3 (15-30 years) ran a centre for multi-sectoral training. It offered instruction in French as well as in specific technical skills and aimed to equip the villages to develop themselves within the framework of decentralisation.

By 2002-03, the three branches had a total of 1,053 learners, with gender parity ratios for enrolments at.73 for Branch 1,.56 for Branch 2 and.21 for Branch 3. The completion rates were high at 87.4 per cent overall, while the 'success' rates of the completers averaged 65 per cent. However, for those who tried for the Primary Education Certificate, the results were even better: 70 per cent for Branch 1, 94 per cent for Branch 2, and for the 36 candidates from Branch 3, it was a full 100 per cent.

A UNICEF study of the 'active bilingual approach' has moved the Ministry of Basic Education and Literacy to adopt the method for its 'satellite schools' and Centres of Non-Formal Basic Education. It now deems the Branch 1 schools to be primary schools, provides teaching materials and welcomes their teachers to its refresher courses. On the community side, a strong demand for Branches 2 and 3 has sprung up, for their value in local capacity building is clear.

The one problem that Tin Tua has not yet solved is the instability of its teaching force. The root seems to be the low salaries that Tin Tua has to offer.

549. However, this paradigm continues to be a marginal option, most often only of secondary interest to the main ministries of education, their decision-makers and perhaps particularly to the influential bodies of state-employed career teachers. At best, it is regarded as a temporary expedient, to be used only until all learners can be brought to fit into proper schools.

550. To develop a more concrete vision of what "diversity within an integrated system" might entail, it might be helpful to start with a reminder that the core of effective learning and education is of course a learner, who is willing, interested, committed and able to learn. Although many learners can operate independently, most, whether adults or children, tend to thrive more efficiently and effectively, if they enjoy the attention and

assistance of a competent guide or teacher. This is the second element of a learning system. The third is social support, either in the form of sponsorship by family members, sometimes with pressure and even coercion, or in the form of encouragement by friends, respected persons in the neighbourhood or government and other agencies. These elements apply to both adults and children. The fourth element comprises the content, methods and materials to help make the learning engaging and effective and to reinforce it. The discussion will now consider options for *"getting education to reach the learners"*.

Committed learners

551. The experiences in the country cases have shown that demand for education exists among families for their children – and, it can be added, among young and older adults whose right to education has been either wholly or partially frustrated. It is usually strong and widespread, and demonstrates itself effectively, as soon as a credible, affordable opportunity for education becomes available. Although there are also people who have no interest in education and may even oppose it, they tend to be few and to form a dwindling minority. Table 17 uses data from the study of PAPF Women's Literacy Project in Senegal to illustrate the strength of demand for education among unschooled and partially schooled adolescent and adult women as well. Notable is the rapidity of the increases in enrolments. Table 18 follows to make the point – for both PAPF and for another programme, CAF/PAPA – that increases in quantity do not necessarily entail declines in quality and effectiveness. On the contrary, the two programmes in Senegal suggest that experience can engender increasing competence, quality and effectiveness.

Table 17 Senegal PAPF – Enrolments 1996 through 2001

Cohorts*	**1995-97**	**1996 – 98**	**1997 – 99**	**1998 – 2000**	**1999 – 01**
Number of agencies contracted to organize classes	77	135	155	189	404
Number of learners enrolled	23,100	58, 736	90, 181	109, 711	203, 006

*Each cohort undertook a 2-year course

552. Also to be borne in mind for later comment is the increase in the number of agencies contracted by the government to organize classes in rural and urban communities.

Table 18 Senegal PAPF and CAF/PAPA – Percentages of learners who succeeded in the end-of-course tests for reading, writing, arithmetic and functional knowledge in 1998 and 2001

Programme	% learners who can read a written text fluently	% learners who can write a simple meaningful text	% learners who can solve in writing a simple arithmetical problem	% learners who have theoretical mastery of 'functional' subjects
PAPF* 1998	55.7	28.3	5.7	50.0
CAF**/PAPA*** 1998	61.5	35.8	16.5	50.0
PAPF* 2001	75.2	63.3	44.1	85.0
CAF**/PAPA*** 2001	68.2	52.8	38.7	67.3

PAPF = Projet d'Alphabétisation Priorité Femmes = Literacy Project, Priority Women
CAF = Classe d'Alphabétisation Fonctionnelle = Functional Literacy Class
PAPA = Projet d'Appui au Plan d'Action Alphabétisation = Project in Support of the Action Plan for Literacy

553. Analogous data from countries like Botswana, Kenya, Malawi, Tanzania, Uganda show similarly strong demand among children for education: when their governments abolished fees for primary school, enrolments increased so rapidly as almost to overwhelm the schools. Yet countervailing factors – poverty, the need for children to work or to care for their families, the distribution of populations across rural areas, the patterns of livelihoods of different groups of people – all present problems of access, quality and equity. However, the country cases suggest that none of these problems is insurmountable, if the will to surmount them exists.

554. Therefore, if the conditions are reasonably negotiated with the learners and their supporting community, and if the instruction is competent, interesting and adequately serviced with materials, initial demand can translate into sustained attendance and completion by two-thirds or more of the learners, whether they are adults or children – the COBET project in Tanzania, admittedly small and only a pilot, had a 90 per cent course completion rate for boys and an 89 per cent rate for girls. Indeed, the current circumstances of Africa suggest that some form of integration between children's education and adult education could benefit the quality of both – the point will recur in a moment.

Reliable teachers

555. The problem then lies not in initial demand: interested learners are abundant. Much less abundant is the second element of a learning system, good, reliable teachers. Rural populations, especially when they are small and scattered, or migrants such as pastoralists and fisher people, have always had severe difficulty in organising ordinary schools with ordinary time-tables and in recruiting and retaining ordinary teachers from state teaching services to teach in them. Such communities tend to be very poor and to offer very little by way of amenities such as decent housing, trustworthy water supplies or access to good food supplies, let alone electricity and health services. The difficulties that small population groups encounter in mobilising sufficient numbers of learners to satisfy

current criteria for pupil: teacher ratios have always been compounded by the difficulties of designing timetables to fit the working obligations that very poor families require of their boys and girls, on the one hand, and the working hours and preferences of professional teachers, on the other. Dachi and Garrett (2003.x) note that, in Tanzania "While some teachers are sensitive to the demands made on children, there is little evidence that the system permits them, or trains them, to accommodate their pupils' needs." Such difficulties are of course exacerbated for orphans and perhaps particularly for HIV/AIDS orphans.

556. Nevertheless, several experiences, of which the cases from Mali, Nigeria and Tanzania are good examples, suggest that it is indeed possible to arrange for teachers to reach willing but relatively inaccessible learners. Nigeria has deployed motorised 'boat-schools', each equipped with three classrooms, to seek out and educate the children of migratory fisher families, while it offers motorcycles, collapsible and mobile classrooms and other incentives to attract teachers to educate the children of nomadic groups. Both these initiatives have relied on the usual practice of importing trained or partially trained teachers into the targeted environment and have had to deal with the usual problems of being able to recruit only relatively ineffective teachers and of having to cope with a relatively high turnover among them.

557. The NGO "Save the Children" in Mali adopted a different strategy, more commonly found in adult education. It recruited people from within the local community and culture and attuned to village needs. Even if these recruits were only partially schooled or even only recently literate, "Save the Children" showed that it could train them into being effective teachers. Such people were in fact preferable to professionals posted in from elsewhere in the country and from other ways of life, and ever anxious to escape to a more congenial posting. In partial corroboration, the case from Guinea suggests that teachers can indeed teach well, even if their training is briefer than established custom, but more strongly grounded in actual practice. Although they occur in environments different from Africa, the experiences of Shiksa Karmi in India and BRAC in Bangladesh reinforce this point and are well documented.[57]

558. In these three cases, the need for an economic pupil: teacher ratio was met by organising multi-grade classes, each containing learners of different ages and scholastic attainments. This option for connecting willing learners with effective teachers seems feasible, effective and attractive. However, although multi-grade classes and local, partially trained teachers do address the problems of access and equity, they require considerable constant support to address the issue of quality. Managing a multi-grade class demands from the teacher stronger child-orientation and much more flexibility and resourcefulness. It also requires good supplies of teaching and learning materials. In her 1995 review of such schools, Little found that support was precisely what such schools did not receive.

559. Instead, multi-grade schools tended to exist only among poor, rural communities and to be even less well endowed with qualified teachers, textbooks and other learning aids than the average school. Ministries of education tended to ignore them. Teacher training colleges had no provision for preparing new teachers to deal with multi-grade classes, nor were there even manuals to guide teachers on how to handle sets of children of different ages and different scholastic attainments. The teachers themselves tended understandably to be unhappy and eager to move on to a proper school.

560. Clearly, in the eyes of the educational 'establishment' multi-grade schools are a stop-gap device, to be used and tolerated in the interests of widening access to some

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form of education, until 'real' schools can be made available and accessible. Because of this view by the main authorities in education, the full potential of the multi-grade school as a tool for combining access, equity and quality has not so far been realised. Yet the African experiences above draw more corroboration from Colombia's *escuela nueva,* which also relies on multi-grade teaching and was so successful in its pilot stages that it has dramatically expanded its coverage, been sustained for more than two decades and adopted and adapted in several other countries in Latin America. Nonetheless, the multi-grade school remains an option available for governments to adapt and develop, perhaps less with existing bodies of public service teachers and their unions and more with partners able to operate more flexibly.

The supporters of learners

561. The issue of partnerships can be linked to the third element in effective learning, the moral and practical support of families and sponsoring communities. In the difficult conditions discussed above, this third element takes on a greater importance than it tends to have among urban or larger, more settled rural communities. However, mobilising such support in the first place and then organising and sustaining it is a task that on the whole ministries of education find difficult. A well tried way to supplement the efforts of a ministry and indeed to open up the possibilities of new options in education, has been to allow non-governmental organisations to work out arrangements with local communities. The Burkina Faso report lists several in that country, "Save the Children" offers an example for Mali[58], while FAWE offers three others in Cameroon, Kenya and Tanzania.

562. Further, the country reports suggest that the movement for deconcentration, decentralisation, contractual partnerships and community participation is now continent-wide, so that it would be a matter mainly of identifying sound practices on the ground. Cases from two countries provide good examples. The two accounts from Senegal describe initiatives with schools, communities and local contractors, both voluntary and profit-seeking, while Madagascar has shown that contracts can be arranged with local communities themselves.

563. At this point, however, the problem of adult illiteracy crops up. The accounts from Benin, the Gambia, Madagascar, Mali and Senegal all mention the difficulties of associating parents and community notables in the governance of schools and in support of their children's schooling, when most of the parents and notables are themselves unschooled and illiterate. From a slightly different angle, Ersado's study (2002) in Nepal, Peru and Zimbabwe found that adult education is a significant contributory factor in the reduction in child labour and in improving the likelihood that children stay in school. Further, evidence from many countries, most recently from Ghana (see Huebler and Loaiza, 2003, and Valerio. 2003), confirms that the education of a mother has a strong influence on the schooling of her children, stronger indeed than their father's. Further, the more school education that the mother has enjoyed, the more likely she is to ensure that her children enter and stay in school.

[58] Mali has made spectacular progress on primary enrolments in the last ten years, from 23% in 1989 to 63% in 2002. A new study says that much of the credit is due to an innovative NGO sector – and a set of government policies that have encouraged NGO activity (See Tounkara 2001).

564. But even the experience of an adult literacy class is sufficient to raise the likelihood that a mother will send her children to school, as the data in Table 19 below from Valerio illustrate. The data are in harmony with data from many other countries in Africa and elsewhere. They suggest that investments in educational opportunities for women, who were as young girls unable to take up their right to even primary education, would be productive in ensuring that increasing proportions of their children will be assured of their own rights to education.

565. *Integrating children's and parents' education* – Making this point in the context of a discussion of 'an integrated system' raises the question of the possibilities of 'integrating' the education of mothers – and possibly fathers, too – with the education of their children. In several OECD countries, programmes of "Family Literacy" have been run with considerable success. They have used parents' natural interest in the education of their children to improve both the children's attendance and performance in school and the levels of the parents' own education and subsequent employment.[59]

566. The core idea is simple: parents receive special tuition in basic skills and knowledge, along with guidance in using what they learn to supervise, support and encourage their children in learning at school. The special tuition is negotiated to fit in with the parents' other commitments. In this way, what the parents learn has an immediate application to a purpose that is of course very important to them.

Table 19 Percentages of mothers in Ghana who have sent their children aged 6-15 to school

Mothers grouped by education	Percentage who have sent their children to school
Group 1: Individuals who have NEVER attended either formal education or literacy programmes	73.8 (100.0)*
Group 2: Individuals who have never attended formal education, but HAVE attended literacy programmes	76.2 (103.3)
Group 3: Individuals who started but did not complete primary education and have NEVER attended literacy programmes	89.7 (121.5)
Group 4: Individuals who started but did not complete primary education and HAVE attended literacy programmes	93.8 (127.1)
Group 5: Individuals whose highest qualification is primary education completion	96.7 (131.0)

Source: Valerio (2003) p. 97, Table 1. Data derived from the 1999 Ghana Living Standards Survey

*The figures in parentheses take the percentage for Group 1 as a base 100 and show the data for groups 2 to 5 as rising percentages of this base.

[59] Unfortunately for the discussion, no such programs have been reported, in the framework of this exercise, from countries in Africa, even though they may well exist. In this regard, the cases from Burkina Faso, Mali and Nigeria mention that the efforts for children's education are supplemented with adult literacy centres, but do not state whether there is any systematic connection between the two.

567. Whether the school, the government's adult education authorities or some non-governmental partner, either national or community-based, undertakes the arrangements for "Family Literacy" is an issue to be decided within each country at levels appropriate to each country. The main requirement is simply that the content and methods enable the parents to grasp the connection between what they are learning and their capacity to supervise and promote their children's performance in school.

568. *Diversifying 'Civil Society'* – As mentioned earlier, the community and its leaders are among the important supporters of learners. Included in many communities are small organisations, some voluntary, some profit-seeking, who offer a variety services to their neighbours. The experience of the PAPF or 'faire-faire' project in Senegal – reflected in Tables 17 and 18 above – suggests that they constitute a form of 'civil society', so that the customary connotations of the term need to be expanded. They often seem to designate only the international and larger local NGOs. However, PAPF has shown that these small community-based organisations, both non-profit and for-profit, can quite rapidly acquire the capacities to organise and manage educational work effectively. It corroborates the observation that in many countries "public service providers have dramatically improved the delivery of their services, and have often reduced their costs too, by using small and even micro-scale local community or private enterprises to fill the gap between themselves and their clients" (Harper, 2000. 22).

569. Developing such capacity has required the state and its several partners to make deliberate and sustained efforts to train local leaders and their communities, as well as local organisations and their supporters, in the necessary skills. Senegal's PADEN project is a particularly good example of helping local notables to master the literacy and other skills to enable them to take a stronger and more effective part in local governance. For its part, the PAPF programme equipped a multitude of small local organisations not only to draft credible proposals for contracts, but also to handle financial control and to monitor and assess the outcomes of their efforts. This capacity building both diversifies civil society and strengthens it to branch into broader forms of social, political and economic development.

570. Such initiatives will always encounter difficulties, setbacks and disappointments. Nevertheless, the fact that PAPF could move from agreeing contracts with 77 local organisations in its first year to contracts with 404 such bodies four years later – a more than five-fold increase – points to the potential for governments to develop the capacities of civil society to undertake productive partnerships with them.

571. True, PAPF deals only with adult education. However, similar arrangements were made for the École Communautaire de Base, so that they are clearly possible for the education of children as well. Indeed, the several country cases given in Appendix 4 of the report on Early Childhood Development demonstrate that parents and communities, given adequate support and guidance, are quite capable of running educational institutions for their children. Further, to recall an earlier history, Kenya's long experience with its people's 'harambee' secondary schools demonstrates what parents and their communities can do in education, even when the ministry of education is not whole-hearted in its support, despite the public enthusiasm of the country's politicians.

Conditions for diversification to succeed

'Macro' requirements

572. Getting education to reach the learners, connecting learners with teachers, mobilising moral and other support for the learners and negotiating forms of educational diversification acceptable to learners, teachers and supporters, all necessarily involve a range of stakeholders and partners. Accommodating them within a system that will include the whole of a country and not just scattered pockets of people will require the state to accept the principle of diversity and responsibility for leadership applying the principle in the various contexts that exist in the country. That is the first condition for the success of diversification within an integrated system.

573. The elements of diversification also imply the necessity of a clear and understandable national framework within which each form of diversification fits both on its own merits and in terms of the further opportunities it opens. They also require a range of planning and financing processes and mechanisms that will balance simplicity with accountability. If the mechanisms are too simple, they may be open to excessive abuse. If they are too concerned with accountability, they may prove impossible for local communities to operate competently. The second condition of success then is that state's ministries of finance and education lead the way in negotiating the framework and in designing workable processes and instruments.

'Micro' requirements

574. Those two conditions apply at the macro-level. At the more micro-levels, the lessons and requirements that the Early Childhood Development study lists for successful efforts to benefit very young children apply equally to efforts to diversify the provision of education for older children. Intensive communication between all the parties and clear and clearly understood roles for each are essential for the feasibility of any initiative. The local operational framework has to be derived from the social conditions, strengths, values and the expressed needs and priorities of the community – taking into account that different sections of any community may express slightly different needs and priorities. Community education, mobilization, empowerment, training and mentoring would all be important elements to assure quality and effectiveness.

575. It may be as well at this point to acknowledge that the term 'community education' can – and often must – connote efforts to convince a community of the rightness of a measure and thus connotes advocacy. The prime example here is the case of the Maasai and early marriage for girls in the Kajiado district of Kenya. In workshops for the local chiefs, for instance, FAWE ensured that "the issues of outdated cultural practices of early marriages and pregnancies which hinder girls education were voiced. Other problems identified were lack of community awareness on the importance of education, specifically that of girls, and lack of community mobilization and participation in the process of educational planning, and implementation within their localities." Concomitant with these challenges to custom and culture, it has to be noted, were measures for reconciliation and healing: the chiefs undertook to see that the girls, who had rebelled against an early marriage because they wanted their education first, would be reconciled with their families.

576. Community education also clearly connotes forms of training for official leaders, like the Maasai chiefs of Kajiado or the council members participating in PADEN in Senegal, as well as for parents and the general public. In addition, as noted earlier, it connotes training for the kind of diversification of civil society that the Senegal PAPF programme has stimulated.

Evaluation

577. To this formidable list of requirements, a system of monitoring, evaluation and research must be added. Long experience around the world has shown that such a system is exceedingly difficult to install and operate reliably. The following quote from Torres (2001, p.57) illustrates the situation. "Documenting and evaluating are not part of the education culture, and are generally left to external actors and/or are done to comply with external demands (typically, those posed by financial relationships). Accounts are often descriptive, rather than reflective, analytical or evaluative, and tend to show success, mainly to respond to external expectations and criteria". A recent and as yet unpublished review of the World Bank's experience over 25 years in supporting innovative education projects confirms Torres' perception.

578. The difficulty has meant that the quantities, quality and reliability of information on the usual range of indicators and costs have usually been lacking, as many of the cases for this volume attest. Their lack has in turn made it more difficult to substantiate arguments for more resources with which to establish pilot work on a more permanent basis and to take it to scale. Indeed, this lack likely constitutes a major reason why the multitude of promising experimental and pilot projects do not 'come together' to transform school systems and why 'wheels' seem to be re-invented so often. Nonetheless, the need for credible monitoring, evaluation and costing remains. If educators persist in addressing it inadequately, efforts at innovation, reform and diversification will continue to meet resistance and likely remain small in scale.

Costs

579. To press the point further, the issue of costs requires a special note. Torres above touches the matter, while four recent studies by the World Bank have all found the accounting for costs unsatisfactory.[60] As is known only too well, ministries of finance and of education are severely constrained for resources to satisfy the range of ever increasing demands. They are also heavily dependent on securing the support of donors. If they cannot be reliably assured of the benefits that will flow from an innovation or reform and what those benefits will cost, they cannot be faulted, if they hesitate to adopt the innovation system-wide.

[60] "Adult Literacy Programs in Uganda". 2001.96; "Basic Education and Livelihood Opportunities for Illiterate and Semiliterate Young Adults". 2001.14; "Skills and Literacy Training for Better Livelihoods – A Review of Approaches and Experiences". 2002.39; "Review of World Bank Operations In Support of Adult Basic Education with Literacy In Indonesia, Ghana, Bangladesh, Senegal, and Côte d'Ivoire, 1977 - 2002" (2003 forthcoming).70

Communication and dissemination

580. In addition, whatever is gleaned from monitoring, evaluation and research needs to be channelled into a system of feedback and communication. Ideally, it would flow from the schools, other educational vehicles and communities towards the decision-makers and financiers and then back to the communities and educational institutions.

Conclusion

581. *Common standards, local variations* – By definition, diversification requires the recognition that, although there is a set of necessary common elements to undergird an initiative, as well as a set of standards to which it must be accountable, there can be no single pattern for getting education to the learners. Parents, professionals and the community – and, where appropriate, the prospective learners – should all be involved in deciding on the most relevant and affordable options. The task that may prove the most difficult to resolve is the recruitment, support and retention of good, reliable teachers, even if the stakeholders accept that local men and women can be found and trained for the job. Substantial investment may be required for training, refresher training and technical support, as well as for incentives to avert a potential 'brain drain' of new teachers now aware that they can seek better opportunities elsewhere for their families and themselves.

582. Negotiating the curriculum will have to offer assurances that what will be taught will be fully equal to what is taught in the main educational system, whether of schools or of further education. But it may also include incorporating local or traditional knowledge, particularly if that can enhance the skills and productivity of the older – 11-14 year-olds – working children. In this regard, it is worth noting two warnings. First are the experiences of the agricultural schools in Burkina Faso and the Continuation Schools of Ghana: skills apparently relevant to the local community and economy did not find favour with most of the intended learners, their families or communities. Second, the small pilot effort of COBET has found that even the several curricula negotiated with the learners proved insufficient for the variety of contexts in Tanzania. The curriculum could also include contributions from parents and community members and appropriate recognition for them, although the history of Ghana's 'continuation schools' suggests that proposals along these lines might encounter queries and possibly resistance from professional teachers.

583. Alongside the curricular aspects of education, initiatives for diversification should ideally consider services that address local conditions affecting children's health, nutrition and cognitive development. If many – or even some – of the participating families are too poor to assure their working children sufficient food to avoid exhaustion before a learning session, the initiative should consider options for feeding programmes. This consideration would be particularly important for initiatives that aim to benefit orphans and children caring for sick parents. In addition, devising links into existing services such as health, forestry, veterinary and agriculture could enhance the quality, relevance and direct usefulness of what is learned.

584. As suggested above, the initiative should also explore options for integrating or at least linking the education of children to the education of their parents and possibly other adults, too.

585. This list of requirements serves to underline a sentence earlier in this sub-section, "Community education, mobilization, empowerment, training and mentoring would all be important elements to assure quality and effectiveness." It also serves to underline that the capacity building implied in that sentence in its turn requires the pre-

existence of the capacity to build capacity. Training teachers in new and diversified approaches similarly requires teacher trainers who know how to implement the approaches and how best to enable others to adopt their example.

586. Persons, who are accustomed to think in terms of the state providing all services, might infer that these requirements involve expanding the state's training facilities and personnel; and thus increasing the state's long term commitments to salaries, benefits and pensions. On the other hand, thinking in terms of diversification could generate at least one other option that would offer the state more flexibility and lower the risk of long term unproductive entanglements: the state could contract out the tasks of building capacity and challenge the voluntary and private sectors to undertake the tasks.

587. These series of requirements and pre-requirements make it only too clear that promoting diversification is not an easy option. That may be part of the explanation of why ministries of education and professional teachers tend to prefer to stick to the customary paradigm of providing schools and leaving the learners to make their own way there. The requirements also help explain at least partially why initiatives such as Nigeria's programmes for nomadic and fisher communities and those described in Burkina Faso develop slowly and even after a decade and more still reach only minorities of the children and adults they strive to benefit. It is of course also possible that the people promoting an initiative omitted to prepare a strategy for expansion and to develop mechanisms and processes to assess the effectiveness, attainments, longer term effects and costs of their work. In short, they may have neglected to generate the information that could equip them to substantiate arguments for expansion, general adoption and integration into the national system of education.

CHAPTER 10
MANAGING THE IMPROVEMENT OF EDUCATION

588. In most countries education has until recently been managed through highly centralized systems. Most functions are carried out directly by officials of the Ministry of Education or by officials posted at the regional, district or school level acting on the basis of detailed instructions issued by ministry officials at the national level. This often results in inefficient application of resources, inequitable provision of access and unacceptable differences in quality of instruction and learning achievement between rich and poor, urban and rural and boys and girls and has thwarted progress towards the EFA goals. In response countries have begun to implement changes in the way education is managed by decentralizing functions and resources, diversifying service delivery modes and transforming the role and responsibility of the central services. This chapter reviews the evidence on the experience with these changes and with the associated need for institutional development and capacity building. In addition to reviewing progress, it identifies constraints that have hampered progress, and the challenges that countries will need to address to make management of their education systems more effective.

Decentralization of education in Sub Saharan Africa

589. In the last decade, decentralization has become the dominant instrument for improving the management of public services in SSA. Central governments are decentralizing fiscal, political, and administrative responsibilities to lower-levels of government, local institutions, and the private sector in pursuit of greater accountability and more efficient service delivery, often in an attempt to solve broader political, social or economic problems (SARA, 1997). Education decentralization and management reforms in SSA are usually embedded in these larger reforms. Despite the considerable support for and the near universality of decentralization policies, there are on-going debates about their impact, which makes it imperative to better understand the extent, pace, and consequences of education decentralization in SSA (Ndegwa, 2002).

590. SSA countries from Ethiopia to South Africa have engaged in some form of education decentralization, though the pace has been quite uneven. Ethiopia, Uganda, Senegal, and South Africa, for example, are proceeding fast, while Ghana, Mali, Tanzania and Zimbabwe are under way more slowly. Guinea, Niger, Zambia and Nigeria are at the other end of the continuum. As discussed below, most education decentralization initiatives begin with ***administrative deconcentration*** but the more successful ones are complemented by efforts to increase school level autonomy and move towards ***school-based management***, provide direct financial support to schools through ***school grants*** **and** ***involve communities*** in the management of the schools.

Accelerating Administrative Deconcentration

591. Education decentralization reforms in SSA have revolved around attempts to restructure centralized education bureaucracies and create devolved systems with different administrative levels, varying degrees of institutional autonomy and forms of school-based management. The process has also involved a transfer of some form (and degree) of authority from central governments to: 1) provincial, state or regional entities 2) to municipal, county or district governments) and, 3) to schools. Devolution, and the distribution of authority to make decisions and to take action by local governments or local communities independently of central administrative oversight, appears to occur less frequently than deconcentration, where local entities act largely as the local agents of central governments, manage personnel, and expend resources allocated to them by central authorities.[61] There is greater deconcentration in Ghana, Nigeria, Niger, Tanzania, and Zimbabwe and more devolution in South Africa, Uganda, Senegal, and Mali for example. While the motives for decentralization are numerous, disparate, and often, contradictory, most education decentralization efforts, have been motivated by political, administrative, and fiscal considerations. Motives include: increasing efficiency, accountability, democratization and community participation; becoming more responsive to local needs; mobilizing resources; and devolving financial responsibility (McGinn and Welsh, 1999). The CEF Program in Tanzania (see box 23) demonstrates the multiple motivations in practice – it involves communities in school management and attempts to mobilize resources.

592. Education decentralization is a complex process that can result in major changes in the way education systems are organized, make policy, generate revenues and spend funds, manage schools, and develop and deliver the curriculum (Fiske, 1996). The main shifts in management functions across SSA, (See Appendix 1 and 2, for a specific functions that have shifted by level) appear to be administrative, mainly the deconcentration of responsibilities from the central government to intermediate levels. Different management functions that are being distributed, to varying degrees, among the levels of the education management system include functions such as: organization of instruction (textbooks, teaching methods, curricula, schedule); personnel management (hiring/firing, pay, assigning teaching responsibilities, pre – and in-service training); planning and structures (school openings/closings, course content, school improvement plans); resource management (expenditures, budget allocations); and, monitoring and evaluation (inspections and supervision, examinations). Ultimate curriculum authority, personnel management and financing responsibility remain firmly located at the center in most countries whereas the responsibility for providing the service is actually moving down into the system. This partial transfer of responsibility reflects a desire to ensure that national educational development goals, and equity objectives remain under the purview of the central authority. Yet current initiatives represent important steps in shifting educational decision-making closer to the locus of action. Deconcentration and/or devolution reforms of the last ten years have: strengthened the autonomy and decision-

[61] Based on Rondinelli's conceptualization of decentralization, deconcentration, delegation and devolution have been applied to the form or functional dimension where: deconcentration refers to the transfer of planning, decision-making or administrative authority from the central government to its field organizations and local units, local government or to non-governmental organizations; delegation refers to the transfer of some powers of decision-making and management authority for specific functions to units or organizations that are not under direct control of central government ministries; and devolution refers to the transfer of authority for decision-making, finance, and management to quasi-autonomous units of local government such as municipalities that elect their own mayors and councils, raise their own revenues, and have independent authority to make investment decisions (Cheema and Rondinelli, 1983; Rondinelli, 1981 and 1999). See Appendix 1 for a typology of education decentralization in SSA.

making power of many schools, encouraged the development of local leadership and administrative competence, introduced effective methods for community participation; improved capacity and systems to monitor and assess performance; and, in some cases, changed funding and financial management.

593. Problems that have slowed this process include limited resources, bureaucratic resistance, low capacity of local government, and lack of consultation and coordination between different levels of government. In several countries sub-regional or district offices have failed to fulfill their mandates owing to lack of adequately trained personnel, essential resources, and the absence of administrative systems and controls, overwhelming multiple demands, and lack of clear definition of roles. Moreover the effect on equity has been mixed. In some cases the distribution of funds between regions has become more equitable and additional resources have been targeted towards marginalized groups. However, differences in learner expenditure between well off and disadvantaged remain or have widened.

Towards School-Based Management

594. *School-Based Management* (SBM) is the farthest going form of decentralization and one that is adopted by an increasing number of countries. Several education decentralization initiatives (e.g. Uganda, South Africa, and Senegal) have focused more directly on educational management reforms at the school level. Schools in SSA are expected to become increasingly self-managed, and make decisions regarding curriculum, budget and resource allocation, and staff and students (Abu-Duhou, 1999). SBM is expected to improve the quality of teaching and learning by locating decisions closer to the school providing for sensitivity to local conditions and allowing teachers to design education programs to meet local needs and to support improvement in learning. At this point, in SSA, it includes a variety of initiatives that enable school – or community-based structures to assume powers related to school and educational decisions more broadly.[62]

[62] Community involvement is dealt with more directly in the next section.

Box 22 Uganda : Devolution of financial management to school management committees

At the heart of the decentralization process in Uganda is the question of resources. Before decentralization, the central government decided how funds were to be utilized and remitted them directly to the department in the district, with the district authorities having no control over their use. With the UPE policy, school fees levied on parents have been abolished and the schools receive a UPE capitation grant from the Government. Uganda's grant system is calculated centrally and released as a conditional block grant to districts, which in turn, release all funds to schools on the basis of enrollment. The ministry has also released guidelines to schools for allocation of funds, for example, 50% for scholastic materials, 5% for administration, and so on. The grant system provides about $4 per child per year for children in grades one through three and $6 per child per year for children in the next four years. The government pays teachers' salaries and textbooks, but the grants are used to fund other school needs. The School Management Committee manages the money at school level. Improved financial management depends on training and sensitization workshops for all the actors to appreciate the structures and guidelines of record keeping, and accountability. The program aims to provide: (1) full community participation and decision making without making unrealistic and unfair demands on the poorest (2) decentralized procurement which maximizes use of the local expertise and, (3) targeting the poorest communities through a system of ranking and prioritizing neediest schools.

At first there were problems with grants reaching schools in time, and parents' perceptions that they were not adequately involved in the SMC. To address this amounts received from the district office are posted publicly in the school and any parent or community member of the community can access the records of how the money is spent. Regular audits also ensure that the funds reach the schools and are utilized for the purposes intended. Key problems that remain include: sharing information about allocations at all levels of the system; supporting school management committees; and lack of adequate funding to overburdened district education offices. Despite these problems Uganda's UPE Program and SMCs have provided an effective means for the participation of parents in democratic decision-making in education.

School grants

595. Within the context of school improvement in a context of education decentralization, school grant funds have become a popular mechanism to increase the involvement of school and community stakeholders in decision-making. Money is sent straight to the school to fund proposals designed to support the improvement of education through inputs such as infrastructure, equipment, teacher development etc. In reviewing 37 school grant programs (16 of which were in Africa), Roberts-Schweitzer et al, (2002), found that the grant mechanism was an enabling instrument for creating conditions that can lead to a responsive education system, acting as a catalyst for change and empowerment. Positive outcomes include: devolution of decision making power to the local level; addressing democratization and accountability through the empowerment of school management committees or local government structures; responding quickly to crisis situations where funding may be absent and local administration is weak; and, ensuring sustainability of investments through local involvement. They also emphasize that grant schemes, which contribute to capacity for improved teaching and learning, should improve the overall quality of education. Tanzania's CEF Programme is an example of a school development program implemented in the context of decentralized management, which employed matching grant financing. It initially encountered a number of problems that were later rectified by better targeting. The CEF is now submerged into the overall capitation grant scheme being used in pursuit of quality improvements in the education system.

Box 23 Tanzania: The Community Education Fund (CEF) [63]

The Community Education Fund (CEF), a principal component of the Human Resources Development Project (HRDP) was introduced in 1998. The program expanded from 372 schools in 1999 to 1642 across 16 districts (reaching approximately 685,000 students) in 2001. The CEF matches funds mobilized at the community level with a government grant, to support implementation of a school plan developed by the community, in collaboration with the school staff. While the CEF was quite successful from the outset, it became soon clear that the poorest communities and weakest schools were not being reached, mainly due to: the inability of poorer schools and communities to generate funds needed to receive the matching grant, weak school management, inexperienced community organization, and bureaucratic rigidity in matching community contributions. To address the problems, a more flexible approach was adopted. The Ministry of Education in collaboration with the districts developed criteria to target the economic poorest and organizational weakest communities for matching funds. District councils were required to set aside funds for the weakest schools to attract matching grants at a slightly increased ratio (1:2, 1:3 etc). Out of a total of 1642 CEF schools, 151 weak schools were identified affecting with district council pledges amounting to some Tshs. 97,514,000 (about $100,000). This is about Tshs 500,000 per school ($500), but in some instances amounting to as much as Tshs 5 million (or $5000). For example, in a weak school in Kibaha, Kipangege school, parents raised $133, the district council (DC) then provided $2000 which was matched by the CEF at a 1:2 ratio totaling $4200 from which the community is constructing 2 teachers' houses, has purchased 20 desks and office materials.

The Project Status Report presented by the Government of Tanzania in July 2002, identified the following achievements of the CEF: (1) Increased Parental involvement and contributions: unit contribution per pupil increased from 1,115 Tshs in 1996, to 3,007 Tshs in 2000; (2) Increased Enrolment: gross enrolment for CEF districts increased by 30% between 1998-2001, and 15% for non-CEF districts; (3) Improved attendance: from 82% in 1998 to 93% in 2001; (4) Improved student achievement: from 20% of students scoring A-C in PSLE in 1996, to 35% in 2001; and (5) Reduced drop-out rates: from 2.4% in 1995 to 1.5% in 2001.

Despite its successes, it is clear that even with additional support the poorest communities and weaker schools struggle to implement their plans. Targeting the poor tended to be over-generalized, and should have been aimed at specific poor communities and not the entire district

[63] This account of the CEF Program is based on a World Bank Memoire: TANZANIA Human Resources Development Program (HRDP) I Supervision Mission December 12 - 18, 2001, and communications from World Bank staff including Donald Hamilton, Adriana Jaramillo, Rest Barnabas Lasway, and Soren Nellemann

596. Experience with grant schemes in SSA emphasize that certain basic implementation issues, and equity concerns in the distribution of funds and use of community contributions have to be addressed. The experience in Tanzania, Guinea and other SSA countries indicate that particular attention should be paid to design and implementation issues such as: a) Sufficient technical assistance and time for weaker schools or regions to fully benefit and compete on an equitable footing for funding; b) Monitoring of learning outcomes; c) Weighing the appropriateness of community contributions and regarding them as a substitute for government funding; d) Inequities in the distribution of grant funds; d) Level of implementation capacity. Given these caveats, grant schemes should be part of a broad government reform strategy aiming to ensure a basic management capacity and supply of resources for all schools.

Community involvement

597. Africa has some of the world's strongest communities, yet education delivery takes place primarily through functionally and physically remote government structures. This situation prevails despite growing evidence from community based approaches are receiving greater attention in a context where most communities are rural, dispersed, isolated by poor physical and communications infrastructure, and have heterogeneous needs and priorities. There is growing recognition that local initiatives, which bring the school and community closer together, can generate a sense of ownership, enhance accountability, and ensure that content, scheduling, and educational requirements are accurately identified and adapted to local conditions. In the process, community support for education can play a central role in efforts to raise participation rates, and improve school retention and learning outcomes (Watt, 2001).

598. Community participation ranges from familiar forms of support – such as community involvement in construction – to more active involvement in management, planning, and learning. Community participation in SSA is not only many faceted, and the ability of communities to participate in and support education varies widely, its impact is often uneven. Some well resourced, highly motivated, and cohesive communities are single-handedly financing and managing education on an ongoing basis. Other communities lack the resources to make anything more than a minor contribution to the costs of education, or are unable or unwilling to work together (Watt, 2001). Parents/Students' Associations (PAs/APEs), nevertheless, constitute one of the most striking features of the community's participation in basic education schooling. In Mali, NGOs are supporting the operation of the Centers of Education for Development (CED), while the community, which sets up a management committee, pays teachers. In Guinea, a seven-person management committee, designated by the community, oversees the NAFA centers, or second-chance schools for 10 to 16 year olds not in regular schools. The management committee ensures the provision of premises and the enrollment of 60 to 90 children, and is responsible for payment of the organizers (Niane, 2003). In Senegal as part of the "*Faire Faire"* strategy, community schools are playing an important role in providing greater access to education for at risk youth.

Box 24 Local Community Schools (ECB) in Senegal

These were initiated in Senegal in 1992/1993 by two NGOs ADEF-Afrique and Aide et Action, and were subsequently adopted in 1996 as a basic component of the alternative models tried by the Ministry responsible for alternative education programs. They are currently in use by a number of operators subsidized by the Ministry and a large number of NGOs, including PLAN International, RADI, etc. They target youth aged 9 to 15 who were never enrolled in school (and are illiterate) or who left school early (school dropouts and others not enrolled). There are three goals of the pedagogical approach used: the integration of young people into socio-economic activities in their environment; continuing secondary school study; and, pre-vocational training or integration into certain jobs. The model is based mainly on: (1) The design and self-management of the school by the local community (2) The inclusion of children aged 9 to 15 who are not enrolled or have dropped out, in particular girls, for a 4-year educational cycle, the equivalent of six years of elementary school (3) The use of national languages as the main language of instruction and French as a second language (4) Support for the "basic adolescent education" program by the "adult literacy" program (5) A coordinated "parents school/children's school" approach, and (6) The use of learning methods focused on promoting the environment.

599. In a review of community participation in Benin, Cameroon, Ghana, Mali, and Togo factors that were identified as having an impact on community participation include: a positive perception of basic education; regular and stable household incomes; a history of social mobilization, community organization and leadership; educational involvement beyond financial contributions; external support and development mechanisms in the community; the presence of community role models whose social status derives from their education; community involvement in the decision-making process; government aid and abolition or regulation of school fees; high student achievement, and communication among the MOE, communities, and school staff. On the other hand, community participation was seriously hampered by: poverty; illiteracy; lack of jobs for school graduates, and, ignorance of the concept of free schooling (ERNWACA *et al*, 2002).

600. Community schools are particularly important in terms of greater community participation and decentralization. International and local donors and NGOs (some with governmental partners) support a variety of community-school models in Benin, Burkina Faso, Chad, Ethiopia, Gambia, Ghana, Guinea, Kenya, Malawi, Mali, Somalia, South Sudan, Tanzania, Togo, Uganda, and Zambia in attempts to achieve universal access to basic education and to improve quality. The two main community school models[64] in SSA are: (1) Creating new, community-managed schools, or (2) strengthening community management to revitalize existing public schools. For newly created schools, there are those that resemble public schools (in curriculum, textbooks, schedule, exams, teachers, teaching styles, supervision, etc.) and those that function as an alternative system in all or any of these areas. Community schools are seen as cost-effective (comparable or even better instructional services for less money) and community participation is expected to improve educational quality and student achievement.

[64] The kinds of community schools that this chapter focuses on in the context of community involvement and decentralization are community schools that have a connection to the public primary education system to distinguish them from those community "schools" that form part of non-formal education.

Community schools have contributed to: increased access, enrollment and quality of education; improvements in gender equity; more relevant curriculum; improved attendance and promptness of teachers and students; improved infrastructure; increased government or external support; better government-community relations and partnerships; more effective parents' associations or PTAs; and, communities and parents that are more involved in education (Miller-Grandvaux and Yoder, 2002).

601. The types of community schools and government relationships to community schools vary from country to country. In Zambia there are over 700 community schools that are the result of the population's desire to send their children to nearby schools, which are less expensive and less rigid than traditional schools. These schools are open to under-privileged children and place emphasis on the acquisition of the basic principals of reading, writing, arithmetic, and relevant life-skills. In Mali, 10 percent of primary children are enrolled in community schools, many of which resemble public primary schools. Transforming community schools into those administered by local communes (local government offices) and receiving communal funding is part of the educational decentralization process in Mali. Community schools or *écoles d'initiative locale* (EDIL) in Togo, make up about 20 percent of all primary schools. Although the *écoles communautaires de base* (ECB) in Senegal are part of non-formal education, students who graduate from ECBs can move into the public system. Many community schools exist in Ethiopia and local officials are increasingly involved in community school programs. *Ecoles spontanées* in Chad are created and financed by village communities where there are no public schools (Miller-Grandvaux and Yoder, 2002). However, many of the schools are often under-funded, of low quality and a poor substitute even for under-performing government schools.

602. For community support to education to realize its full potential, several key conditions must be in place. All the education stakeholders involved – communities, government, teachers, and often NGOs – must accept the need for change, and be prepared and able to listen, learn, and collaborate. Governments need to ensure that in all schools the basic conditions for effective learning can be met and that community efforts add to, rather than substitute for what has been provided though public funds. Equity and quality objectives can be met only if this is recognized, and acted upon to ensure that communities participate effectively in education development across SSA, There must also be recognition that community support is a process in which risks as well as rewards need to be shared. In Madagascar the contributions of each party are formalized in a program-contract (See below). In many cases, sustained capacity building efforts are needed before communities can participate effectively. Some communities may lack the skills and confidence to contribute to school management, while others may lack the cohesion and experience of working together to reach collective decisions. The focus should always be on building a skills base at the administration, school, and community levels that ensures engagement with the school over the long term. Where these conditions are in place, communities are likely to make a full and effective contribution to education (Watt, 2001).

Box 25 The Program Contracts (PC) in Madagascar

Program contracts have been tried out in particular in Madagascar and are based on local traditions of agreement and commitment.[65] The strategy is based on a bottom-up, participatory approach with the steady empowerment of the community and its increasing involvement in the life of the school. The community is responsible for identifying its education needs. Each contract (which is a school project that defines each party's tasks and responsibilities) in principle concerns five parties: the village community, the teachers, the school principal, the school district ("CISCO") and the support project. Out of the 12,330 public elementary schools operating in Madagascar, about 4,330 (34%) have adopted the program contract approach. These are broken down into 63 "CISCO" (56% of 111 districts). Parents and the community have become more aware of their role and power in a fruitful partnership, which is reflected in improved follow-up of pupils by the families, who contact teachers more frequently.

The Madagascan experience indicates that successful scale up of the *Program Contract* approach requires: mobilization to create awareness of the importance of schooling and provide information to communities; adapting *Program Contracts* to the realities of the local and/or regional context; clearly defining the roles and responsibilities of each contracting party; drawing on existing local structures to ensure contracts are met and the management (of money and supplies) is transparent; setting up monitoring systems that include administrators, school personnel, and community members; and, a participatory approach to support community skills and motivate contracting parties at community level so as to encourage them to honour their commitments (e.g. providing classrooms in good condition, material for teaching and training, and enough qualified teachers).

Diversification of education provision

603. National, regional, and local education authorities have an obligation to provide basic education for all, but they cannot be expected to supply every human, financial or organisational requirement. With public funds for education stagnant or shrinking across SSA, achieving the "Education for All" goal of universal quality education faces severe constraints. New and revitalised partnerships at various levels can help meet this challenge – partnerships between government and non-governmental organisations (NGOs), the private sector, local communities, religious groups and families. With the demand for education outpacing supply, the gap has been reduced through partnership arrangements, private provision and alternative delivery systems.

[65] In Madagascar, the "dina" is an oral or written agreement made between community members (fokonolona) and is accepted by all the contracting parties as having the force of law, with sanctions (social or financial) for any breach.

Private provision

604. Private schools found in most SSA countries are expanding given the state's difficulty in ensuring adequate provision. For example, Côte d'Ivoire now put 60% of its secondary schools in private hands, a trend the government actively supports through the provision of financial incentives. Furthermore, in a number of countries the demand for private provision is growing as more and more "clients" (parents) perceive those schools to have better quality and accountability. SSA experience with private schools is of some importance a broader strategy to diversify sources of funding and service provision and enhance school autonomy. It is in fact a form of "*stakeholding*" – of building loyalty among partners who receive a specific targeted service (Niane, 2003). Studies have indicated that private schools: are more likely to use local decision-making power to improve learning conditions; generally outperform public school students on standardized tests; and, unit costs of private schools are lower than public schools (Jimenez et al, 1991). Experiences with private provision can suggest how gains in public school efficiency and effectiveness may be achieved by adopting successful management practices employed in private schools (Republic of Gambia/DOSE, 2003).

Alternate Provision: Partnerships and Outsourcing

605. Outsourcing, i.e. contracting external providers is another way to involve the private sector. It is usually done through a bidding process, where the winning group enters into a contract with the responsible government agency to set up and implement a subproject within a larger program. In education, outsourcing has been used to implement services such as school transport, canteen, cleaning, and maintenance, and to set up infrastructure and support programs (Nordtveit, 2003). Many argue that outsourcing services is preferable to government-implemented programs not only because specialized providers are more efficient, but also because the services provided are user-friendlier, since the providers are often community based and can interact with villagers to provide services that are based on actual demand and need. This approach is described more fully below in reviewing the *Faire Faire* strategy used in Senegal.

Box 26 Senegal: The "Faire-Faire" strategy

In 1991 Senegal developed a policy and action plan to address the challenge of increasing access to education while paying attention to quality. It included greater participation and empowerment of grassroots actors through a "faire-faire" (outsourcing) strategy, designed to bring about a partnership between government and civil society organizations, by decentralizing the delivery of education and diversifying the providers. The government retained responsibility for regulating providers, coordinating, monitoring and evaluating program implementation, and mobilizing and allocating resources. Civil society organizations became responsible for designing and implementing programs, building community capacity and action-research focused on learning improvement. Communities participated in identifying needs, and taking part in and developing local arrangements for management and follow-up. Diversifying the educational supply involved more than a dozen adult functional literacy programs and alternative models for young people's education, which have made it possible to enroll more than a million learners. About 20 billion CFA francs in new funding were obtained for the sector. The literacy rate increased from 31.1% to 53.9%. Based on its openness to the local environment and to pedagogical change, "faire-faire" has made it possible to provide basic training opportunities responding to community demand, facilitate the introduction of national languages into elementary school, and integrate education and training programs into local development plans.

Key lessons from this experience include: (1) The development of partnerships should be include coordination, support, sharing and participation (2) The formal frameworks for cooperation constitute the basic tools of the partnership and guarantee success (3) It is essential to build capacity and provide technical support to providers and communities, and (4) Close monitoring and evaluation based on information, monitoring of outcomes, the search for quality and multifaceted support is vital for success. The "faire-faire" strategy stands out as an innovative approach that leads to a new type of relationship between government and civil society organizations as they work together to manage and deliver education programs. It has mobilized substantial resources and involved people at every level, testing different policies for educational access and quality.

Distance education

606. Distance education, which is very different today given the advances in information technology, offers much more promise in decentralized education systems than in the place-bound centralized systems of education of the past. Distance education can reach people who would otherwise be deprived of learning opportunities owing to physical distance, cultural context, societal expectations, organizational or infra-structural conditions, or by personal constraints that block access to education (Visser, 1994). As a result, distance education is playing an increasingly prominent role in SSA. There is considerable use of distance education to extend access to formal education, although most public institutions have often been constrained by lack of finances and human resources. In the Anglophone countries (e.g. Botswana, Kenya, Nigeria, Swaziland, Tanzania, Uganda and Zimbabwe) distance education covers mainly pre-service and in-service programs for teachers, while in the Francophone SSA countries (e.g. Burundi,

Cameroon, Central African Republic, Chad, Côte d'Ivoire, Gabon, Guinea, Senegal and Togo) it is being used more extensively for the professional development, and in-service training of teachers, heads of schools, and inspectors.

607. Decentralization, diversity and a self-organized and emergent system of management offers further opportunities for SSA countries to derive the greatest benefits of distance education programs at all levels; and especially in pre-service and in-service of teachers. For example, Mauritius has been successfully implementing a distance education program with 3353 teachers going through the program since 1993. The program comprises of a 2-year part-time in-service course for primary school teachers leading to an Advanced Certificate in Education (ACE). The program has tried to support attempts at achieving quality learning outcomes in Mauritius by ensuring that teachers use more effective instruction processes (Rumajogee et al, 2003).

608. Clearly, distance education can also help ensure that decentralization initiatives succeed by providing decentralized support where teaching and economic resources are not sufficient. Technological developments have greatly increased the number of media options currently available; and, depending on the particular context of individual countries in SSA, they may have to adopt a range of different media, using each medium (print, radio, audio and video cassettes, and internet) according to its particular strength in combination with face-to-face tutoring. Several countries involved in WorldLinks and SchoolNet Africa have adopted ICT instruction in the schools, especially in the countryside, in order to promote development in general and access to quality education in particular. Since its creation, SchoolNet Africa has helped build greater capacity for exchanges and sharing between national school networks and educators in 27 countries of Sub-Saharan Africa (Niane, 2003). Despite current advances it must be emphasized that the provision of adequate resources is key for distance education to continue to effectively support attempts at quality improvement in SSA.

Responding to the challenge of education management in SSA

609. Key actors involved in educational improvement initiatives in the region have recognized that for education management changes to make a difference to school quality and ultimately the improvement in learning outcomes for all students, key issues of organization of instruction, planning of programs, course content, financial management and personnel management need to be connected.

The evolving organization of schooling

610. Several recent initiatives related to decentralization and management are changing the way schools are organizing and directly affect the learning and teaching process:[66]

- **Local curriculum adaptation**: Some countries have created space for local curriculum adaptation. Experiences in Lesotho, Nigeria, Niger and Zambia highlight the role that teachers, school management, and communities can play in curriculum development.
- **Involving school management committees** in responsibilities beyond resource mobilization and classroom construction. In Guinea they play a prominent role in the management of the textbook program. In Madagascar the contribution of different stakeholders are formalized in a program-contract.

[66] For specific details refer to the individual case studies that were commissioned for this ADEA study.

- **Managing school resources**: In South Africa, Kenya Tanzania and Uganda, school management committees or governing bodies are responsible for the utilization of funds disbursed to schools by the national or state Ministries of Education. Funds are used for instructional materials and operating cost like support staff salaries and maintenance.
- **Adapting school calendar**: Autonomy of schools to adapt the school calendar to local conditions. Community schools in Mali and Senegal enjoy strong community support in which the school becomes a 'village project'. The community school model is in a number of countries, accompanied by interesting innovations in adapting the school calendar, integrating local languages and developing practical community-based activities.
- **Monitoring and evaluation**: Programs in Mali, Benin and Guinea implement community managed monitoring systems through which parents collect, analyze and use information to improve the schools in their communities.
- **Moving responsibility for personnel management to lower levels**: In some Francophone countries some attempts are being made to move the responsibility for personnel management to lower levels. In Guinea and Senegal alternative policies and practices have been adopted in recent years and a partnership has been developed with local education authorities, which are encouraged to hire and pay teachers in exchange for government assistance and support. In Senegal, the government opted for a policy of hiring teachers as "Education volunteers" outside civil service regulations and salaries.
- **Decentralized delivery of in-service teacher training programs**: A system of regular in-service workshops organized regionally or locally (for example, Uganda, Ethiopia and Tanzania) to ensure regular participation by teachers and opportunities for practice and follow up. Successful decentralization of in-service activities includes leadership development and the establishment of local resource centers, local teacher groups, and school cluster networks (Guinea, Namibia, South Africa, Senegal, Zambia, Zimbabwe).
- **Involving teachers in quality improvement**: In Guinea and several other Francophone countries small grants programs enable teachers to become partners in the improvement of teaching and learning by initiating and carrying out their own professional development projects. With ministry personnel as facilitators, teams of teachers design projects and compete for small grants to carry them out.

611. Despite these promising examples, the decentralization of education management as implemented has not yet had a major impact on instructional practice. But, the little evidence that is available, provides some indications that the absence of a "clear connection between education management reforms and improved education quality" may be due more to problems of implementation (interventions have not been fully operationalized) than a failure of design logic (i.e. there is no connection). Establishing this connection in SSA is difficult since the experience is relatively recent and uneven, and often focused more on resource mobilization than on improvements in quality. Moreover, there is little reason to believe that changes in education management alone will improve teaching practice and student learning. Decentralization and management reforms can contribute to improvements in service delivery and efficiency of resource utilization but successful implementation will require improvement in the other intervening variables such as leadership, teacher training, parent support, availability of resources, student and teacher motivation, and peer group pressure (Hanson, 2000).

Changing the role of national authorities in the management of education

612. Decentralization and related changes at lower levels of the education system do not take place in a vacuum. The responsibilities of the different government levels and stakeholders in education need to be redefined and reallocated as new ideas emerge on what role the national government (ministry of education), sub-regional structures, schools, local communities and social partners should play in education. Significant changes in the role of central ministries of education in the management of education are a necessary part of decentralizing education sector management. A major decentralization issue is how to balance increased diversity, flexibility, and local control with the responsibility of the national education authorities for ensuring that an orderly provision of education occurs across a nation, and that it is equitable across regions and socio-economic and ethnic divisions (Abu-Duhou, 1999: 20).

613. In centralized systems, national ministry "functions" usually cover the whole gamut of planning, program implementation, coordination, personnel supervision, monitoring, and evaluation. But in decentralized systems, the central ministries' role changes from implementer to technical consultant and coordinator responsible for policy formulation, and overall quality assurance, monitoring, and evaluation. As a result, new steering instruments and practices have been proposed in a number of countries. In Uganda for example, District Education Officers (DEOs) are responsible, in conjunction with communities, for the delivery of primary education, while the MOE focuses on policy making, investment management, and quality assurance. In practice, DEOs are responsible for monitoring and supporting all primary schools in their districts. Through the District Service Commission, each district recruits and assigns primary school teachers, while payment of teachers' salaries remains a central responsibility (Moulton, 2000). In Tanzania, the Ministry of Regional Administration and Local Government is responsible for delivering basic education through its district administration.

614. More central ministries are taking responsibility for overall accountability, making the systematic collection, analysis, and reporting of information critical elements. Information can be used to verify compliance with policy goals, to analyze alternative outcomes, and to guide future decisions. Information on financial flows (that is, budgeting and expenditure reporting) and other inputs, outputs, and outcomes is essential at the central level – to monitor and supervise local activities funded (at least partially) by central sources (Seddon and De Tommaso, 1999). The development of an EMIS system in Namibia, for example, has resulted in: a well-maintained database of educational data and the production of education statistical data sets meeting information needs of users at different levels of the education system, the capacity to respond to ad-hoc requests for statistical information, and an increasing utilization of education statistics and other outputs of the EMIS (Voigts, 1999).

615. The central ministry and sub-national and school actors may share the responsibility for ensuring minimum educational standards necessary to safeguard equity of access and outcomes. The central ministries generally plan the national curriculum (e.g. South Africa) and are responsible for national-level examinations. While textbook approval and procurement is usually centralized for efficiency reasons, distribution is often outsourced and several countries (Uganda and Kenya, for example) have decentralized the choice of textbooks to the school level.

Box 27 Distribution of responsibility for education management in South Africa

Management and governance within the new education system reflects both centralization and decentralization tendencies, with responsibilities distributed across national, provincial, district and school levels. The central Ministry of Education (MoE) and the National Department of Education (NDoE) sets uniform norms and standards through legislation and regulations that prevail across all sites and is not directly involved in the management of provincial education structures, districts or schools, but is responsible for funding the system. This is done through block grants to the Provincial Governments, who, in turn determine their own level of spending on education within national guidelines, outlined in the *National Norms and Standards for School Funding (NNSSF)*.

The Provincial MoE is responsible for the management and organization of schools, while day-to-day management is located at the school. The province takes responsibility for evaluation and monitoring actors' behavior within a national framework As part of the decentralization process all nine provinces have embarked on comprehensive organizational changes including regional and district reorganization. All provinces have developed new local level delivery structures or district offices. To support regional and district reorganization there has been an on-going attempt to redefine roles and strengthen the capacity of district education offices to provide effective support to schools, while simultaneously mobilizing schools to engage in self-improvement processes. *Districts Offices and Officers* are responsible for: effective organization and operations within education districts; providing effective curriculum, management, and governance support to schools and governing bodies; and, functioning as an effective intermediary between schools and the regional and provincial education offices.

The devolution of power to the school level in terms of the *South African Schools Act,* (DoE, 1996), represents a real shift of power (in theory, at least) to a level where it previously did not exist. The *Act* provides for the establishment at all public schools of governing bodies (SGBs) with considerable powers, including determination of admissions and language policy, making recommendations on teaching and non-teaching appointments, financial management of the school, determination of school fees and fundraising. SGBs are comprised of the principal and elected representatives of parents, teachers, non-teaching staff, and (in secondary schools) learners. The establishment and effective functioning of School Management Teams (SMTs) and SGBs is expected to empower educators to teach more effectively; enable principals to better manage and lead schools; and empower parent communities and SGBs to support schooling activities (governance and support to the teaching and learning process).

616. While role of the central ministry as implementer is decreasing, it still has a significant role to play in management, financing, and general oversight of the system. In reflecting on the changing role of central ministries of education it is important to draw a distinction between provision of education services and financing. The first deals with delivering and managing the education services, while the latter relates to the source of funding to operate the system. Since local governments in Africa have little effective

taxation power or revenue generation capacity, financing will have to remain a national responsibility. However, it does not follow that provision and management of education should also be a national responsibility. In fact, to address the challenge of achieving efficiency, equity and quality, responsibility for provision and management may have to be shared with local governments authorities, schools, and communities (e.g. Mali, Tanzania and South Africa) This is especially important in SSA where efficient utilization of limited financial and human resources, and systemic accountability remain a big challenge. The biggest challenge in this regard is the management of the teaching force.

Managing and supporting teachers

617. In almost every SSA country teachers comprise the biggest percentage of civil or public service workers and account for most of the education budget (on average, 90 per cent of education budgets are spent on teacher salaries), making the question of how best to manage teachers to maximize their effectiveness as educators, of vital importance. Decentralization, local autonomy and SBM have been promoted as a means of empowering teachers, and improving performance and learning achievement, but they have also been criticized for negatively impacting teachers. In Senegal, for example the employment of contract teachers has been seen as a means of undermining the security of civil servants. In South Africa, some teacher unions welcomed devolution to schools, while others opposed mandates that gave greater powers to school governing bodies over teacher appointments and evaluation. Such contrasting positions with regard to decentralization and its impact on teachers are not unexpected since power relations are altered and teachers begin to lose part of the influence they have at national level (through the action of unions) as they become more exposed to immediate pressures from administration, head teachers and parents at the local level (van Zanten, 2002).

618. At the same time centralized systems have proven to be particularly weak in dealing with day-to-day administrative tasks relating to teachers such as responding to grievances, keeping records and processing reassignments and promotions (Gaynor, 1998). Decentralization is helping to address problems in deploying and utilizing teachers, monitoring and supervision, and other management arrangements. Yet, paradoxically, it may also exacerbate problems. There is evidence of a frequent lack of administrative resources and skills at intermediate and school levels. Furthermore, uncontrolled decentralization, and local favoritism may contribute to disparities in teacher deployment. Devolution of management powers seems to be risky, and require mechanisms for mutual accountability and co-ordination at all levels (Göttelmann-Duret, 1996).

619. Decentralization also poses immense challenges for teachers at a more individual level. Teachers may be ill equipped to manage the changes in education decision-making, and may feel that their professional status is threatened by community involvement in school affairs. This reflects that in many African education systems, accountability tends to be directed upward rather than downwards. Changes in education financing, teacher hiring and firing procedures, and school inspection will often be needed to redirect accountability downwards to the community from which teachers draw their students. This means that the balance of decision-making power among teachers, ministry officials, and the community must be renegotiated (Watt, 2001).

620. Several countries have adopted policies to decentralize certain administrative responsibilities, which hold promise for improving education delivery and performance. Improvements include: the “uniformization” of databases and processes of data collection on teachers, computerization of information systems for educational management, and elimination of ghost teachers' from the payroll. Decision-making powers have been

devolved, particularly to the intermediate – i.e. district (Uganda) and/or regional (Ethiopia, South Africa, Botswana, Malawi) – level. School heads, and in some cases school boards (South Africa) as well as local councils (Uganda), have also been given an important say on matters concerning teacher deployment and recruitment (Guinea – the prefectures are to be responsible for recruiting new teachers).

Strengthening accountability, supervision and support[67]

621. Accountability, supervision and support play a key role in improving the quality of education. Most SSA countries adopted supervision systems based almost entirely on French or British systems. These colonial models share a conception of school organization in which the central administration plays a preponderant role and school personnel merely act as agents. While most developed countries have transformed their supervision systems, the majority of SSA countries have maintained the inherited models. This has resulted in an "inspectorate" in most SSA countries that is essentially evaluative and motivated by a desire for control rather than to support teaching and learning. Supervision and support assumes even more importance with the present trend towards increased school autonomy. As schools begin to acquire greater autonomy and decision-making power over curriculum, staffing, and budget, the demand for supervision and support services changes. Schools and communities are ill prepared to manage new responsibilities. Yet, inadequate attention has been given to preparing school management teams, school leaders, or district and regional administrators to carry out new, and often, increased responsibilities (Moulton, 2003). Recent research emphasizes that improving the quality of education is not simply a question of injecting more resources (learning and teaching materials, teachers, or teacher training) into the system but that the management of these resources at school-level, the in-school relationships between head teacher and teachers, among teachers and between teachers and pupils and the relationship between these in-school actors and their immediate 'supervisors', such as school inspectors and pedagogical or curriculum advisors are equally important. Moreover, an important determinant of school quality relates to the effectiveness of professional supervision and support for teachers (IIEP, 2003).

622. Decentralization poses an opportunity and challenge for supervision. The work of supervisors involves a number of sources of tension, which are heightened with decentralization: administrative versus pedagogical, supervision versus support, and central administration requirements versus the school level priorities. Supervisors tend to be concerned with the administrative aspect of their role and emphasize supervision and administrative control to the detriment of support and the expectations of central government over those of the school (Brunet, 2003: 15). This fits poorly with the trend towards decentralization and increased school autonomy. In response many supervision systems are undergoing structural changes based on the realization that supervisors are too far from the school to provide adequate support for teaching and learning. Countries increasingly, are adopting in-school or community based strategies (e.g. resource centers, clusters, and supervision by principals, peers, and school management committees) to complement, or even to replace, external support and supervision. In Mauritania and Ghana, for example, greater control has been given to head teachers over accreditation and certification, reducing the role of supervisors in certification.

623. Among the main recurring problems are: an absence of appropriate mechanisms for selecting competent supervisors and advisors, a lack or poor quality of

[67] Supervision is generally understood to mean an external intervention that encompasses evaluation, instructional support for the teachers, and administrative control of the school and teachers. Administrative-type inspection is usually treated separately and is not discussed directly, although it is an area that is impacted by decentralization, especially as it relates to deconcentration of administrative functions.

training; the excessive number and diversity of the tasks; the dispersion of the schools they serve; and a lack of resources. Despite the widespread problems, several positive practices are occurring. These include: the new administrative and pedagogical framework in Burkina Faso, the release from courses of heads of schools with ten or more grades in Guinea, school management committees in Ghana, the use of job performance specifications in Senegal, and Whole-School Evaluation in South Africa. These are not ideal models but provide the basis for discussion and appropriate action needed to support quality education. As attempts to improve management of education in SSA continues, in order to help the poorest performing schools or those with low quality resources, teachers and facilities, consistent and continued supervision is needed, but this should not be to the detriment of their autonomy. Decentralization of education management provides an opportunity for supervision to become a flexible and diversified system, which adapts interventions in accordance with the needs of schools, concentrates on the weakest ones and works towards supporting quality rather than control (Grauwe, 1998 and 2001).

Box 28 The use of job performance specifications in Senegal

The development of job performance specifications was used by Senegal to address concerns about the quality of instructional practice. School visits by supervisors fell from year to year, with enormous disparities in supervision between regions. In response a system of incentives based on a clear task definition for each of the main groups of personnel: teachers, heads and supervisors was developed. The core of this effort consisted of formalizing and publicizing the roles or tasks of each group and, in particular, the evaluation of performance.

While the task specifications for supervisors did not include any change in the nature of their roles, a much more specific framework for performance was set up, with a distinct emphasis on training and organization. Formalizing and publicizing their roles and functions was an essential part of the new approach.

As a result of the program the pupils' results improved, but not without effort. The main difficulties were due to the absence of training in results-based management, to the teachers' conservatism and to inadequate logistics. Despite the difficulties encountered, the results were telling: School organization improved with the introduction of new managerial instruments and a results-based approach. The improvements were seen at the level of school projects, the teaching team, partnerships, and the openness of the school to the local environment. The Senegalese experiment with job performance demonstrates that transparent management and empowerment of stakeholders is key in establishing a school culture that support quality improvement.

Strengthening the capacity to manage

624. Weak capacity of the ministry of education, other education management structures, schools, and communities is a major obstacle to progress toward better-quality teaching and learning (Moulton, 2003a). Experience across SSA indicates that capacity development must extend beyond school personnel and include non – teaching professional staff, and community stakeholders to support implementation. Administrators in central, regional and district structures need specialized training in curriculum, guidance, inspection, special education, examinations and testing, monitoring and supervision. Head teachers, teachers, and communities are also experiencing dramatic changes in roles and responsibilities.

625. Many administrators in central, regional and district offices lack management skills. Most ministries are far from optimal in their organization and resourcing of the functions required to provide quality education to all children. Ghana, The Gambia, and Burkina Faso have taken the first step in systematically improving management by conducting a management audit. A recent World Bank project in Ghana is focused primarily on building capacity. It broadens the concept of management from one of sporadic training, equipment supply, and heavy technical assistance to one that includes incentives, procedures, accountability mechanisms, and systematic transfer of knowledge so that each unit of the system can manage its assets competently. The Gambia and Burkina Fasohave analyzed the capacity of the ministry's organizational units with project implementation responsibilities (planning, budgeting, information technology, human resources, and quality assurance). The analyses looked at whether the unit had: (i) the right organizational home for tasks assigned to it, (ii) effective leadership, (iii) the needed financial and human resources (level and mix of skills), and (iv) adequate work practices (techniques, methods, and procedures). The key element is the coherence between all of these conditions.

626. In order to ensure that quality outcomes are achieved capacity development of principals and teachers needs to focus on improvements in teaching and learning. Richard Elmore (2002: 40), highlights the challenge:

> *"You have to dramatically increase the skill and knowledge of teachers and principals. I think that is what everyone needs to recognize about instructional leadership: it's not just a matter of releasing people to do what they already know how to do. It's making available the skill and knowledge for people to do things that they have not yet been able to do or not yet learned how to do-and that involves connecting people to sources of knowledge and skill outside of their own workplace; connecting people within the workplace to develop knowledge and skill; and substantially increasing professional development that is instructionally focused and designed to enhance student learning".*

627. Capacity constraints may be exacerbated with decentralization. A SAHEL Study[68], for example, points out that decentralization initiatives in West Africa, created major new local level training needs – needs which the existing school system could not meet on its own. A variety of actors require new skills and knowledge in order to play a meaningful role as participation in the management and provision of education expands. This includes national capacity to define policy objectives and specify performance expectations; and, local capacity to support schools, identify low performing schools and plan and implement effective targeted remedial action.

[68] The PADLOS-Education Study was conducted by means of a series of case studies carried out in five West African countries: Burkina Faso, Ghana, Mali, Niger and Senegal.

628. Failure to address civil society's capacity building needs may jeopardize the success of any real decentralization effort. In Uganda empowering communities and parents to play an active role in local schools, required the training of more than 50,000 community mobilizers, headmasters, and teachers in support of Uganda's UPE Program. Civil society institutions carry out important roles, including: mobilizing input into national development plans; helping improve the delivery of education at the community level (through activities such as participating in school management and PTAs, supporting teachers, producing learning materials, encouraging attendance, and operating schools (especially where no government schools exist) and other); and serving to create the demand for, and as an instrument of, accountability and transparency of policy and use of resources (Easton, et al, 1998).

629. Although capacity building is key to a successful implementation, decentralization and education management initiatives cannot be endlessly delayed owing to lack of capacity. Capacity-building and implementation may have to be carried out concurrently. Capacity development programs should: be flexible enough to accommodate contextual variations across the country; focus on both short and long-term objectives; and, go beyond technocratic aspects and attend power relationships, and political processes as well. Capable ministries enable schools and communities to respond to their changing environment by trying new approaches and adapting functions and structures (Moulton, 2003a).

Conclusion

630. Education decentralization has not yet necessarily led to better quality education, improved governance, or greater efficiency in resource allocation or service delivery. This is not unexpected given that improving education quality while maintaining the integrity of the national education system and ensuring equity is a much greater challenge than administering expansion of enrollments (Adams and Chapman, 2002). The challenge is greater still in SSA because most education management changes as initially conceived within the context of decentralization, hardly touched key management issues relating to the organization of instruction, planning of programs, course content, financial management of funds, and personnel management. This is changing with a greater focus on efficient management at all levels of the education system from the center down to the school level, in support of quality improvement. The lessons of the experiences reviewed in this chapter can be summarized as follows.

- A large number of countries have embarked on education decentralization, often within a context of a broader national policy. The process is mainly being implemented in three ways: administrative deconcentration, diversification of providers and differentiation of programs. It almost always includes administrative decentralization but the evidence suggests that this is an important but far from sufficient element in improving the quality and efficiency of service delivery. The deconcentration process needs to be supported by deliberate efforts to involve communities in the process of schooling and the provision of direct support to schools.
- A range of alternative education structures and program delivery mechanisms are being experimented with to ensure responsiveness to the needs and the priorities of people in different social, cultural and economic contexts. The diversification of providers has been primarily through private for profit and not for profit providers (NGOs and churches). Some countries are exploring the potential of support from the business community, while others make extensive use of outsourcing to private providers.

- Separating financing and provision will allow governments to tap the contribution of multiple sources of provision, provided public financing is structured in such a way that equitable access to good quality schooling for all is ensured.
- The restructuring of education management has important implications not only for the lower levels of the hierarchy, but also for the central services.
- A major challenge that few countries have tackled successfully is the improvement in the management efficiency, the deployment and the professional support to teachers.
- Effective restructuring will require sustained capacity development, including clear definition of roles and responsibilities, incentives for performance, continuous training and technical support at all levels of the system.

631. However, management reforms **alone** cannot be expected to improve quality. They have to part of a comprehensive package that includes resources for essential inputs, and support for effective instruction. A mix of political will (policy makers working together with stakeholders), technical inputs (competent policies and personnel in education) and economic factors (adequate resources) is essential. At the same time, there has to be congruency between "bottom-up" and "top-down" principles, emphasizing expertise, rights, and power of local communities while taking into account context and constraints. The process of restructuring education sector management in SSA must continue to emphasize flexibility and responsiveness to the needs of different population while ensuring equity in access and results.

Appendix B Typology of education decentralization in SSA

632. Taking the interaction between level and degree of decision-making power into account, the following typology describes decentralization of education management reforms in SSA:[69]

Table 20 Typology of education decentralization and management reforms in SSA

Level	Form	Functions
Central government (MOE) to provincial, state regional or district offices	Deconcentration	Regional/district offices are in charge of personnel and financial management functions. Central government retains control of fiscal allocations and appointments
Central government (MOE) to municipal, county or district governments	Delegation and/or Devolution	Management decisions-staff appointments and allocation of local education budgets Central governments retain accountability – control financial transfers from national treasuries
From Central government (MOE) and regional/district offices or local governments to schools	Devolution	Schools responsible for routine administrative decisions or more substantial powers. May include: maintenance, appointment of staff, school policy, development plans, curriculum choices, fund-raising and financial management

[69] In addition to the work of Rondinelli (1998 and 1999), the typology presented here draws largely from Winkler and Gershberg (2003).

Table 21 Decentralization of management functions by level

Country	National	Regional/Local	School
Burkina Faso	Education policy; planning; curriculum development; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, accreditation; development and provision of textbooks and supplies; establishment of schools; construction of classrooms; building maintenance; Standardization of exams; promotion of pupils; EMIS; evaluation of school system	Operating recurrent budget[70]; in-service training; and provision of textbooks and supplies; construction of classrooms; building maintenance;	Teacher evaluation; Building maintenance; Promotion of pupils
Ethiopia	Education policy; planning; curriculum development; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, evaluation, accreditation; establishment of schools; Standardization of exams, promotion of pupils; EMIS; evaluation of school system	Planning; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, evaluation; provision of textbooks and supplies; establishment of schools; construction of classrooms; building maintenance; promotion of pupils; EMIS; evaluation of school system	Planning; operating recurrent budget; building maintenance; promotion of pupils
Ghana	Education policy; planning; curriculum development; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, accreditation; establishment of schools; construction of classrooms; building maintenance; Standardization of exams; promotion of pupils; EMIS; evaluation of school system	Planning; curriculum development; school organization; operating recurrent budget; in-service training; provision of textbooks and supplies; establishment of schools; construction of classrooms; building maintenance; Standardization of exams, EMIS	Operating recurrent budget; building maintenance; promotion of pupils

[70] The recurrent (discretionary) budget excludes teacher salaries and is usally no more than 5 to 10% percent of the education budget in most of these countries.

Country	National	Regional/Local	School
Guinea	Education policy; planning; curriculum development; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, supervision, evaluation, accreditation; development and provision of textbooks and supplies; establishment of schools; construction of classrooms; building maintenance; Standardization of exams, promotion of pupils EMIS, evaluation of school system	Planning; operating recurrent budget; in-service training; teacher payment, supervision, evaluation; construction of classrooms; building maintenance; promotion of pupils	Promotion of pupils
Niger	Education policy; planning; curriculum development; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, supervision, evaluation, accreditation; development and provision of textbooks and supplies; establishment of schools; construction of classrooms; building maintenance; Standardization of exams, promotion of pupils EMIS, evaluation of school system	Operating recurrent budget; in-service training; teacher evaluation, accreditation; provision of textbooks and supplies; establishment of schools; building maintenance; promotion of pupils	Promotion of pupils
Nigeria	Education policy; planning; curriculum development; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, supervision, evaluation, accreditation; development and provision of textbooks and supplies; establishment of schools; construction of classrooms; building maintenance; Standardization of exams, promotion of pupils EMIS, evaluation of school system	Planning; school organization; operating budget; in-service training; teacher recruitment; payment, supervision, evaluation; development and provision of textbooks and supplies; construction of classrooms; building maintenance; Standardization of exams, promotion of pupils; EMIS,	Building maintenance; promotion of pupils

Country	National	Regional/Local	School
Tanzania	Education policy; planning; curriculum development; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, supervision, evaluation, accreditation; development and textbooks; construction and establishment of schools; Standardization of exams, promotion of pupils EMIS, evaluation of school system	Planning, operating recurrent budget; in-service training; provision of textbooks and supplies; building maintenance	Operating budget; building maintenance; promotion of pupils
Uganda	Education policy; planning; curriculum development; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, supervision, evaluation, accreditation; development and textbooks and supplies; establishment of schools; construction of classrooms; building maintenance; Standardization of exams, promotion of pupils EMIS, evaluation of school system	Planning; school organization; operating budget; in-service training; teacher, supervision, evaluation; development and provision of textbooks and supplies; establishment of schools; construction of classrooms; building maintenance; Standardization of exams, promotion of pupils EMIS, evaluation of school system	Planning; school organization; operating budget; provision of textbooks and supplies; establishment of schools; building maintenance; promotion of pupils
Zambia	Education policy; planning; curriculum development; school organization; operating budget; pre-service and in-service training; teacher recruitment; payment, supervision, evaluation, accreditation; development and provision of textbooks and supplies; establishment of schools; construction of classrooms; building maintenance; Standardization of exams, promotion of pupils EMIS, evaluation of school system	Planning; school organization; operating budget; in-service training; development and provision of textbooks and supplies; establishment of schools; building maintenance; Standardization of exams, EMIS,	Planning; operating recurrent budget; establishment of schools; building maintenance; promotion of pupils

CHAPTER 11
MONITORING PERFORMANCE: ASSESSMENT AND EXAMINATIONS

633. The World Bank policy paper of January 1988, *Education in Sub-Saharan Africa, Policies for Adjustment, Revitalization, and Expansion,* placed a major focus on improving academic standards through the reform of examination systems. In June of the same year, Donors to African Education (now the Association for the Development of Education in Africa) signalled their interest in examinations when they set up a Working Group on School Examinations to study and promote the role of examinations in quality improvement.[71]

634. Interest in assessment increased following the World Conference on Education For All (EFA) in Jomtien, Thailand in 1990, in which student achievement was proposed as a major point of reference in judging the quality of education. In the Dakar Framework for Action in 2000, national governments, organizations, and donor agencies recommitted themselves to a revised set of goals relating to Education For All (UNESCO, 2000) which include 'improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills' (goal 6) (UNESCO, 2002). Since all countries are committed to ensuring that recognized and measurable learning outcomes are achieved by all, some form of assessment will be required to determine if this happens.

635. This chapter reviews the rationale for, and experience with, the use of assessment to improve quality in African education systems over the past two decades are described for four categories of assessment: (i) public examinations, (ii) national assessments; (iii) international assessments, and (iv) classroom assessment. Following this, factors that may inhibit the use of information derived from assessments and examinations in classrooms are described.

[71] In June of the same year, Donors to African Education (now the Association for the Development of Education in Africa) signalled their interest in examinations when they set up a Working Group on School Examinations to study and promote the role of examinations in quality improvement. Following this, studies of examinations in 14 countries were carried out and a report, Using Examinations to Improve Education, was prepared by the authors of the present paper and published by the World Bank (Kellaghan & Greaney, 1992). The present chapter reviews what happened in the field of examinations since then

Public (external) examinations

636. Public (external) examinations have played a major role throughout the history of modern education in Africa. In most countries major examinations are administered by an agency outside the school at the end of primary schooling, after two or three years in secondary school, and at the end of secondary school. The examinations serve a number of important functions. First, they control the disparate elements of the education system and specify goals and standards for teaching. Second, they are used to select students in pyramidal education systems in which the number of places diminishes at each successive level. Third, the examinations have a certification function, though this is often lost sight of because of the emphasis on their use for selection. Fourth, examinations may serve an accountability function for teachers and schools. Finally, especially at the end of secondary schooling, they legitimate membership in the international global society, and facilitate the international mobility of students (Kellaghan, 1992; Kellaghan & Greaney, 1992; Omolewa & Kellaghan, 2003).

The quality of public examinations in Africa

637. Many studies and official reports have identified inadequacies in current examinations. First, since most examinations are limited to pencil and paper tests, they ignore a variety of areas of knowledge and skill, often specified in curricula, which cannot be measured by these tests. Second, examinations place a high degree of emphasis on the achievement of cognitive skills (particularly language and mathematics at the end of primary schooling), and pay very little attention to practical skills. Third, there is evidence that items in many examinations measure achievement at a low taxonomic level (involving the recall or recognition of factual knowledge), rather than the achievements students are going to need in later life, such as the ability to synthesize material or apply knowledge to new situations (e.g., to make inferences, to develop a logical sequence of steps to solve a problem, to argue a case). Fourth, many examinations contain very little reference to the everyday life of students outside the school. Fifth, the quality of questions in examinations is often poor: they are poorly phrased, alternatives in multiple-choice tests are unsatisfactory, or scoring criteria lack clarity. Finally, candidates' lack of proficiency in the language used in an examination may prevent them from demonstrating their competence in the domain being examined (ERGESE, 1986; Kellaghan & Greaney, 1992; Kelly, 1991; Little, 1982; Oxenham, 1983; Somerset, 1996).

638. There are two major implications of this situation. First, issues arise about the validity of the examinations, in particular the extent to which they are biased towards the testing of competencies needed by students continuing their education into the next cycle, and so fail to adequately reflect the goals of curricula for students (a majority in most countries) who will not proceed to secondary education. And secondly, since teachers focus their teaching on what is assessed in an examination which has important consequences attached to performance, serious concerns have been raised about the character and quality of teaching and learning in schools.

639. Over the years, various attempts have been made in many countries to improve the quality of examinations. The improvements were often technical, designed to improve efficiency (e.g., the use of the multiple-choice format, machine scoring). A variety of other reforms have also been proposed to address the deficiencies outlined above. (e.g., expanding the content of examination items, including items that require students to display higher order cognitive processing skills).

Using data from examinations to describe student achievements

640. Knowing how students performed on examinations can be useful to both policy-makers and teachers. Three sources of information about students' performance in examinations are used in examination systems in Africa: chief examiners' reports, other feedback mechanisms, and analysis to identify categories of pupils who perform poorly.

641. *Chief examiners' reports* Commentary on student performance on examinations is typically presented in chief examiners' reports in which the strengths and weaknesses of a candidature, together with perceived deficiencies in teaching, are described. Reports vary considerably in quality, in the level of detail that they provide, and in the relevance of the information they yield for individual schools and teachers.

642. *Other feedback mechanisms* A number of countries have developed other systems of analysis and feedback to schools on how pupils performed in examinations. Typically, the feedback provides information on the performance of candidates on individual items in an examination (Kyalo, 1997; Rharade, 1997; Somerset, 1987, 1988, 1996). Concrete advice may also be provided on how to address difficulties that candidates exhibited in their responses. The information may be provided in a newsletter sent to schools, in workshops, seminars, and school visits (particularly to schools with poor results).

643. *Identification of categories of pupils who perform poorly* Examination results can be used to identify differences in performance between boys and girls, between regions, between locations (urban-rural), between pupils from different language groups, and between schools. Although the reasons for these differences are complex, and implicate sociocultural and student background factors that may not readily be manipulated by political action, nevertheless the provision of guidance, support, and resources to poorly performing schools or districts by educational authorities can lead to improvement.

Box 29 Using examinations to improve student achievements

A much more radical and proactive role than providing information on the achievements of students is assigned to examinations when it is proposed that examinations be changed in the expectations that this in turn will lead to changes in the classroom. The proposal is based on the fact that an alignment can be expected to take place between what is taught in schools and the objectives of the examinations *when high stakes are attached to examination performance* (that is, when performance has important consequences for students, and often for teachers). It has been argued that if examinations cover important and relevant content and assess important knowledge and skills, teachers will adjust their teaching accordingly, and the quality of student learning will improve (see, e.g., Eisemon, Patel, & Abagi, 1987; Heyneman & Ransom, 1992; Little, 1982). But what is the evidence that changing public examinations will have these effects? This question is addressed by considering evidence relating to three more specific questions.

- *Will a change in the content areas examined result in a shift in the content to which students are exposed in class?*

644. There is considerable evidence from a variety of countries that changes in examinations will affect the content to which students are exposed in class – the subjects that receive attention, and the topics within subjects that are taught (Madaus & Kellaghan, 1992). In Kenya, the introduction of Kiswahili and practical subjects to the Kenya Certificate of Primary Education in the 1980s was reported to have resulted in a dramatic increase in the coverage of these subjects in schools in spite of a great many difficulties relating to facilities, textbooks, and teacher competence (Eisemon, 1990). Also in the 1980s, the replacement of multiple-choice items on sentence style and structure by an essay-writing component in the Common Entrance Examination (taken at the end of primary schooling) in Trinidad and Tobago had the effect of increasing the amount of writing tasks assigned by teachers during the year to provide students with experience in formulating arguments and applying their knowledge to new problems and issues (London, 1997).

- *Is a change in examinations likely to result in an improvement in the level of student achievements?*

645. There is little empirical evidence either to support or to challenge the claim that a change in examinations will result in an improvement in the level of student achievements. The most frequently cited study in this context is that of Somerset (1987, 1988) who examined the effects of reforms in the examination administered at the end of the basic education cycle in Kenya in the 1970s.

646. Unfortunately, data are not available that would allow us to determine if the performance of pupils in general improved as a result of the reforms, as scores each year were standardized (to a mean of 50 and a standard deviation of 15). However, the available data did permit comparisons over time between the relative performances of candidates in different districts. While the initial impact of the reforms was to widen achievement differences between districts, this trend was reversed after the system had been in operation for four years: nearly all districts in which performance had been relatively poor showed striking gains relative to performance in other districts (Somerset, 1987).

Box 30 Examination reform in Kenya

In the 1970s, steps were taken to reform examinations at the end of primary school in Kenya. The content of the examinations was changed

- to include less items than measured the memorization of factual information, and more items designed to measure higher order skills (comprehension, application);
- to focus on the measurement of skills that could be applied in a wide range of contexts, in and out of school.

The changes were designed to affect how teachers prepared students for the examinations and, in particular, to encourage the teaching and acquisition of competencies that would be useful to the majority of pupils who would leave school after the examinations. Two types of information were provided to support these changes:

- **incentive information**, comprising the publication of a district and school order merit list based on performance on the examination (league tables);
- **guidance information** based on an analysis of the performance of students nationally on individual questions which was sent in a newsletter to all schools. The newsletter also explained changes in the content and skills covered in examinations, identified topics and skills causing problems, and suggested ways of teaching these topics and skills.

League tables are no longer published because schools and districts were manipulating the system by presenting only the best students for the examination. The Kenya National Examinations Council continues to produce a newsletter, but lack of financial resources precludes sending it to all schools. It can, however, be purchased from the Council.

- *Will a change in examinations result in change in students' cognitive processing skills?*

647. A key objective of proponents of reform is to use examinations to develop higher-order cognitive processing skills in students. If examinations required students to display higher-order skills, would teachers shift the content and methods of their teaching to meet that demand?

648. Evidence on the effect of examinations on the teaching and on students' acquisition of higher-order skills is mixed. While data from the Kenya experience on this issue are not available, Eisemon et al's (1987) inability to discern a greater emphasis in primary school instruction on problem-solving, reasoning, and explanation following the introduction of the new types of item would not lead one to expect any great change in students' cognitive processing skills. In a study in Swaziland, teachers' approaches to the teaching of chemistry were not found to be related to the kinds of questions used in an examination in which three cognitive levels (recall, knowledge with understanding, handling information) were assessed (Rollnick, Manyatsi, Lubben, & Bradley, 1998).

649. There is, however, some evidence that when guidance is provided to teachers in the preparation of students for examinations, and teacher understanding of the demands of examinations is developed in inservice training, the inclusion of tasks requiring higher-order cognitive skills in examinations may lead to greater emphasis on teaching these skills in classrooms, which in turn is reflected in superior pupil performance (Eisemon, 1990).

The problems of high stakes examinations

650. It should be borne in mind that the use of high-stakes examinations to lever educational change can have a number of negative, if unintended, consequences for school practice, whatever the quality of the examinations. These include narrowing of the implemented curriculum, neglecting what is not examined, emphasizing learning strategies that are superficial or short-term (such as memorizing, rehearsing, and rote learning), devoting a significant amount of time to test-preparation activities, a heavy reliance on extrinsic rather than intrinsic motivation in student learning, and malpractice (Greaney & Kellaghan, 1996b, Kellaghan & Greaney, 1992; Kellaghan, Madaus, & Raczek, 1996; Le Mahieu & Leinhardt, 1985; Madaus, 1988; Madaus & Greaney, 1985; Madaus & Kellaghan, 1992). Of particular significance in the context of Education For All is the fact that teachers may focus their efforts on students who are most likely to succeed. This, in turn, may be associated with high rates of grade retention and early dropout (Ackers, Migoli, & Nzomo, 2001).

651. While disadvantages will continue to be associated with public examinations as long as high stakes are attached to performance. it is unlikely that there will be any diminution in their role or importance in most countries until education systems can accommodate many more students. In this situation, the goal should be to reduce negative effects associated with poor quality instruments, even if the negative effects associated with high stakes assessment cannot be eliminated.

National assessments

652. While public examinations are a long-standing feature of education systems, national assessments (sometimes called system assessments, assessments of learning outcomes) are relatively new (Greaney & Kellaghan, 1996a; Kellaghan, 2003; Kellaghan & Greaney, 2001a, 2001b). A national assessment may be defined as an exercise designed to describe the level of achievements, not of individual students, but of a whole education system, or a clearly defined part of it (e.g., fourth grade pupils or 11-year olds). The centerpiece of the assessment is the collection of data in schools. Usually students respond to assessment instruments and questionnaires in groups. Teachers may also be requested to complete questionnaires in which they provide information considered relevant to an interpretation of their students' achievements.

Using assessment for policy making

653. National assessments were introduced in realization of the fact that the educational data on inputs to education which had typically been collected in the past were often of little relevance or use to educational planners (Kudjoh & Mingat, 1993). National assessments would address this issue by providing information on the "products" or "outcomes" of schooling (e.g., student achievements, inequalities in the system) which, it was hoped, could be used in conjunction with input data to provide a sounder basis for policy and decision-making. The longest running and best known national assessments are in the United Kingdom, the USA, France, and Chile. Developments in national assessment, most of which seem attributable to the Declaration

of the World Conference on Education For All, did not occur in less economically developed countries until the 1990s.

654. The main issues addressed in national assessments are:

- How well are students learning in the education system (with reference, for example, to general expectations, EFA goals, the aims of the curriculum, or preparation for life)?
- Is there evidence of particular strengths or weaknesses in the knowledge and skills students have acquired?
- Do the achievements of subgroups in the population differ? Are there, for example, disparities between the achievements of boys and girls, of students in urban and rural locations, of students from different language or ethnic groups, of students in different regions, or students who drop out early or are repeating grades?
- To what extent is achievement associated with the characteristics of the learning environment (e.g., school resources, teacher preparation and competence, type of school) or with students' home and community circumstances?

655. Do the achievements of students change over time? This can be particularly important at a time of major change in the system (e.g., when numbers are increasing; when new subjects or curricula are being implemented) (Kellaghan, 2003; Kellaghan & Greaney, 2001b).

National assessment activity in Africa

656. A great deal of activity relating to national assessment was generated in Africa during the 1990s. Four major categories can be identified. Three involve similar activities in several countries: the Monitoring Learning Achievement (MLA) project; the Southern Africa Consortium for Monitoring Educational Quality (SACMEQ) project; *Programme d'Analyse des Systèmes Educatifs des Pays de la CONFEMEN* (PASEC). In a fourth category, national assessments which were not related to any of these projects were carried out in individual countries.

657. MLA, which began in 1992, is a joint UNESCO/UNICEF initiative, and is part of the EFA assessment which has as its objective constructing a comprehensive picture of the progress of countries towards EFA goals (Chinapah, 1997). In MLA I, the achievements of grade 4 pupils were assessed in literacy (reading/writing), numeracy, and life skills (relating to awareness and knowledge of health, nutrition, sanitation, hygiene). In MLA II, grade 8 pupils' achievements were assessed in mathematics and science; common tests were used in all countries. In both MLA I and II data were collected on students' backgrounds, school characteristics, and family backgrounds.

658. To date, MLA assessments have been carried out in more than 70 countries, 47 of which are in Africa (UNESCO, 2003a). Forty African countries participated in MLA I and 11 in MLA II. By March 2003, reports had been published on the MLA I assessments of 18 Sub-Saharan countries, and on the MLA II assessments of two. In addition to national reports, a separate report on MLA I for 11 countries has been prepared (Botswana, Madagascar, Malawi, Mali, Morocco, Mauritius, Niger, Senegal, Tunisia, Uganda, Zambia) (Chinapah et al, 2000). Only four of these countries had met their Jomtien learning target (i.e., 80% of learners should attain the defined learning competencies) for fourth grade pupils in life skills; two in literacy; and none in numeracy. Gender differences were small in all countries. With the exception of Mauritius, pupils in private schools performed better than students in public schools in all three learning areas. The ability of parents to assist learners in doing school work was related to student achievement in most countries.

659. SACMEQ is a collaborative voluntary grouping of 15 ministries of education in Southern and Eastern Africa, working in close collaboration with the International Institute for Educational Planning (IIEP) in Paris to build institutional capacity through joint training to carry out co-operative educational policy research (Ross et al, 2000; UNESCO, 2003b). Between 1995 and 1998, eight education ministries collected information in SACMEQ I on baseline indicators for educational inputs, general conditions of schooling, human and material resource allocation, and the literacy levels of grade 6 students. Teachers as well as students were tested, except in Mauritius and South Africa. Fifteen countries participated in SACMEQ II between 1999 and 2002: Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania (mainland), Tanzania (Zanzibar), Uganda, Zambia, Zimbabwe. Seven national reports have been published, and 14 are in preparation.

660. As in the case of MLA, the results of SACMEQ assessments indicated that education systems were failing to meet the performance standards of ministries. For example, less than 30% of sixth grade pupils met specified minimum literacy standards in Namibia and Zambia (UNESCO, 2000). Significant achievement differences were usually found between regions and between types of school within countries. Gender differences were not significant (Mioko, 1998).

661. PASEC, which was established in 1991 as a response to the Jomtien conference, acts as a network for sharing information on educational evaluation instruments and results among francophone countries. It encourages the involvement of senior decision-makers and of other stakeholders in the identification of policy issues, and emphasizes the need to base decisions on reliable data, followed by a realistic agenda for action (including time-frames and cost estimates) (Kulpoo & Coustère, 1999). Initially, pupils in grades 2 and 5 were assessed in French and mathematics. Now pupils are assessed in all grades from 2 through 6. Since 1994, the same tests have been used in all countries. Data are also collected from pupils and teachers on a variety of school and background factors. PASEC differs from other national assessments in Africa in that in some countries pupils are assessed near the beginning (November) and end (May) of the academic year. Thus, it is possible to obtain some indication of growth during the course of the year, though this is possible only for pupils who survive in the system. Twelve countries have participated in PASEC: Burkina Faso, Cameroun, Congo (Brazzaville), Côte d'Ivoire, Djibouti, Guinea, Madagascar, Mali, Niger, République Centrafricaine, Senegal, Togo.

662. In addition to these three programs to support national assessment, several countries have carried out national assessments which vary in their technical adequacy (e.g., Burundi, Eritrea, Mali, Namibia, Senegal, Uganda, Zambia).

663. All the national assessments in Africa share a number of features. All involve education planners and managers, and all are designed to provide information for policy making. All view capacity building and the strengthening of the policy-maker/researcher nexus as major objectives. All are sample-based and all adopt an input-output model of the education system and attempt to identify factors associated with achievement. Impact has been reported by assessment teams or close associates for the assessment programs in a number of areas: in policy debate and formulation, in reviews of educational policy, in national education sector studies, in developing donor-assisted reform projects, to reappraise the adequacy of resources, and to support policy decisions.

International assessments

664. International assessments share many procedural features with national assessments, although they differ from them most obviously in the fact that they have to be designed to allow administration in more than one country (Beaton et al, 1999; Greaney & Kellaghan, 1996a; Kellaghan & Greaney, 2001b). They provide some indication of where the achievements of students in a country stand relative to the achievements of students in other countries, as well as evidence on the extent to which the treatment of common curriculum areas differs across countries.

665. Since the 1960s, over 60 countries have participated in international studies of achievement in reading, mathematics, science, writing, literature, foreign languages, civic education, and computer literacy. Few African countries have participated in these studies. This is not surprising. Participation by African countries in international studies that are pitched to conditions and standards in the industrialized world would seem to be of little value.

666. While MLA, PASEC, and SACMEQ were designed as national assessments, results have been reported in a way that permits international comparisons. However, to allow valid comparisons, instruments, target populations, sampling, and analyses would have to be identical in all countries. It is not clear that this always was the case.

667. A number of problems have been identified in international studies (Kellaghan & Greaney, 2001b). These exist whether the studies are carried out in Africa or elsewhere, though some are more likely to arise in developing than in industrialized countries. First, it is difficult to design an assessment procedure that will adequately measure the outcomes of a variety of curricula. Second, problems arise if it is necessary to translate instruments into one or more languages. Third, the populations and samples of students that are being compared may differ across countries (e.g., students in special education programs or with learning difficulties are excluded in one country, but not in another). Fourth, the ranking of countries in terms of the average scores of their students, usually the main interest of media, can be misleading, especially when the statistical significance of mean differences in achievement is ignored. Finally, while it might be argued that an examination of relationships between classroom inputs and student achievement in some countries may be relevant in other countries, one cannot assume that practices associated with high achievement in one country will show a similar relationship in another. Relationships between inputs, processes, and outcomes need to be examined in the context of individual countries (Chapman & Mählck, 1993).

668. Despite such problems, some countries may still be interested in participating in an international study. Certainly, there is much to be said for the experience in test construction, sampling, analysis, and report writing that an international comparative study can provide. Development and analytic costs may also be less since they are shared. If countries are interested in obtaining cross-country comparative data, there is much to be said for limiting participation to countries in which levels of economic and social development are similar. It should be noted, however, that many of the benefits of international co-operation can be obtained without going down the road of collecting international comparative data.

Classroom assessment

669. The assessment of students' learning in the classroom (both by teachers and by students themselves) is an integral component of the teaching-learning process. Much of this kind of assessment is subjective, informal, immediate, on-going, and intuitive, as it interacts with learning as it occurs, monitoring student behavior, scholastic performance, and responsiveness to instruction. In addition to ongoing teacher observation, it involves classroom questioning and dialogue, the marking of homework, and the use of portfolios. Its function is primarily formative. It occurs during learning (rather than when learning is presumed to be complete) and is designed to assist or improve students' acquisition of knowledge and skills. Its role is to determine students' current level of knowledge, skill, or understanding, to diagnose problems they may be encountering, to make decisions about the next instructional steps to take (to revise or to move on), and to evaluate the learning that has taken place in a lesson.

670. Classroom assessment may on occasion be more formal, as when teachers administer a quiz or end-of-term examination. Such assessment will have a summative function when, for example, the information derived from it is used to make a decision about the retention of a student in a grade or promotion to the next grade. The information may also be reported to pupils, to parents, and to other teachers and individuals who may need to know about a student's progress. Further, it may be used to evaluate the appropriateness of curriculum, methods of instruction, classroom organization, and textbooks.

The quality of classroom assessment

671. Despite its central role in the teaching-learning process, not a great deal is known about how teachers assess their students. There is evidence in the international literature, however, that the quality of teacher assessment may be deficient in many ways. Problems that have been identified include the use of poorly focused questions, a predominance of questions that require short answers involving factual knowledge, the evocation of responses that involve repetition rather than reflection, and a lack of procedures designed to develop students' higher-order cognitive skills (Black & Wiliam, 1998; Madaus & Kellaghan, 1992). Observations of practice in African classrooms do not present a very different picture (Ackers et al, 2001; O-saki & Agu, 2002; Rollnick et al, 1998).

672. Several commentators attribute the assessment procedures that are prevalent in African classrooms to the nature of the teaching-learning situation, which is invariably described as one in which the teacher is dominant and pupils are passive. Teachers have been described as talking all the time throughout a lesson, leaving little opportunity for pupils to become actively engaged (Ackers et al, 2001; Bude, 1993; O-saki & Agu, 2002; Rollnick et al, 1998). Other explanations that have been offered for existing assessment practices include poorly qualified teachers, large class sizes, poor facilities, and a shortage of learning materials (including books) and of a place to store them (Carron & Châu, 1996).

673. The negative influence of public examinations on teaching and assessment has also been noted. Eisemon et al (1987) observed that pupils were taught through drill, recitation, and exercises of a fill-in-the-missing-word type, all of which were designed to impart the factual information and techniques that they would need in a public examination. The use of "mock" examination papers (based on public examinations) was also considered to limit the scope of instruction to what teachers thought would be examined, leading to incoherence in lessons. Although repetition and

dropout are complex in terms of their causes and effects (see N'tchougan-Sonou, 2001), it is likely that teachers' assessment practices, as well as public examinations, contribute to them.

Improving classroom assessment

674. If the observations on classroom assessment that have been outlined represent general practice, or even a significant amount of practice, in schools in Africa, then a sea-change, not only in assessment practices but also in teachers' general approach to instruction, will be required if assessment is to contribute significantly to the improvement of student learning. Teachers will need to increase their efforts to seek the active participation of students in their learning, to involve them more in the instructional-learning process, and to insist that they share responsibility for their own learning.

Box 31 Continuous assessment in Swaziland

Continuous assessment has for many years been proposed as a procedure to improve the quality of education in Swaziland. In the 1980s, a conference of senior school and ministry personnel proposed that (i) continuous assessment should deal with non-cognitive as well as cognitive development; (ii) national item banks should be available to teachers to construct tests; (iii) clear guidelines for assessment should be provided; (iv) procedures for recording and interpreting should be common to all schools; and (v) standards should be controlled statistically and moderated in school inspections.

Continuous assessment was piloted in 16 schools in 1991 and 1992. In 1993, it was introduced to all primary schools for English and Mathematics. Problems encountered included large classes, lack of time, lack of teacher competence (especially in the case of unqualified teachers), lack of remedial teachers to provide a back-up service, and the limited value for parents of reports based on the assessments.

A review of the public examination system by the Examinations Council of Swaziland and the National Curriculum Centre in 1994 set in motion the process of incorporating aspects of continuous assessment by teachers into the public examinations system. For the past few years, a mark based on continuous assessment submitted by schools contributes 5% to a student's score on the Primary Certificate Examination.

675. With some notable exceptions in francophone countries, classroom assessment has received little attention in reforms that propose the use of assessment to improve student learning. However, given its central role in the teaching-learning process, and the disadvantages associated with high-stakes public examinations, improving classroom assessment practices should be accorded high priority in any reform that has as its objective the improvement of students' learning.

The use of school-based assessment in public examinations

676. So far, classroom assessment has been considered in the context of day-to-day teaching in which information derived from assessments is used primarily for formative purposes. Assessment data generated in the classroom are also used for for summative purposes (usually referred to as school-based assessment), in which the data contribute to the grade students are awarded in an external public examination.

677. Among the criticisms made of public examinations are that they are limited in the time-frame in which they are administered, in the knowledge and skills that are assessed, and in the techniques that are used. Any of these limitations could result in students not being given the opportunity to demonstrate their true level of competence. To address this situation, several examination systems in Africa have introduced, or are planning to introduce, an element of school-based assessment to their public examinations.

678. Reasons have been advanced both in favor of and against the use of the results of school-based assessment to determine student grades in what is primarily an external examination (Bude, 1997; Heyneman, 1988; Kellaghan & Greaney, 1992; Pennycuick, 1990a, 1990b; Wasanga, 1997). The following reasons have been advanced in support of the use of school-based assessment. First, since school-based assessment is carried out over time and by a person who knows the student well, it is likely to provide a more valid and reliable appraisal of a student's achievements than is possible in a single external terminal examination. Second, school-based assessment permits an extension of the range of curriculum topics which are examined (e.g., a student's ability to plan and organize a project and persevere with it over time). Third, school-based assessment reduces the undesirable backwash effects of external examinations, since grades are not determined solely on students' performance on the examination. Fourth, school-based assessment can make allowance for an untypically poor performance of a student on an external examination, due for example to illness. Fifth, school-based assessment can increase the level of pupil motivation and application throughout the year.

679. Several reasons have also been advanced why school-based assessment may not be appropriate in examinations when results are used for certification or selection. First, the use of school-based assessment when decisions about certification or selection are involved can change the nature of the relationship between teachers and students from one that is essentially supportive and collaborative to one that is judicial. Second, the competence in assessment of many teachers is considered to be poor, or even if it is not, teachers often feel that they do not know exactly how to translate their informal judgments into more formal and public ones. Third, the standards used to grade students in school-based assessment are likely to vary, both between schools and between classes within schools. To address this issue, school-based assessment results may be "moderated" or scaled against written examination results. This, in effect, privileges the external assessment by making the school-based results conform to the standards and distributions displayed in the written examination.

680. Fourth, teachers may be subjected to considerable parental pressure, particularly in small and closely-knit communities. Fifth, school-based assessment requires teachers to devote considerable time to assessment and record-keeping. Sixth, school-based assessment gives rise to a variety of administrative problems for schools, such as what to do when students are absent for tests, or when students transfer from one school to another. Seventh, teachers' assessments are subject to a variety of biases relating to students' gender, socioeconomic background, and personality characteristics. Finally, it is difficult, in some cases impossible, to apply school-based assessment to non-school-based candidates.

681. It is hardly surprising in light of these observations that the implementation of school-based assessment as a component of public examinations has proved problematic in several countries (e.g., Lesotho, Namibia, Nigeria, Swaziland, Tanzania, Uganda). While the aspiration and motivation to introduce it have been high, practical difficulties have on more than one occasion resulted in failure, postponement, or the limitation of the school-based element to a minimal, almost token, amount.

Using assessments and examinations information in the classroom

682. There is much to commend in efforts to use data from examinations and national assessments to provide feedback on student achievements to policymakers, planners, managers, curriculum developers, textbook writers, and the general public. However, there is also a need to move from macro to micro level in the use of the information that is generated. Although it may be widely agreed "that educational reforms live or die by the success of their implementation at the school level" (Verspoor, 1992, p. 23), educational plans invariably fail to pay adequate attention to this issue. This may be due, at least in part, to the fact that getting information to teachers, and effecting changes in their behavior, poses many challenges. Expectations that information from assessments and examinations (in publication of results, newsletters, workshops) will radically alter the culture of schools and substantially raise the achievements of all students need to be tempered by a consideration of the factors that may serve to frustrate the intentions of reformers. Unless these factors are recognized and addressed, policies involving assessment may be very limited in their impact on the quality of student learning. The factors discussed in this section are relevant to a consideration of reform proposals based either on public examinations or national assessments.

683. *Mode of intervention* – The most common mode of intervention involves centralized decisions regarding the input required to bring about desired behaviors in schools. This approach can work when problems are well structured and amenable to relatively standardized solutions (e.g., the provision of textbooks). It is less likely to be appropriate when problems are not clearly defined and when their solution will require a multiplicity of responses depending on local circumstances. This is the case when problems relate to instructional objectives, equity, and quality, in which case more indirect and interactive strategies will be required. Such strategies typically rely on enabling and framework-setting legislative and administrative measures together with targeted financial and professional support for desired local actions (Vespoor, 1989, 1992).

684. *Relevance of information* – There are at least two inherent limitations in the use of data derived from examinations and national assessments to guide the practice of individual teachers. First, since the data, for example in chief examiners' or national assessment reports, relate to general standards of performance in the education system, they may or may not be relevant to a consideration of conditions and student achievement in any individual school. Secondly, items in examinations and assessments and the data derived from them are limited in the extent to which they can provide insights into the knowledge structures or cognitive strategies that they call on. Further, since items are not designed to be diagnostic for individual students, analyses based on results will be limited in the amount of instructionally relevant information they provide.

685. *Teacher competence* – Assumptions that all teachers are competent in subject matter and teach in a coherent and organized way (e.g., that they focus on the instructional targets of an examination) may be based on an unrealistic perception of classrooms (see Arnott & Kubeka, 1997; Carron & Châu, 1996).

686. *Teachers' understanding of implications of changes* – The gulf between what is required in reforms and what teachers understand and actually do can be very large. It cannot be assumed that teachers will know what is really involved in reform proposals, or what they should do on the basis of assessment results. Even when provided with inservice and guidance, the meanings attributed to reform by policy-makers and by teachers may be disparate, since guidance is likely to be interpreted in the context of teachers' existing understandings and practice relating to curriculum and instruction, which may be very different from those of reformers (Chapman & Snyder, 2000; Grant, Peterson, & Shojgreen-Downer, 1996). Providing teachers with information and the necessary skills can be difficult, and teachers may need considerable and continuing support in interpreting reforms and in devising appropriate teaching strategies based on their interpretation.

687. *Complexity of teaching* – It hardly needs to be said that teaching is an extremely complex activity in which teachers continually interact with a large number of learners who vary in their levels of achievement, aptitude, motivation, and interest, and have to employ a multiplicity of strategies in addressing problems associated with poor achievement.

688. Particular problems arise when examinations, as test designers are increasingly striving to do, place emphasis on measuring higher-order skills rather than, or in addition to, general minimum lower-level skills. Evidence is available to indicate that teaching higher-order skills differs in many ways from teaching lower-level ones. Higher-level skills cannot be taught by rote methods; they take longer to teach, develop gradually over time, are less amenable to direct instructional approaches, are often difficult to locate in a curriculum, and may be too diffuse to drive instruction (Airasian, 1988). This does not mean that higher-order skills cannot be taught. There is evidence from a study in Nigeria that when primary school pupils were taught social studies using a problem-approach method, not only did they acquire more facts, they also comprehended material better, and were able to apply their knowledge to the solution of new problems and to evaluation activities (Ogundare, 1988).

689. *Classroom context.* The fact that many classes are very large and have limited resources (space, textbooks and other aids) is an important consideration when reforms that involve change in teaching style are being proposed (Eisemon et al, 1987).

690. *Opposition based on the perception that a change will involve a risk to pupils*. Parents, school authorities, and teachers may perceive changes in classroom practice, and in assessment procedures in particular, as threatening the advantage which pupils have under the existing system (Chapman & Snyder, 2000). Though supportive of steps that might improve the quality of education, they may be more concerned to maintain the comparative advantage which pupils enjoy under existing conditions, fearing that they will do less well in an alternative system, or will suffer while teachers are adapting to it.

Conclusion

691. Public examinations, have received the most attention in proposals to use assessment as a lever of reform to improve student achievements. On the basis that the content and form of the examinations impact immediately and directly on what is taught and learned in schools when important consequences are attached to performance for students (and teachers), a variety of reforms and innovations have been proposed. The available evidence suggests that

- if the content areas of examinations are changed (e.g., a new subject or a new component of a subject, such as essay writing, is examined), the content to which students are exposed in class will indeed change.
- improvements in students' overall achievement levels or in their cognitive processing skills is less clear, obvious and, if it occurs, is likely to be relatively modest.

692. These findings should not surprise us. The present situation is that a great many students underachieve. It is not simply that the scope of their achievements is limited, or the taxonomic level of their cognitive processes low. This state of affairs can hardly be attributable to the quality of the examinations, which are likely to have less influence on student learning than lack of teacher competence, large classes, a lack of resource material, and the difficulty of teaching higher-order skills. It is unrealistic to expect that changing examinations will over-ride the influence of these factors

693. The fact that some examination reforms are being driven by mechanisms involving high stakes (e.g., selection, competition, publication of results) raises questions about the negative (if unintended) consequences that might be expected. In particular, there is a danger that the greatest benefits will accrue to high achieving students. This will happen if teachers focus their efforts on pupils who are most likely to succeed; if low achieving pupils are retained in grade to prevent them sitting the examination; and, if discouraged, students leave school before completing primary education. These are all serious issues in the context of EFA policy that has as its objective ensuring that "recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills." The conflict between the traditional function of examinations, which was to select the highest achieving students for further education, and the goals of EFA, which express concern for *all* students, needs to be recognized, and steps taken to ensure that examinations do not frustrate attaining the goals. At the very least, public examination systems should not be an obstacle to quality improvement, but should support it (by, for example, extending curriculum coverage; including material relevant to the everyday life of students and the needs of the economy; and ensuring that they reflect their certification function by including content which is appropriate for all levels of student achievement). Limitations of public examinations, which arise from the restricted range of knowledge and skills they assess and from the fact that high stakes are attached to student performance, are to some extent addressed by incorporating teachers' assessments into the grades awarded in public examinations. While several examination systems have taken or are taking steps to do this, there are many problems associated with the practice which render it unlikely that school-based assessment can entirely replace external examinations in selecting pupils as long as the number of places available at higher levels of education systems remains as limited as it is in many African countries.

694. While the primary purpose of a system or national assessment is to describe students' achievements, a role in improving educational quality is also envisaged for it. The information obtained in a national assessment about strengths and weaknesses in the knowledge and skills students have acquired, and about how achievement is distributed in the population (e.g., by gender, location), can play an important role in informing policy

and decision-making (relating, for example, to resource allocation). a national assessment can also provide information that is relevant to curriculum developers, textbook writers, politicians, and indeed the general public. Following the communication of information, assessment could become a lever of reform as well as a means of simply describing conditions.

695. A great deal of activity relating to national assessment was generated in Africa during the 1990s. This would seem to be due primarily to the impetus of the1990sWorld Conference in Jomtien and resources provided by international agencies. If this is indeed the case, then questions arise about the extent to which policy makers and planners in individual countries perceived a need for assessments, as well as about their sustainability.

696. The fact that several countries have had as many as three separate national assessments (each sponsored or supported by a different agency) would suggest that the assessments were not in response to locally perceived needs, and are not integrated into the normal structures and activities of ministries. Given the need for such integration, the cost of the activities, and problems in recruiting personnel with the required competence to carry them out, it is clear that there is an urgent need for rationalization. Since national assessments are important for systemic quality monitoring, countries need to devote resources to building capacity for data collection, analysis, and utilization. If the information derived from national assessments is to play a significant role in improving quality, steps need to be taken to institutionalize and integrate them into the structures and processes of government policy making and decision making. This will require the establishment of procedures that will ensure that the information derived from assessments is provided to all involved in policy and management. It will also be important to ensure that national assessments are aligned with other major instructional guidance systems in the education system – other assessment systems (including the alignment of standards), curricula, teacher education, school capacity building, and measures to address inequities.

697. Few African countries have participated in the several international assessments of student achievement which have been designed for industrialized countries. That is understandable and reasonable. Some of the national assessments which have been carried out in Africa do, however, allow some international comparisons. There are indications that some countries are interested in developing this capacity further. However, the main value in international collaboration would seem to reside, not in comparing the performances of countries, but in the opportunities it provides to pool resources to develop the skills required to carry out assessments at the national level.

698. Because they are integral to teaching and learning, teachers' assessment practices in the classroom would seem to have the greatest potential to enhance students' achievements. However, these assessment practices are often of poor quality and, in particular, are unlikely to foster the development of higher-order and problem-solving competencies in students. Unfortunately, improving teachers' assessment practices is also more difficult and expensive than improving or developing other forms of assessment. It will involve (a) improving the assessment skills of teachers in preservice and inservice courses which take account of the conditions in which teachers work (class size, availability of resources); (b) providing guidance to teachers in the use of assessment information in making decisions regarding grade promotions; (c) providing examples of good assessment practices at the end of chapters in textbooks; (d) developing means of communicating information on assessment reforms to classroom teachers, and providing assistance in interpreting the significance of the information for classroom practice.

699. It seems reasonable to conclude from the evidence considered in this paper that assessment information *can* improve policy and the management of resources in education and can shape teachers' instructional practice, but that success is not assured. It cannot be assumed that better assessment will automatically enhance the curriculum and raise standards, just because poor assessment can narrow the curriculum and depress standards (Torrance, 1997). If assessment procedures are to contribute to the improvement of the quality of student learning, at least two conditions must be met. First, assessment policy should be integrated into a broader range of comprehensive and co-ordinated improvement measures, which assessment reforms are designed to reinforce. And secondly, since the success of educational reforms ultimately depends on their successful implementation in classrooms, resources should be provided to ensure that reform policy is understood, and acted on, in schools.

CHAPTER 12
FINANCING QUALITY BASIC EDUCATION

Introduction

700. Countries have committed to a concept of EFA that emphasizes not only access but also, and most importantly, completion with a level of learning achievement that is consistent with instructional objectives specified in the national curriculum. The preceding chapters summarized the experience of African countries as they try to move towards this goal and placed these experiences in the context of African and international research literature. This chapter explores the key issues that countries will need to address to ensure financial viability and sustainability of EFA strategies that aim not only at access but also at quality education for all.

The cost of EFA 2015

701. 707. Bruns, Mingat and Rakatomala (BMR)[72] propose an indicative framework of policy parameters for service delivery and resource mobilization that would allow countries to reach the target of universal completion by 2015. On this basis they estimate the cost for African countries (among others) of implementing these policies, the resource allocations by governments and the external financial requirements.

Table 22 Indicative policy framework

Policy Variables		Range in African sample	Hi EFA Achievers	Simulation targets
Service delivery	Pupil-teacher ratio	24 - 79	40	40
	Teacher salaries/per capita GDP	1.5 - 9.6	3.6	3.5
	% rec. spending on non-teacher inputs	4 - 45	26	33
	% repeaters	1 - 36	10	10
Resource mobilization	Govt. revenues as % of GDP	8 - 26	21	14/16/18
	% govt. revenues for education	4 - 33	19	20
	Primary ed share of govt. spending on education	35 - 66	46	50
	% pupils in privately-financed schools	0 - 36	5	10

Source: Bruns et al (2003)

[72] Bruns et al. (2003)

702. The parameter values for the 2015 benchmark goals in the indicative framework were based on those in countries with the highest completion rates. Depending on each country's initial situation, a gradual process of either increase or decline in each of the above identified key characteristics was simulated to occur between 2002 and 2015. The evolution of student flows is projected in light of the latest data on population trends, and on the survival in the system. The framework has been a useful tool for estimating total EFA resource requirements, but obviously every country will need to develop its own set of policy parameters consistent with its own situation and policy objectives.

703. The cost estimates resulting from the simulation model ran by BMR for each country are based upon the assumption that primary education is completely free to users (no tuition, book charges, teacher supplements, or contributions to construction from the community), while also additional subsidies and incentives are included to overcome demand-side constraints for the most disadvantaged children, including a special provision for stipends to HIV/AIDS orphans.

704. Resource needs for all 33 African countries in the sample is then a result of aggregating the cost and resource estimates from each individual country simulation. The gap to be filled with external support for these countries is estimated at about $1.9 billion per year on average. This means about a fourfold increase in the level of donor support, representing by 2015, 45% of total resource requirements. About 60% of these external resources would be for recurrent budget support. Mobilizing these resources will be a considerable challenge for the international community, which has committed itself to ensuring that "no countries seriously committed to education for all will be thwarted in their achievement of this goal by a lack of resources"[73]. Moreover several analysts have argued that the Bruns et al. cost estimates are too low.

705. This chapter will, first, present and review arguments about the probably higher costs of reaching UPE, before turning to introducing potential ways to address the issue of how additional resources for quality EFA could be mobilized. Then a more in-dept analysis into the important option of mobilization of community support will be presented. A main question to be addressed is how and under what conditions can community support be mobilized in such a way that it is equitable? Options to be reviewed include matching fund strategies, targeting, resource management by communities, and the use of school development plans. The chapter will also look at the conditions under which a direct transfer of resources to communities results in an efficient use.

[73] World Education Forum (2000), article 10.

A lower-bound estimate

706. The authors of BMR acknowledge that the financing gap they found is a lower-bound estimate because the capital cost estimates are related to system expansion and do not capture the important needs for rehabilitation and upgrading:

- about 20 small low-income countries accounting for 6% of all out of school children and several conflict-affected countries were not included;
- capital expenditures do not include the cost of making up for current classroom shortages and rehabilitation of classrooms in poor repair
- cost estimates are based upon an expected reform path supporting a linear trend toward the benchmark goals whereas the reality will not always allow for this and therefore may be more costly.

707. The EFA Global Monitoring Report (GMR) – UNESCO, 2000 – also elaborates the last point, pointing out that there is probably a ***timing issue,*** meaning that **the *expenditures on quality enhancing inputs will need to take place up front, while the resulting efficiency gains will only occur in the outer years,*** and this will increase the total cost beyond the estimates of BMR. In the simulations by BMR the expected transition of any parameter from its current level to its target level is a linear function between both levels for the time frame between the base year and the target year. This means for instance that if repetition is expected to go down from 30 percent in 2003 to 10 percent in 2015, the model will find for each year a reduction of 20/12=1.66%; in other words, in 2004 it would be 28.34%, in 2005 26.67%, etc. It is probably more likely that efficiency improving investments need to be made disproportionally in the early years, while the gains in efficiency will occur largely at the end.

708. ***However, the estimates found by BMR, might be low still for other reasons, in particular as regards the expenditures on non-teacher salaries***. –The GMR argues that the estimates of the cost of EFA are highly sensitive to assumptions about the rate of economic growth, the speed of policy reform and the extent of fiscal reform and underestimates the cost implications of enrolling all girls and children of poorer households, and of responding to HIV/AIDS. In addition, the provision for non-teaching salaries may be too low to ensure quality primary education, in particular as typically a large share of the current allocation is taken up by administrative cost (Rasera, 2003).

709. BMR assume a yearly GDP growth of 5 percent per year.[74] However, if real GDP growth per year would be only 3%, as GMR indicates was about the rate during the 1990s for the 33 countries in Sub-Saharan Africa, surprisingly the simulation model shows a reduction in the average absolute annual financing gap for the African countries from about USD1.85 billion to USD1.68 billion (a reduction of 9.5%). However, as a proportion of average yearly domestic resources the gap increases from 46.4% to 50.4%. The reason for this has to do with the fact that by far the highest cost in the model is the teachers' salaries, and this is modeled to be linked to the GDP/capita; thus a slower growth in GDP with the same population growth would mean a slower growth in the teachers' salaries cost.

710. According to GMR, the continued under-enrolment of ***children from poorer households and girls*** can be explained by the direct and indirect costs incurred when

[74] When GMR indicates that they find that "BMR assume a growth of domestic resources by 7.5 percent per year", than this is partially a result of other aspects under 'resource mobilization' in Box 1 above, like an increase in share of domestic education spending to primary education or an increase in government budget share that goes to education overall.

these families send their children to school. They also find that African data suggest that the removal of both direct and indirect costs to the poor may require an increased cost to the public sector of up to 50% of current expenditure per student for the families involved. To implement an effective program for children from poorer households (consider the poorest 10 percent children) might add at least a 5 percent to the average unit costs of primary schooling. Yet it is not clear to what extent reaching these children will be more expensive. Chapter 9 has discussed alternative learning models that may be appropriate in these situations. Cost data remain uncertain but it is not clear that the cost per learner is much higher than the cost per primary school student.

711. GMR further argues that *AIDS* ***is likely to result in lowering GDP growth*** rates. But this will in fact reduce the external finance requirement use in case of the lower growth rate of 3% instead of 5% discussed above. Other ***potential reasons*** according to GMR that ***domestic primary education resource availability would be lower than without*** *AIDS* are: (i) increased needs for the health sector might make the increase – as expected in BMR – in education spending from 17.5% to 20% of national budgets more difficult, (ii) replacing teachers lost due to AIDS for post-primary increases the salary bill; (iii) there might be a higher need for secondary and tertiary education graduates because of more than normal skills loss in the society. The impact of this is, however, uncertain and difficult to quantify, in particular since post-primary education teacher loss due to AIDS may on average be lower than anticipated (Bennell, 2003).

712. According to GMR the ***cost implications of HIV/AIDS*** for the attainment of EFA goals arise from four broad areas: (i) training additional teachers to replace those dying from AIDS and providing death benefits that education ministries must pay to those who die while still in service, (ii) the costs of training and paying temporary teachers to supply for those on extended periods of sick leave; (iii) incremental school and education program costs for mainstreaming HIV/AIDS; and (iv) orphans and vulnerable children costs for social subsidies to encourage or enable the school attendance of children from families affect by AIDS[75]. GMR estimates that the total additional annual costs related to HIV/AIDS are in the order of USD 975 million, or 74% more than BMR's USD560 million per year. The difference is explained principally by making allowance for education program costs and increased coverage of orphans and other vulnerable children.[76]

713. According to GMR another cost factor is that recent history suggests the need to include ***cost estimates for major complex humanitarian emergencies*** due to conflict, natural disasters, or other types of instability in at least four or five countries per decade. Seen this would require extra educational resources for instance to reach refugees, to do reconstruction of facilities, etc., the costs of achieving the EFA goals would be up to 25% greater than is currently predicted for those countries, or between USD0.4-USD0.5 billion would be added to the average annual costs of UPE[77]. This would increase the projected total costs for all countries to reach UPE by 2 to 3 percent.

714. Recent work by Rasera (2003) reviewed the assumption made by BMR of using a benchmark objective by 2015 of 33 percent of the public recurrent expenditure as

[75] Bennell (2003) however finds from an analysis of household survey data from over 20 countries in SSA that it is not possible to reach broad generalisations about the impact of orphan hood on school attendance. The median attendance rate differentials between, on the one hand, non-orphans and paternal, maternal, and two-parent orphans, on the other, are 4.1, 3.1, and 7.1 percentage points respectively.

[76] The most recent UNAIDS definition of AIDS orphans has also included the children under 15 who lost only their father. Seen they represent 45% of the total number of children who lost one or both parents, the cost estimates by the BMR would increase by about $100 million per year, seen they only include children who lost a mother or both parents.

[77] This is for all countries together that still need to reach EFA, not only for the 33 African countries.

expenditure on non-teacher salaries. The two specific points of investigation were a review of the composition of the current non-teacher salary recurrent expenditure by African countries, and assessing whether the 33 percent is sufficient to cover all the inputs deemed necessary to ensure that a large majority of the students acquires the knowledge and competencies specified in the curriculum (cf. BMR).

715. Rasera breaks down the non-salary recurrent expenditure – found to be currently at 24% of total recurrent expenditure, or USD 9 per student[78] – in four categories: administration salaries, administration other recurrent costs, school-level non-teacher salaries, and school-level other recurrent costs. The school-level other recurrent costs are found to be only 6 percent (about $1.80) of the total recurrent costs for the 8 African countries analyzed in detail (Benin, Burkina Faso, Madagascar, Mauritania, Mozambique, Niger, Togo, Rwanda)

716. In addition to the 24% of total recurrent public expenditure however, there exists expenditure on other recurrent costs by parents, by donors and by local governments. Since BMR indicates that the 33% other recurrent expenditure assumes that primary education would be completely free of costs for households, this should be added to the 24%. Rasera estimates the contributions by parents to recurrent non-teacher salary costs to be between USD 8 – 12[79], by donors about USD 2 and by local governments less than USD 1. This leads to roughly 38% instead of 24% as recurrent non-teacher salary spending. Calculated this way the total non-teacher salary expenditure is therefore already above the 33% estimated by BMR, while it caters just for maintaining the current situation, without even looking at this being sufficient to ensure an acceptable quality of education.

717. In reversing the way of looking at the 33%, Rasera defines a list of 'basic inputs' (see Table 23) needed at the school level to obtain an education of acceptable quality.[80]

718. A two-pronged approach is taken, first indicating a 'minimal level of inputs' and second a 'desirable level of inputs'. A unit cost of USD 16-19 is found for the 'minimal level of inputs' and of USD 33-37 for the 'desirable level of inputs'. Adding administration costs (i.e. recurrent costs beyond the school level) deemed to be required[81] would bring the total for the 'minimal level of inputs' to USD 26-29, and for the 'desirable level of inputs' to USD 43-47.

[78] The USD 9 is a non-weighted average using the expenditure from the 33 African countries used by BMR; the weighted average (i.e. adjusting for population size differences) is only USD 6.

[79] This includes for some country estimates costs for nutrition, transport and uniforms/clothing; a cost probably assumed by BMR to largely stay with parents also after increasing the recurrent non-teacher salary expenditure to 33%. Therefore that part of the cost component is then estimated by Rasera and taken out.

[80] For the detailed costing and explanation of these 'basic inputs' see table 5 of Rasera (2003)

[81] Currently USD 6 is spent on average per child on administration, of which USD 3 is personnel costs and USD 3 is other recurrent admin costs. Having the admin personnel costs grow at the rate of the teacher salary cost growth assumed by BMR would bring this to roughly USD 4 by 2015. For the other recurrent admin costs Rasera assumes it should at least be doubled in order to allow for effective administration, thus would be USD 6 (2*3). Therefore total admin costs per child are assumed at USD 4+6=10

Table 23 "Basic school inputs to allow for education of acceptable quality"

	List of 'minimal level of inputs'	Cost per student ($/year)	List of 'desirable level of inputs'	Cost per student ($/year)
School books	one book per two children in the four main subjects (usable for 3 years)	1.70	One book per child in six subjects (3 years)	5.00
Classroom materials	Unicef kit used in DR Congo for this purpose (including pencil, pen, etc.)	3.50	Unicef kit; plus work book, 180-degree protractor, triangle, compass.	8.00
Dictionary	One per classroom of 40 pupils (5 years)	0.03	Two per classroom of 40 pupils (5 year)	0.05
Classroom Library	40 books per classroom (1 per student) (10 years)	0.20	120 books per classroom (10 years)	0.60
School Library	None	0	100 books (school size 300 pupils) (10 years)	0.70
Consumables	None	0	100 papers per pupil per year	1.5
Teacher guides	One guide per teacher for 6 subjects (7 years)	0.10	One guide per teacher for 6 subjects (7 years)	0.10
Collective school materials	Unicef kit used in DR Congo for this purpose: USD 5 for a kit per classroom; USD 153 for an extra kit for the school (3 years)	0.90	Unicef kit used in DR Congo for this purpose, but at higher cost: USD 11 for a kit per classroom; USD 348 for an extra kit for the school (3 years)	2.10
Phone costs	USD 100 per school per year	0.3	USD 100 per school per year	0.3
Maintenance	Per year 1 percent of construction cost of USD 8,000	2.00	same	2.00
Other (utilities, office materials, etc)	20 percent of total costs minus salary and administration cost (USD 12)	3.20	Same	5.30
School director	Free of teaching duties for schools with 10 classes or more, salary 1.3 times average teacher salary	1.90	Free of teaching duties for schools with 6 classes or more, salary 1.3 times average teacher salary	4.50
Replacement teachers[82]	5% of all teachers (for reasons of illness, maternity leave, etc)	(2.80)	Same	(2.80)
Guard	One per school (salary 30% of teacher salary)	2.20	One per school (salary 30% of teacher salary)	2.20
Secretary		0	One per school for schools of more than 12 classes (same salary as teacher)	0.90
Total		16.03		33.25

[82] Memory item not included in total. If replacement teachers would be included in the provisions made by BMR, than this would mean that the theoretical 40 pupil/teacher ratio in practice would be roughly 42

719. Rasera further finds that the 33% from BMR would represent an average expenditure per child of USD 23 in 2015. Given the many approximations made, this USD 23 could be seen as very close to the 'minimal level of inputs', but without doubt very far from the 'desirable level of inputs' (the latter would mean 48% of total recurrent spending instead of 33%). On top of that, the 33% according to BMR are supposed to also include resources to finance specific actions toward ensuring education opportunities for about 10% of the totality of the children, which are deemed to be children specifically at risk.[83]

720. The situation would be worse still if the 5% annual growth rate assumed by BMR would turn out to be only 3%, because then the absolute value of the 33% would become only USD 17 by 2015, i.e. much below even the 'minimal level of inputs'. This is why Rasera also argues that it would be preferable to put absolute values on the recurrent non-teacher salary unit spending needs, rather than looking at it as a percentage of the total recurrent spending. Even better would be a norm by country to take into account the differences among them.

721. Finally, and most importantly, in the same way as already indicated earlier with the example of the repetition rate, there is probably a timing issue here also whereby the boost to non-teacher salary recurrent spending has to take place well before the quality improvements from it will take their full effect. The increased provision of the quality enhancing material inputs with an estimated cost of $16 per student (of which an estimated $10-12 would be additional expenditures) is needed now to support immediate improvements in instructional practice which can then be bring about the efficiency gains that the model has projected to occur throughout the period. This would increases the annual financing requirement in the early years by about $700 million, representing an increase of about 50% of the annual financing gap during that period.

722. In sum, several conclusions can be drawn from the preceding discussion:

- the sensitivity of the projections to economic growth affects mainly non-salary recurrent expenditures;
- the basis of the resources required to cater to the needs of disadvantaged children including HIV/AIDS orphans is uncertain, especially since alternative – not necessarily more expensive – learning models to reach these children exist
- the impact of the HIV/AIDS epidemic and of conflicts may be considerable but difficult to project
- there is an urgent need to increase expenditures on quality enhancing inputs in the early years of the projection period.

[83] These include for instance girls in rural areas, children from the poorest households, ethnic minority children, children of nomads, disabled children, etc. It does not include orphans seen they are covered in the BMR calculations separately.

Options for managing higher-than-projected cost

723. The BMR estimates only provide very general indications for action at the country level. Each country will have to construct its own policy framework and decide which combination of resource mobilization and service delivery policies is the most appropriate at a particular point in time. In this section a number of possible courses of action will be reviewed, their potential financial and educational implications discussed, and the sensitivity of the BMR estimates to changes in these parameters assessed.

Reduction in salary cost

724. The scope for achieving a reduction in teacher salary cost from the path projected by BMR is likely to be low. The actual mechanics of bringing current levels in line with the BMR target of 3.5 times GDP/capita will already be slow at best[84] and according to GMR for some countries that are far above it the realism of achieving this 3.5 times GDP/capita as average teacher salary might have to be questioned.

725. The potential cost reduction of bringing down the average teacher salary from 3.5 to for instance 3 times GDP/capita would be significant, with nearly a 0.4 billion or 6% reduction in yearly cost, or also 19% reduction in the yearly financial gap (see Table 27). But it is very doubtful if this can be achieved to any meaningful degree in many countries, especially since it may result in undesirable loss of teacher motivation. One area where there might be some scope for further cost reduction is in those countries where currently the salary is less than 3.5 times GDP/capita, and where BMR assumes it will increase to 3.5 times GDP/capita. This would depend however on finding creative ways to ensure proper quality of teaching by such teachers without having to increase their average income level all the way to 3.5 times GDP/capita.

Increase target class size to 45

726. Increasing the target class size from 40 to 45 would reduce the average annual costs for the African countries found by BMR with about USD 470 million or 8 percent, while the annual financing gap would reduce by almost 25 percent (see Table 27). EFA cumulative cost estimates and thus also financing gap would reduce with $7 billion. Of this $4.6 billion would be recurrent cost reduction (fewer teachers needed) and $2.4 billion capital cost reduction (fewer classrooms needed).

727. It is important to note that a more equal deployment of teachers among and within schools – keeping the variations of the groups of students taught by one teacher within a narrow band around the national average – would avoid the large classes and could have a very significant impact on quality in many countries. The financial cost of such a policy would be limited and the benefits considerable[85]. It is discussed in this chapter as part of the opportunities for increasing the efficiency of resource utilization.

[84] BMR suggest that recruiting new teachers should be done with the 3.5 GDP/cap as average (trained) teacher salary in mind, while already existing staff would continue to be paid according to the old salary scales in place

[85] for a full discussion see Mingat, 2003

Increase the role of private schooling

728. Another option to lower the public costs is to try to have the proportion of private schooling increased (typically appropriate for the urban, more affluent population) from the 10 percent suggested by BMR, to 15 percent for instance. The EFA average annual cost estimates for the 33 African countries would reduce by about $228 million, or 4 percent. The annual financing gap would reduce by 12% (see Table 27). EFA cumulative cost estimates and thus also financing gap would reduce with $3.4 billion.

Box 32 Public-private partnerships in Burkina Faso

One example of using public subsidies to attract additional private sector counterpart resources to the education sector is found in Burkina Faso (World Bank, 2001). A project will finance the construction of 200 additional classrooms at existing private schools under a 'matching' scheme whereby each classroom constructed and equipped at existing private schools by themselves will be matched by one additional classroom financed by the project. Only those private schools that demonstrate efforts to improve the quality of education are supported by government through this scheme. The scheme incorporates the experience in a similar project in Burkina Faso at the post-primary level (Maman and al.) where a lack of interest of private school proprietors made it necessary to review the demands on the private schools, which included repayment for the government-provided classroom (the operator would pay back the cost over 5 years, free of interest), and the requirement that the proprietors to build their classroom prior to the government building the matching classroom. The first condition was dropped, i.e. no repayment, and the latter one was changed to requiring the provider to build his classroom within at most one year after the one constructed by the government.

729. *Reduce the need for school construction by double use of classrooms*. In order to lower the classroom construction cost needs, it might be possible to use classrooms twice for different groups of children. If all classrooms could be used twice – however assuming usage by different teachers so that the number of teachers and teacher salary cost does not change-, the EFA average annual cost estimates for the 33 African countries would reduce by about $363 million, or slightly over 6 percent. The annual financing gap would reduce by almost 20% (see Table 27). EFA cumulative cost estimates and thus also financing gap would reduce with $5.4 billion, all of it being capital cost reduction.

730. *Higher share of budget to primary.* There is considerable variation between countries in the share of the education budget allocated to primary education. This variation is largely a function of the share of higher education and the share of administrative cost in the budget. Countries such as Senegal, which are high on both counts, may find it difficult to mobilize the resources necessary for reaching the EFA goals. On the other hand a country like Uganda for example has been able to mobilize significant private resources to finance its system of higher education. As a consequence, Uganda has been able to allocate as much as 65% of its education budget for primary education. Such high levels are, however, unlikely to be sustainable in the long run as the number of primary graduates that seek admission into secondary schools expands and a

growing economy requires increasing numbers of skilled technicians, managers and other higher level staff.

731. The simulation model used in BMR assumes a 50 percent primary education share of government education spending. If this would be possible to increase to 55 percent for the African countries in the period until 2015, the domestic resource availability for primary education would increase by about $263 million or 6.6% per year, or in other words the financial gap would reduce by 14.2% per year (see Table 27).

Increase external funding

732. Increasing the share of external support beyond what is currently projected by the financial projection model raises important questions. First, it is not clear that sufficient external resources – especially grant resources – will be available[86]. Second, this level of aid dependency raises significant issues of financial sustainability. Third, several countries are reluctant to finance recurrent cost – especially salary – from external sources which are inherently unpredictable.

733. BMR find for the African countries an annual resource need between $1.4 and $1.85 billion, or between 32% and 46% of the annual domestic resources available. GMR puts the annual resource needs for all 47 countries (not only the 33 African countries) at a level that could reach $5.6 billion[87] instead of the roughly 2.5 billion found by BMR. For the 47 countries this would mean a financial gap to be filled by external support of close to 40 percent instead of the roughly 17 percent found by BMR. If the $5.6 billion gap would be incurred in the 33 African countries in the same proportion as the $2.5 billion gap found by BMR, then the yearly financial gap for African countries would present more than the total domestic resources they can make available.[88]

Low cost options for service delivery

734. Previous chapters have argued that accelerated progress towards the EFA goals will require providing learning opportunities that are different from the traditional models of schooling. It will require alternative ways of providing learning opportunities to children who live in remote areas or whose social or economic environment makes them difficult to reach for the traditional primary school. In many instances these alternative models have used low cost community based strategies to reach these children.

735. But perhaps most importantly the goal of universal completion of basic education is unlikely to be reached unless the basic education programs are complemented by pre school programs that effectively prepare children for entry into primary level programs and by adult basic education programs that help parents prepare basic literacy skills and provide a supporting home environment for their children's education. Few countries have the resources to implement these programs on a large scale with the standard cost parameters of the formal system. Several countries are developing

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[86] GMR argues that for this first a turnaround is needed from the negative trend between 1990-2000 (new commitments have averaged little more than US$600 million per year), with the bilateral and multilateral financing aid to education having declined towards the end of the 1990s, which was particularly heavily felt in sub-Saharan Africa. There is also a significant change needed in donors' priorities and mechanisms through which aid is channeled. The current low level of external support for primary education may also reflect a relatively unfocused commitment to the MDG on the donor side. Only about 20 percent of donor assistance for education is currently channeled to basic education.

[87] GMR argues that this increases to $4.2 billion as a result of including the small countries that were left out in BMR, by the issue of timing of reform, and by the assumption of economic growth being lower than used in BMR. Other cost omissions according to GMR are the need to increase demand incentives for the poorest resulting in $0.5 billion per year; the underestimation of the AIDS cost adding another $0.4 billion per year; and the extra cost for countries falling to emergencies adding another $0.5 billion.

[88] BMR: $1.85 billion of $2.44 billion is from the 33 African countries, or 76%. Thus 76% of $5.6 billion is $ 4.25 billion, and this is 106% of the $3.992 billion yearly domestic resources in the African countries.

low cost community based models that will allow them to reach large number of children and adults with these programs at relatively low cost.

736. *Early childhood development programs (ECD*). In order to assess if community based preschool programs should be undertaken it is necessary to assess whether those programs would be cost-efficient and cost-effective. The cost per pupil in community based activities is likely to be lower than that observed in a formal setting, but what makes also a difference is that preschools in community based programs are currently only partially subsidized by the government. Therefore, community-based programs are largely less costly in terms of public resources than formal public preschool programs as shown in the table below. The data also suggest that, if there exists a wide variety in per pupil public spending in the formal system of preschool, this seems to be much less the case for community-based programs: all 4 countries analyzed by the study are concentrated between 3.5 and 5.7 percent of the per capita GDP of the country.

Table 24 Per child public spending in formal and community-based preschool programs in four countries (per capita GDP units)

Countries	a) Formal Preschool*	b) Community-Based Preschool	Ratio a) / b)
Cape Verde	0.066	0.037	1.78
Guinea	0.073	0.037	1.97
Guinea Bissau	0.117	0.035	3.34
Senegal	0.306	0.057	5.37
Average	**0.141**	**0.042**	**3.39**

*Authors estimates based on pupil/teacher ratio and teacher salary for all countries except Cape Verde

Source: Adriana Jaramillo, Alain Mingat (2003).

737. The data on the benefits from community based preschool programs are scarce, particularly regarding the impact of these programs on the frequency of repetition and dropout in the course of primary education. According to Jaramillo and Tietjen (2001) who analyzed the cases of Cape Verde and Guinea there is little difference on average in the spheres of outcomes in comparison to formal preschool programs, although the community based programs tend to even outperform formal preschool programs.

738. *Adult basic education programs*. Evidence from programs in different countries seems to indicate that there is a place for this kind of training in the broader goal of trying to ensure literacy for all. Adult literacy courses can be a contributing factor to improving the home learning environment of school-going children who would otherwise not have any support at home of adults with some degree of literacy.

739. As to the cost-benefit analysis of adult literacy programs, several approaches are possible. When for instance comparing such programs to costs of formal primary education, there are two possible viewpoints: one whereby the goal is to measure the unit cost of both types of programs to provide the same number of hours of instruction under similar conditions; while another is to look at the differences in outcomes for given unit costs of both types of education, while acknowledging that the public inputs received under both types of programs may be substantially different (Table 25).

Table 25 Comparison of cost per learner in non-formal education programs and 2 years of primary schooling

Category	Ghana-1 (1992-97)	Ghana-2 (2000-2004)	Bangladesh (1996-2000)	Senegal (1996-2000)
Total cost per NFE learner (a)	$ 27.6	$ 37.1	$ 20.4	$ 98*
Total base cost per learner for two years of primary school (b)	$ 41.9	$ 41.9	$ 32.3	$ 117.2
Percentage (a) of (b)	66%	88%	63%	82%

Source: (a) World Bank. 1999-A. Annex 4. Table 2. p.35 (b) Bruns,2003
* This estimate was made in 1999. The Senegal World Bank Implementation Completion Report of 2002 found $58.

740. Important is also to look at outcomes and to make adjustments as a result of on the one hand course completion and on the other hand effective learning. Table 26 compares for the case of Senegal the impact on unit cost per completer of the NFE as a result of different assumed completion rates. Not surprisingly given the different instructional objectives and delivery modes, the cost of adult literacy programs in comparison with the per 4th grade completer cost of the primary education – which incorporates the effect of drop-out and repetition – remain low, even under conditions of completion rates being significantly less than perfect.

Table 26 Cost Per NFE program completer compared with the investment required to obtain a fourth grade graduate from primary school (Senegal)

Completion rate from literacy program	Cost per completer	
	USD	As % of cost of 4th grade completer
100%	65	10%
70%	93	14%
30%	217	32%

Source: Senegal SAR (World Bank. 1996-B.Annex 2, pg. 4)
Note 1: The assumed equivalence between Grade 4 and NFE completion has no empirical basis.
Note 2: The Senegal adult literacy project aimed to offer each enrollee just 300 hours of instruction, while four years of primary school officially entail some 4,000 hours of class-work over an officially wider range of subjects. In terms of cost per hour primary schooling costs $0.06 per hour per student, while NFE programs cost $0.21 per hour per student.

741. However, what are the outcomes that can be expected from these programs? In terms of what adults learn for this price, there is some evidence from different studies. In Nepal, a graduate of a 9-month basic adult education program could master some of the literacy and numeracy skills of a fifth or sixth grade primary school pupil, as well as demonstrate advances on development indicators (Comings et al., 1997, p. 17). In Uganda, formerly non-literate graduates of literacy programs outperformed Grade 4 primary school pupils in reading and arithmetic and were not far behind in writing (possibly reflecting low effectiveness of instruction in many primary schools); and were significantly ahead of non-literate neighbors in 'modern' knowledge, attitudes and practices (Okech et al., Table 6.16). Therefore – although primary education of good quality should be the preferred means of instruction for all – at least some of the important development effects of primary schooling can be attained through a year or so of adult basic education at a relatively low cost for those who – despite all reasonable public efforts – did not terminate primary education.

742. *Reductions in construction cost through community management*. From a recent review of school construction in developing countries (Theunynck, 2002) it is clear that community-based approaches to construction are cost effective, irrespective of the source of financing (Ministry of Education, Local Governments, Social Funds). Community-based approaches are also demand-driven and thereby can contribute to communities gaining ownership through their participation in implementation.

Box 33 Community managed classroom construction in Mauritania

In a case study from Mauritania[89], which delegated its national classroom construction program to communities, unit costs were cut from USD 18,000 to USD 4,600 eventually, for classrooms with simpler architectural standards, but with the same size and similar life expectancy. Communities were fully responsible for construction, just as if they would build with only their own resources, even though the government would provide 70% co financing. Building decisions were left to the communities; the standard design would be simple enough to overcome community resistance to building with elements deemed non-essential; a project financing system was used that was transparent, easily understood by communities, and that made it difficult to misuse funds; and communities would be supported with technical assistance. Payment of grants is made on a tranche basis, according to whether satisfactory progress has been made in line with project criteria.

In general, strategies for the success of community-based construction include: (i) use of locally available materials, (ii) use of construction techniques familiar to villagers, and to local craftsmen and contractors, (iii) make design improvements limited to those necessary to ensure standard durability and safety, (iv) ensure duties and responsibilities of partners are well defined. Regular technical supervision will help in ensuring that quality standards of construction are met, but does not substitute to close monitoring by communities.

[89] Theunynck. 2002.

743. Also in the case of maintenance, approaches based on communities' involvement are promising. However, the full cost of effective maintenance is often out of communities' capacities. Therefore better is complementing their contribution with the transfer to them of a minimum package of resources tailored and earmarked to maintenance.

Impact of various policy options

744. Table 27 below shows the impact of the options that were discussed above (and that can be quantified within the BMR model) on the total cost, domestic resource requirements and the financing gap. The financial impact especially of a combination of policies could be considerable and – when all would be done at the same time – could reduce the yearly average financing gap by more than 60%, or in absolute total amount from 23.5 billion to 5.8 billion USD. However, while several of the options may be considered especially as ways to overcome short and medium term shortfalls in domestic or external resource availability, most of these options will not be easy to implement without jeopardizing quality improvement objectives in the longer term. Moreover, the cost of non-teacher salary inputs may be more than anticipated and the resource requirements of related EFA objectives in particular early childhood and adult basic education programs are not included in these projections and unless carefully managed, may be considerable. It seems therefore that exploring the possibility to mobilize communities to help finance and operate formal and alternative programs (e.g. for pre-schools and non-formal education) and implement low cost strategies for instance for construction, will be an essential part of the education finance strategy (see chapter 9).

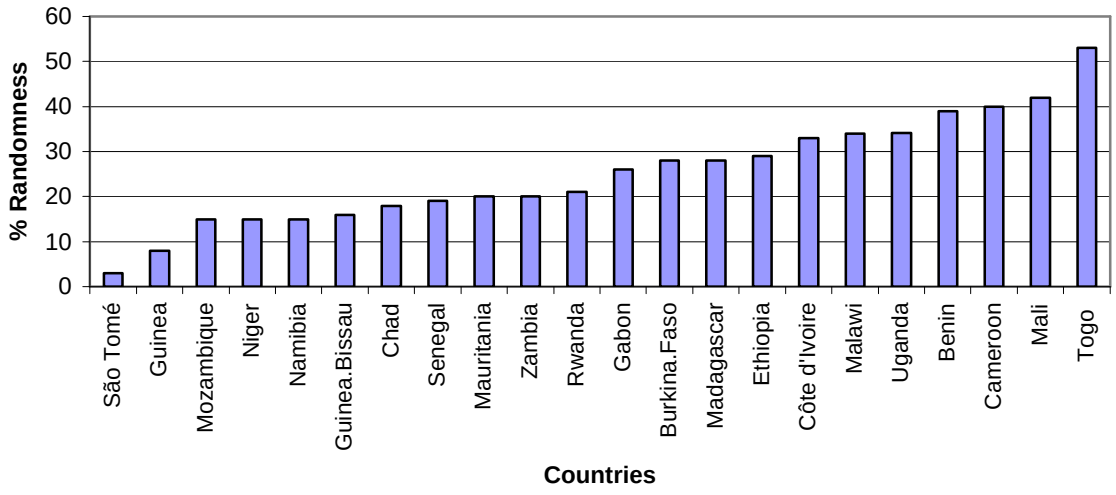
Table 27 Impact of different measures on expected annual EFA cost, domestic resource availability and financial gap

33 African countries	EFA Cost (annual)		Domestic resources (annual)		Financial gap (annual)	
	%change	$ change (million)	%change	$ change (million)	%change	$ change (million)
Salary cost change from 3.5 to 3 times GDP/cap	-6.4%	-373	-0.4%	-17	-19.2%	-356
Share of primary education spending from total change from 50 to 55%	0.0%	0	6.6%	263	-14.2%	-264
Pupil/teacher ratio 40 to 45	-8.0%	-469	-0.2%	-8	-24.9%	-461
Double classroom use	-6.2%	-363	0.0%	0	-19.6%	-363
Private school enrollment from 10 to 15%	-3.9%	-228	0.0%	-2	-12.3%	-227
ALL MEASURES COMBINED	-20.2%	-1182	-0.1%	-4	-63.6%	-1176

Increasing the efficiency of resource utilization

745. Mobilizing additional resources is an important element of the EFA financing strategy. But, perhaps even more important is ensuring that all available resource are used with optimal efficiency. This means, first, reducing the variation in the level of allocation of resources between schools. And, second, enhancing the efficiency with which resources are used at the school level to stimulate learning by spending resources on those inputs (chapter 5) and processes (chapter 6-8) that are known to be strongly supportive of student learning. Mingat (2003a) has analyzed these issues in some detail in a recent paper, focusing in particular on the variation around the average pupil teacher ratio between schools and calculating the degree of randomness in teacher deployment across countries and within Burkina Faso. While it will never be possible to eliminate all variation in the deployment of resources there is a strong case that reducing the variation can contribute to enhanced quality and efficiency.

Graph 10 Degree of randomness in teacher allocation to individual primary schools (percent)



746. The progress towards the EFA objective may require an increased allocation to schools with low resources and low scores, which can be expected to result in an increase in the lowest scores, a reduction in the variation of the scores and of the resource allocations. The challenge here is not so much to eliminate variation but rather to reduce it and use variations in resource allocation purposely to give extra support to schools that work under difficult circumstances or cater to students from disadvantaged background.

Partnerships for resource mobilization

747. The World Conference on Education for All (Jomtien, 1990) and the World Education Forum (Dakar 2000) recognized the significant resource implications of the EFA objectives, and called for a broad partnership for resource mobilization.

> *"If the basic learning needs of all are to be met (...), it will be essential to mobilize existing and new financial and human resources, public, private and voluntary"(World Conference on Education for All, 1990, article 9.1)*

> *"Achieving Education for All will also require more creative and sustained mobilization of resources from other parts of society."(World Education Forum. 2000b, par. 46)*

748. These partnerships are broadly conceived, including not only the international community but also parents and other citizens concerned about education and development. In fact, parents and communities have always made important contributions to education. In many countries they have been solicited to contribute to the construction of school facilities as well as being expected to pay formal and non-formal school fees, purchase textbooks, school supplies, and school uniforms. For many parents and communities these demands have exceeded their financial possibilities. Others, however, have been able to find the resources to enroll their children in private schools.

Equity and community financing

749. In many instances "community support" has involved the mobilization of resources – in cash and in kind – often from the poorest communities. This obviously raises fundamental issues of equity and has created a strong movement to ensure that basic education will be free. But many countries will not be able to mobilize immediately all the public resources necessary to meet the financial demands of the Education for All program with the quality performance objectives as currently formulated. They may as a first step want to establish a policy that ensures **that no child shall be excluded from basic education because of inability to pay.** Such a policy would encourage the mobilization of local resources for the financing of basic education while ensuring that it does not affect the ability of children to enroll and complete their education.

750. It is clear that community support to education is substantial in many African countries (box 34). GMR finds for instance that in six African countries (Ethiopia, Guinea, Malawi, Uganda, Tanzania, Zambia) private household expenditures on education per pupil during the 1990s were, on average, slightly less than half the level of public recurrent expenditures per pupil. Rasera (2003) estimates that for the 33 African countries used by BMR the household contribution per child for only primary is about USD 8 – 12[90]. The government recurrent expenditure on non-teacher salary for these same 33 countries was found to be about USD 9. This clearly indicates the importance of household contributions to primary education.

[90] In some occasions this includes also expenditure for clothing/uniform, for transport and for food.

Box 34 Community financing of education

A study on community schools in Mali, Senegal and Togo[91] found that the average monetary income of a large number of rural families rarely surpasses 50000 FCFA per year. On the other hand, schooling in a fully self-funded community school costs at least between 5000 and 15000 FCFA per child depending on the grade level (evidence from Mali and Togo). In the case of Senegal (community schools PAPA) the yearly cost per child is 40000 FCFA. It is clear that it is very difficult for the average family to send all children to school, especially because there are many other basic needs that require resources from them (water, health, etc.).

Communities have in many places also 'mutualized' the education expense, so that it does not exclusively needs to be born by the current parents alone, but that voluntary contributions of all adults are collected. However, this still does not suffice in many cases.

751. All in all, communities do contribute significantly to education, but this may create inequities. Some recent household surveys looked at household contributions to primary education, separated by geographic area (rural/urban) and by asset or wealth quintiles, which allows to have an idea about both monetary and non-monetary (e.g. labor, materials) contributions by households to primary education in a number of African countries.

752. For the monetary contributions, the results from this admittedly small sample seem to be a somewhat mixed bag. The urban and the richest quintile households spend a slightly higher percentage of their income on primary education, with the notable exception of Malawi. However, as the results for Kenya show, this picture might be already different when taking the expenditure on education as a percentage of only non-food expenditure instead of total expenditure. This turns around the results for Kenya, and thus might do so as well for the other countries. Furthermore, leaving the richest quintile aside (where there is a good chance their result largely has to do with access to private schooling), it is often the lowest quintile that spends the highest share of its income (or expenditure) on education.

[91] Marchland, J. 2000.

Table 28 Household monetary contribution to primary education as a percentage of household income (or expenditure)

In percentages	Uganda[92]	Malawi[93]	Zambia[94]	Burkina Faso[95]	Kenya[96]**
Urban	5.5	7.7	5.0		
Rural	1.8	8.2	1.7		
Lowest	1.5	5.1	2.0	1.1*	3.0 (15.6)
Second	1.5	2.2	1.0		4.0 (21.0)
Third	1.1	1.2	0.9		4.5 (20.2)
Fourth	1.2	1.2	1.2		5.0 (16.3)
Highest	2.7	1.0	3.1	2.1*	5.9 (12.1)
Total			4.2	1.4	4.8 (14.9)

* In the case of Burkina Faso these are the groups 'poor' and 'non-poor' instead of quintiles.
** In the case of Kenya this represents the results for both primary and secondary education instead of only primary. The number in parentheses indicates education. expenditure as a % of only non-food expenditure

753. When looking also at non-monetary contributions to primary schooling, the picture is very clear. Households in rural areas and at the lowest socio-economic levels contribute in a very disproportionate way to schools and even to teachers with their labor, materials, and food.

[92] Source: Uganda DHS EdData Survey 2001 for household (HH) education spending.

[93] Source: Malawi DHS EdData Survey 2002 for household (HH) education spending.

[94] Source: Zambia DHS EdData Survey 2002 for household (HH) education spending.

[95] Results taken directly from "Burkina Faso 1994 Etude sur les conditions de vie des ménages".

[96] Source: WB education sector review draft for Kenya "Education and Training in Kenya" from 2003. (based upon DHS 1998)

Table 29 Percentage of parents or guardians whose households have contributed materials or labor to primary schools and/or teachers within last year

By urban / rural	Schools		Teachers	
	Labor Urb/Rural	Materials Urb/Rural	Labor Urb/Rural	Food Urb/Rural
Zambia	19 / 73	10 / 40	5 / 11	2 / 12
Uganda	8 / 40	9 / 24	3 / 10	5 / 16
Malawi	25 / 72	6 / 20	0 / 3	
Guinea[97]	8 / 22			15 / 48

By quintiles	Schools		Teachers	
	Labor Lowest/Highest	Materials Lowest/Highest	Labor Lowest/Highest	Food Lowest/Highest
Zambia	76 / 14	44 / 10	7 / 4	11 / 3
Malawi	77 / 40	19 / 12	4 / 2	

754. *In a number of instances the contributions of poor communities or poor households have been in kind rather than in cash.* The most common example is the contribution of labor towards the construction and maintenance of school infrastructure facilities. Some programs assign a monetary value to these contributions and account for them as part of the matching funds.

755. A study on financing of education finds that *for capital works, i.e. one-time investments, many communities have a tradition where fundraising collections are possible.* For recurrent funding needed regularly and in a predictable way to keep schools running, this fundraising option is much less feasible, because continually donating is less appealing to potential donors than a construction that is more easily visible (Mark Bray, 1995).

756. Support is also most likely to be forthcoming where the community has negotiated the parameters of support, where there is confidence that the intervention will be completed, and where contributions will remain in the community and be used transparently and effectively to meet collectively identified needs. In many cases, concerted capacity building efforts are needed before communities can play a more active education role. Therefore, using participatory approaches in the planning and early implementation stages, and establishing a process of 'learning by doing' can create the skills, confidence, and cohesion necessary to sustain collective support for the school. There must be recognition that community support is a process, not an event (Watt P, 2001).

[97] ORC Macro. 2001a.

757. *A further threat to equity objectives is the proliferation of community initiatives across different sectors.* Government ministries and different donor agencies often work in isolation from each another (see chapter 4). This results often in a distribution of service provision that does not reflect national priorities. It can also result in unrealistic total demands on communities, and may force choices between basic needs like 'should a household pay towards the installation of a water pump by withdrawing a daughter from school'.

758. Additionally however, within the rural areas there are not only differences among communities in their ability and capacity to contribute to education, but also among individual households within a particular community. The policy challenge is to mobilize resources from those parents and communities that are able to contribute and at the same time ensure that children whose parents and communities are not able to do so are provided with equivalent opportunities to learn and complete the basic education cycle.

759. This challenge has been addressed by (i) strategies providing assistance to communities or schools with variable ratios, and (ii) targeted support for disadvantaged children. These strategies, and some different ways in which have been operationalized are reviewed below.

Support to communities and schools

760. Matching fund strategies are designed to provide an incentive to communities to mobilize local resources by matching them in a given ratio with centrally provided subsidies. The greatest challenge in designing these strategies is making sure that the poorest communities and households – often with very limited cash resources – are not asked for levels of contribution they cannot possibly afford.

761. A possible response to this issue is found for instance in the Tanzania Community Education Fund project (chapter X) where *more favorable financial conditions for the weak schools were introduced and more active involvement of district councils* for these schools ensured. In fact, the very small contribution of the poorest communities was topped by district funds, and this total amount further matched from central funds. Several project reports also mention that weak schools needed more technical assistance in the stage of needs assessment and grant design than had originally been programmed.

762. Devolving responsibility for setting contribution levels for matching funds down to the community may help address this problem. If the community decides how much it can afford as a matching grant, and the poor have the voice in this decision making, this process becomes an important safeguard against inappropriately high grant requests. Roberts-Schweitzer et al. (2002) find that communities can find ways to identify the poorest (and largest families) in order to avoid excessive burdens on those at risk by waiving fees and providing support to meet other school expenditures. Community approved self-imposed transparent school contributions seem to be a better instrument of school financing in comparison to the hidden fees and levies that are often lost in the pockets of school principals or the finance offices of district administrations.

763. On the other hand however, planning capacity at the community level is usually weak, and contributions are often set at levels that the most vocal and privileged members find affordable. Unless community education programs include safeguards against such practices, community support can produce inequities. In any case, whether contribution levels are set by government or by the community, equity objectives can be met only if program design is flexible enough to allow contributions to be adjusted between and within communities according to ability to pay.

764. But often the problems go beyond the initial commitment to contribute resources, *operating procedures and mechanisms are equally important.* From a cash matching grant scheme in Ghana under the Community Initiative Project also a number of interesting lessons were learned (see Bray, 1995):

- During periods of high inflation it is essential to make prompt payments to communities and to adjust grant levels (in the local currency) frequently.
- To maintain morale, disbursements for sizeable projects should be made in stages rather than in large lump sums on completion.
- Approval and payment processes are better decentralized because central authorities cannot be aware of all local conditions.

765. School development grants are an increasingly common way to provide direct support to communities (see chapter X). The grants typically provide financing for school development plans prepared by school staff, community education committees or school management boards, following a screening process with awards on a competitive basis. However, the challenge again is how to ensure that poor communities can participate fairly. The Guinea Program for Small Grants to Schools (PPSE) discussed in chapter 8 is an example of such a scheme.

766. Roberts-Schweitzer et al.(2002), analyzed school development grant programs in thirty seven World Bank supported projects. They found that specific ways to address equity issues include:

- Allocating specific grant funds for categories of schools which are deprived or include marginalized populations;
- Targeting the grant program to poor or otherwise deprived areas;
- Dedicating increased time and technical assistance to weaker schools/districts, to allow them to better be able to benefit from and compete for funding;
- Clustering schools to enable them to support each other in proposal development and implementation.

767. Twelve out of thirty seven projects reviewed included a competitive screening process for the grant proposals. This competitive process – unless focused on certain types of schools only – can work against schools with weak organizational capacity, which may be well motivated but have little capacity or skills. Often it will be necessary to reserve a proportion of the awards for schools in the most disadvantaged communities, like was done for instance in the School Improvement Project in Uruguay.

Box 35 Targeting in the school improvement project in Uruguay

A demand-driven approach was used were grants were awarded to schools depending on the validity of their proposal. However, in the grant allocation process an overall balance was maintained on the basis of schools' socio-economic classification. Of the total number of grants 54% were allocated to high-risk schools, 30% to average-risk schools and 16% to low-risk schools. One of the outcomes was that it helped to reduce the gap in academic achievement between schools in more favorable and in more disadvantaged areas. However, it was also clear that the impact was greater on average in schools that had already a more positive internal climate and greater interaction. between teachers and parents. On the other hand, the impact was lower on average in schools with high turnovers of teachers and principals.

Source: Roberts-Schweizer, (2003)

768. Cluster schemes, where weaker schools can be assisted by others, can also work to address this equity need. The grant project in Cambodia[98] used the concept of clustering for on average 5 to 8 schools. But in some circumstances the equity challenge was transferred from the school to the cluster level, as progress among clusters was uneven. Clusters that are weaker as a whole needed more technical support and more resources in implementation. Additional difficulties may occur when within a cluster, the resources may not always be directed towards addressing the needs of the most disadvantaged schools.

Providing direct support to students in difficult circumstances

769. In several instances issues of education disadvantage have been addressed by interventions targeted at individual students or groups of students. This support can be provided in the form of scholarships or income transfers linked to the attendance and performance of the designated children in school. Ideally it should be progressive and related to the poverty of the household. The most common intervention of this kind has been the provision of scholarships for girls but other examples include interventions to HIV/AIDS orphans. On a large scale these interventions are often costly. Sustaining them will often require a careful targeting to those students that need it most.

[98] Roberts-Schweitzer, et al. 2002.

Table 30 Effect of incentive programmes on primary unit costs for six African countries

Country	Intended recipients of subsidy	School children receiving incentive (as % total enrolment)	Proposed size of subsidy per beneficiary (in $ PPP)	Increase in primary unit cost (as%)
	1	2	3	4
Ethiopia	Rural girls in disadvantaged areas	20	100	10
Ghana	Rural girls from disadvantaged backgrounds	15	61	5
Guinea	Rural girls	13	31	2
Mali	Rural girls	2	35	1
Senegal	Rural children, partucularly girls	2	44	0,6
Zambia	Rural girls sanitary protection)	8	32	4

Column 1 describes the intended recipients of the subsidy; column 2 gives the percentage of total enrolment represented by this group in the base year (in each case, in the mid to late 1990s). Column 3 shows the proposed size of the subsidy (in purchasing parity dollars) for each recipient, and column 4 shows the percentage increase in the base-year average weighted unit cost of the proposed incentive programme assuming the reported level of coverage (column 2) and base-year enrolment levels.
Source: Colclough et al. (forthcoming)

770. The table above from GMR suggests that effective incentive programs for girls or for children from poorer households in general to attend school might add at least 5 percent to the average unit cost of primary schooling. In the 47 countries included in BMR, this would add about $0.4-$0.6 billion to the average annual additional expenditures required. These would increase the size of the average funding gap presently projected in the World Bank study by perhaps as much as 20 percent[99].

771. Effective targeting depends on robust and up-to-date data, available at different levels of desegregation, which provides a clear picture of the means and needs of each education stakeholder. Yet often this data is unavailable, or is not put to good use in planning and implementation, either because of capacity constraints, or because the link between data and effective planning is not fully appreciated. Even where good quality data is available and is used, targeting public subsidy poses major challenges. Income thresholds for determining eligibility are notoriously difficult to define and implement[100] In practice targeting has been effective where the beneficiaries are clearly identifiable, or where broad geographical criteria have been adopted. More precise targeting of individual beneficiaries (poor household within a community) is much more difficult and may only be feasible where communities are ready to fairly identify the most needy households.

[99] Unesco. 2002.
[100] Watt, P. 2001.

Box 36 Providing support to girls in Malawi

In Malawi during the 1990s the Girls' Attainment of Basic Literacy and Education (GABLE) program was set up with assistance of USAID[101]. To reduce the costs of schooling school-fee waivers for non-repeating primary-school girls were introduced, and a new policy on pregnancies was adopted, allowing schoolgirls to return to school after having had their baby. Enrolment and persistence of girls in schools was positively affected, with a 13% enrollment increase per year compared to only 8% among boys. Villages where social marketing campaigns had been held witnessed unprecedented increases in enrollments. The key to success seems to have been the way in which various factors constraining the participation of girls in school were tackled simultaneously.

Conclusion

772. Reaching the EFA goal of universal completion and acquisition of the knowledge and skills specified in the national curriculum by all children is an objective that will more than require the policy reforms aimed to increase the efficiency of resource utilization, mobilize additional national resources and the increased support of the international community as specified by Bruns et al. It will require a larger than projected investment in essential inputs in the early years if the simulation period to create the preconditions for improvement in instructional practice and outcomes.

773. In many countries this will require a determined effort to build partnerships with communities and civil society that will make it possible to mobilize additional resources to complement those mobilized by governments and external agencies. Moreover, to ensure that all students are reached with meaningful and equivalent opportunities to learn, it will often be necessary to carefully target public resources that exceed average national expenditures per student on groups of the poorest and most disadvantaged students and communities.

774. Partnerships with communities and parent organizations are an important way to broaden ownership and strengthen the resource base for programs that aim to make the provision of quality education a reality for even the poorest and most disadvantaged children. Parents and communities often contribute significant amounts to the education of their children. The financial challenge of the Education for All programs is to ensure that what parents can and do contribute is complemented effectively by public funding in such a way that no child is unable to access opportunities for quality learning. Emerging experience suggests that two policy areas are important in this regard (i) meaningful involvement of communities in decisions on the allocation of the resources available at the school level and (ii) effective targeting of adequate public resources at the most disadvantaged. Countries will need to analyze different options and variations of the indicative policy framework proposed by Bruns et al. to ensure that their national EFA policy framework provides the resources necessary to reach all children with quality education opportunities and do so in a financially sustainable way.

[101] Unesco. 2002.

CHAPTER 13
TOWARDS A CULTURE OF QUALITY: A STRATEGIC FRAMEWORK

775. Education has become the linchpin of development. Economic progress, social development, peace and democracy all are inextricably linked with a nation's ability to educate its children. The underperformance of education systems throughout Sub-Saharan Africa (SSA) has been an important factor in the failure to accelerate development. Without the ability to generate and apply knowledge, Sub-Saharan Africa (SSA) Africa cannot hope lift its people out of poverty.

776. Major strides have been made on the continent to expand opportunities for children to enroll in school. But the opportunities to learn in school have not expanded at the same pace. As a result less than a third of Sub-Saharan African children complete primary school with the knowledge and the skills specified in the national curriculum (chapter 1). Recent studies find economic growth to be associated not only with the number of years of school attendance of the labor force, but more importantly with what workers have learned[102]. Building a quality education system therefore is a critical development imperative, which no country can ignore. But without a quality foundation in basic education this challenge cannot be met. There can be no doubt, therefore, that quality improvement in basic education must be the number one education development priority for virtually every country on the continent.

777. Quality improvement is a challenge that many industrialized countries have struggled with for several decades. There have been many disappointments and failures; at the same time much has been learned and there is an increasingly solid knowledge base on promising reform strategies. It is that knowledge base that this paper has tried to strengthen and enrich focusing on the experience from Sub-Saharan African countries.

778. This chapter returns to the central question that this paper has investigated:

> *What are the options African countries can consider for improving the quality of instruction and learning achievement in basic education in a financially sustainable way?*

779. Clearly this question has no single or simple answer that applies equally to all countries in sub Saharan Africa. Every county will have to assess its own situation, reflect on the challenges it faces and formulate a strategy that aligns national priorities and local conditions. Yet country experiences and the research evidence presented before suggest that there are important conditions for, and elements of successful action that apply widely across the region. The particular combination of these elements – the pillars – of effective strategy will not be the same in every country. The relative priority will vary, the combinations will be different and each country will have to reinvent key parts of its own "wheel".

780. Successful quality improvement has two elements[103]. The first is a shared vision among educators in the country on the process of teaching and learning, which makes explicit the pedagogical assumptions as regards how children learn, what level of performance is expected and which instructional strategies are effective under which conditions. This provides the foundation for a "culture of quality," which will guide the

[102] Hanushek, and Kimko. 2000; Barro,. 2001

[103] Fullan, 1999.

"what" of a quality improvement program. The second is a strategy of implementation, providing the 'how" of the reform program. Experience suggests not only that that implementation matters[104], , but that in fact it is of the essence.

781. This chapter summarizes the findings of the analyses in the previous chapters. It highlights Sub-Saharan African and international experience with those elements of quality improvement in basic education that have been found essential to policy and strategy implementation. It then examines the features of a "culture of quality" and the building blocks of a strategy for the implementation of quality improvement programs.

The seven pillars of quality improvement

782. The 22 case studies and the more than 30 background papers that have been commissioned by the ADEA quality taskforce document the wealth of experience that has been drawn upon in the preceding chapters. As in the industrialized world the path of quality improvement in Sub-Saharan Africa has often been rocky and strewn with obstacles. There are experiences that provide warnings and lessons about the obstacles to avoid. But also, and perhaps most importantly, there are promising experiences that offer lessons on the way forward. These experiences are summarized here in terms of seven pillars of quality improvement: create the opportunity to learn, improve instructional practice, manage the challenge of equity, increase school autonomy and flexibility, nurture community support, ensure a realistic financial framework, and respond to HIV/AIDS and conflict situations.

Create the opportunity to learn

783. Many Sub-Saharan African children never have a real opportunity to learn. Their parents are often poor, illiterate and do not know how to support learning. Many students are in poor health, malnourished and hungry. Few have had preschool experiences to prepare them for the formal schooling. The schools they attend lack the essential inputs necessary for effective instruction.

784. *Home support and school readiness*. Successful learning is strongly influenced by the interaction between home and school. Efforts to improve the quality of education are greatly enhanced by a supportive home environment. Such an environment helps the child to be ready when schooling starts – most often around age 6-, ensures attendance and supports learning during the schooling period. "Learning begins at birth" and " the pre-conditions for educational quality, equity and efficiency are set in early childhood years, making attention to early childhood care and development essential to the achievement of basic education goals".[105] The period up to 8 years of age is of supreme importance for emotional, intellectual and social development. Interventions at this stage can have a strong and lasting impact on the health and welfare of adults, and on performance in school. And many of these effects are greater for girls and children from disadvantaged communities. The care and education of young children (ages 0 – 3 ans), a period when critical functions develop in the brain – is, first and foremost, the responsibility of parents, but governments can help parents acquire the necessary knowledge and skills to carry out this role effectively. For children ages 4 – 6, the issue of school readiness becomes critically important; this is the time where care-givers help children to develop the perceptual, intellectual and social skills that will enable them to learn to read and write with facility during their first few months in primary school. The

[104] Bah-Lalya and Sack, 2003

[105] World Conference on Education for All. paragraph 20.

evidence on the effectiveness of *early childhood development (ECD) programs (including pre school)*[106] from the industrialized and the developing world-including Africa is compelling. Effective ECD leads to increased enrolment at primary and secondary levels and improved progress and performance.

785. Even poor and illiterate parents can support the education of their children. One the strongest effects of *adult basic education* programs is the motivation of parents to enroll their children in school, provide a supportive home environment and make sure they stay enrolled. They can also provide parents with information and training on effective child rearing practices. The family literacy programs discussed in chapter 9 may be a promising way to strengthen the home school linkages.

786. Quite clearly strategies to improve the quality of basic education have to look beyond the primary school for support by adult basic education, early childhood and pre-school programs. The issue then is not whether adult basic education or ECD programs can have a positive effect on students' performance in school. There is considerable evidence (chapters 5 and 9) that well designed programs do. The challenge is to develop and test delivery mechanisms that are replicable and affordable (chapter 12) by (i) targeting public support on the most disadvantaged groups who need these programs and can afford least to contribute in cash; and (ii) ensuring community management and support of these programs. Adult basic education programs in Senegal and Uganda (Chapter 9) illustrate ways to do this. In several countries, for example Mauritania, community based approaches are being tested which when taken to scale would require less than 5% of the basic education program budget

787. *Essential inputs and supplies are in place.* An adequate supply of essential inputs is a necessary but clearly not a sufficient condition for learning. Several times in the previous chapters the case has been made been made that inputs by themselves do not result in learning without effective process of instruction. At the same time it is quite clear that without an adequate supply of inputs attempts at school improvements will be doomed. Chapter 5 has identified a set of inputs that have a particularly strong relationship with learning achievement. Chapter 12 provides some cost estimates. Table below summarizes theses analyses:

[106] Hyde, Karin A.L. Hyde and Margaret N. Kabiru. (2003)

Variable	Promising Avenue	Blind Alley
Curriculum	Using African languages as medium of instruction in early grades Content organized in a limited number of subjects Direct instruction with supporting structured materials	"Colonial" languages Discovery learning and open ended instruction
Learning materials	A textbook in core subjects for every child Notebook and other supplies Sundry classroom supplies Teacher guides Classroom library	Computers in classrooms
Time	1000 hours of instruction Regular teacher presence Arrangements for substitute teaching	Double shift use of teachers
Infrastructure	Community managed classroom construction Double shift use of classrooms	National competitive bidding
Teachers and schools	Continuous in service training and support More female teachers Distance education for teachers School based management Training head teachers as instructional leaders Support by pedagogical counselors	Lengthy pre-service training Centralized management Inspections Specialist teachers
Students	School lunches Community managed ECD and pre-school programs School health (micro nutrients and parasites)	Services provided by central government agencies
Parents	School management committees with authority on resource allocation and school organization Adult basic education	

788. Quite clearly every country will need to consider what its list of essential inputs will look like given its financial resources and the demands on its education system. But a key first step in every quality improvement process must be a strategy that ensures that every school has at least a package of essential inputs that allow it to function productively

Improve instructional practice

789. There can be no quality learning without effective instruction. Improving the instructional process goes to the heart of schooling. Quality instruction cannot be mandated. It must be adapted, adopted and applied by individual teachers. Chapters 6-8 have reviewed the knowledge and experience that has been gained with different strategies that can help teachers improve their practice. In this section four are highlighted.

790. *A relevant curriculum*. A relevant curriculum is one that connects learning to the child's experience and environment, responds to parental expectations and demands and at the same time prepares students not for today's world but for society as it will develop in the next fifty years. Connecting to the students' context means in Sub-Saharan Africa first and foremost moving to mother tongue instruction – at least in the early grades. It also means a content that builds on the local environment and culture. The experience of Zambia, Mali and Burkina Faso with the use of African languages as the medium of instruction demonstrates how these challenges can be tackled.

791. Responding to the labor market expectations of parents and society means that the curricula will need to emphasize the acquisition of basic skills. More than 35 years ago W. Arthur Lewis – winner of the 1979Nobel prize for economics – observed in a paper presented at the 1966 IIEP symposium on the "qualitative aspects of education planning with particular reference to developing countries" that "the students needs for flexibility is matched by society's needs where the nature of jobs to be done is subject to change". Basic education he continues "ought to lay a foundation which will enable a worker to change his skills as opportunities change" (Lewis, 1969). This case for a curriculum that emphasizes the acquisition of generic cognitive skills in basic education is even stronger today than it was in 1966.

792. *Competent teachers* The classroom is where inputs are transformed into learning. Without a competent teacher no curriculum can be implemented effectively. In Sub-Saharan Africa, improving teaching practice will require changes in the traditional rote learning methods that still dominate the vast majority of classrooms. In light of the well-documented difficulties faced by efforts to shift instructional practice towards open-ended approaches, e.g., child-centered, activity-oriented teaching, in both Sub-Saharan Africa and other parts of the world, a shift towards instructional practice that is more direct and explicitly focused on learning appears as a more realistic option. Regardless of the approach adopted, however, there is need to be cognizant of the reality of the African classroom with often very large student numbers or multi-grading. Promising instructional methods for these situations do exist – they include the use of highly structured self-learning materials accompanied by the explicit teaching of new content, as in Escuela Nueva and BRAC.

793. Whatever instructional practice is adopted by a country as desirable has implications for how teachers are prepared, at both the pre-service and in-service levels. In this respect, very significant changes are taking place in the way teachers are trained, hired, and remunerated. Many Sub-Saharan African countries are recruiting teachers with more general education, shorter pre-service preparation, and more classroom based teaching practice experience (see for instance the case of Guinea in chapter 7). In many countries new teachers, with or without pre-service preparation, are hired as contract teachers often by district authorities or communities. This places new demands on the in-service training systems which must respond to the needs and the wants of an increasingly diverse teaching force. Uganda and Guinea have tackled this challenge with programs that reflect a strategy of decentralized delivery of programs aiming at

continuous improvement of teaching practice instead of the traditional centrally directed occasional in-service events (chapters 7 and 8).

794. *Head teachers as instructional leaders.* Central to the task of quality improvement will be the head teacher. Often his role has been reduced to an administrative one. Yet there is ample evidence that successful quality improvement is a whole school process led by the head teacher. Instructional leadership is the new challenge for which few head teachers are well prepared. Improving the selection of head teachers to a process that is competence based rather than seniority based is a first step. In addition, the training programs that a number of countries have launched (chapter 7) to prepare the head teachers for the demands of this role are examples of promising practice that has the potential to contribute significantly to the goal of quality education for all.

795. *The early years*. The first two years of schooling are particularly critical to a child's educational future, for in these years the foundations of the basic literacy and numeracy skills are built. Gauthier et al. (2003) cite research that suggests (for the US) that the level of reading competence at the end of the first year of schooling is a highly reliable indicator of future successful learning performance. And yet many children are particularly poorly served in these early years. The classes – often with a very high proportion of repeaters – are often large, much larger than in the later years when many children have dropped out. The teacher is often inexperienced – more senior teachers teach the higher grades to prepare students for national end-of-primary school examinations. The language of instruction is often unfamiliar. The routines of schooling are usually unknown to the child and inappropriate for his or her age. Unsurprisingly, failure rates are high.

796. A convincing case can be made that quality improvement strategies will need to give special attention to the early grades. Avoiding large classes by combining upper grades and splitting the first grade, assigning experienced teachers to first grade and using the mother tongue as the language of instruction are measures that are not particularly costly and can improve learning performance of many children. For example the Zambia "break through to literacy program" cost only about $1 per child, per year. An important priority will be to improve the quality of reading instruction (Gauthier and al., 2003). With competent teachers and appropriate class sizes, there is no reason why an African child taught in the mother tongue would not have mastered basic reading and writing skills by the end of grade one, as is common on other regions of the world.

Manage the challenge of equity

797. Education will contribute to poverty alleviation only to the extent that it reaches all children, including those poor and rural children – especially girls – who do not have access to education at all or only to low quality learning opportunities. The quest for quality can therefore not be at the expense of equity. An equitable strategy is one that aims at the same set of core instructional objectives for all children (chapter 3). But it does not follow that the education process and delivery mechanisms will have to be the same. Quite the contrary. It is clear that it will be impossible – and not even desirable – to try to reach all children with the traditional model of the six classroom/six teacher school. Flexibility in delivery mechanisms and in instructional process is central to meeting the equity objectives embedded in the EFA agenda, provided that such diversity is placed within an integrated system where every child has a real opportunity to learn and achieve at a level that gives him a fair chance to pursue his education, contribute to society and family's social and economic well-being.

798. Many countries have developed alternative ways of reaching children (chapter 9), though often these programs take place on a small scale and are outside the government school system. Some alternative programs have become firmly embedded in the communities they are designed to reach[107] but others had difficulty moving beyond the pilot stage. Many remain dependent on external financial support. Few have become an integral part of national EFA strategies and financial frameworks. There are exceptions such as Senegal where the literacy program and the *écoles communautaires de base*[108] are fully integrated in the national EFA plan and supported financially by several donors in the framework of a 10 year investment program. Much of the evidence on the effectiveness of multi-grade instruction and on the use of African languages comes from experiments in schools that are outside the traditional system[109]. In some – but too few – cases[110] these experiences have resulted in national policy.

799. Yet major challenges remain in helping government school systems adopt a policy of diversity and encourage schools to consider flexible and affordable delivery mechanisms that provide a common core curriculum to groups of children in diverse environments. Documentation and analysis of costs and learning outcomes of alternative programs remains deficient in many cases. Many programs have not been able to provide children with a chance to move into the formal system. Many programs receive little support from the national budget and are heavily dependent on the willingness of external donors – often NGOs – to provide essential financing. This situation needs to be reversed if the goals of EFA are to become a reality. Programs with high cost per learner cannot be accommodated within a sector financial framework. Parallel system with perceived unequal, dead-end outcomes will be rejected by the public. The challenge is to demonstrate the programs' cost-effectiveness to national authorities – including the Ministry of Finance – and donors and to convince parents, teachers and other stakeholders of the equivalence of learning outcomes.

Increase school autonomy and flexibility

800. National policy can provide an enabling environment but ultimately quality improvement will depend on action taken in schools and in classrooms. This requires that the authority and the resources to act are shifted to the school level. Many African governments are recognizing this and are supporting a gradual move towards school based management. At the same time they are changing the nature of school supervision.

801. *School based management.* Large changes in the way education is managed are taking place throughout the region. Virtually all countries are decentralizing management functions to regional or district offices of the Ministry of Education or to local authorities. Schools in Sub Saharan Africa are expected to become increasingly self-managed and make decisions about curriculum, budgets and resource allocation and staff and students. Within nationally defined standards and operational parameters schools have increasing flexibility to adapt school organization and instructional practice to local conditions. Teachers are being encouraged to adapt reforms and innovations to local conditions and student learning needs. The resource transfer takes place as conditional block grants (Uganda and Tanzania), as support for school development projects developed at the school level (Guinea, Madagascar, Senegal) or through subsidies to community owned and operated schools (Chad). There is a large variation in the way these processes are being implemented, and progress is almost always uneven and slower

[107] The Nigeria nomadic education program is a good example.

[108] Senegal "faire faire" case study

[109] Burkina Faso study by WGNFE

[110] For example the "pedagogie convergente" in Mali is now national policy

than expected. Government financial procedures are often poorly adapted to the demands of decentralized financial management. But, most important, it is the lack of experience and capacity constraints at the school level and in the school management committees that has often limited the expected results. At the same time there are several promising experiences that have been documented in chapter 10, which suggest that a persistent effort at building capacity for planning and experimentation at the school level can help to create an environment highly conducive to quality improvement

802. *Monitoring, supervision and support.* The move towards school based management has important consequences for central ministry offices. Their role is evolving towards (i) setting norms and standards; (ii) providing adequate financing; (iii) monitoring policy implementation and assessing progress in student learning. The latter function is particularly critical in a context where quality improvement is the key focus of policy reforms and education development programs. SAQMEC, PASEC, MLA and NESIS have helped countries strengthen their capacity to collect and analyze data on trends in system performance and student learning. This is of critical importance. Reliable data – including data on quality enhancing inputs, processes and learning results – are essential to the successful management of quality improvement programs especially in a context of scarce resources. In such an environment learning from experience can become increasingly driven by evidence – based on qualitative and quantitative data.

803. Monitoring of progress through quantitative surveys and statistics will not suffice. Schools will need support and supervision as they address quality issues. This requires changes in traditional supervision functions. In many countries the role of inspectors is increasingly one of pedagogical support and counseling and less one of administrative supervision. In some countries the two roles have in fact been split to avoid role confusion that may reduce the effective performance of either function (Brunet, 2003).

804. In sum. Increased school autonomy and flexibility are enabling countries to shift the operational responsibility for quality improvement to the school level. The school is recognized as the unit of change (chapter 8).. The central ministry offices are shifting gradually to create the conditions that enable schools to play this role by providing the necessary resources, providing professional support for improvement in instructional practice, monitoring progress and taking remedial action when necessary. These process have started in many countries, but they will need to be intensified and continued to ensure a sustained process of quality improvement.

Nurture community support

805. As noted above quality improvement results from the interaction of parents, communities and schools. Increased school autonomy is a policy that almost always has been pursued in conjunction with a strengthened accountability towards the community. In several cases parents have established schools and then obtained additional support from the government. In others school management committees were established or existing PTAs were empowered to participate in decision making about issues such as the preparation of school development programs or the allocation of school resources.

806. Traditionally communities have contributed to school development mainly through contributions for the development of physical facilities and equipment. But increasingly their role is broadening and they are becoming partners in school development including efforts to enroll and retain children, set expenditure priorities, discuss curriculum adaptations and sometimes even get involved in school management. In Mauritania for example teachers' eligibility for a "remote location bonus" is contingent upon community certification of regular presence. In other countries communities are

involved in the identification of eligibility of fee waivers or scholarships for poor children (chapter 10 and 12)

807. But in many instances communities have not been able to contribute as effectively to the improvement of education opportunities as had been expected. Lack of personal experience with schooling, little knowledge about financial management, confusion about authority, role and responsibility of community based institutions have often thwarted the potential of community involvement. On the other hand where these issues have been dealt with effectively through agreements between stakeholders on organizational and financial management arrangement, information sharing and training, real partnerships between governments and communities can be established and good results can be achieved (Glassman and Millago, 2003). NGOs have in many instances been instrumental in facilitating this process.

Ensure a realistic financial framework

808. The resource requirements of quality education for all are considerable (chapter 12). Mobilizing these resources will require a consistent effort sustained over time. Many countries will need to increase the allocations in government budgets for basic education. The international community will need to live up to the commitments it made at the World Education Forum in Dakar. In many countries communities will need to add to these resources. It will be important, however, to support the inputs and processes necessary for effective teaching and acceptable learning achievement and to ensure that no child will be excluded from school because of his or her parents' inability to pay. The governments' allocation of resources within the basic education sector will inevitably involve difficult choices to ensure that:

- About $10-15 per child per year is allocated for non teacher salary school level inputs.
- Salaries are established at a level that attracts and retains competent teachers and allows the country to reach its education for all objectives.
- Class sizes are manageable and affordable.
- Community contributions are set at a level that members can afford and that are based on a consistent and equitable policy throughout the country.

809. The financial challenge of quality basic education is such that countries cannot hope to make measurable progress towards the goal of universal completion and learning unless they also make serious progress to increase the efficiency in the allocation of resources. This implies, first, investing as a matter of priority in those inputs that are known to have a strong positive impact on learning achievement and provide these at levels of optimum effectiveness (chapter 5); second, it implies reducing the degree of random variation in the allocation of per student resources between schools (chapter 12).

810. Considerable progress has been made in strengthening the ability of countries to analyze the financial choices they have. More than 15 countries have developed financial projection models which have helped officials look at the financial implications of policy decisions and carefully consider the trade-offs that need to be made. Quality is not free. On the other hand poor quality implies a waste of public resources which in the longer run will be even more expensive.

Respond to HIV/AIDS and conflict

811. HIV/AIDS and armed conflicts are undoing in many countries whatever progress has been made in education development. Resources potentially available for education development have had to be diverted to health care or defense expenditures. Teachers and students with HIV/AIDS and students whose parents have the disease or have died from it, have difficulty attending school regularly. Schools in war zones close or function only intermittently. The number of orphans and displaced children is increasing dramatically Education and in particular quality education will remain an impossible dream for many children living in precarious conditions.. This threatens the long term development prospects of countries even when the spread of AIDS slows and conflicts end. In past years messages about the threat of HIV/AIDS and the potential impact on the education system have alerted education officials and many countries. Emerging data suggest that information campaigns and the availability of ARV drugs have resulted in prevalence and mortality rates that are lower than was feared a few years ago. This is encouraging and it provides a strong incentive to continue and intensify these programs.

812. Children in difficult circumstances in Sub-Saharan Africa have often been able to fall back on the support provided by the extended family and community members. But with the dramatic increase in numbers many families find it increasingly difficult to do so.

813. At the same time public resources that would take some of the burden of families and communities that care for these children are limited and will rarely be able to fully respond to the needs.

814. Ensuring acceptable education opportunities for children living under these circumstances will require effective partnerships between governments, NGOs and communities. Community funded and operated schools which functioned for example in

815. Uganda and Chad, during the civil strife of 1980s provided a basis for rebuilding the system In countries affected by conflict where governments often ceased to provide education services communities have often banded together and provided the resources that made it possible for schools to continue to function, often in the absence of even the most minimal instructional materials and often with dramatically underqualified teachers. Unsurprisingly, in these situations levels of learning are usually very low.

816. Similar examples can be found outside Africa for example in El Salvador (box 37) where publicly supported but community owned and operated schools have become an important part of the education system.

Box 37 Peace in El Salvador

After a decade of civil war had devastated the country but left no clear winner or loser peace accords were signed in 1992. During the war, the government had no effective control over large parts of the country and no public education services had been offered there. Instead, c communities established community schools, bearing the cost themselves, paying teachers when they could. At the end of the war, El Salvador's basic education system faced low enrollment, high repetition (50%+);and high dropout (20%). The Ministry of Education (MOE) quickly identified expanding access to and quality of basic education as a central policy objective both to rebuild national unity in the post-war era and to promote the long-term economic development. Using the schools established by the parents as a model, the government began a program of support and expansion for a program of 'Educacion con participacion de la comunidad' (EDUCO) to improve access and quality of schooling in targeted rural areas. EDUCO also sought to reinforce the sense of shared responsibility for education between national authorities, non-governmental and community organizations and organized parent groups.

EDUCO was set up as an autonomous, parallel management unit within the Ministry of Education, dedicated to supporting designated EDUCO schools. The key feature of EDUCO schools is self-management. Each EDUCO school is operated by an elected Community Education Association which receives a direct transfer of funds from the Ministry and is also able to obtain funds from other sources.

The improvements have been dramatic. By 1999, more than 237,000 children were enrolled in the EDUCO system, up from 8,400 in 1991. In EDUCO schools, dropout rates have plunged. Fewer students fail; the portion of students repeating grades fell from 23 percent in 1994 to just 15 percent in 1998. EDUCO has shown that underprivileged students from rural areas perform as well or better than more privileged students at government-run urban schools.

817. Dealing with the consequences of HIV/AIDS and war is often best done by community organization with the financial and technical support of NGOs. Communities can play a key role in the targeting of public support to the poorest and most disadvantaged children in the community (Chapter 12). School management committees could be involved in budgeting resources that would allow the school to hire locally substitute teachers in cases of justified teacher absences such as those caused by HIV/AIDS related illnesses. But they will often need support to organize themselves, establish procedures and define criteria for the identification of those most in need. NGOs are often best placed to provide this kind of support

A culture of quality

818. Building a national strategic framework on these seven pillars is critical to improving quality. Equally important but much less well understood is the development of a culture that explicitly aims to promote quality and learning and that consistently moves forward a quality improvement agenda. Such a culture is driven and sustained by a set of values and beliefs on the process of teaching and learning – a theory and practice of education and a vision of educational practice – that is widely shared. The most important responsibility of the leaders of the education system is to establish such a culture, make sure that it is widely shared, and model and encourage behaviors that put it into practice. Key features of such a system are:

- Values that place learning central:
- A belief that failure is not an inevitable part of the education process; and that all children can learn given time and appropriate instruction;
- A commitment to equitable outcomes and a readiness to vary inputs and processes to achieve these.
- An improvement process that does not simply define outcomes and standards; but that focuses, first and foremost, on the means – on the processes and the skills required to bring about quality results.
- A dedication to universal quality learning yet diversity and flexibility in delivery mechanisms and instructional practice

819. Such a system has little to do with the "machine bureaucracy"(Henry Minzberg, 1978), the industrial age model that has long been typical of the schools in the industrialized world and that still survives in many developing countries. In fact, education systems are much more like "living systems". The new management systems that are emerging are inspired by this new metaphor (Margaret J Wheatley 1999; Peter Senge,2000). Such systems are self-producing; they have the capacity to create themselves; they continually grow and evolve; they react and adapt continuously to changes in the environment; they have a large diversity as each part of the systems react to the information from its environment. Managing such systems means recognizing that the industrial age command and control models do no longer work. Such systems grow and develop through incentives, through changes in the environment and by each element adapting and adopting successful practice. They are learning organizations. The change in metaphor for the education system is important. It indicates a different way of thinking and a different set of beliefs, a different mental model about what is important and how change occurs (Senge, 2000).

Leadership in a culture of quality

820. These kind of organizations have a high degree of local control. They encourage and support local initiative. They emphasize "improving the quality of thinking, the capacity for reflection and team learning and the ability to develop shared learning and shared understanding of complex (..) issues. It is these capabilities that will allow learning organizations to be both more locally controlled and more well coordinated than their hierarchical predecessors" (Senge, 2000). Instead of mobilizing school level stakeholders to respond to mandates from the top, upper levels encourage, respond and support grassroots level initiative.

821. Managing a system that sets out to promote a culture of quality in a top bottom partnership, means identifying very clearly what everyone in the system is supposed to do, ensuring that they have the necessary skills and means and creating a work environment that motivates them to actually do it. Helping everyone in the system – from the Minster to the teachers – gain a sense of efficacy and responsibility; encouraging them to do their best job with the resources available. Several of the country cases report experiences that move in this direction. For example, Senegal established agreed job descriptions for all education sector staff. Benin defined fundamental quality standards.

Prevention of failure is the starting point

822. Parents, teachers and education administrators have come to accept failure – made explicit by repetition, drop-out and non-learning – as a normal part of the education process. Sometimes high failure is seen as reflecting high standards[111]; drop out has been seen to reflect low demand; and non-learning as the fault of the student. These assumptions are wrong. There is considerable evidence that demonstrates the ineffectiveness of repetition as a way to enhance student learning (chapter 5). Similarly experience throughout the world demonstrated that drop out occurs most often when students and parents recognize that students are not learning (chapter 1). And finally many pilot projects have demonstrated that even disadvantaged students learn when they are taught well. In a culture of quality successful learning is the norm, failure the very rare exception.

Benchmarking good practice

823. Many businesses use "benchmarking" as a way to increase their productivity and the quality of their products. It is the process of identifying, understanding, and adapting outstanding practices from other outstanding organizations to help an organization improve its performance. Improving by learning from others[112] is the short description of this tool. It involves examining how similar institutions achieve their performance levels and to understand the processes they use. In this way benchmarking helps explain the processes behind excellent performance.

824. Benchmarking is particularly appropriate for the education sector. In a culture of quality there is a continuous search for better ways of teaching and organizing the school environment. Teachers learn from other teachers, schools from other schools. Many school improvement efforts provide for opportunities for teachers from different schools to exchange experiences and learn from each other. Systematically studying how student learning can best be supported can strengthen these processes.[113]

[111] An example from Malawi cited in J. Moulton et al (2000) is reported in Wolf, et al (1999)

[112] http://www.benchmarking.gov.uk/about_bench/whatisit.asp

[113] James W. Stigler and James Hiebert. (1999) describe in detail the process of lesson study for teachers in Japan

Continuous learning is key

825. Building a culture of quality involves continuous learning from experience[114] and a commitment of people throughout the system to do their work differently. This process often begins with a careful assessment of where the school stands in relation to its quality goals, where it wants to be, how it is going to get there, and what each stakeholder can do to get there. Change often starts small and grows organically. But it is only sustainable if it involves learning, and learning requires that teachers, principals and others have opportunities to acquire the means and skills for new practice and new behavior.

826. Leadership in a culture of quality requires a vision, accepting personal responsibility, and modeling of behavior and attitudes. It implies changing the discourse around schooling from one that bemoans failure to one that celebrates success. But it also requires making sure that people involved at the grassroots with basic education programs can do what they are expected to do. This means that objectives are formulated through a participatory process, that these objectives are set at a realistic level of change, that the instructional materials necessary are in place, that technical support is readily available at the school level of close to it. But it also means that teachers accept responsibility for learning and that "downward accountability" (chapter 10) becomes the system norm.

Implementation is of the essence

827. Implementation has long been recognized in developed and in developing countries as the Achilles heel of education policy reform, especially reform that aims at large scale changes in the process of teaching and learning. Many carefully designed projects and programs have floundered on the rocks of implementation. Most of the education change literature documents the lessons of the implementation in developed countries[115] (chapter 2). Reviews of the implementation experience of developing countries[116] are few but testify similarly to the complexities of the implementation of large scale education change. The discussion of this literature in chapter 2 and the country experiences reviewed in chapter 8 highlights the complexities associated with the implementation of education reforms that aim at quality improvement, especially changes in classroom practices and improvement in student learning achievement. In most cases investment programs have been to bring about improvement in the conditions of teaching in only few instances have there been improvement in the practice of teaching in the classroom on a large scale.

828. The implementation of education reforms in SSA is particularly complex as most reforms have multiple objectives combining policy for resource mobilization, expansion of access and improvement of quality in a single program. Moreover Verspoor(1989), Moulton et al (2000) and Bah-Lalya and Sack (2003) all note the (i) disproportionate emphasis on the program design as compared to implementation; (ii) "single recipe"[117] approach to education change and (iii) centralized nature of the planning and implementation processes. This undoubtedly reflects the mental model that many staff in the donor agencies and the education ministries have of the education system as an industrial age machine bureaucracy and that shapes – often tacitly – their implementation theory and assumptions. The reviews also suggests that governments – and sometimes agency field staff – may prefer to move disagreements on policy objectives or design specifications to the implementation phase when donor dominance is

[114] Many of these ideas are from Senge, 2000

[115] Verspoor,1989 ; Dalin, 1994; Moulton et al. 2002; Bah-Lalya and Sack, 2003; Samoff et al, 2003.

[116] Berman and Mclaughlin, 1977; Elmore, 1996; Fullan, 2001

[117] Moulton et al (2000) make this point explicitly

often less, reforms can be tackled piecemeal and comprises to water down onerous donor conditions worked out more easily.

829. Design assumptions often deviate from the local realities in several important ways:

- Resource availability is typically overestimated;
- Priorities for implementation sequencing are rarely defined;
- The complexity of the innovation is rarely considered from the teachers perspective;
- Stability in the economic and political environment is assumed;
- The almost "chaotic"[118] nature of change is not recognized;
- Capacity to manage logistics is almost always overestimated;
- Stakeholder – in particular teacher – acceptance and support is taken for granted.

830. The assumption that change is an orderly, rational and linear process that provides centrally defined fixes the quality problems of schools is one that has been found to be false in almost every instance. In fact there is an emerging consensus in the literature that:

- Change is essentially a local process with the school as the unit of change;
- Local learning and adaptation is key;
- Developing local capacity – at the school, the community and the district level – is a condition *sine qua non* for success;
- Progress is incremental and uneven.

831. Implementation depends on application by thousands of teachers working behind the classroom door. Good practice cannot be mandated. Fullan (2001) defines the challenge as 'one of "large scale reform grounded in local ownership". Based on their reviews Verspoor (1989) and Moulton et al. (2000) argue for an implementation model that provides for flexible and incremental implementation strategies; includes arrangement for learning from experience; allows the development and implementation of several innovations; recognizes and values local level experience; and considers policy development and implementation as continuous, iterative and mutually reinforcing processes. Ultimately it is the coherence of the triad student learning, teacher learning and development, and school capacity that will determine the effectiveness of particular school improvement policies.

832. The country case studies prepared for this paper include several examples of programs that are moving in this direction. The trends towards school based management, the use of locally prepared school development plans as a basis for resource allocation and the decentralized teacher demand driven in-service training and support programs and the participatory approaches to program development, discussed in chapters 8, 10 and 12 provide strong indications of the changes in the "mental models" of school improvement that are occurring in agencies, education ministries and other stakeholders. For example Tanzania and Uganda are providing substantial discretionary resources to schools to be managed locally; Senegal and Guinea are experimenting with the funding of school development plans. In-service teacher development is delivered in a decentralized locally responsive way in Guinea and Uganda; Mauritania prepared its current education

[118] Bah-Lalya and Sack (2003)

development plan through a participatory and iterative process that involved a wide range of local stakeholders and agencies.

833. These developments are promising. But two areas of concern remain that may jeopardize the ultimate success of this emerging implementation model. First, insufficient attention is being paid to issues of capacity development, especially at the community, the school and district levels. Fullan (2000) argues that a decentralized framework for change implementation is essential but for this to work requires a rigorous downward accountability mechanism, a deliberate system of innovation stimulation, and, most importantly, the provision of opportunities for advancing the knowledge and the skills of all local stakeholders (p.56).

834. Second systems for monitoring implementation progress and learning lessons from experience remain woefully inadequate. Educational statistics and management information system rarely provide relevant, reliable and timely information. Educational statistics in many countries are unreliable and available with significant delay. NESIS has been able to redress this situation in several countries. But a considerable effort will be required to sustain and institutionalize and expand its activities. NESIS has also initiated the development of a statistical model for the collection and analysis of quality related indicators, but this is still at the experimental stage. PASEC, SAQMEC and MLA have helped countries build a capacity to regularly collect data on schooling and student learning achievement. But the capacity for analysis remains weak in many countries and there rarely is a systematic effort to collect data to inform the policy process at the design phase and even more rarely during implementation.

835. In sum. A culture of quality is central to successful and sustained quality improvement. There is now substantial evidence that allows planners, policy makers and stakeholders to identify the pillars of a culture of quality that fit best a country's context and education development priorities. But it will also bring to the fore the challenges of implementation which need to addressed if policies, and strategies are to result in results in the classroom.

CHAPTER 14
THE WAY FORWARD: EMERGING PRIORITIES FOR ACTION

836. Evidence gathered for this study suggests five important conditions that will guide and underpin effective action on quality improvement. First, a *national commitment* to a vision of quality education for all, that is shared with all stakeholders and used as a beacon for action. Second, a readiness to *select and sequence* priorities for action in a way that reflects the ability of the education system to change while keeping a perspective on large scale improvement and long term development. Third, a determination to both *utilize existing capacity and develop new capacity* to carry old and new tasks effectively. Fourth, a resolve to establish strong local and international *partnerships*. And, finally, a recognition that unless processes for continuous *learning from practice* are in place quality improvement and enhanced learning achievement will remain an elusive goal for many countries and much of the efforts to ensure commitment, strengthen partnerships and mobilize resources will have been in vain.

837. Many of these issues have been discussed in previous biennial meetings (box 38, 40 and 41). In fact exhortations to garner political will, design simple projects, build capacity, strengthen partnerships, and ensure sustainability have been ubiquitous in the literature and in international meetings. But attempts to operationalize them have been few. The following sections look back at the findings of the preceding chapters and the earlier ADEA biennial meetings, in an effort to elaborate on these conditions for action.

Box 38 ADEA Biennial Meeting 1999 Johannesburg, South Africa

What works and what's new in education: Africa speaks

Factors identified as helping to ensure the success of various reform initiatives are:

- *Democratization and the norm of equality*: macro-political contexts which nurture equity are the most conducive to educational development
- *Political vision, conviction and commitment*: a high level commitment to provision of primary education.
- *Readiness to develop "as you go":* planning must not be allowed to delay implementation; refinement can be achieved en route.
- *Consultative and inclusive policy development and programming:* plans need a broad consensus for success often garnered through consultation.
- *Relevance and sensitivity to needs:* even very poor communities, are ready to invest in education provided they understand and appreciation of its value for them.
- *Decentralization of management and control of education:* there is a new basis for decentralized responsibility.
- *Information and analysis-based policy and programming*: many successful cases have benefited from having a data and analytical research base.
- *A holistic multifaceted approach*: successful interventions are usually multifaceted.
- *Cost-effective resource utilization*: success may stem from innovative cost-savings

National commitment to quality

838. *"Success in education development requires just as much passion as it does substance. Innovations need highly placed champions who can garner the support and commitment of change agents. The successful development of education requires the "buy in" of the highest political leadership. Innovations that are placed high on the national political agenda are most likely to register success"(Marope and Sack, 2001).* This conclusion of the 2001 ADEA biennial meeting is widely accepted. The theme is one that recurs in almost every discussion on policy implementation[119], be it slow progress towards the EFA goals or persistent education disadvantage for girls. At the 1995 ADEA biennial meeting political will was identified already as the key to effective policy.

[119] There are a total of 640 entries following a google search of "political will" and education in Africa).. For example: Communiqué Ministers of Education, East and Southern Africa mid-decade review of progress towards Education for All,.(http://www.polity.org.za/html/govdocs/pr/1996/pr0223b.html); The Unesco DG Mr. Matsuura on he Dakar followup http://www2.unesco.org/wef/en-news/Bulletin%20Board6.shtmand or worldbank findings on girls education.

839. "Political will" may be a relatively straightforward trigger for policies that can be implemented from the top-down over a short time. It is, however, often difficult to sustain, given the many competing priorities. Translating a political commitment to quality improvement, into results in the classroom demands more than a statement by the country's president or a decision to eliminate fees, and involves much more than "the will to act". It requires a sustained commitment over time; it requires a commitment to nurture participation of all stakeholders to transform a system that has for a long time considered failure as normal into a system that is committed to success for all.

840. The political will to act may perhaps be best seen as the initial step towards a broad based and long lasting national commitment to a shared vision that embraces quality and equity and that provides the foundation for a "culture of quality". Such a commitment is not only reflected in public pronouncements of policy, it is also made concrete by:

- Allocation of adequate resources
- A focus on quality and learning in political discourse
- Participation of all stakeholders
- Effective communication strategies to build broad based support.

841. Building a consensus on the broad objectives of education policy that cuts across the political spectrum often is a daunting task. But it is one that a responsible polity cannot shirk, since the time horizon for education reform usually exceeds the one of democratically elected political leaders.

Setting priories and going to scale

842. Quality improvement is by its very nature a complex and multi-faceted process. The gap between the ambitions of central level reformers and the reality of the field is frequently identified as a cause of low performance (Moulton, 2002). The World Bank's Operation Evaluation department has identified for many years "complex and ambitious project designs" as a source of failure and advocated "simple projects"[120]. At the same time governments are looking for ways to scale up projects that have been successful. But the challenge of scaling up has proved difficult to achieve (Samoff, 2003).

[120] See for example Ridker (1994)

Table 31 Stages of quality improvement

STAGE	I - Unskilled	II - Mechanical	III - Routine	IV - Professional
TEACHERS	Ill-educated, untrained questionable mastery of subject content or teaching techniques; often isolated and poorly motivated	Basic general education, but little professional training; moderate subject mastery; incidental contact with colleagues through in-service	Adequate general education; trained; incidental contact with colleagues; interested in improving student performance	Well educated; well trained; good subject mastery; frequent contact with colleagues; reader of professional publications; interested in improving student performance
CURRICULUM	Subject content narrow and unfamiliar to teachers; emphasis on three Rs. Low standards. High wastage accepted	Highly structured. Emphasis on three Rs; standards imposed by examinations; repetition accepted as a means to maintain uniformity	Curriculum broadening, but still driven by examinations; some adaptation is attempted. Little attention to emotional/ creative development. Aim is prevention of failure.	Meaning and understanding stressed in wider curriculum. Allowance for variety of content and methods. Automatic promotion. Attention to emotional/ creative development
TEXTBOOKS/ MATERIALS	One textbook per class used by teacher. Near total absence of instructional materials.	One or two textbooks per student in core subjects. Minimal instructional materials.	Several textbooks available; selective use begin to occur. Supply of materials adequate. Small school library.	Broad availability of textbooks, supplementary reading materials and reference books. Well-stocked school library. Variety of instructional materials
TEACHING TECHNIQUES	Recitation, rote learning and memorizing; students copy from blackboard. No individualization.	Memorization; slavish adherence to syllabus and curriculum sequences. Emphasis on short-term activities and objectives; rigid application of one instructional technique.	Memorization still important, but attempts to introduce "learning-by-doing." Teachers begin to use textbooks and materials in a more goal-oriented way. Limited variation. Some tracking of students	Self-generated habits of learning; ability to investigate new ideas; longer-term instructional planning allows teacher to adapt use of materials and curriculum sequence to student needs. Individualized or multi-group instruction.

STAGE	I - Unskilled	II - Mechanical	III - Routine	IV - Professional
SUPERVISION/ SUPPORT	Sporadic, focused on administrative control and compliance with regulations.	Occasional; focused on compliance. In-service training available infrequently, focused on dissemination of structured programs. Training emphasizes application of curricula and materials.	Supervision and in-service training becomes more frequent and less oriented towards compliance. Training emphasizes the application of teaching. Role of headmaster as source of knowledge more important.	Headmaster becomes source of pedagogical support. External support and assistance is available as needed. Training emphasizes the development of professional skills, allowing teachers to select appropriate approach in each situation
TEACHER REACTION TO INNOVATION	Ignorance, confusion and non-application.	Uncertain about use: focused on personal mastery. Dilution in order to adapt innovation to personal, professional capacity and motivation.	Sceptical about immediate effects, but willing and able to make honest effort; will try to adapt innovation for ease of classroom management.	Needs of pupil is central focus. Willing to try and test alternative approaches, confident about own ability to master and adapt innovation to fill needs of particular students
FEASIBLE CHANGES	Strengthen supervision and support; bring order to the school; provide structured textbooks, teachers' guides, and essential instructional materials; train teachers in subject matter and basic teaching techniques. Help teachers perceive need for and possibility of improvement.	Broaden curriculum, increase subject mastery training; introduce a few additional, still relatively simple techniques. Teachers' guides and textbooks set standards enforced by exams. increase confidence of teachers through training and school-level support.	Teaching more focused on understanding; some diversity and flexibility be introduced in the curriculum. objectives can be broadened to include some attention to emotional/creative development; Promote professional exchange between teachers.	Innovation becomes permanent feature. Teachers behave and perceive themselves as professionals.

843. Quality improvement strategies thus need to deal with two distinct dilemmas. One is the definition of priorities and the other one is how to reach a meaningful number of students with innovations that have an impact on student learning. The definition of priorities n most cases is a matter of choice about scope and sequence of innovations. It is not a question about what to do and what not to do. It is answering the question where to start and what to do later. The experience documented in the country case studies and the preceding chapters suggests the following for the selection of program priorities:

- *Developing of a sense of ownership* of the quality improvement process at the school level involving school staff, parents and community level stakeholders is an essential **precondition** for action at the school level; intervention strategies conceived as a menu of options for local choice and adaptation to local conditions will give meaning to this ownership; the implication is an increase in the functional responsibilities at the school level and increasingly ambitious objectives for school based management.

- *Improvement in classroom practice* based on the recognition of the teacher as the linchpin of quality improvement and the **entry point** for change; making effective teacher development, provision of essential instructional materials and the development of an effective school environment are critical; quality improvement will not succeed when teachers do not have the skills or the means to apply successful instructional methods.
- *Reforms of curriculum content and method* as a **continuous process**, recognizing that dominant practice changes only gradually; teaching methods that do not deviate too abruptly from existing practice such as direct instruction may be more readily adopted and applied.

844. Beeby (1967) has argued that the most severe constraint on the scope of innovation is the capacity of the teacher to change teaching practice. He proposes a gradual process of teacher capacity building, which he calls the "stages of growth" and which will determine the pace of development of the education system. Hopkins (2000) tackles the issue of sequencing by proposing different intervention strategies according the school's capacity to adapt, adopt and apply change (chapter 8). Verspoor (1986) developed Beeby's ideas further and proposes a framework for the stages of quality improvement (table 30). The framework is, of course, not intended to provide a precise recipe for the sequencing of interventions but rather to suggest how the different elements of the education process need to evolve in a coherent way. The model is school focused and is intended to highlight that different schools will have a different capacity to change and that consequently progress will be uneven and often inequitable. To mitigate these effects implementation strategies will need to target the weakest schools for special assistance and support.

845. A strategy reflecting these priorities would include elements of what Senegal does with its job description program, Benin with its program to define standards for Fundamental Quality Inputs and Guinea (PPSE) and Uganda (TDSM) with their decentralized teacher development and support systems, moves towards school based management in Tanzania and the community mobilization efforts in Madagascar and Mali. The Fundescola program in Brazil (box 39) is an example of the way different elements of a quality improvement have been phased and combined in to a coherent strategy in that country. The sequence is one where initial investments in ownership and essential inputs are followed by the preparation of school development plans that over time become increasingly ambitious. This strategy allowed the government to tie together national objectives for quality improvement in a flexible package with strong local grounding.

Box 39 Providing resources and strengthening capacity for school improvement in poor communities in Brazil

Brazil's Fundescola School Improvement Program (Roberts – Schweitzer and al. 2002) is an example of the use of the schools development plan approach, which is encapsulated in a very developed support structure and stepwise approach. The program goal is to align local government policies and engage the public to support the reduction of disparities in education quality across primary schools and to increase the effectiveness of schools. There are three levels of intervention: the school, the local government's education secretariat, and the broader public.

At the school level, there is a four step process. The *first step* is to increase parents' and teachers' sense of ownership of the school by transferring limited amounts of financial resources to the elected school council over which they have discretionary decision making power. The *second step* is to assure that each and every school operates at least at an agreed minimum functional level in terms of staffing, materials, furniture, and infrastructure. This step also involves a transfer of funds to the school council, but along with it a detailed technical specification of what needs to be done to bring that school up to the agreed standard. In the *third step* schools – with the community's involvement – prepare their own strategic school development plan, with the support of their local government's education departments. School principals initially undergo an intense training program, addressing such issues as community mobilization, resource management, target setting, and monitoring. Students, parents, teachers and school principals work together at every stage of the plan's development to reach concrete goals for their school. The school councils receive additional funds once the school development plan is ready. The *fourth step* directly targets instruction and learning in the classroom. It uses pedagogical and managerial models proven to be successful in increasing student learning achievement, and couples it with a targeted, technical support program from the local department of education and the Ministry of Education. At the level of the local government it is essential that they see the school as their principal client, for instance by carrying out more effective school monitoring and support. The intervention with the broader public directly is seen as a crucial element to achieve turning the school improvement efforts upside-down by putting the school rather than the government in the driver's seat.

846. The second dilemma is devising a strategy that will result in improvements in the quality of instruction and the level of learning for a large number of students, including those that are poor or otherwise disadvantaged. This is essentially the challenge of going to scale that was discussed at the 2001 biennial meeting in Arusha (Box 40). The case studies commissioned for this paper and some others provide illustrations of the main going-to-scale strategies that have been identified in the literature: "scale by explosion", and "scale by replication"[121]. The first strategy is being used in Mauritania to introduce a number of well-defined changes in the way resources are allocated and instruction is organized. Malawi, Uganda and Tanzania used it to abolish fees and introduce universal primary education with a "big bang". Burkina Faso used it to introduce results-based school management and support..The challenge of this strategy is that is very difficult to introduce in this way changes that are educationally demanding – especially those that affect the core of the instructional process referred to in chapter 7 as the "grammar of schooling". On the other hand it may be possible to use an explosion strategy to introduce a series of small innovations over time; the accumulation of these small innovations will over time result in substantive change[122]. But under these circumstances progress will almost inevitably be uneven and remedial interventions and support will be necessary.

Box 40 ADEA Biennial Meeting 2001 in Arusha, Tanzania

Reaching Out, Reaching All

How to sustain and expand policies and practices that have proved effective was one of two themes of the meeting. Several lessons emerged from the discussions:

- Taking an innovation (or reform) from the pilot stage to a larger scale is a complex process that is difficult to complete. Success is rare and the obstacles are numerous: different contexts, lack of local demand, inadequate capacity to manage and carry out the innovation, social resistance and opposition.
- A determined leadership, adequate resources, relevant communication strategies, delegation of responsibility to – and capacity building of – local players are all key factors for success.
- In some cases the success of the innovation may depend on the small scale of its implementation, in which case it may not be possible to plan on expanding it.

What matters most is to recreate the conditions that nurtured the successful experience and the local roots that can sustain it, rather than its content and the specific elements.

[121] Myers, R. (2000) also suggests a third strategy, namely expansion by association where local institutions pick and choose innovations that appear of particular relevance and interest to them. This strategy –unless accompanied by well-designed incentives – makes it difficult to align national objectives and local initiatives. Yet, a bottom up school development strategy could be designed to provide schools with information on other initiatives that may be of interest to them. Guinea PPSE is an example of a case that has this potential.

[122] This is in fact a combination of the explosion and functional scaling up strategy discussed by Samoff et al. (2003). An example of this approach is the District Primary Education Program (DPEP) in India; see Pandey, R.S (2000)

847. Most common is going to scale by replication – think big, start small. The cases of Mali, and Zambia reform are illustrative of this strategy in the country cases commissioned for this paper. They are examples of the few pilot projects that go to scale (Healey and DeStefano. (1997). The key features and the conditions under which they can be successful are discussed in Samoff et al (2003). The Zambia *'break through to literacy"* case suggests that an innovation can be taken to scale successfully when the innovation is rather narrowly focused and demonstrably effective; when the cost are carefully controlled, and the support structure well managed The *pedagogie convergente* in Mali involving the introduction of 13 African languages as language of instruction in the early years is an innovation that is more ambitious in objectives and more complex in its logistics. After a much longer period of experimentation than the Zambia cases, it is now moving to scale and is experiencing the challenges of increased demands of logistics management and pedagogical supports. But the attention paid to cost management and outcome evaluation would suggest that – assuming the institutional and managerial can be dealt with – the innovation can be taken to scale successfully.

848. The Guinea case of pre-service teacher education reform demonstrates an example of a large scale change that was being evaluated and adapted continuously that with a careful analysis of the financial implications and evaluation of effectiveness a reform has moved within five years to general adoption. Virtually all cases but especially Mali, Uganda and Guinea illustrate how the education change process is essentially a learning process where the lessons from experience are fed back into the project design. These sequence of several cycles of learning and adaptation may be what is most characteristic of successful change and innovation.

849. These experiences seem to lend support to David Korten's (1980) suggestion for a learning model of going to scale. He suggests that a strategy for going to scale will have to go through three phases (i) learning to be effective; (ii) learning to be efficient and (iii) learning to generalize. Most education pilot programs in Africa focus on the first step. But few do actually develop convincing evidence on learning outcomes and cost or prepare for the day when the human, the institutional and the financial large scale applications preclude the kind of nurturing and close-up support that allows a pilot program to be successful

850. Maybe there is a case to rethink the design requirements of pilot projects. Many pilot projects try to introduce teaching methods that deviate considerably from existing practice and that have anticipated teacher skills and instructional materials that are not likely to be available in many schools. Would it not be preferable to design innovations of a limited scope that do not deviate too far from existing practice, that can be adapted and applied by a large number of teachers without too much difficulty and support implementation over time of a series of those innovations? Gradually increasing the capacity of schools to change would in fact combine the functional and the explosion strategy and be a real learning strategy.

Building capacity

851. "Weak Capacity" is consistently identified as one of the main constraints on development in Africa and capacity development is the commonly recommended response[123]. Capacity has a symbiotic relationship with education: poor education produces weak capacity and weak capacity produces poor education. The consensus on the importance of capacity building has not produced a lot of progress in addressing it. In fact, if anything the challenge has become greater as the circle of stakeholders involved in education has enlarged[124]. Capacity building strategies in a context of decentralization and democratization can no longer focus exclusively on the central services of the Ministry of education but needs to include teachers, administrators at the decentralized levels, community members involved with the school management and NGOs involved in the education sector. Michael Fullan (1993) describes "capacity" in the education sector as:

> *the ability at every level in the system to learn and bring about successful change. The old hierarchical, bureaucratic models of the past will not be able to do this in the future, nor will any single alternative model. Building capacity involves providing a variety of sources of knowledge and expertise from which teachers and schools can select the most appropriate to solving their particular problems (Fullan, 1993)*

852. Capacity building[125] has often been equated with off-site, one-shot training, the benefits of which are difficult to sustain in work environments that run counter to what trainees learn. Or it is limited to introducing new functions, such as management information systems and performance monitoring systems. What is left out is the improvement of *existing functions* and *the activation of existing resources.* Existing management functions and structures are often not adequately analyzed. When a function falters, foreign technical assistants are brought in to keep things running, without the assurance that these foreigners will take the time to leave behind capable staff people with the resources they need to do their job. Moreover capacity building strategies often do not set out to identify and mobilize latent capacities from inside and outside the system. Effective capacity building strategies begin by creating an environment that encourages the utilization of existing capacity. Management audits and decentralization are among the promising approaches in this regard.

853. A **management audit** is an analysis of organizational arrangements, including an identification of dysfunctions in how work is organized. Its purpose is to provide detailed information and extensive support for improvements in work structures and practices. Burkina Faso, The Gambia, and Ghana have each conducted a management audit in the preparation of World Bank projects. UNESCO's International Institute for Educational Planning[126] and the World Bank have each produced written guidance for ministries of education that want to conduct management audits.

854. The **decentralization of education services** is the move of many administrative functions to meso – or intermediate – level ministry offices. It also entails school-based management and the empowerment of communities to monitor school performance and bring the school into the life of the community. Efforts to increase the capacity of ministry field offices, schools, and communities can be seen in most

[123] Marope (1999) gives ample references.

[124] See chapters 10 and 13.

[125] The ideas in this section draw very heavily on a background paper prepared by Jeanne Moulton (2003).

[126] Sack and Saidi (1997) World Bank, Global Education Reform website

countries, though all are very preliminary. Decentralization is not in and of itself a capacity-building process, but it permits the sharing of responsibility among a larger number of management units. It can mobilize additional participants in the education development processes and create new approaches to the going-to-scale challenge discussed above. At the same time, it requires that the new participants be provided with the skills, the means and the organizational structure to contribute in a meaningful way.

855. The emerging models of decentralization and school based management models discussed in chapters 10 and 13, are characterized by (1) schools as "learning organizations," (2) a richer array of organizations at the meso level that help schools improve quality, and (3) a narrower though critical role for the central or national level of the system.

856. **Schools**. A "learning organization" is one that can continually respond to its changing environment by trying new approaches and adapting its functions and structures (see chapter13). Some may argue that a learning organization model of a school is too ambitious for many parts of Africa, but the consistent failure of the industrial age "machine" modelbuttresses the argument that any significant improvements in the quality of schooling provides a strong justification for testing alternative approaches.

857. **Meso-level organizations**. The key to this alternative approach is building at the meso level new types of organizations that actively engage with schools. These would not be arranged in a hierarchy; quite the opposite, they would work in parallel across the meso level, effectively flattening the education system. They would include:

- Networks, which have already proven useful in Africa. In particular, the ADEA Working Groups serve as networks among educators in teacher development, sector assessment, non-formal education, and other sub-sectors and issue-oriented aspects of the sector.
- Research and training centers, some at universities, others being attached to other government or non-government organizations.
- Professional organizations, including teachers' unions, which can encourage professionalism among teachers.
- Social and community projects, often supported by NGOs, which can help teachers practice their role as community leaders and help schools become integral to the communities they serve.
- Ministry offices. While the flattening of the education bureaucracy would not eliminate district, regional, or provincial offices of education, it would change their role. Meso-level ministry offices would continue to communicate and enforce policies and regulations and to monitor school performance.

858. **Central or national level organizations**. It is tempting to think that central administration has a secondary and less demanding role to play in a decentralized system. This is misleading in actuality. There is change in role but the work is equally if not more demanding than in a centralized system. As schools and meso-level organizations gain more prominence and autonomy in managing education, and develop their capacity to change, the role of central administration becomes one of system regulation to ensure equity in resource allocation, opportunity to learn and achievement. This requires, among other things, that technical capacity be developed at central level to regulate the system and to support and stretch meso-level organizations. Supporting and stretching meso-level organizations would include for instance benchmarking good practices in various areas of education (see chapter 13). This can be quite demanding as diversity of needs and capacity characterizes a decentralized system.

Strengthening partnerships

859. The 1990 World Declaration on Education for All (World Conference on EFA, 1990) called for "new and revitalized partnerships". The 1996 mid decade review noted that greater and more active partnerships in particular in Africa have been one of the most successful outcomes since Jomtien[127]. The Dakar Framework for Action echoed this and called for "broad based partnerships within countries, supported by co-operation with regional and international agencies and institutions"[128].These calls for 'partnership" have not gone unheeded. ADEA devoted its 1997 biennial meeting to the issue (box 41)

860. Partnerships happen at different levels in the system and with different purposes. There are partnerships at school and community level and largely aiming to support the delivery of education services, often to the most disadvantaged populations. There are partnerships that shape development cooperation and education aid. Important changes are underway in both.

Box 41 ADEA Biennial Meeting 1997 in Dakar Senegal

Partnerships for capacity building and quality improvement in education

Calls for partnerships in education development have become common place. What does partnership mean in terms of the actions and responsibilities of the partners? Participants in the 1997 biennial meeting concluded that productive partnerships have some common features:

- Active participation of all partners
- Mutual trust and respect
- A high degree of openness of the process
- Full availability of information
- Shared understanding of operation procedures and the knowledge base that determines their operations
- The role of governments varies; it will be an enabling or a leading role depending on the nature of the partnership
- Often partnerships are more than a means to end, i.e., they often become part of the result, especially if the result is to be sustained over time.

[127] International Consultative Forum (1996). p. 26

[128] Dakar Framework for Action article 2.

861. At the **school and community level**, the process of deconcentrating responsibility (chapter 10) elevates the importance of civil society in the local triumvirate of administrative offices, schools, and communities. Civil society's role in empowering communities to participate in a strong and capable education sector has been described earlier. Its ability to play that role effectively is usually assessed in terms of the strength of local civil society organizations (CSOs), including private sector representatives, trade unions, and women's groups. Prominent among CSOs are NGOs, quasi-businesses with social agendas that often serve and represent non-government actors in the sector. The past decade has seen the proliferation of NGOs, as the importance of their role in education sector development – as well as in other sectors – became more obvious. NGOs range in capacity from that of well-supported international NGOs with country offices, such as CARE, Save The Children, Oxfam, to small fly-by-night operations. International NGOs often partner with small local NGOs, in a synergistic sharing of external funding and experienced management with local commitment and expertise. In this process, NGOs have often gained a stronger voice in policy decisions and become a source of reliable community-level implementers of education sector program activities. The government role here is often an enabling one.

862. At the national level the **Sector-Wide Approach (SWAp)** is changing the way education development programs are financed and managed (chapter 4). Within the SWAp framework all significant funding for the sector supports a single sector policy and expenditure program, under government leadership, adopting common approaches across the sector, and progressing towards reliance on government procedures to disburse and account for all funds. About 15 ministries of education in Africa have introduced a SWAp. Ethiopia, Uganda, and Zambia began in about 1998 and have the most experience. The ministry of education in Mauritania has established a national capacity-building program with a broad agenda, including technical assistance on macro-economic planning, poverty diagnostics, monitoring and evaluation, and public expenditure management. In more and more countries governments are taking the lead in these partnership. They convene partnership meetings, define criteria for participation, and define the priorities on the national education development agenda.

863. Experience of the past decade suggests as documented that partnerships do not happen by themselves. At all levels partnership is a learning process with mechanisms and procedures that continuously evolve as experience is gained. But these learning processes need to be nurtured and supported. Shaeffer and Govinda (1996) make the point that community-school partnerships do not easily happen by themselves – they must be planned for and trained for. Quality improvement programs will need to recognize this and include provision for the design and delivery of programs to train community members and local education staff on their roles and responsibilities in the partnership[129].

864. Similarly SWAp partnerships require that ministry and agency staff are trained for their new roles. It also requires that partnerships exchange experience, have the opportunity to "reflect in action". Analytic work such as that supported by the ADEA working group on sector analysis and networks of "like minded donors" are important instruments in this respects. These learning opportunities for ministry and agency staff are essential to ensure that 'learning from action informs future action" effectively.

[129] The India District Primary Education Program (DPEP) made explicit and significant financial provision to develop training materials, prepare instructors and deliver training and support to members of village education committees, teachers and local education administrators. Much of the program activity in the early years was focused on this activity(see Pandey, 2000).

Learning from practice

865. The country case studies underpinning this paper and the analyses in the preceding chapters clearly demonstrate that quality improvement is a multifaceted and complex process – in the industrialized world and in Africa. Yet unless the EFA and fast track policies result in increased learning, the EFA emperor will have no clothes. Fortunately, experience is accumulating and lessons are being learned as countries are pursuing a "quality education for all" agenda. But the path towards quality is context bound and often uncertain. What works in one place does not necessarily work in another place. In this final section of the paper four elements of strategy that dominate the practice of quality improvement on the continent are highlighted.

A system of learning institutions

866. The dominant trend in Africa – and not only there – is clear: school systems are increasingly transformed in a system of schools and in some instances there is an attempt to move even more ambitiously towards a system of learning institutions. It is this vision that is increasingly inspiring the moves towards decentralization and school based management. Uganda, Tanzania and Mozambique are introducing a system of per student grants to be managed at the school level. Senegal, Guinea and Burkina Faso are introducing management systems that place the responsibility for the design and implementation of quality improvement strategies at the school and district level. Alternative learning systems are being established in Nigeria and Burkina Faso to try to provide an equitable opportunity to learn to children in remote areas and children who are other wise disadvantaged. Flexibility in delivery mechanisms and equivalence in instructional objectives are increasingly being recognized as key ingredients of national education for all strategies.

Learning centered

867. The emphasis on learning that permeates such a system is what gives it coherence. It characterizes a system with a culture of quality. Many African countries now monitor student learning through participation in international or national survey programs. Benin has attempted to define Fundamental Quality Inputs. Sector development programs are designed to increase expenditures on non-teacher salary inputs. Teacher development programs in Guinea, Uganda and Zanzibar are explicitly designed to help teachers identify obstacles to student learning, propose remedial action and monitor the impact. Zambia, Mali and Burkina Faso are introducing African languages as the medium of instruction in the early grades as a way to ensure that students master basic literacy skills in their own language before changing to English or French. Namibia and Swaziland are introducing strategies of continuous assessment of student learning as a way to enhance achievement.

Continuous improvement

868. The African experiences discussed in this paper demonstrate quite clearly that there are no quick fixes to the quality problems of education in Africa. Quality improvement is not an event, it is not an intervention that can be centrally mandated, it is a process that needs to be embedded in a culture of quality. There is no substitute for a sustained effort over time that builds up the capacity at the school level, develops the decentralized support mechanisms and sustains the provision of national leadership. What is needed is a process of continuous improvement, a process of continuous learning. In many countries Mauritania, Uganda, Mali, Tanzania to mention just a few, education

development now is defined in the context of a 10-year sector development program with an agreed policy framework and performance indicators. Improvement in student learning achievement and significant reductions in repetition and elimination of drop-out are part of all of these plans. What is often less clear is how these goals will be achieved – what is the underlying vision of learning and what is the strategy of implementation. The central challenge for countries will be to take advantage of the long term perspective that is provided by these plans to tackle quality issues through gradual but continuous improvement in input availability, teaching processes and monitoring learning outcomes.

Evidence-based strategies

869. But continuous learning from experience requires information. Where rigorous evaluations-using quantitative and qualitative information are absent learning becomes based on anecdotes, opinion and prejudice. These are poor substitutes for authentic information that provides the basis for learning-based planning and policy making. Examples from Guinea, Mali and Zambia illustrate how a careful monitoring of program cost and outcomes can help the process of going to scale. PASEC, SAQMEC, MLA and NESIS are programs that are helping many countries to develop a database that can inform policy and action. But much more is needed. National statistics should provide information on the availability of inputs. Household surveys provide information on educational attainment, school attendance and education expenditures. Examinations results can provide feedback to schools on student performance. Assessments can provide policy makers with information on the overall performance of the system. Continuous classroom assessments can help teachers identify the need for remedial instruction. Sample surveys are often very useful to gather evidence on the performance of particular programs. There has been considerable progress in these areas. But significant challenges remain. The capacity to collect data has increased dramatically; but the capacity to analyze these data often lags. But most importantly the available information is often not used in the policy process. Where it is done the results have been remarkable. Mauritania has formulated an ambitious and complex 10-year development plan on the basis of a detailed analysis of the system. Difficult choices were made based on these data. Detailed analyses of cost and outcomes allowed Zambia and Guinea to move ahead rapidly with potentially controversial language and teacher education reforms.

The quest for quality

870. Quality improvement in basic education is an imperative for all African countries that want to participate in the global information society of the 21st century and lift their people out of poverty. The challenge of quality improvement in basic education is central to the Millennium Development Goals and Education for All targets formulated at the World Education forum in Dakar. Several initiatives have brought the quality issues to the fore. Many countries are actively testing programs to improve quality. Sharing lessons from experience and learning from each other's successes and disappointments is essential if policy makers and practitioners in the region are to work together in a community of learners.

871. The African experience discussed in this paper clearly shows the common directions that countries are exploring. But at the same time they also show the rich variation in the way these common directions are being put in practice as countries adapt them to different socio-economic, cultural and education conditions. It is also clear that quality improvement is a multi-faceted process, that is continuous and involves educational, economic and financial and cultural aspects. There is no single intervention

that will produce quality learning. But perhaps the most important lessons is that the success of the quest for quality will be determined in the classrooms and schools of Africa by teachers who create opportunities to learn for their students; who work in enabling school environment and who are supported by the local community, and by local and national administrators and policy makers. The quest for quality is very clearly the responsibility of all involved in the education enterprise.

ANNEX 1

Background Papers

submitted in the Framework of the ADEA study:

The Challenge of Learning: Improving the Quality of Basic Education in Sub-Saharan Africa

ADEA Working Group	Doing by
The role of statistics in improving the quality of basic education in Sub-Saharan Africa	WG NESIS
Financial management of education in decentralized setting – Mali, Nigeria, Uganda	WG Finance and Education
Case Study on distance education for teacher education in Mauritius	WG Distance Education
The Challenge of Learning : Improving the quality of basic education in Burkina Faso	WG Non Formal Education
Equity in learning: the gender dimension	FAWE
Early Childhood Development as an Important Strategy to Improve Learning Outcomes	WG Early Childhood Development
The role and contribution of higher education to improving the quality of basic education: a case study of the Center for Research on improving quality of primary education in Ghana (CRIQPEG)	WG Higher Education
School-self-evaluation: the path to a better school	WG Teaching Profession
Theme 1: Pedagogical renewal and teacher development	
Pedagogical renewal and teacher development : a Thematic Synthesis	Martial Dembélé and Bé Ramaj Miarro
Pédagogies et écoles efficaces dans les pays développés et en développement. Une revue de littérature*	Clermont Gauthier & Al.
Pour un encadrement pédagogique et administratif de qualité dans les écoles primaires africaines*	J.P Brunet
Teacher Education in Sub-Saharan Africa : Learning from Within and from Without to Improve Policy and Practice	Martial Dembelé
Le rôle et la formation des directeurs d'école en Afrique*	Kabule Weva

Theme 2: Decentralization and diversification of delivery systems	
Improving the Quality of Education in Sub-Saharan Africa by Decentralizing and Diversifying: Involvement and Empowerment for School Citizenship	Boubacar Niane
Dévolution des pouvoirs à la base, nouvelles responsabilités et développement des capacités locales *pour ancrer la « citoyenneté scolaire »**	Boubacar Niane
Improving Education Management in the Context of Decentralization in Africa	Jordan Naidoo and Peggy Kong
Theme 3: Implementation of basic education reforms and Innovations	
Thematic Synthesis : Implementation of basic education reforms and Innovations	Kabule Weva
Implantation des réformes au niveau des écoles et des salles de classe*	Kabule Weva
Capacity building for the improvement of the quality of basic education in Africa	Jeanne Moulton
Theme 4: Relevance of Education: Adapting curricula and using African languages	
Thematic synthesis . Relevance of education : Adapting curricula and using African languages	Nazam Halaoui
L'appréciation des coûts des manuels en politique d'intégration des langues africaines*	Nazam Halaoui
Evaluation et enseignements des expériences d'utilisation des langues africaines comme langues d'enseignement*	Hassana Alidou and Mallam Garba Maman
Adaptation of school curriculum to local context	Kabule Weva
L'adaptation des curricula aux situations et réalités locales en Afrique sub-saharienne*	Nazam Halaoui
L'utilisation des langues africaines : Politiques, législations et réalités*	Nazam Halaoui

Background papers	
Universal Primary Education In Multilingual Societies: Supporting its Implementation in Sub-Saharan Africa and beyond. 25 years of experience in German Technical Cooperation	Kurt Komarek
Supporting quality basic education in SSA: the experience of the World Bank	Jeanne Moulton
Implementation matters: Exploring its importance for transforming policies and investments into results	Ibrahima Bah Lalya and Richard Sack
Quels indicateurs pour quelle réduction des inégalités scolaires ?*	Aletta Grisay
Determinants of Primary Education Quality: What can we learn from PASEC for francophone Sub Saharan Africa?	Katya Michaelova
Situation of the Learning Achievement : SACMEQ	Saul Murimba
The Challenge of Learning : Monitoring Learning Achievement Project	Vinayagum Chinapah
Elements to assess the quality of primary education in French-speaking Africa	Jean Marc Bernard
Accelerating Paths to Quality: A Multi-faceted Reality (IEQ)	Jane Schubert and Diane Prouty
Monitoring Performance: Assessment and Examinations in Africa	Vince Greaney / Thomas Kellaghan
A few lessons learned from the implementation of a curriculum reform	Jacques Plante
Impact of HIV/aids on quality of education	Paul Bennell
AIDS: a Threat to Educational Quality in Sub-Saharan Africa	Eric Allemano
Le financement d'une éducation de base de qualité*	Jean Bernard Rasera
Ensuring Quality of Distance Education for Higher Education: The Case of the African Virtual University (AVU)	Magdallen Juma
Quality of Secondary Education in Africa (SEIA)	Jacob Bregman
Save the children us village schools in Mali 1992-2003: A future to quality access?	Deborah Glassman

*These studies are available only in French.

ANNEX 2

Country Case Studies

submitted in the Framework of the ADEA study:

The Challenge of Learning: Improving the Quality of Basic Education in Sub-Saharan Africa

Theme 1: Pedagogical renewal and teacher development	
CAMEROUN	Pedagogical Renewal: Establishment of A New Teaching Approach (NAP) In Primary Education in Cameroon
LIBERIA	Accelerated Learning Program
NAMIBIA	Practising Critical Reflection in Teacher Education: Case Study of three Namibian Teacher Development Programmes
ZANZIBAR	Teacher professional development: a case study of the teacher centres
GUINEE	The Reform of Pre-service Primary Teacher Training in Guinea (FIMG): Review-Results of Implementation
Theme 2: Decentralization and diversification of delivery systems	
GAMBIE	Using MLA study to investigate quality factors in private schools
GUINEA ECUATORIALE	Stratégies ciblées d'éducation préscolaire*
MADAGASCAR	Le contrat programme Etat - Ecole / Communauté : une stratégie d'amélioration de la qualité*
SENEGAL	Decentralizing the Management of Education and Diversifying Supply: The "Faire-Faire" Strategy
SENEGAL	Le cahier des charges dans le projet d'école : un outil de pilotage de la qualité*
Theme 3: Implementation of basic education reforms and innovations	
BENIN	Les conditions d'apprentissage pour une éducation de qualité : application des normes « école de qualité Fondamentale »*
MALI	La pédagogie convergente comme facteur d'amélioration de la qualité de l'éducation de base au Mali : analyse du développement de l'innovation et perspectives *
MAURITANIE	An approach to improving educational quality in a reform context
UGANDA	Impact of Primary Education Reform Programme (PERP) on the Quality of Basic Education in Uganda
SUDAN	Sudanese Experience in the Development and Evaluation of The Basic Education Curriculums
LESOTHO	Study of The Provision of Physical Infrastructure And its Impact on Improvement in Primary Education in Lesotho

Theme 4: **Relevance of education: Adapting curricula and the use of African languages**	
BURKINA FASO	L'éducation bilingue au Burkina Faso*
NIGERIA	Beyond access and equity: improving the quality of nomadic education in Nigeria
NIGER	L'enseignement bilingue au Niger*
ZAMBIA	Primary Reading Programme in Zambia
MAURITIUS	Pre-vocational education: an impact evaluation
BURUNDI	Utilisation de la langue nationale comme langue d'enseignement. Elaboration et production des manuels des élèves et des fichiers du maître pour l'école primaire au Burundi *

* These studies are available only in french

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