

# World Education Forum

Dakar, Senegal  
26-28 April 2000

Education for All  
2000 Assessment



T H E M A T I C   S T U D I E S

## Literacy and Adult Education



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## Literacy and Adult Education

Co-ordinated by the United Nations Educational, Scientific  
and Cultural Organization

Daniel A. Wagner



## Literacy and Adult Education

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# Contents

<b>■ Acknowledgements, abbreviations and acronyms</b>	3
<hr/>	
<b>■ Executive summary</b>	4
<hr/>	
<b>■ Introduction</b>	8
<input type="checkbox"/> The Jomtien challenge.....	8
<input type="checkbox"/> Historical and social context.....	9
<input type="checkbox"/> Rationales for literacy and development.....	9
<hr/>	
<b>■ Status and trends</b>	11
<input type="checkbox"/> Concepts and definitions.....	11
<input type="checkbox"/> The changing nature of literacy assessment.....	12
<input type="checkbox"/> Statistical trends in literacy worldwide.....	13
<input type="checkbox"/> Gender differences.....	14
<input type="checkbox"/> Rural and urban differences.....	14
<input type="checkbox"/> Other factors related to literacy.....	15
<input type="checkbox"/> Accountability and impact.....	15
<hr/>	
<b>■ Domains of innovation</b>	16
<input type="checkbox"/> Language policy and planning.....	16
<input type="checkbox"/> Empowerment and community participation.....	17
<input type="checkbox"/> Learning, instruction and materials design.....	18
<input type="checkbox"/> Gender and family.....	19
<input type="checkbox"/> Multisectoral issues of health, agriculture and commerce.....	20
<input type="checkbox"/> Post-literacy and income generation.....	20
<input type="checkbox"/> Technology and distance education.....	21
<hr/>	
<b>■ Capacity building, professionalization and agency support</b>	23
<input type="checkbox"/> National capacity building.....	23
<input type="checkbox"/> Professional development and training.....	23
<input type="checkbox"/> External agency support.....	23
<hr/>	
<b>■ Challenges for the future</b>	24
<hr/>	
<b>■ Conclusions</b>	25
<hr/>	
<b>■ References</b>	26

---

## ■ Boxes

1. Bangladesh: Assessing basic learning skills .....	12
2. Low-cost methods of literacy assessment .....	13
3. Gender trends of illiteracy in Morocco .....	14
4. Language development for literacy: the Shiyeyi in Botswana .....	16
5. Vernacular 'bridge' literacy in Egypt .....	17
6. 'The fire that never dies' – Guarani literacy in Bolivia .....	17
7. Teaching nomads in India .....	18
8. Local capacity building in the Sahel .....	18
9. Community development in El Salvador .....	19
10. Mother-child literacy in Turkey .....	19
11. Promoting women's literacy in Nepal .....	20
12. Women, health and literacy education in Senegal .....	20
13. Adult basic education and training in South Africa .....	20
14. Income generation in the Lao People's Democratic Republic .....	21
15. Gobi women and distance education in Mongolia .....	21
16. <i>LiteracyLink</i> : Internet-based adult basic education in the United States .....	22

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## ■ Figures 29

1. Adult illiteracy rates (age 15+) by region .....	29
2. Percentage distribution of world literate and illiterate populations, 1980 and 1995 .....	29
3. Gender gap in adult literacy rates by region, 1980 and 1995 .....	30
4. Out-of-school youth (age 6–15) .....	30
5. Adult literacy rates (age 15+) and life expectancy at birth in developing countries, 1995 .....	31
6. Total fertility rates and female literacy rates (age 15+) in developing countries .....	31
7. Female literacy rates (age 15+) and mortality rates of children up to age 5 in developing countries, 1995 .....	32
8. Adult literacy rates (age 15+) and per capita GNP in developing countries .....	32

---

## ■ Tables 33

1. Percentage adult illiteracy rates by age group and region .....	33
2. School enrolment literacy rate and number of adult illiterates by region and country	
a. Arab States, Africa and Middle East .....	33
b. Sub-Saharan Africa .....	34
c. Eastern Asia/Oceania .....	35
d. Arab States, Asia .....	35
e. Latin America/Caribbean .....	36
3. Percentage illiteracy rates of rural and urban populations (age 15+) in selected countries .....	36

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## Abbreviations and acronyms

BLC	basic learning competency
CAI	computer-assisted instruction
CBE	computer-based education
CBO	community-based organization
CIDA	Canadian International Development Agency
DANIDA	Danish International Development Agency
DFID	Department for International Development (UK)
DSE	German Agency for International Development
LDC	less-developed country
NFE	non-formal education
NGO	non-governmental organization
NORAD	Norwegian Agency for Development
OECD	Organisation for Economic Co-operation and Development
SIDA	Swedish International Development Agency
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	US Agency for International Development
WCEFA	World Conference on Education for All (Jomtien, Thailand, 1990)

# Executive summary

## Introduction

The 1990 World Conference on Education for All (WCEFA) in Jomtien, Thailand, included adult literacy as one of its six major worldwide goals. Specifically, a number of national educational goals relating to youth and adult education were agreed upon, including: (i) to reduce the number of adult illiterates to half of the 1990 level by the year 2000; and (ii) to improve learning achievement to an agreed percentage of an appropriate age cohort (which might vary from country to country). As part of all Jomtien goals, a new approach to learning was emphasized, one that focused on measurable learning achievement (rather than mere class attendance or participation). These challenges, then, have formed the basis for much of the renewed international interest in literacy and adult education over the past decade and, in many ways, will continue into the new millennium.

Although the complete elimination of illiteracy by the year 2000 was adopted as a goal of UNESCO and a significant number of its Member States in the Udaipur Declaration of two decades ago, the Jomtien Conference scaled back such promises, and chose a more modest, and theoretically achievable, goal of cutting illiteracy rates in half by the year 2000. The reasons for this reduction in targeted goal were numerous. As this report describes, important gains have been made in literacy and adult education over the decade since Jomtien – in various places and using various methods – but the overall literacy situation remains one of the major challenges of the twenty-first century.

During the 1990s, views on literacy and illiteracy have changed dramatically. Many literacy specialists and policy-makers have moved away from the monolithic view of illiteracy as a disease in which the germs might be 'eradicated' with an appropriate drug or vaccination. Rather, literacy is now more broadly viewed as a product of educational, social and economic factors that cannot be radically changed in short periods of time. Indeed, while numerous efforts have been undertaken in both research and practice in the past decade, it comes as no surprise that the fundamental problems and global statistics on literacy have changed only moderately, whether in industrialized or developing countries. None the less, largely due to increasingly competitive and knowledge-based economies across the world, most governments and international/bilateral agencies have expressed increased concern about illiteracy and low literacy since Jomtien, even though resource allocations have remained a disproportionately small fraction of what is contributed to formal schooling.

The present global thematic study on literacy and adult education considers trends and innovations that have been particu-

larly salient over the WCEFA decade, though many of these same issues were present in preceding decades. The particular focus here is on the knowledge base that is currently available as well as the gaps that need to be filled if substantial progress is to be made in the coming decade and beyond. The 'bottom line' of this study is that the overlapping fields of literacy and adult education can and must do much better in the future, but will require not only more fiscal resources, but also professional expertise (including teachers, specialists, programme directors, and policy-makers).

## Concepts and definitions

Many countries have been actively striving to achieve Jomtien's major goal of meeting the basic learning needs for all children, youth and adults, as well as the conjoint necessity for an adequate methodology for understanding whether such goals are being met. Current national and international capacities remain limited, however, for a variety of historical reasons. In the literacy domain, there is a long tradition of statistics-gathering, but changing definitions of literacy, as well as a dearth of human capacity in the educational measurement field, have meant that data on literacy have long been open to question and debate.

Many definitions of literacy exist. All relate in some way, at their core, to an individual's ability to understand printed text and to communicate through print. Most contemporary definitions portray literacy in relative rather than absolute terms. They assume that there is no single level of skill or knowledge that qualifies a person as 'literate', but rather that there are multiple levels and kinds of literacy (e.g. numeracy, technological literacy). In order to have bearing on real-life situations, definitions of literacy must be sensitive to skills needed in *out-of-school* contexts, as well as to school-based competency requirements.

Historically, it was possible to make an arbitrary distinction between those who had been to school and those who had not; this was especially obvious in the newly independent countries of the developing world, which were just beginning to provide public schooling beyond a relatively small élite. Those who had been to school were labelled 'literate'. However, this situation has changed dramatically. While there are still millions of adults who have never attended school, in even the poorest countries of the world the majority of the population in the two youngest generations (up to about age 40) has received some schooling. While this leaves open the serious question of the level of literacy of this perhaps minimally schooled population, it none the less points to a world with a much more variegated landscape of literacy skills, levels of achievement, and degree of regular use.

Jomtien influenced the definitional aspect of the literacy goal by broadening the discussion to that of basic learning needs or competencies (BLCs), which are seen not only in terms of mas-

tery of the three Rs (reading, writing and arithmetic), but also in terms of other knowledge, problem-solving and life skills. Together, BLCs are thought to promote empowerment and access to a rapidly changing world. They should support independent functioning and coping with practical problems or choices as a parent or worker or citizen, and are seen as critical to job entry and societal advancement in all countries. Thus, when defining BLCs, there is a need to refer both to formal school-based skills (such as ability to read prose text or to understand mathematical notations) and to the ability to manage functional tasks and demands, regardless of whether such competencies were developed through formal or non-formal education, or through personal experiences in diverse informal learning situations. The challenge of changing definitions is not a trivial one, and will influence not only how policy-makers view literacy goals, but also how programme-developers will seek to promote literacy and adult education in the twenty-first century.

### **Status and trends in literacy statistics**

In order to provide worldwide statistical comparisons, international agencies have relied almost entirely on data provided by their member countries. According to the most recent UNESCO statistics (and estimates), world literacy rates have been dropping over the last two or three decades, apparently due primarily to increases in primary-school enrolments. Yet these data also indicate that the actual numbers of illiterates have remained relatively constant, due to population growth. It was once assumed that increased efforts for achieving universal primary schooling would lead to a drop towards zero in adult illiteracy around the world. These optimistic views are no longer widely held, for a variety of reasons including: continued increases in population growth in developing countries; declining quality of basic education where rapid expansion has taken place; upward changes in the skill standards for literacy, both in developing and industrialized countries; improved measurement of literacy through surveys which show that previous estimates of literacy based on school-grade levels achieved often overestimate actual basic learning competencies.

According to UNESCO, there were an estimated 962 million illiterates in the world in 1990, 885 million in 1995, and an estimated 887 million in 2000, constituting 27% of the adult population in the developing countries. Of these illiterates, the majority are women, who in some countries account for up to two-thirds of adult illiteracy. Regionally, Eastern and Southern Asia have the highest number of illiterates, with an estimated 71% of the world total illiterate population. The sub-Saharan Africa and Arab regions have about the same (40%) adult illiteracy rate, with Latin America at about half this rate. Overall, the geographical distribution of adult illiterates has not changed very much over the Jomtien decade (or over the past few decades). However, it should be noted that comparisons of illiteracy rates in developing and industrialized countries can be misleading, as definitions of literacy and illiteracy now vary

widely, and the UNESCO statistics on industrialized countries are no longer seen by OECD countries as applicable. One consequence of these changes in standards (and of recent international surveys) during the WCEFA decade is that policy interest in adult literacy has greatly increased in OECD countries. In developing countries policy interest remains high, but competition for resources is still a major impediment.

### **Domains of innovation**

Innovations are central to future success in literacy and adult education, and learner motivation, once access is achieved, is a key dimension for any programmatic improvement. This is true whether one is in Bangladesh or Bolivia. A major problem consistently mentioned by service-providers and policy-makers is that participation levels drop off rapidly after the first weeks or months of a programme. Many varied and valid reasons have been cited as causes of this problem, such as inadequate programme quality, lack of time and resources of learners, poor quality of textbooks and pedagogy, lack of social marketing, and so forth. There is little doubt, however, that the general factor behind all these technical issues is that learners, for whatever sets of reasons, do not feel motivated to participate and remain in such voluntary programmes.

Innovative ways of meeting learner needs that simultaneously enhance learner motivation include language policy and planning (e.g. providing more robust methods for introducing first- and second-language literacy), empowerment and community participation (e.g. decentralization of literacy provision through NGOs), learning, instruction and materials design (e.g. better concatenation in materials development and production between formal and non-formal education domains), gender and family (e.g. further growth of intergenerational, mother-child literacy programmes), multisectoral connections (e.g. adapting literacy instruction for integration with health education and agricultural extension programmes), post-literacy and income generation (e.g. integration of literacy with income-generation schemes), technology and distance education (e.g. use of multimedia for improved teacher training). Case examples of developments in each of these areas are provided in this study.

### **Capacity building, professional development and external agency support**

Capacity building is at the heart of the renewal of effective and high-quality work in literacy and adult education. The committed involvement of professionals is required for any system-wide change. One major limitation on change in adult literacy is that the large majority of the instructional staff is part-time (including volunteers with high turnover). Furthermore, there have been only limited resources and strategies for involving full-time professionals as well as volunteer and part-time



instructors and tutors in meaningful professional development. There is a major need to develop systems and capacities allowing administrators, teachers and tutors to engage in professional staff training and development as an ongoing process within programmes and linking staff development more closely with service improvement and evaluation/monitoring. Teachers and administrators should have more opportunities to understand and learn from local problems and to devise local solutions. Increasing the proportion of full-time instructors is an essential element of enhanced professional development; without more full-time staff, programmes have little incentive to spend scarce resources on professional development.

Many agencies, bilateral and multilateral, provide support for literacy and adult education, but only UNESCO has put literacy in its list of educational priorities over recent decades. Two UNESCO-supported institutions – the UNESCO Institute of Education in Hamburg, which organized CONFINTEA-V in 1997, and the International Literacy Institute, which organized the World Conference on Literacy (Philadelphia, 1996) and a series of regional forums on literacy – have helped UNESCO's international agenda in literacy and adult education. In addition, the UNDP, UNICEF and the World Bank have supported adult literacy programmes over the decades, along with a number of key bilateral agencies (such as CIDA, DANIDA, DFID, DSE, NORAD, SIDA, USAID). As part of its Education Sector Review (1997), the World Bank, in collaboration with Norway, has recently begun an important initiative on adult basic education and literacy in Africa. Various evaluation projects have been commissioned, such as in Uganda, and projects in the Gambia, Ghana, Senegal and elsewhere are under way or in planning. The UNDP was active in the 1960s and 1970s with the Experimental World Literacy Programme, and UNICEF remains active in promoting basic skills and life skills for out-of-school youth (particularly girls and young women).

### **Challenges for the future**

Literacy and adult education will need to focus more than ever before on which *kinds* and what *levels* of literacy are required for each society, as well as for specific groups within that society. The year 2000 international statistics, dramatic as they are, do not fully reveal the endemic problems associated with adult literacy work. The central problem, as with the broader field of education, is the *quality* of the education as it relates to the *individual* adult learner. National campaigns and programmes have often gone wrong because of the need for too rapid progress and for economies of scale. This combination of factors has led to low motivation on the part of adult learners around the world, and to poor outcomes in both learning achievement and participation rates. A greater focus on programme quality is needed along the following lines: professional development, learner motivation, knowledge-based programme design, and increased openness to new approaches. Each of these themes is described very briefly below:

- *Professional development.* The professional development of administrators, directors, teachers, and tutors is an ongoing and critical process for programme improvement in literacy and adult education. Teachers and administrators should have more opportunities to investigate local problems and to devise local solutions. By assuring a greater percentage of full-time teachers, literacy programmes will have a great incentive to invest in staff training and development, which are central to improving the quality of all literacy and adult education programmes.
- *Learner motivation.* The motivation of adult learners is a key dimension that can either promote participation and retention, or, when lacking, can lead to poor take-up and retention of literacy and adult education programmes. In contrast to the thinking of recent decades, the challenge of motivation lies not in providing the 'political will' of governments, but rather in finding ways to provide what the private sector terms, rather simply, 'customer service'. Thus, in order to reach the unreached and the most excluded populations (e.g. unschooled, women, ethnic-linguistic minority, rural, migrant) programmes need to be tailored to address diverse needs, and have direct, discernable outcomes and incentive-rich experiences.
- *Knowledge-based programme design.* Much more needs to be done in order to build the knowledge base and expertise employed in the service of literacy and adult education. Relative to other areas of education, few research studies are being produced in literacy and adult education, and donor agencies have been too reluctant in their support of serious evaluation studies or applied research. To move the field forward will require a greater emphasis on what works and what does not, as well as further support from donor agencies.
- *Openness to new approaches.* A striking aspect of adult literacy work is its relative isolation. For the most part, literacy and adult education specialists and practitioners have little contact with mainstream specialists in education, and even less with sectors outside education. There is an overall need to be open to diversity in learners and in the contexts in which they reside. No new approach is more obvious than technology, which has been taken up increasingly in the formal school settings, but has yet to have a serious input into adult education in most countries. Indeed, in developing countries, the overall limitations in fiscal and human resources have meant that technology remains far from being implemented, even though real cost-effectiveness appears to be achievable.

### **Conclusions**

At the Jomtien Conference, the literacy goal was to reduce the illiteracy rate in each country by 50% in one decade. This has not happened in any country. And yet there is a widening

recognition that low literacy and poor basic learning competencies (by varying standards) are even more prevalent today than had been assumed a decade ago. Furthermore, with population growth the absolute number of illiterates has declined very little since Jomtien.

With national economies and civic participation more dependent than ever on an educated and literate citizenry, the world education community is faced with multiple and serious challenges. On the one hand, agencies that support or engage in literacy work need to be more realistic about what can be achieved within budget constraints. Such realism entails lowering expectations about major changes in individual, social, and economic outcomes, while at the same time holding literacy service-providers to higher standards of accountability and professionalism. As in formal schooling, literacy and adult education do not provide a magic answer for any society, but they are part and parcel of all aspects of national development. On the other hand, agencies can enhance adult literacy programmes by

- building a more solid knowledge base for field-based innovations;
- improving professional development and human resources capacity;

- providing better pathways from non-formal youth and adult literacy programmes into the formal school system;
- combining non-formal programmes for adults and early childhood programmes;
- taking advantage of new technologies;
- investing resources in assessment, evaluation and monitoring, surveys and applied research; and
- creating new synergies and collaborations between governmental and non-governmental agencies.

This global thematic study has attempted to highlight some of the most important problems and prospects in improving the quality of literacy and adult education work, and efforts to meet the needs of people who are often excluded or marginalized from quality education. The importance of literacy and basic learning competencies in the lives of people the world over is difficult to overestimate. The simple fact that even today nearly one-quarter of humanity lacks such essential – and obtainable – competencies still shocks the world. It will be all the more striking in the year 2020, if we have been unable to substantially improve this situation. Yet the tools for making major gains are within reach if the best know-how can be put into service. Future literacy and adult education work will require a sustained, coherent, informed and increased effort.

# Introduction

Conscious of the need to arouse awareness, nationally and internationally, that the struggle against illiteracy can be won, to demonstrate solidarity with those working on behalf of the thousand million adult illiterates in the world, and to vigorously mobilize the resources and will to eradicate illiteracy before the end of this century . . . [we] hereby adopt this Declaration . . . (Udaipur Literacy Declaration, 1982).

Reduction of the adult illiteracy rate . . . to, say, one-half its 1990 level by the year 2000, with sufficient emphasis on female literacy to significantly reduce the current disparity between male and female illiterate (Target 6; UNESCO, 1990).

The 1990 World Conference on Education for All (WCEFA) in Jomtien, Thailand, included adult literacy as one of its six major worldwide goals. Although the complete elimination of illiteracy by the year 2000 was adopted as a goal of UNESCO and a significant number of its Member States in the Udaipur Declaration of two decades ago, the Jomtien Conference scaled back such promises, and chose a more modest, and theoretically achievable, goal of cutting illiteracy rates in half by the year 2000. The reasons for this reduction in targeted goal were numerous. As this report describes, important gains have been made in literacy and adult education over the decade since Jomtien – in various places and using various methods – but the overall literacy situation remains one of the major concerns of the twenty-first century.

During the 1990s, views on literacy and illiteracy have changed dramatically. Many literacy specialists and policy-makers have moved away from the monolithic view of illiteracy as a disease in which the germs might be 'eradicated' with an appropriate drug or vaccination. Rather, literacy is now more broadly viewed as a product of educational, social and economic factors that cannot be radically changed in short periods of time. Indeed, while numerous efforts have been undertaken in both research and practice in the past decade, it comes as no surprise that the fundamental problems and global statistics on literacy have changed only moderately, whether in industrialized or developing countries. None the less, largely due to increasingly competitive and knowledge-based economies across the world, most governments and international/bilateral agencies have expressed increased concern about illiteracy and low literacy since Jomtien, yet resource allocations have remained a disproportionately small fraction of what is contributed to formal schooling.

The present global thematic study on literacy and adult education considers trends and innovations that have been particularly salient over the WCEFA decade, though many of these

same issues were present in preceding decades. The particular focus here is on the knowledge base that is currently available as well as the gaps that need to be filled if substantial progress is to be made in the coming decade and beyond. The 'bottom line' of this study is that the overlapping fields of literacy and adult education can and must do much better in the future, but will require not only more fiscal resources, but also professional expertise (including teachers, specialists, programme directors, and policy-makers).

## The Jomtien challenge

The 1990 World Conference on Education for All (WCEFA) in Jomtien, Thailand, included adult literacy as one of its six major worldwide goals. Specifically, a number of national educational goals relating to youth and adult education were agreed upon, including: (i) to reduce the number of adult illiterates to half of the 1990 level by the year 2000, while reducing the male/female disparity; and (ii) to improve learning achievement to an agreed percentage of an appropriate age cohort (which might vary from country to country). As part of all Jomtien goals, a new approach to learning was emphasized, one that focused on measurable learning achievement (rather than mere class attendance or participation). These challenges, then, have formed the basis for much of the renewed international interest in literacy and adult education over the past decade and, in many ways, will continue into the new millennium.

Jomtien was not alone. Concern about illiteracy has been a focus of human activity in many parts of the world for centuries. Literacy was chosen as a key part of the UNESCO mandate when the organization was created after the Second World War, and one that has been adopted by nearly all the international and bilateral agencies over the decades that followed. International conferences focused on literacy also show its importance prior to Jomtien, such as Persepolis (1976) and Udaipur (1982); and following Jomtien, the Mid-Decade EFA Review (Amman, 1996), the World Conference on Literacy (Philadelphia, 1996), and the International Conference on Adult Education (CONFINTEA-V, Hamburg, 1997). In addition to these, a myriad of other meetings, symposia and conferences on literacy and adult education were stimulated by Jomtien (e.g. see UNESCO, 1996b).

With respect to the goal of improving learning achievement, Article 1 of the WCEFA Declaration stated that 'basic learning needs' or competencies (BLCs), 'comprise both essential learning tools (such as literacy, oral expression, numeracy and problem-solving) and the basic learning content (such as knowledge, skills, values, and attitudes) required by human beings' (UNESCO, 1990, p. 43). This second goal of relevance to literacy and adult education appears to have received somewhat less attention in the literacy and adult education arena, for the obvious reason that broadening the range of

content in literacy programmes, especially in less-developed countries (LDCs), was a major challenge in itself (for a review, see ILI/UNESCO, 1999).

Overall, the Jomtien challenge, combined with increasing pressures on national governments to be concerned about global competitiveness and workforce skills, has stimulated a renewed involvement in literacy and basic education in virtually all countries of the world. While the literacy targets have not been generally met, it is probably correct to say that there is greater interest in trying to meet them in the year 2000 than ever before.

### **Historical and social context**

Literacy is a word that is usually associated with the more positive aspects of human civilization, and is strongly associated with some of the most positive aspects of social and economic development. Indeed, the label 'illiterate' has been used and is today often used to characterize the poverty and lack of education still experienced in many parts of the world. Yet literacy also encompasses a wide variety of attitudes, beliefs, and power relations between individuals and groups of individuals. Thus, literacy itself is at the heart of the changes that have taken place across literate human history. Whether in the domain of religious tradition, the invention of the printing press, or the Internet, literacy has been central to many of our most profound human and historical developments.

In this report, the terms 'literacy' and 'adult education', taken together, refer to 'second-chance basic education' carried out among youth and adults. By 'second chance', we refer to educational activities that are meant for those individuals who never attended school (i.e. who missed schooling the 'first time' when they were younger), or who left school before completing the acquisition of skills such as literacy and numeracy. Here, adult education does not include the myriad programmes of lifelong learning for adults (important as they are), but rather focuses on the most disadvantaged who do not possess basic skills and are thus in need of basic education in non-formal (as opposed to formal) schooling. Further, the focus is more on 'less-developed countries' – in the standard sense of the countries in the bottom half of the list in terms of per capita gross national product (GNP). These countries have consistently had the highest rates of illiteracy since the Second World War.

A focus on 'disadvantaged' out-of-school youth and adults – those who have had limited or no opportunities to access or benefit from sustained learning in formal school settings, also leads to discussions of gender, social, economic, geographical, ethnic and political factors in development. This target group may or may not be wage earners or effective participants in other economic or community activities, but their basic or functional literacy, numeracy, and problem-solving skills, as

well as 'life skills' (related to managing personal health, nutrition, and workplace contexts; see WHO, 1999) are likely to be lower than desired by national policy-makers and/or what is needed to assure economic survival.

Finally, although the focus is on LDCs, there are numerous commonalities in literacy and adult education needs between developing and industrialized countries, indeed among all countries. As described below, major international surveys (such as recently in OECD countries) have demonstrated that in virtually every country, even those with very high GNP, the basic skills of a significant portion of the population are too low. Thus literacy may be seen today as a worldwide problem, even though the needs and levels of skills may vary widely from country to country.

### **Rationales for literacy and development**

*Human development rationale.* Literacy is often understood as something that is 'good' for the individual and for society. Indeed, unlike some other advocacy domains for social change (such as full employment and universal health insurance), there are very few critics of greater societal literacy. This is not to say that specialists or the public can agree as to what they mean by increased literacy. Note, for example, the heated debates over whether literacy should be taught in the first language or a second (usually metropolitan) language – still controversial in many countries. Although primary education is already a core institutionalized goal of all nations, investments in non-formal and adult literacy education programmes tend to vary widely between countries.

*Economic rationale.* From the poorest villages in Africa to the city boulevards of industrialized Europe, one can hear the important economic rationale for literacy development. Few countries are oblivious to the perception that a literate and skilled populace can have an important impact on the social and economic life of each nation. Numerous claims have been put forward that a given minimum rate of literacy is a prerequisite for economic growth in developing countries, and headlines in European newspapers today proclaim that, in the context of global competition, adult illiteracy will lead to economic ruin. Indeed, estimates of the direct cost of adult illiteracy to North American business have been given at about \$US40 billion annually. From the advent of the Experimental World Literacy Programme in the 1960s (Gillette, 1999), to the 1990 WCEFA, claims have been made as to the positive impact on economic productivity of literacy and basic education. Most of the empirical research on this topic comes from a handful of studies that relate number of years of schooling (mostly primary schooling) to income or job productivity. For example, in the agricultural sector, studies have been undertaken which support the notion that an additional year of primary schooling can directly affect wages and farm output (Jamison and Moock, 1984).

Until quite recently, very little information was available on the economic returns on literacy among adults. Indeed, there are very few empirical studies on the economic impact of short-term literacy programmes in developing or industrialized countries. However, a new set of household literacy surveys (where literacy skills are measured and quantified) has begun to fill this gap in information (OECD/Statistics Canada, 1995; Tuijnman et al., 1997). These studies suggest that income and job attainment are strongly related to literacy skills, but little empirical research has been done to show that adult literacy programmes directly allow the unemployed to obtain new jobs. Furthermore, in developing countries, the direct impact of adult literacy programmes on individual economic improvements in the lives of programme participants remains to be systematically studied (Windham, 1999).

*Social rationale.* Literacy may also have social consequences that are important objectives for national policy planning. Particularly in developing countries, the gender dimension of illiteracy has been raised in this regard, as the majority of illiterate or low-literate adults tends to be female in the poorest developing nations (Stromquist, 1999). Furthermore, there are numerous empirical relationships between literacy and fertility, infant mortality, and so forth, and we are just beginning to understand the complexity of the relationship between mothers' education and consequences for children (LeVine, 1999), especially in reducing health risks and lowering fertility. Generally speaking, the research evidence for social consequences of literacy appears stronger (at least in terms of more demonstrable empirical outcomes) than that of direct economic consequences.

*Political rationale.* There is a long tradition of utilizing literacy programmes in general, and literacy campaigns in particular, as a way to achieve political goals (Bhola, 1999). In the 1500s, Sweden engaged in one of the earliest known national literacy campaigns in order to spread the state religion through Bible study. The apparent goal was not only religious salvation (as in previous and contemporary missionary work), but also national solidarity. This latter aspect of campaigns remains a potent source of government support for literacy work in many countries. Perhaps most visible are the socialist literacy efforts in China, Cuba, Ethiopia, Nicaragua and the former Soviet Union; yet the political appeal of literacy as a policy goal is also apparent in today's resurgence of literacy work in North America and Europe as well as in parts of Asia and Africa (Arnové and Graff, 1987). This type of political appeal often stems from a government's need to show that it is doing some-

thing good for the most disenfranchised communities of the country, while often justifying the investment in terms of lower social-welfare costs and greater economic productivity. Political solidarity can also be achieved through the utilization of a national language in the literacy campaign. While tensions may result from the imposition of a national language on ethnic minorities, the promotion of national languages is seen as a positive outcome by many governments.

*Endogenous rationale.* There may of course be strong pressures to provide literacy and basic skills programmes at the community level. Often organized by non-governmental organizations (NGOs), such as church or mosque groups or private voluntary organizations, such programmes tend to be small in scale and focused on particular segments of the population (e.g. adolescents out of school, young mothers, the elderly, the homeless, and so forth). In the case of endogenous programmes, governments generally have had little involvement, as the programmes are self-funded via religious associations and tend to rely on volunteer tutors and teachers. Recent exceptions to this model include the support of NGOs by multilateral agencies seeking to support literacy work. The historical rationale for such endogenous community-based literacy programmes may be seen in terms of both moral and social cohesion, in the sense of providing and reinforcing a sense of community. These types of endogenous literacy programme have predominated in industrialized countries, where governments have until recently claimed that illiteracy was so marginal as to command little national attention or government financial support. Over the past decade, however, policy-makers' attitudes in both industrialized and developing countries have changed sharply on this point, with many realizing that community-based programmes, funnelled through NGOs, may be more effective than government-run programmes.

*Exogenous rationale.* Since the establishment of United Nations agencies following the Second World War, there has been growing pressure on all nations to improve their performance in education and literacy, due to what might be called exogenous or external pressures. This pressure appears in two major ways. First, bilateral, regional and multinational agencies may offer financial support only if certain types of educational initiatives are promoted and educational targets reached. Over the past decade or so, the promotion of primary schooling has been a centrepiece of multinational education support to LDCs, although interest in adult literacy has been growing again, based on recipient country demand following the WCEFA meeting in 1990 (Eisemon et al., 1999).

# Status and trends

Many countries have been actively striving to achieve Jomtien's major goal of meeting the basic learning needs for all children, youth and adults, as well as the conjoint necessity for an adequate methodology for understanding whether such goals are being met. Current national and international capacities remain limited, however, for a variety of historical reasons. In the literacy domain, there is a long tradition of gathering statistics, but changing definitions of literacy, as well as a dearth of human capacity in the educational measurement field, have meant that data on, and definitions of, literacy have long been open to question and debate.

## Concepts and definitions

There are many definitions of literacy. All relate in some way, at their core, to an individual's ability to understand printed text and to communicate through print. Most contemporary definitions portray literacy in relative rather than absolute terms. They assume that there is no single level of skill or knowledge that qualifies a person as 'literate', but rather that there are multiple levels and kinds of literacy (e.g. numeracy, technological literacy). In order to have bearing on real-life situations, definitions of literacy must be sensitive to skills needed in *out-of-school* contexts, as well as to school-based competency requirements.

Two of the better known definitions of literacy are:

A person is literate who can with understanding both read and write a short simple statement on his everyday life. . . .  
A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his group and community (UNESCO, 1978).

. . . using printed and written information to function in society to achieve one's goals and to develop one's knowledge and potential (OECD/Statistics Canada, 1995).

Most definitions of literacy have traditionally included calculating skills as part of the broad definition of literacy, but often these have been limited primarily to the four arithmetic operations. It is now widely thought that *numeracy* assessment should encompass a broad range of skills, thought processes, and background knowledge (formal and/or informal). Numeracy enables interpreting, acting upon and communicating mathematical information in a wide range of everyday or work-related and other life contexts, and is also needed for effective functioning in a world of amounts, prices, weights and distances. Literacy and numeracy are thus now considered to be at the centre of the educational goals not only of children in school, but youth and adults in need of further education.

The question of literacy definitions has both conceptual and practical dimensions (Venezky et al., 1990). Historically, and especially before the Second World War, it was possible to make an arbitrary distinction between those who had been to school and those who had not; this was especially obvious in the newly independent countries of the developing world, which were just beginning to provide public schooling to more than a relatively small élite. As the twenty-first century begins, this situation has changed dramatically. While there are still millions of adults who have never attended school, in even the poorest countries of the world the majority of the population in the two youngest generations (up to about age 40) has received some schooling. While this leaves open the serious question of the level of literacy of this often minimally schooled population, it none the less points to a world with a much more variegated landscape of literacy skills, levels of achievement, and degree of regular use.

Jomtien influenced the definitional aspect of the literacy goal by broadening the discussion to that of basic learning needs or competencies (BLCs), which are seen not only in terms of mastery of the three Rs, but also in terms of other knowledge, problem-solving and life skills. Together, BLCs are thought to promote empowerment and access to a rapidly changing world. They should support independent functioning and coping with practical problems or choices as a parent or worker or citizen, and are seen as critical to job entry and societal advancement in all countries. Thus, when defining BLCs, there is a need to refer both to formal school-based skills (such as ability to read prose text or to understand mathematical notations) and to the ability to manage functional tasks and demands, regardless of whether such competencies were developed through formal or non-formal education, or through personal experiences in diverse informal learning situations. The challenge of changing definitions is not a trivial one, and will influence not only how the policy-makers view literacy goals, but also how programme-developers will seek to promote literacy and adult education in the twenty-first century.

While the primary focus of this study is on educating adults and the most disadvantaged in developing countries, it is important to take note of the considerable advances that have been made in adult education, some of which were highlighted at CONFITEA-V, the Fifth International Conference on Adult Education (Hamburg), at which the following definition was provided:

The objectives of youth and adult education . . . are to develop the autonomy and the sense of responsibility of people and communities, to reinforce the capacity to deal with the transformations taking place in the economy, in culture and in society . . . in short to enable people and communities to take control of their destiny and society (UIE, 1997).

As can be seen, this definition of adult education takes a world-wide perspective, and helps to provide a framework for many of the activities that agencies and governments will support in the coming years.

### **The changing nature of literacy assessment**

Since the 1950s, there have been relatively few changes in the reporting of literacy statistics by UNESCO, which began to provide standardized information to other agencies for the purpose of international comparisons. The methodology for gathering such data appears simple enough, but contains a certain number of assumptions which call into question the reliability and validity of the data as currently collected. Literacy rates in each country are most often derived in one of two ways: either the national government provides these 'rates' as a function of some census information (often outdated by as much as one or two decades), where individuals are asked if they are or are not 'literate'; or, primary school completion rates are used as a way to calculate presumed 'literate' who are 15 or 16 years and older. These data often require a certain amount of adjustment due to population growth, changes in national methods of calculation, and national changes in language policy.

Such literacy data suffer from some serious flaws, often compounded by the lack of up-to-date census information. Most importantly, the traditional classification of individuals as 'literate' versus 'illiterate' is now of relatively little value, though it remains a form of classification much in use today. The situation in 2000 is much more complex, as some contact is now made with primary schooling, non-formal education (NFE) programmes, and the mass media by the vast majority of families in developing countries. Indeed, rare is the society today that includes more than a small number of individuals who, for a variety of idiosyncratic reasons, are unaware of the meaning and uses of reading and writing systems (Wagner, 1990; ILI/UNESCO, 1998). Enormous differences also exist within countries, as schooling and literacy may vary dramatically by gender, ethnicity, and urban or rural residence.

Literacy is more usefully seen as a set of individual skills, but these skills may be thought to be sufficient or insufficient, depending on the social, cultural and political context of any given society. Thus, being able to read a newspaper may justify the label of 'literate' in one context, but in a second context may be a less relevant measure than a mother's ability to fill in a government health form for her sick child. Access to credible data about the status of BLCs can offer policy-makers and planners several advantages, and allow them to:

- judge the current status of basic skills within the out-of-school youth and adult populations, irrespective of former school attendance (e.g. see a recent study on the impact of schooling on literacy skills, Box 1);

### **Box 1. Bangladesh: assessing basic learning skills**

Rates of illiteracy in Bangladesh have been consistently high, some 62% overall and 74% of the female population. Bangladesh remains the nation with the fourth highest number of illiterates in the world. To assess literacy levels in Bangladesh, researchers needed to develop instruments to measure whether or not a person had achieved the essential basic learning skills considered necessary for him or her to function at a minimum level of competence in Bengali society. These basic skills could be described as the minimum level required for self-sustained development. A test of basic learning skills was developed, for reading, writing, and oral and written mathematics, for an assessment of a national sample of over 5,000 individuals aged 11 years and older living in rural areas. The highest level in each subject area was judged by a panel to be the *minimum* required, for example, to allow people to function in the market place, read passages of simple text independently and write very brief messages. Satisfactory internal consistency measures of reliability were obtained for the items in each subject level. In addition, data indicated substantial agreement between the objective ratings and self-assessments. A total of 29% of the tested sample indicated that they could read, and 24% that they could write a letter. However, almost 30% of the sample failed to master any of the levels in the four subject areas tested. While evidence showed that basic learning skills and formal schooling were related, 36% had dropped out by the end of grade 3, at which point the majority had not mastered the basic skills in any of the four subjects tested. Indeed, those who had completed only three years of primary school showed levels of basic skills that were only marginally better than those who had never attended school in Bangladesh.

Source: Adapted from Greaney et al. (1999).

- identify skills deficiencies among out-of-school youths and young adults (or subgroups within these populations), which have economic or societal implications and that can serve as targets for interventions;
- know more about the relative effectiveness of existing formal and non-formal programmes; and
- make further progress towards meeting the 1990 Jomtien goal of reducing illiteracy by 50%.

In measuring learning achievement, there are a range of studies – national and international – focused on reading, mathematics, science, and so forth, both in school and out. For example, the International Association for the Evaluation of Educational Achievement (IEA) undertook a number of important international comparative studies of learning achievement, such as the 1992 Reading/Literacy study (Elley, 1992) of 9- and 14-year-olds in thirty-two countries (including a number of LDCs such as Botswana, Nigeria and Zimbabwe), and the 1996 international Math/Science study (TIMSS) of 4th- and 8th-grade students in twenty-six countries (including LDCs such as the Islamic Republic of Iran and Thailand). And the 1995 International Adult Literacy Survey (IALS) study, in six OECD countries, measured out-of-school reading, writing and mathematics skills in adults aged 16 to 65 years (OECD/Statistics Canada, 1995, 1997). Each of these studies contained somewhat parallel methodologies for the measurement of learning achievement, such as the use of item sam-

pling pools, translation/back-translation methods, and psychometric validation for item rejection.

While there is legitimate interest (and sometimes significant amounts of funding) for such international comparative studies, there has been less interest (and less funding) for efforts to measure basic learning achievement at the programme level. This observation appears particularly obvious in LDCs, where NGO-based programmes rarely have the capacity to engage in empirically sound self-evaluation, and where international agencies infrequently have the resources (human or fiscal) to invest in evaluations that include learning achievement (there are some well-known exceptions to this generalization, such as BRAC in Bangladesh or TOSTAN in Senegal). With a risk of possible oversimplification, it seems fair to say that many (if not most) of the innovative educational programmes sponsored by development agencies in collaboration with governmental or non-governmental agencies, seldom have the benefit of formative or summative evaluations which include learning achievement; nor, with few exceptions, have such programmes invested in local capacity building (for a more detailed discussion, see ILI/UNESCO, 1998).

While UNESCO (1978) includes 'reading, writing and calculation' in its definition of functional literacy, international agency data have typically been gathered only on reading and writing. Indeed, separate indices on numeracy rates for United Nations States Member have never been provided, and very little attention has been paid to the arithmetic part of the definition by international organizations and development planners (see Gal, 1993). Survey information has rarely been gathered on mathematical abilities in developing countries, and the few literacy evaluations that have taken place which include separate

analyses for numeracy generally provide insufficient detail for judging specific numeracy abilities.

In the area of learning achievement of BLCs, some new trends are discernable. A low-cost, culturally sensitive assessment framework that combines elements of household surveys (e.g. using moderately sized samples) with the use of measurement tools attuned to local and national needs has recently been developed (see ILI/UNESCO, 1999; Box 2). While maintaining a low level of operational and human resources costs, such assessment designs can satisfy the needs of international and national agencies for credible data as a precondition for supporting or investing in new human-development initiatives. Further, these data can also be used to provide impact or evaluation data about national and local programmes that teach basic skills.

### Statistical trends in literacy worldwide

Literacy and illiteracy, when considered in statistical terms, can provide useful comparisons by region, country, gender and so forth, over time. The analysis of illiteracy rates by country and region is helpful for identifying populations most in need, and for recognizing regional trends and disparities.

**Tables 1 and 2** present primary schooling and adult literacy statistics for the world adult population, with developing countries categorized by region and country. **Figure 1** presents a histogram of adult illiteracy rates by region. According to UNESCO (1997b), there were an estimated 962 million illiterates in the world in 1990, 885 million in 1995, and an estimated 887 million in 2000, constituting 27% of the adult population in the

#### ■ Box 2. Low-cost methods of literacy assessment

Literacy tests have ranged traditionally from simple questions such as 'Can you read and write?', to signing one's name, to reading a short paragraph on a life-relevant topic, to answering multiple-choice questions on a test battery. The proposed assessment scheme for reading is based on a matrix of reading skills and domains of print. This matrix can be used to define four ability levels: none, prerequisite, basic, and advanced. Reading skills in this scheme are divided into three general categories: decoding, comprehension, applied skills. Three domains of print are described, including (i) prose text (e.g. newspapers, pamphlets, books, stories, etc.); (ii) documents (e.g. official forms, labels, advertisements, bills, receipts, etc.); and (iii) decontextualized print (e.g. letters, words, phrases, sentences). Levels of reading may be defined as follows:

- *None or non-reader level.* This level refers to those individuals who, for all practical purposes, do not possess even the rudiments of reading skills, and cannot, for example, recognize more than a few letters of the alphabet at most.
- *Prerequisite level.* Prerequisites to reading competency include letter recognition, decoding, and 'sounding out' of short texts. In some languages, such as English or Arabic, the relation of printed text to oral language is not at all simple and may require extensive knowledge of the linguistic, semantic, and grammatical structure of the language just to pronounce a printed text. Thus, decoding skill must be operationalized with respect to specific language and script contexts.
- *Basic level.* A basic level in reading ability can be defined as skill in 'reading to learn' and 'reading to do'. The former set of skills may be seen as most related to school-based reading achievement, where the focus is on reading comprehension as a means for learning about content domains. The latter set of skills is more common to out-of-school functional literacy needs such as reading signs, following procedural directions, locating a specific item on a bus schedule, and other applied tasks.
- *Advanced level.* Advanced skills are built on those used in basic level tasks, but are applied to more complex tasks and print domains. As noted earlier, advanced skills are equivalent to a level of skill for those who have successfully completed secondary school curriculum or its equivalent.

Source: Adapted from ILI/UNESCO (1999).



developing countries. Of these illiterates, the majority are women, who in some countries account for up to two-thirds of adult illiteracy. Regionally, Eastern and Southern Asia have the highest number of illiterates, with an estimated 71% of the world total illiterate population. The sub-Saharan Africa and Arab regions have about the same (40%) adult illiteracy rate, with Latin America at about half this rate. Overall, the geographical distribution of adult illiterates has not changed very much over the Jomtien decade (or over the past few decades).

As shown in **Figure 2**, statistics indicate that illiterate adults in industrialized (developed) countries make up a small fraction of the adult population. In 1980, the estimated illiteracy rate for industrialized countries was 3%, and declined to 1% by 1997. However, utilizing such aggregate figures can be misleading in two ways. First, in parts of southern Europe, for example in Portugal, the illiteracy rate in 1990 was estimated to be as high as 15%, which is about the same as the rate for the region of Latin America and the Caribbean as a whole, and higher than several individual countries in that region. Second, and more importantly, the standards used by UNESCO for developing countries are no longer considered appropriate for industrialized countries, which have (as noted above) developed their own measures for assessing functional literacy problems (see OECD/Statistics Canada, 1995; ILI/UNESCO, 1998). Comparisons of illiteracy rates in developing and industrialized countries can thus be misleading, as definitions of literacy and illiteracy now vary widely. One consequence of these changes in standards over the WCEFA decade is that policy interest in literacy (illiteracy and low literacy) has greatly increased in OECD countries as well as in developing countries.

### Gender differences

Gender disparity is one of the most salient factors affecting literacy rates worldwide. Of the almost 1 billion illiterates currently in the world, the large majority are women. **Figure 3** shows trends in illiteracy rates by gender and by region from 1980 to 1995. Although there are large variations by region, illiteracy rates are invariably higher for women than for men in developing countries. A summary of gender gaps for 87 countries published by UNESCO (1990) found that: (i) in 36 countries, all of them in Africa or Asia, the difference between male and female literacy rates is over 20%; (ii) in 26 countries, nearly all of them in Africa and Asia, the male/female difference is between 10% and 20%; and (iii) in 25 countries, most of which are in Latin America and the Caribbean, the disparity is less than 10%. Unfortunately, the gender gap in illiteracy rates has declined only moderately in recent decades, although some regions (Eastern Asia/Oceania) seem to have made major gains. In some countries improvements through increased primary-school access for girls have been noted, while in other countries differential completion of primary schooling favours boys, hence maintaining or increasing the gender gap in literacy for adolescent girls. If educational access trends do not change dramatically in the coming decades,

it is estimated that male/female parity in literacy will be not be reached for over a century.

### ■ **Box 3. Gender trends of illiteracy in Morocco**

In Morocco, a direct literacy assessment module was designed and integrated into the National Survey on Household Living Standards sponsored by the World Bank. The main objectives of this survey were to examine in greater detail the range and variability of literacy skills and knowledge among individuals, and especially among women. The literacy survey consisted of nine sections, including self-report questions on literacy skills and behaviours, questions on basic health-care behaviours, assessment of information location skills, mental and written numeracy assessments, and assessments of reading and writing in Arabic. A national stratified sample of 2,240 participants received the survey. The most significant finding was that Morocco has cut its illiteracy rate by one-half during the past three decades, and the trend is one of continuing improvement. However, the disparities in literacy attainment between men and women (as well as between urban and rural populations) remain a major issue. Surprisingly, the gender gap in literacy among the present younger generation is even larger than that of their grandparents or even parents. Whether this is the result of selective out-migration of literate individuals from the countryside to the towns, or of insufficient educational access and quality in rural areas, is a question with profound policy implications, and requires further investigation. It clearly shows that males have received more education than females during this period. Results of the study suggest that part of the explanation for high levels of illiteracy in rural areas is the relative frequency of households in which both parents are illiterate, while in the urban areas men are more likely to marry a woman who has some literacy skills. The evidence indicates that completely illiterate households are by far more likely to raise illiterate children, while maternal literacy positively affects both boys' and girls' enrolment and attainment.

*Source: Adapted from Lavy et al. (1995).*

### Rural and urban differences

**Table 3** shows illiteracy rates for rural and urban populations in eighteen representative countries. In most of these countries, illiteracy rates in rural areas are more than twice as high as in urban areas. The importance of this statistic becomes even more obvious when one considers that in many of these countries the rural population is much higher than the urban population. These statistics have implications for literacy campaigns and adult literacy programmes, as the population density of illiterates can have a significant impact on choice of language, recruitment of literacy trainers, and concentration of effort. Furthermore, as a predominantly rural phenomenon in developing countries, the preponderance of urban-educated teachers tends to maintain a cultural gulf that has continued for centuries.

It should be noted that illiteracy in industrialized countries may be following a rather different pattern. The low-literacy

problem in countries such as Canada, France and the United States is due largely to the presence of large numbers of minority populations that immigrated with little schooling and/or dropped out of school before attaining sufficient literacy skills. These minority populations have tended to concentrate in large urban areas, thereby pushing urban illiteracy/low-literacy rates higher than those in rural areas.

### **Other factors related to literacy**

Literacy has often been seen not only as a 'good thing' in and of itself, but also as having a variety of by-products of great social and economic importance, such as improved health, lowered fertility, increased income, and so forth. Thus, over the years, international agencies and national governments have tracked other factors related to literacy statistics. A brief synopsis follows.

*Age.* As shown in **Table 1**, the over-45 age group has the highest illiteracy rate in all regions (including OECD countries, not shown in this table), which probably can be attributed to the fewer years of schooling (or poorer quality of schooling) that this group received. The illiteracy rate for this older group is expected to remain high until well into the next quarter-century, especially in sub-Saharan Africa, the Arab States and Southern Asia. A second observation is that there has been a large decrease in the past twenty years in the illiteracy rate of those in the 15 to 19 and 20 to 24 age groups, which can be attributed, conversely, to the rise in access to schooling.

*Schooling.* As shown in **Table 2**, primary schooling and adult illiteracy are very highly correlated, in particular because most developing countries use the rate of primary schooling (as noted above) as a principal proxy variable for determining who is labelled 'literate'. In addition, **Figure 4** shows that the number of out-of-school youth, in spite of increases in the rate of school enrolments in LDCs, continues to be high, and is growing rather dramatically in Africa. Overall, even though enrolments have gone up in many developing countries, the real impact on literacy achievement remains largely unknown, as surveys of learning achievement following schooling have rarely been undertaken.

*Health.* As shown in **Figure 5**, life expectancy and adult literacy are highly correlated overall, so much so that people in countries with the lowest literacy rates actually have a life expectancy of only half of those that live in the most literate developing countries! Furthermore, given the common recognition of the key roles that women play in fertility planning, infant care/nutrition and health education, it is not surprising that female illiteracy is seen as a major obstacle to health and social development. As shown in **Figures 6 and 7**, women's literacy rates are also correlated with declining fertility rates and declining child mortality rates in LDCs. It should be recalled, however, that even though the cross-national correlations

between female literacy and health indicators are often statistically significant, there is remarkably little evidence of a causal relationship between these variables. Recent evidence indicates that both formal schooling and literacy may have independent effects on the health and fertility outcomes of women, but the requisite longitudinal studies have yet to be carried out (LeVine et al., 2000).

*Economic well-being.* There is a widespread belief that literacy and economic well-being (at the individual and national level) go hand in hand. One way to evaluate this assertion is to plot per capita GNP against adult literacy rates in developing countries (see **Figure 8**). Also, nearly two decades ago the World Bank sponsored a series of studies to show the impact of literacy and schooling on agricultural productivity (Jamison and Mook, 1984). More recently, in industrialized countries, literacy levels have been shown to be one of the strongest predictors of individual income (OECD/Statistics Canada, 1995, 1997). These data are among those most often cited in terms of the importance of investments in literacy (although correlational data suffer from the same issue of non-causation cited in the preceding paragraph).

### **Accountability and impact**

In addition to understanding literacy levels as a statistical phenomenon, there is an increasing need to be able to analyse the effectiveness of literacy and adult education programmes as they operate in a variety of settings on the ground. These efforts, commonly thought of as programme-evaluation work, constitute an important element in our understanding of literacy and adult education, and how service provision can be improved and expanded.

As with more general programme evaluation, literacy and adult education programme evaluation would normally include formative (ongoing) and summative (post-hoc) evaluations. Each of these might include a focus on planning and strategies for literacy work, programme implementation and management, student monitoring, attendance and retention, skill acquisition, integration with other agencies and post-literacy activities. Serious work has been accomplished in some of these areas, mainly in terms of formative studies and post-hoc analyses of management; only in the latter part of the WCEFA decade has work in this area begun again (e.g. see Burchfield, 1997; Carron et al., 1989; Easton, 1998, ILI/UNESCO, 1998; LeVine et al., 2000; Okech et al., 1999). With the expansion of interest in literacy worldwide and the impulsion of the recommendations of the 1990 WCEFA, far greater attention will need to be paid to rigorous and in-depth evaluation of literacy and adult education programmes. Indeed, it may be that one of the key impediments to expanding public and government support for adult literacy programmes has been the failure of those who support such programmes to provide the type of reliable databases and impact evaluations typically utilized in other educational efforts.

# Domains of innovation

Innovations are central to future success in literacy and adult education, and learner motivation, once access is achieved, is a key dimension for any programmatic improvement. This is true whether one is in Bangladesh or Bolivia. A major problem consistently mentioned by service-providers and policy-makers is that participation levels drop off rapidly after the first weeks or months of a programme. Many varied and valid reasons have been cited as causes of this problem, such as inadequate programme quality; lack of time and resources of learners; poor quality of textbooks and pedagogy; lack of social marketing, and so forth. There is little doubt, however, that the general factor behind all these technical issues is that learners, for whatever sets of reasons, do not feel motivated to participate and remain in such voluntary programmes.

If adult learners, as the adage goes, vote with their feet, how can service-providers increase the incentives for them to stay in the programmes? We know that disincentives (such as government mandates, controls, punishments) are relatively ineffective for learning (and may have long-term negative consequences as well). But it is not always clear to the learner, teacher, or policy-maker why a learner should take time away from other important home and work activities to participate in an NFE programme. Indeed, this is a common perception given by adult learners when they quit a programme. It is not obvious, furthermore, what the incentives ought to be. As there are many different types of learner in many different real-life and cultural contexts, only further research on this question will allow programmes to better tailor their offerings to favour increased motivation and participation.

However, there are some areas where flexibility and choice, as in the market place, make considerable sense, such as choice of language for learning, choice of programme design (e.g. for farmers, mothers, workers), and choice of 'follow-on' programmes such as certificates for school entry for youth or job training for adults. Tailoring programmes to better fit the learning consumer is a necessity for the future, and one that many national literacy programmes have yet to face directly and with the additional resources required. The following sections describe a number of domains where innovations are happening now, or where they will be required in the future.

## **Language policy and planning**

Most countries have formulated an explicit language policy stating which language or languages have official status. The decision on national or official language(s) is usually based on such factors as major linguistic groups, colonial or post-colonial his-

tory, and the importance of a given language to the concerns of economic development. Official languages are also those commonly used in primary school, though there may be differences between languages used in beginning schooling and those used later on. The use of first-language instruction in adult education remains a topic of continuing debate, with first-language literacy favoured by most experts until the early 1990s (Wagner, 1992). However, with the advance of primary schooling, a diversity of views appears to be growing, especially among adult learners in many countries where access to the economic market place drives motivation for particular (often colonial) languages.

### ■ **Box 4. Language development for literacy: the Shiyeyi in Botswana**

Since independence, the Government of Botswana has practised an exclusive language policy, in which only English has been used in government circles to the exclusion of all twenty-six languages represented in the country, with a limited use of the national language, Setswana. However, in recent years more positive statements have been made in Parliament regarding the use of other languages in education and society. Such statements have provided an environment conducive to NGOs developing other languages for use in public education and in out-of-school literacy programmes. One such organization is undertaking to revive the language and culture of the Shiyeyi-speaking people in north-western and central Botswana. By the 1990s, it was documented that most of these people, especially the young, did not speak Shiyeyi. Following some pioneering work by a South African linguist working with indigenous scholars, an organization was formed in 1995 called Kamanakao, 'the remnants', to develop and maintain what remains of the Shiyeyi language and culture as part of the overall national Setswana culture. The main strategy of the Kamanakao Association has been to conduct participatory training and research workshops in villages throughout the Shiyeyi-speaking region. These workshops have been held to collect data for developing the orthography, to record oral literature, and to survey speakers on their attitudes towards Shiyeyi with regard to preferences for literacy. In the past, adult literacy materials written in Setswana, the national language, have been largely unsuccessful in non-Setswana-speaking communities; in addition, children in non-Setswana-speaking areas have underachieved year after year. The Shiyeyi-speaking people recognized the considerable benefit that could be derived from first-language literacy in their communities. Literacy classes in Shiyeyi were started in several rural areas, and other areas have been targeted for future classes for adults and youth.

*Source:* Adapted from Nyati-Ramahobo (1998).

In numerous developing countries, a significant proportion of students in primary school are either illiterate in their first language or receive only a few years of first-language instruction before a second language is introduced as a medium of instruction. Poor second-language literacy proficiency is a principal cause of high repetition and wastage rates, and of low achievement in academic subjects in primary and secondary schools, with profound consequences for employment and other externalities of schooling.

**■ Box 5. Vernacular 'bridge' literacy in Egypt**

The gap between the Arabic language of formal education and adult literacy (*fusha*) and the Arabic dialect or vernacular spoken at home, at the market place and almost everywhere outside the school walls appears to be a major cause of low learning achievement rates in schools and low adult literacy in the Arab region. The important linguistic distance which separates *fusha* from the learners' personal experience, familiar topics, and concrete real world materials is a cause of serious pedagogical problems, leading to lack of adequate language competence and learner self-confidence, as well as poor quality of education, and high repetition and drop-out rates in formal and non-formal schooling. One method for improving this situation is the use of vernacular (or dialectal) Arabic as a 'bridge' to literacy. The use of vernacular Arabic in the first stages of literacy is aimed at giving early assistance to adult learners. It facilitates the learning of decoding skills by connecting the letters of the Arabic script to known and more accessible relevant language patterns and forms. Some NGOs are successfully using vernacular adult literacy in Egypt to improve the learners' motivation and learning achievement. In the British-supported Egyptian Adult Literacy Training Project, *Aswatna* (Our Voices), contains a selection of vernacular student writing with over a hundred pieces written by adult literacy students. Because it is the product of real-life experience, vernacular writing is now used to stimulate class discussions and enhance mobilization.

Source: Adapted from Maamouri (1998).

Because of the significant political aspects of first- and second-language policy, many donor agencies and officials in developing countries have been reluctant to review language policies as they affect literacy work. None the less, there are a number of important areas of work that need to be addressed beyond the confines of the debate over 'which language/literacy should come first'. For example, more needs to be known about such issues as: (i) the use of 'bridge' dialects to facilitate the learning of standard language literacy (see Box 5); (ii) how the implementation of language of instruction policies

affects literacy after schooling; (iii) the effects of using second-language literacy in school on wastage and grade repetition; (iv) the implications of using second-language literacy for academic subjects such as mathematics, science, health, nutrition and agriculture; (v) skill retention of first- and second-language literacy skills in daily life after leaving school; and (vi) whether (or under what conditions) first-language literacy should be a precondition for the introduction of second-language literacy in school-based and non-formal settings (see Box 6). These specific areas of inquiry are more tractable and less political than the first- versus second-language debate, and they may be more relevant to improving the effectiveness of literacy programmes. Overall these issues fall within the broad context of the cultural appropriateness of literacy programmes, a matter that remains very contentious (Street, 1999).

**Empowerment and community participation**

The notion of empowerment through literacy has been a constant refrain since the inception of literacy campaigns (Arnove and Graff, 1987). As noted in the final declaration of CONFITEA-V:

It is essential that approaches to adult learning be based on people's own heritage, culture, values and prior experiences and that the diverse ways in which these approaches are implemented enable and encourage every citizen to be actively involved and to have a voice.

Clearly, empowerment is a centrepiece of adult education. Indeed, much of the rhetoric surrounding the importance of literacy utilizes the metaphors and imagery that connote

**■ Box 6. 'The fire that never dies' – Guarani literacy in Bolivia**

For over a decade, the Guaranis have been undergoing a process of ethnic and cultural revival. This process began when some Guaranis who had received basic education became aware of the dramatic situation of their people, and in the late 1980s the Proyecto de Educación Intercultural Bilingüe Guarani was launched, beginning with bilingual education programmes to be offered in all the communities where small development projects operated. For these a Guarani reading primer, a mathematics primer, and a manual on Spanish as a second language had been prepared. Beginning with 500 students in 22 primary schools, the programme grew to 3,000 pupils in 40 schools by the mid-1990s. Subsequently, a literacy campaign was designed, with two complementary lines of action: one for absolute or functional illiterates, and another for those who, although literate in Spanish, were unable to read and write in Guarani. The literacy primers were organized under the general title *Tataendi* (the fire that never dies) because 'in our homes the fire is always lit. . . . The one hundred years that have passed since the Kuruyuki massacre [in 1892] have only been like ashes that have tried to kill the fire of our culture. . . . Now it is our turn to keep and feed the *tata* (fire) our ancestors have left us. We want this *tataendi* to become a big fire capable of giving light and warmth to the whole Guarani people.' Only weeks after the opening ceremony, training workshops were begun for literacy teachers, and in just the first four phases of the programme, over 12,000 adults learners were served. Through their involvement in the campaign, these literacy teachers discovered what it meant to be Guarani as well as how important it was to organize their campaign around their language and culture. The Guaranis' involvement in a successful bilingual education programme allowed them to see their native language and bilingual education as potential resources to construct a viable and different future. The Guaranis have provided a lesson on the importance of indigenous values and indigenous culture, as well as about how the direct involvement of a population can contribute to improving the quality of education and to promoting literacy among communities which had not before felt the need to read and write.

Source: Adapted from Lopez (1997).

empowering the individual against potential oppression, and a great deal of anecdotal evidence shows that empowerment can be a product of literacy learning (e.g. Box 7). None the less, very few studies have adequately measured more than attitudes about empowerment, and it is difficult a priori to know how to measure this variable.

### ■ Box 7. Teaching nomads in India

The Rural Litigation and Entitlement Kendra's (RLEK) adult literacy programme, under the aegis of the National Literacy Mission, works with the tribal community of the forest-dwelling nomadic Van Gujjars, who inhabit the forests of the Siwalik range of mountains. For centuries the community of Van Gujjars has lived in these forests and the Himalayan highland pastures where the summer months are spent. The people have developed a sustainable relationship with their environment and have become part of its biodiversity; their lives revolve around tending their buffaloes and producing their milk products, which dictates their nomadism. RLEK perceived the illiteracy of the Van Gujjars to be the root cause of their exploitation. To remedy the situation RLEK started a unique and innovative adult literacy programme in the early 1990s. Copious illustrations were used in the RLEK primers, which also related to the physical background, thus constantly maintaining the transparency of the visual medium. To prevent recidivism the volunteer teachers trekked up and down with their pupils during their annual transhumance. They also stayed with them in the highland pastures. The development of primers and the involvement of volunteer teachers were the two principal factors that led to the success of the adult literacy programme. This success was appraised through holding of *saksharta melas* (literacy fairs) where the neo-literates came out of the forests in thousands to exhibit their newly developed skills. 'I was reluctant to join because I was afraid of the written word,' a young Van Gujjar mother told a journalist in her local tongue, 'now no more.'

Source: Adapted from Kaushal (1998).

On the other hand, the research base is growing on community participation and the decentralization of management of liter-

### ■ Box 8. Local capacity building in the Sahel

Decentralization movements in West Africa have created major new training needs at the local level – needs which the existing school system cannot meet on its own. Research conducted in forty communities in Burkina Faso, Ghana, Mali, Niger and Senegal found remarkable examples of the assumption of new functions and responsibilities by grass-roots actors. In Burkina Faso, for example, local associations have undertaken literacy instruction in areas lacking primary schools; community organizations in other regions have supported local investment, dam- and road-building, and the establishment of maternal and child health centres. Overall, 26 of the 40 sites studied were financially self-supporting, 23 had taken over prime management responsibility for all their own operations, and 19 were affiliated with some broader and autonomous federation. The common fact among successful experiments in local-level assumption of development responsibility seems to lie in the close interweaving of training and the application of knowledge – and thus in the development of practical opportunities for individuals, collectivities and associations to deploy and gain tangible benefits from their newly acquired skills. The evidence indicates that the emergence of genuinely empowering local initiatives and the further development of this self-governance movement hinge on a process of local 'capitalization' along five convergent dimensions – physical, financial, institutional, intellectual, and cultural – which are closely interrelated. Mastery of the technology of writing, whatever the written code used, appears to constitute a threshold of institutional development at the local level. There is a surprising variety of latent knowledge and skill in communities, resources which organizations need to build upon; and most often literacy and non-formal education programmes serve to bring out this diverse human resource and to prepare it for its new responsibilities in the new social contract.

Source: Adapted from Easton (1998).

acy and adult education programmes. One recent report on NFE programmes in Africa provided considerable evidence on their impact on innovation and sustainability (see Box 8). In addition, some agencies, such as the World Bank, have embarked on a major effort to support NGOs as the providers of service (as contrasted with national governments), in such countries as Ghana, Morocco and Senegal.

## Learning, instruction and materials design

While adult education programmes have typically emphasized acquisition of basic literacy and numeracy skills, in recent years it has been recognized that these must be integrated with a variety of development objectives that allow learners to apply their skills in the lifelong learning process. Innovative methodologies are being devised to address 'the social, cultural, and economic development aspirations of learners' (UNESCO Institute for Education, 1997).

While the traditional teacher-led classroom is still the norm in much of the world, particularly in developing countries, significant progress has been made towards addressing adults' multifaceted learning needs. In many instances, authoritarian methodologies and skills-based curricula, emphasizing copying and memorization, have been replaced by a variety of student-centred approaches. Facilitators are trained to draw out learners' own knowledge and capitalize on their prior experience. In addition, some literacy classes offer opportunities for adults to learn how to incorporate traditional ways of knowing with basic education skills that will help to lead them into fuller participation in the modern world. Programmes such as REFLECT (see Box 9) take a bottom-up approach to curriculum and materials design, requiring learner input from the very inception and allowing significant learner control over the direction and conduct of literacy classes. The success of such programmes in encouraging community activism and alleviation of poverty has generated interest in many countries throughout the developing world.

### ■ Box 9. Community development in El Salvador

In late 1993, ActionAid (UK) began a two-year research project to explore possible uses of Participatory Rural Appraisal (PRA) techniques within adult literacy programmes. This led to the development of the REFLECT approach (Regenerated Freirean Literacy through Empowering Community Techniques), which seeks to build on the theoretical framework developed by Paulo Freire while providing a practical methodology. Notable features of the REFLECT approach include the absence of preprinted materials such as textbooks or primers. Instead, each circle of learners develops its own literacy materials through construction of maps, matrices, calendars and diagrams that represent local realities and afford learners the opportunity to systematize their existing knowledge through detailed analysis of issues with immediate relevance to their lives. Learners implemented new soil management and planting techniques, adopted new methods of pesticide and fertilizer use, and undertook ongoing study of local soils and construction of conservation structures. Also, learners commented on the value of the knowledge they had gained on recent peace agreements relating to land reform, because they could directly apply their knowledge not only to accessing land but also to using newly learned agricultural techniques to make it more productive. Discussions in the REFLECT 'literacy circles' led directly to collective action at the community level and contributed to participation in community organizations. Through group construction of a natural resource map, learners examined the local water problem, after which they obtained funds for water tanks from a national NGO. There was a dramatic change in learners' involvement in community organizations, as several took up formal positions of responsibility in the local co-operative, credit committee, women's group, and education committee, all within a year of participating in the literacy programme.

*Source:* Adapted from Archer and Cottingham (1996).

Important links between ongoing literacy programmes and post-literacy have been made through the direct involvement of learners in the development of literacy materials relevant to current issues of, for example, health, agriculture, technology, or income generation. Not only do learners have the opportunity to apply their basic skills while still under the guidance of facilitators in the programme, but they take leadership roles in strengthening the learning environment for themselves and their fellow citizens. Some programmes employing learners in writing materials in the first languages of historically marginalized people have also been instrumental in dramatic increases in ethnic pride, political solidarity and citizen participation.

In countries undergoing major political and economic transformations, adult basic education and literacy programmes are increasingly called on to link the non-formal to the formal education sectors, through professional development, post-literacy, and work-related instruction. This linkage requires diversification of instructional content as well as methodology, and may incorporate new technologies (as described below). One important area in need of further innovation is that of improved concatenation in materials development and production between formal and non-formal education domains.

For too long the formal and non-formal sectors have been producing materials that are of little use to either sector, when better co-ordination could produce multiple benefits.

### Gender and family

Of the areas in greatest need of innovation, there is none higher than that of literacy for women and within the family. This stems from the widely perceived need for greater literacy among women, and the reduction of the gender disparity discussed above. Some governments and agencies have made commitments to women's literacy programmes without fully understanding what would make a women's programme different from that of a male-oriented programme. One of the most obvious distinctions is that, in LDCs especially, women are most often found as caretakers with small children nearby (whether the women are the biological parents or not). This simple demographic fact is widely known, but relatively few literacy and adult education planners have taken this dimension into account. One programme that has is MOCEF, which offers a mother-child literacy programme in Turkey (see Box 10).

### ■ Box 10. Mother-child literacy in Turkey

Developed from a ten-year research project by Bogazici University in Turkey, the MOCEF Mother-Child Education Programme functions as a home-based intervention project aiming to provide early enrichment to young children and literacy education for their mothers. Such a multipurpose programme assists in motivating learners to participate and incorporate learning objectives into everyday life. The MOCEF target group is mothers of 6-year-olds, who meet for twenty-five weeks, approximately three hours per week, beginning with group discussions on child development, health, nutrition, and creative play activities, continuing with classes focusing on discipline, parent-child interaction, and expressing feelings. MOCEF's educational programme for women living in low-income areas of Turkey has graduated some 9,000 former illiterates since 1995. The innovative curriculum is based on the life of an illiterate woman living in a large city in Turkey. Recent studies comparing the effectiveness of this curriculum to the traditional or 'classic' courses offered by the Ministry of Education show substantial advantages for the MOCEF participants. Researchers attribute the programme's success to the sensitivity of instructors and materials designers to the needs of the women in the programme. This has led to an integrated curriculum design incorporating not only basic decoding but also word-recognition and immediate, functional application of literacy skills, as well as exercises emphasizing comprehension of text and critical thinking.

*Source:* Adapted from Goksal (1999).

As noted above, literacy (along with illiteracy) is embedded within cultural situations. For a 'women's literacy' programme to be effective, it is essential to understand the aspects of women's lives that might be affected by literacy and adult education programmes, as well as the consequences of these

programmes. Understanding these complex dimensions, while taking into account social and political realities, has posed many problems over the years. None the less, the past decade has seen a number of useful examples of women's literacy programmes (see Box 11).

### ■ Box 11. Promoting women's literacy in Nepal

Women have traditionally had a very low rate of literacy in Nepal, one of the world's poorest countries. Literacy levels for adult women had risen from about 12% in 1981 to about 22% in 1990 and 28% in 1996, still considerably below the 35% reported for adult men. The Women's Empowerment Programme, through basic literacy, legal literacy, and economic participation activities, was designed to increase women's literacy, improve the legal environment for females, and encourage women's economic participation in the market economy. Eight international partner organizations carried out one or more of these programmes through Nepalese NGOs in twenty-eight districts of the country. The programmes were based on the notion that women's education and empowerment allows them to become effective agents of change in their households and communities, which in turn enhances the well-being of their families and society at large. Women who had participated in the programmes reported an increase in self-confidence and greater autonomy within their daily lives, and they showed greater involvement in the care of children, reproductive management, and how family income is spent (76% of women surveyed reported using income to alleviate economic hardship in their households). Increases were found in women's involvement in collective community activities and social issues. Participants surveyed ten years after taking the literacy classes were found to be still engaged in social actions and income-generating activities, even more than those who had only recently begun attending literacy classes.

Source: Adapted from USAID (1998).

### **Multisectoral issues of health, agriculture and commerce**

Literacy and numeracy skills are utilized in many life contexts even though most BLC instruction takes place in organized instructional settings. A major challenge rests in determining the ways in which literacy can be fostered and utilized in everyday work settings. From a policy perspective, more needs to be known about how literacy education can be infused into the significant development work of other sectors, such as health education and agricultural extension.

For example, there is growing support for use of the idea of a comprehensive 'service centre' to provide basic educational training to other sectors' workers. Relatively few examples of this approach have been attempted, and little is known about their potential impact. In the health sector, literacy and health information (especially as a result of the HIV/AIDS epidemic) have been increasingly put together (see Box 12).

### ■ Box 12. Women, health and literacy education in Senegal

The TOSTAN Basic Education Programme in Senegal was developed by a team of villagers and non-formal education specialists to improve the educational situation of villagers, particularly women. Its goals are not only to reduce illiteracy, but also to help the population to achieve health and self-development through the use of adapted educational materials. TOSTAN means 'breakthrough' in Wolof, the language spoken by approximately 70% of the Senegalese people. In addition to providing rural people with the opportunity to obtain basic education in their own language, the two-year programme also integrates elements of traditional culture into the curriculum and promotes community ownership and problem-solving to improve living conditions in the villages. The programme includes a module on the use of Oral Rehydration Solution (ORS), which prevents the dehydration caused by diarrhoea, a frequent cause of death among young children in Senegal. The steps to mix and administer the ORS are taught using diverse active-learning techniques, including charting and demonstrating the method, and playing a card game to help participants to understand the elements for making the solution as well as the negative practices that can lead to diarrhoea and dehydration. The facilitator also engages the learners in discussion about these issues which are problems they often deal with in their everyday lives. As a result of these teaching methods, learners plan strategies based on what they have learned in the programme that will improve their communities' health conditions.

Source: Adapted from TOSTAN (1996).

### **Post-literacy and income generation**

Many countries with longstanding literacy programmes (e.g. India) are now increasingly concerned with the 'what comes next' issue, after elementary basic skills are taught. This question, often called the 'post-literacy' aspect of adult education, follows directly from the discussion of changing standards of literacy for changing societies. One way to deal with this issue is to try to work out a set of skills standards for the formal and non-formal sectors, as has been under way in South Africa (Box 13).

### ■ Box 13. Adult basic education and training in South Africa

In the new South Africa, adult literacy work is conceptualized as 'basic skills' or 'generic skills' training and is seen as the starting point of a programme of Adult Basic Education and Training intended to have equivalence to the ten years of formal schooling to which children are now entitled. Learners currently in classes are encouraged to write national examinations in accordance with the levels, standards and outcomes specified by the National Qualifications Framework (NQF). However, recent research in South Africa has shown that unschooled people do not necessarily see themselves as 'illiterate', even if they have not been to school. Many poorly schooled South Africans attach value to their own 'common-sense' or 'practical' ways of accomplishing a range of activities in their lives, and they often see their own procedures and skills as being more direct and reliable than 'school knowledge'. Similarly, it is apparent that literacy is a significant part of the

activities of many people who have not been formally taught to read and write. There is evidence both in South Africa and elsewhere that unschooled workers develop complex task-related skills over time that allow them to operate with efficiency, including such literacy-linked activities as making judgements in relation to volume, quantity and cost, for example, and in interpreting diagrams that include literacy. Thus, a focus on the conventional transmission of standard literacy in adult classrooms is bound to lag further and further behind the complexity of social forms of communication as they develop within communities undergoing dramatic change. The message of such a perspective is clear: alternatives to centrally designed programmes will help to encourage the diversity of meanings that adults create from texts and situations in a post-literacy environment.

*Source:* Adapted from Prinsloo and Breier (1996).

Similarly, the post-literacy question is tied to income generation. This is not just the case in policy-makers' minds, but also in the minds of many adult learners. After all, why should they take valuable time away from other activities for a literacy programme if it is not going to lead to some tangible benefit. Increasingly, literacy and adult education planners are no longer content to restrict programming to instructional content, but are trying to see how instruction can lead to concrete benefits for the learners (see Box 14).

#### ■ Box 14. Income generation in the Lao People's Democratic Republic

After years of war and isolation, the Lao People's Democratic Republic is undergoing widespread economic and political reforms in the process of opening up to the outside world. In the countryside, however, the rural poor and, especially, ethnic minority groups have little opportunity to participate in the new nation. Providing formal education for these disadvantaged communities is made particularly difficult by low literacy rates in the myriad indigenous languages used by these groups, some of which are not written, and the inability to speak, read, or write Lao. The Minor Women's Literacy and Basic Skills project has implemented a non-formal education programme to provide a means for disadvantaged minority women aged from 15 to 45 to learn in one or two years the basic elements of the primary curriculum. In addition to functional literacy in Lao, women are trained in critical life skills and trade-related activities, such as weaving and sewing, health and hygiene, agriculture and gardening, and principles of modern income generation. The women are encouraged to develop and market their traditional regional handicrafts and employ modern designs and sales strategies. In addition to income generation, the women's interaction in the market place expands their opportunities to participate in modern Lao society. Another benefit of this approach is to use interest in money-making activities as a vehicle for introducing literacy and numeracy, which has benefits in other aspects of daily life. Villagers who did not previously see any benefit in learning Lao took an interest when they saw they could apply their literacy skills in selling their products. The project has also attracted the interest of the Lao Government, lending support to NFE approaches and strengthening the government's efforts at decentralization. For while the project could not directly reach all the disadvantaged women of the country, it has helped to strengthen the capacity to expand NFE to marginalized populations and ethnic minorities.

*Source:* Adapted from UNESCO (1997b).

### Technology and distance education

There are new and exciting ideas concerning the utility of technology for literacy and adult education provision for out-of-school youth and adults. Much of this work is still in its infancy and evolving very rapidly. Technological solutions to instruction – known as computer-based education (CBE) or computer-assisted instruction (CAI) – have been used, primarily in industrialized nations, for more than a decade, and the presence of microcomputers in school classrooms has continued to grow at an exponential rate (Wagner and Hopey, 1999). With adult instruction, CBE and CAI have recently begun to show similar growth patterns, although only in a few sectors in a limited number of countries. Especially promising is the use of CBE and CAI in second-language/literacy instruction. Another use of technology for literacy entails telecommunications networks, such as the Internet, for distance education. Now available in all countries of the world (though with widely varying penetration), the Internet offers tremendous possibilities to improve the communications infrastructure for literacy and adult education programmes within and across countries. Broadly speaking, distance education – using radio, television and telecommunications – is likely to see a dramatic growth in the decade to come, though some programmes have already built a track record of over a decade (see Box 15).

#### ■ Box 15. Gobi women and distance education in Mongolia

In the face of major political change, survival may depend on each individual's opportunity and ability to learn new skills and practices. But in a country with a widely scattered population and few resources, how can instruction effectively reach those in need? Non-formal distance learning may prove crucial in helping populations in such circumstances to survive. The 1990 transition from communist to democratic economy devastated the rural population of Mongolia, particularly the nomadic people of the Gobi Desert. In the wake of this change, a tremendous burden of labour and management of livestock fell to the women and those children kept out of school to help. Women's traditional roles now included taking care of the animals and using meagre resources to produce marketable goods, requiring skills relied on sixty years earlier that were now unfamiliar, forgotten, or in need of improvement. The Gobi Women's Project, started in the early 1990s, is a non-formal distance learning programme utilizing print and radio lessons to communicate and renew a number of survival and income-generating skills important to the nomadic women of the Gobi Desert. The project provided radios as well as batteries and relevant booklets. Learning materials were supplemented by newsletters, demonstration materials and information sheets. Teachers travelled to the women's homes to check their progress and help them with any specific problems. The programme covered such topics as health, survival and income generation as well as literacy and numeracy. Participants reported that not only were they satisfied with the new skills they acquired through the programme, but they also enjoyed the interaction with teachers and other learners and gained a sense of self-sufficiency within their environment.

*Source:* Adapted from Robinson (1997).



As many have pointed out, the cost of technology has been until relatively recently too high even for industrialized countries' educational programmes, not to mention the developing countries. But the price-to-power ratio (the relative cost, for example, of a unit of computer memory or the speed of processing) continues to drop sharply. While the cost of the average microcomputer has remained constant for about a decade, the power of the year 2000 computer is a thousand times greater than that of a 1980 machine. If present trends continue, the capabilities for CAI and CBE literacy instruction and for telecommunications are likely to go far beyond the elementary approaches of today. One of the challenges over the coming years will be how to achieve the economical use of technology for education in developing countries. Various opportunities are now becoming apparent. The International Literacy Institute (ILI) has, for example, developed a CD-ROM-based teacher-training tool for adult educators which is in the process of being adapted to local and regional needs in a number of countries. On the cutting edge of technology, the ILI's sister organization, the National Center on Adult Literacy, has been helping the US Department of Education develop on-line instructional and training tools for adult educators and learners in the United States (see Box 16).

■ **Box 16. *LiteracyLink*: Internet-based adult basic education in the United States**

In 1996, the US Department of Education committed five years of support to PBS (Public Broadcasting System) Adult Learning Service, the National Center on Adult Literacy at the University of Pennsylvania, and Kentucky Educational Television to build, for the first time, an instructional system using the latest in video, on-line, and computer technology to help adults receive literacy instruction and gain high-school diplomas or equivalencies in the United States – in a programme known as *LiteracyLink*. This programme is designed to serve the more than 40 million Americans who require basic skills instruction. As an on-line lifelong learning system, it incorporates the latest Internet technologies (Java and streaming video), video technologies (digital, closed-circuit, broadcast, satellite), and computer technologies (digitized audio and video, computer-generated graphics, interactive multimedia, and text). *LiteracyLink* has two major goals: (i) to increase the access of adults to learning opportunities that will allow them to obtain their high-school diplomas, and (ii) to improve the quality of instruction available to individuals and adult literacy providers nationwide through enhanced resources and expanded staff development. By late 1999, thousands of adult educators in dozens of sites across the US had participated in the teacher-training part of the project, which incorporates an electronic community of teachers, a series of on-line workshops with professional certification, a collection of websites that have been evaluated for adult learning, and a database of Internet-based lesson plans.

Source: Adapted from Wagner and Hopey, 1999.

# Capacity building, professionalization and agency support

## **National capacity building**

Capacity building is at the heart of the renewal of effective and high-quality work in literacy and adult education. Unfortunately, these fields tend to receive a very small share of resources when it comes to national capacity building, as the largest share of new resources since the Jomtien Conference has focused on building capacity for primary schooling. This is unfortunate, as the types of innovation described in this study are dependent on enlightened, skilled and motivated professionals, including policy-makers, programme directors, specialists, computer technicians and so forth. This kind of capacity remains very thinly dispersed in most of the countries in need of improved literacy programming.

In this effort to improve the quality of literacy work, there is a need to support national, regional, and international networks that allow literacy and adult educators from diverse settings and types of programme to form communities for generating and disseminating knowledge in the field. As part of this effort, the International Literacy Institute and UNESCO have been offering, since 1997, an annual month-long international Summer Literacy Training Programme in Philadelphia, to which professionals from more than seventy countries have participated (for more information, consult the ILI website at [www.literacyonline.org](http://www.literacyonline.org)).

One area of special importance for building capacity is that of local universities and institutes, as well local and regional NGOs. Indeed, NGOs, as noted elsewhere, are playing an increasingly important role in literacy provision, and so their involvement in capacity building is essential. Until local capacity building can be achieved, the field is likely to remain fragmented; no amount of international assistance can be effective without a local capacity to build upon. This is surely one of the highest priorities for improving literacy work in any country.

## **Professional development and training**

The committed involvement of professionals is necessary for any system-wide change in educational services. As noted above, a major constraint in attempts to innovate is the voluntary (or near-voluntary) role of many literacy workers, leading to high turnover and, at times, low motivation. Clearly, with limited resources, the lack of full-time professionals makes it difficult to carry out meaningful professional development.

Thus there is a major need to develop systems and capacities allowing staff to engage in professional training and development as an ongoing process within programmes and linking staff development more closely with service improvement and evaluation/monitoring. Teachers and administrators should have more opportunities to understand and learn from local problems and to devise local solutions.

## **External agency support**

Many agencies, bilateral and multilateral, provide support for literacy and adult education, but only UNESCO has put literacy in its list of educational priorities from its inception and over the decades. In addition, two UNESCO-supported institutions – the UNESCO Institute of Education in Hamburg, which organized CONFINTEA-V in 1997, and the International Literacy Institute, which organized the World Conference on Literacy (Philadelphia, 1996) and a series of regional forums on literacy – have helped UNESCO's international agenda in literacy and adult education. In addition, UNESCO's regional offices have organized a wide variety of events on literacy and non-formal education, even within the constraints of very tight budgets.

In addition, the UNDP, UNICEF and the World Bank have supported adult literacy programmes over the decades, along with a number of key bilateral agencies (such as CIDA, DANIDA, DFID, DSE, NORAD, SIDA, USAID). As part of its Education Sector Review (1997), the World Bank, in collaboration with Norway, has recently begun an important initiative on adult basic education and literacy in Africa. Various evaluation projects have been commissioned, such as in Uganda, and projects in the Gambia, Ghana, Senegal and elsewhere are under way or in planning. The UNDP was active in the 1960s and 1970s with the Experimental World Literacy Programme, and UNICEF remains active in promoting basic skills and life skills for out-of-school youth (particularly girls and young women).

In most developing countries, it is probably accurate to say that there are as many out-of-school youth and adults with low basic skills as there are school-age children in school. Yet, on average, the resources spent on NFE programmes for such out-of-school youth and adults rarely exceed 5% of the national education budget in any country. A similar statement can be made about the support from most donor agencies, which provide the bulk of resources for new projects in education in LDCs. With so little invested by such donor agencies, it is no wonder that renovation and innovation are difficult to achieve. However, given the increased emphasis of the World Bank and others on 'poverty reduction', and the centrality of literacy in achieving this goal, it would seem likely that external agency support of literacy and adult education will grow substantially over the next decade or so, as it has in the OECD countries during this past decade.

## Challenges for the future

The international statistics on literacy in 2000, dramatic as they are, do not fully reveal the endemic problems associated with adult literacy work in today's world. The central issue, as with the broader field of education, is the *quality* of the education as it relates to the *individual* youth and adult learner. National campaigns and programmes have often gone wrong because of the need for too-rapid progress and for economies of scale. This combination of factors has led to low motivation on the part of adult learners, and to poor outcomes in both learning achievement and participation rates. Literacy and adult education will need to focus more than ever before on which *kinds* and what *levels* of literacy are required for each society, as well as for specific groups within that society. A greater focus on programme quality is needed along the following lines: professional development, learner motivation, knowledge-based programme design, and increased openness to new approaches.

*Professional development.* The professional development of administrators, directors, teachers and tutors is an ongoing and critical process for programme improvement in literacy and adult education. Volunteer-based programmes are an important component in many countries, but the tenure of the typical tutor is often too short to assure quality improvement. As most countries (rich and poor) invest an extremely small fraction of available education resources in the non-formal sectors of adult education (relative to the formal school system), the need to bring the matter of professionalization to the attention of policy-makers is compelling. There is also a very important need to provide the teacher-trainers with new and up-to-date instructional methods.

*Learner motivation.* The motivation of adult learners is a key dimension that can either promote participation and retention, or, when lacking, lead to poor take-up and retention of literacy and adult education programmes. In contrast to the thinking of recent decades, the challenge of motivation lies not in providing the 'political will' of governments, but rather in finding ways to provide what the private sector terms, rather simply, 'customer service'. Thus, in order to reach the unreached and the most excluded populations (e.g. unschooled, women, ethnic-linguistic minority, rural, migrant)

programmes need to be tailored to address diverse needs, and have direct, discernable outcomes and incentive-rich experiences. Building learner demand is one of the most pressing challenges in the broad field of adult education today.

*Knowledge-based programme design.* Much more needs to be done in order to build the knowledge base and expertise employed in the service of literacy and adult education. Relative to other areas of education, few research studies are being produced in literacy and adult education in developing countries, and until now donor agencies have been reluctant to support serious evaluation studies or applied research. To move the field forward will require a greater emphasis on what works and what does not. Two promising avenues should be promoted in this regard in LDCs. First, institutions of higher education which train teachers (e.g. universities, colleges and institutes) should become more involved in literacy and basic education work, and provide up-to-date professional training to teachers in these fields. Second, such institutions, which are already well positioned for Internet access, should become the loci for receiving and disseminating information that can assist in building a local and regional knowledge base. Clearly, both of these areas are in need of further support from donor agencies.

*Openness to new approaches.* A striking aspect of adult literacy work is its relative isolation. For the most part, in both developing and industrialized nations, literacy and adult education specialists and practitioners have little contact with mainstream specialists in education, and even less with sectors outside education. There is an overall need to be open to the diversity of learners and the contexts in which they reside, as well as to the tremendous expert resources that could be available to improve literacy work worldwide. No new approach is more obvious than technology, which has been taken up increasingly in the formal school settings, but has yet to have a serious impact on adult education in most countries. Indeed, in developing countries, the overall limitations in fiscal and human resources have meant that technology remains far from being implemented, even though substantial cost-effectiveness appears to be achievable. Furthermore, literacy and adult education work are in serious need of cross-fertilization from other sectors, even though the connections with such sectors as health, income generation, and so forth are now well documented. Finally, the role of NGOs is very important, as they represent a key source of innovation and dynamism that will be essential for promoting literacy in the coming decades through devolution and decentralization.

# Conclusions

At the Jomtien Conference in 1990, Target 6 was to reduce the illiteracy rate in each country by 50% in one decade. This has not happened in any country. And yet there is a widening recognition that low literacy and poor basic learning competencies (by varying standards) are even more prevalent today than had been assumed a decade ago. Furthermore, with population growth, the absolute number of illiterates has declined very little since Jomtien.

With national economies and civic participation more dependent than ever on an educated and literate citizenry, the world education community is faced with multiple and serious challenges. On the one hand, agencies that support or engage in literacy work need to be more realistic about what can be achieved within budget constraints. Such realism entails lowering expectations about major changes in individual, social, and economic outcomes, while at the same time holding literacy service-providers to higher standards of accountability and professionalism. As in formal schooling, literacy and adult education do not provide a magic answer for any society, but they are part and parcel of all aspects of national development. On the other hand, agencies can enhance adult literacy programmes by

- building a more solid knowledge base for field-based innovations;
- improving professional development and human resources capacity;
- providing better pathways from non-formal youth and adult literacy programmes into the formal school system;
- combining non-formal programmes for adults and early childhood programmes;
- taking advantage of new technologies;
- investing resources in assessment, evaluation and monitoring, surveys and applied research; and
- creating new synergies and collaborations between governmental and non-governmental agencies.

This global thematic study has attempted to highlight some of the most important problems and prospects in improving the quality of literacy and adult education work, and efforts to meet the needs of people who are often excluded or marginalized from quality education. The importance of literacy and basic learning competencies in the lives of people the world over is difficult to overestimate. The simple fact that even today nearly one-quarter of humanity lacks such essential – and obtainable – competencies still shocks the world. It will be all the more striking in the year 2020, if we have been unable to substantially improve this situation. Yet the tools for making major gains are within reach if the best know-how can be put into service. Future literacy and adult education work will require a sustained, coherent, informed and increased effort.

## References

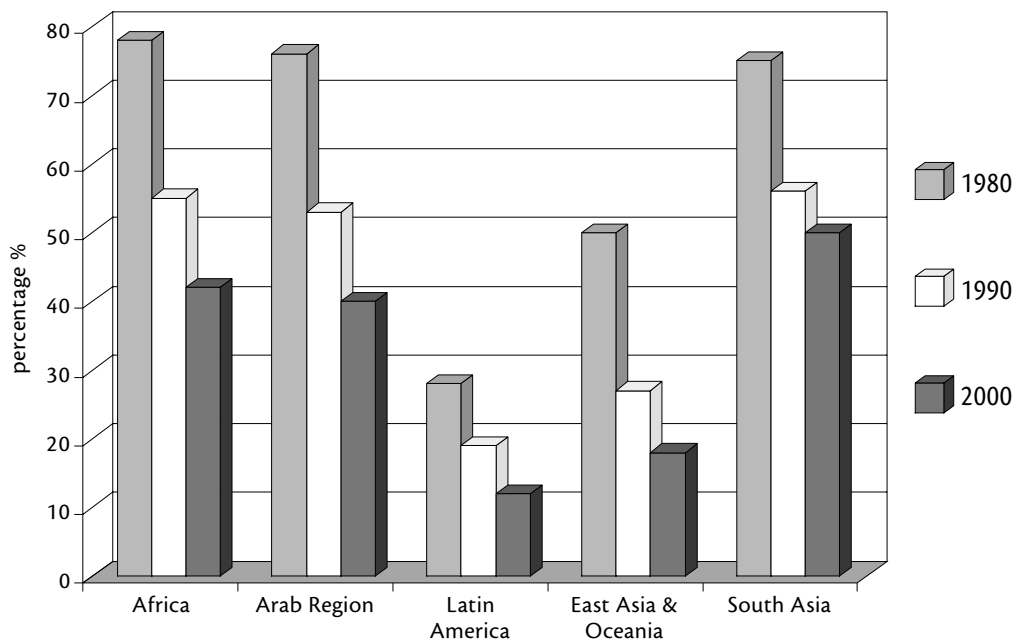
- ARCHER, D.; COTTINGHAM, S. 1996. *Action Research Report on Reflect: The Experiences of Three REFLECT Pilot Projects in Uganda, Bangladesh, El Salvador*. London, Overseas Development Administration. (Serial No. 17.)
- ARNOVE, R. F.; GRAFF, H. J. (eds.). 1987. *National Literacy Campaigns*. New York, Plenum.
- BHOLA, H. S. 1999. Literacy Campaigns: A Policy Perspective. In: D. A. Wagner, R. L. Venezky and B. V. Street (eds.), *Literacy: An International Handbook*. Boulder, Colo., Westview Press.
- BURCHFIELD, S. A. 1997. *An Analysis of the Impact of Literacy on Women's Empowerment in Nepal*. Cambridge, Mass., Harvard Institute for International Development.
- CARRON, G.; MWIRIA, K.; RIGHA, G. 1989. *The Functioning and Effects of the Kenyan Literacy Programme*. Paris, UNESCO/International Institute of Educational Planning. (IIEP Research Report No. 76.)
- EASTON, P. 1998. *Local Capacity Building in the Sahel: Results of the PADLOS-Education Study*. Paris, Club du Sahel.
- EISEMON, T. O., MARBLE, K.; CRAWFORD, M. 1999. Investing in Adult Literacy: Lessons and Implications. In: D. A. Wagner, R. L. Venezky and B. V. Street (eds.), *Literacy: An International Handbook*. Boulder, Colo., Westview Press.
- ELLEY, W. B. 1992. *How in the World Do Students Read?* Hamburg, International Association for the Evaluation of Educational Achievement.
- GAL, I. 1993. *Issues and Challenges in Adult Numeracy*. Philadelphia, University of Pennsylvania, National Center on Adult Literacy. (NCAL Report TR93-15.)
- GILLETTE, A. 1999. The Experimental World Literacy Program: A Unique International Effort Revisited. In: D. A. Wagner (ed.), *The Future of Literacy in a Changing World*. Second edition, revised and updated. Cresskill, New Jersey, Hampton Press.
- GOKSAL, A. 1999. *The Mother-Child Education Program*. Paper presented at Central Asia Regional Literacy Forum, Istanbul. Istanbul, MOCEF.
- GREANEY, V.; KHANDKER, S. R.; ALAM, M. 1999. *Bangladesh: Assessing Basic Learning Skills*. Washington, D.C., World Bank.
- ILI/UNESCO. 1998. *Literacy Assessment for Out-of-School Youth and Adults*. ILI/UNESCO Technical Report from Expert Seminar, Paris, June 1998, principal author D. A. Wagner. Philadelphia, International Literacy Institute.
- . 1999. *Assessing Basic Learning Competencies in Youth and Adults in Developing Countries: Analytic Survey Framework and Implementation Guidelines*. ILI/UNESCO Technical Report, principal author D. A. Wagner. Philadelphia, International Literacy Institute.
- JAMISON, D. T.; MOOCK, P. R. 1984. Farmer Education and Farm Efficiency in Nepal: The Role of Schooling, Extension Services, and Cognitive Skills. *World Development*, Vol. 12, pp. 67–86.
- KAUSHAL, A. 1998. *Teaching Nomads in the Wild*. Paper presented at the 2nd Asia Regional Forum, New Delhi, India, 9–13 February 1998.
- LAVY, V.; SPRATT, J.; LÉBOUCHER, N. 1995. *Changing Patterns of Illiteracy in Morocco: Assessment Methods Compared*. Washington, D.C., World Bank. (LSMS Paper 115.)
- LEVINE, K. 1982. Functional Literacy: Fond Illusions and False Economies. *Harvard Educational Review*, Vol. 52, pp. 249–66.
- LEVINE, R. A. 1999. Literacy and Population Change. In: D. A. Wagner, R. L. Venezky and B. V. Street (eds.), *Literacy: An International Handbook*. Boulder, Colo., Westview Press.

- LEVINE, R. A.; LEVINE, S. E.; SCHNELL, B. 2000. 'Improve the Women': Mass Schooling, Female Literacy and Worldwide Social Change. Harvard University, Cambridge, Mass. (Unpublished manuscript.)
- LOPEZ, L. E. 1997. To Guarinize: A Verb Actively Conjugated by the Bolivian Guarani. In: N. H. Hornberger (ed.), *Indigenous Literacies in the Americas: Language Planning from the Bottom Up*. New York, Mouton de Gruyter.
- MAAMOURI, M. 1998. Arabic Diglossia and its Impact on the Quality of Education in the Arab Region. Discussion paper prepared for the World Bank at 'The Mediterranean Development Forum', Marrakech, 3–6 September 1998.
- NYATI-RAMAHOBO, L. 1998. Language Development for Literacy: The Case of Shiyeyi in Botswana. In: *Project for the Development of Adult Literacy in Minority Languages: Report on the Seronga Workshop to Plan the Shiyeyi Adult Literacy Project*. Botswana, University of Botswana/Kamanakao Association.
- OECD. STATISTICS CANADA. 1995. *Literacy, Economy and Society*. Paris, Organisation for Economic Co-operation and Development.
- . 1997. *Literacy Skills for the Knowledge Society: Further Results from the International Adult Literacy Survey*. Paris, Organisation for Economic Co-operation and Development .
- OKECH, A.; CARR-HILL, R. A.; KATABOIRE, A. R.; KAKOOZA, T.; NDIDDE, A. N. 1999. *Evaluation of the Functional Literacy Programme in Uganda 1999*. Kampala, Ministry of Gender, Labour and Social Development/World Bank.
- PRINSLOO, M.; BREIR, M. (eds). 1996. *The Social Uses of Literacy: Theory and Practice in Contemporary South Africa*. Johannesburg, Sached Books and John Benjamins.
- ROBINSON, B. 1997. *In the Green Desert: Nonformal Distance Education Project for Nomadic Women of the Gobi Desert, Mongolia*. (UNESCO, Education for All Innovations Series, No. 12.)
- ROGERS, A. 1994. *Using Literacy: A New Approach to Post-literacy Materials*. London, UK Department for International Development.
- STREET, B. V. 1999. Literacy and Social Change: The Significance of Social Context in the Development of Literacy Programmes. In: D. A. Wagner (ed.), *The Future of Literacy in a Changing World*. Revised edition. Cresskill, New Jersey, Hampton Press.
- STROMQUIST, N. 1999. Gender and Literacy Development, In: D. A. Wagner, R. L. Venezky and B. V. Street (eds.), *Literacy: An International Handbook*. Boulder, Colo., Westview Press.
- TOSTAN. 1996. *Beyond Literacy: The TOSTAN Basic Education Program*. Paper presented at the World Conference on Literacy, 12–15 March 1996, Philadelphia, Pa.
- TUIJNMAN, A.; KIRSCH, I.; WAGNER, D. A. (eds.). 1997. *Adult Basic Skills: Innovations in Measurement and Policy Analysis*. Cresskill, New Jersey, Hampton Press.
- UIE. 1987. *Report on Workshop of Specialists in Europe on the Prevention of Functional Illiteracy and Integration of Youth into the World of Work*. Hamburg, UNESCO Institute of Education.
- . 1997. *CONFINTEA-V. Final Report – Fifth International Conference on Adult Education*. Hamburg, UNESCO Institute of Education, 14–18 July 1997.
- UNESCO. 1978. *Revised Recommendation Concerning the International Standardization of Educational Statistics*. Paris, UNESCO.
- . 1983. *Statistics on Educational Attainment and Literacy*. Paris, UNESCO.
- . 1990. *Final Report on the World Conference on Education for All: Meeting Basic Learning Needs, Jomtien, Thailand*. Paris, UNESCO.
- . 1996a. *Data Collection and Analysis: Improving the Information Base for Literacy Programmes. Basic Manual*. Paris, UNESCO.
- . 1996b. *Education for All: Mid-Decade Report*. Paris, UNESCO.

- . 1997a. *Adult Education in a Polarizing World*. Paris: UNESCO/Education for All.
- . 1997b. *Life and Hope along the Mekong: Functional Basic Education for Women in the Highlands of Laos*. Video. UNESCO Global Action Programme on Education for All, 1997.
- . 1998. *World Education Report*. Paris, UNESCO.
- UNICEF. 1992. *Assessment of Basic Competencies of Children in Bangladesh: A Status Paper*. Dhaka, United Nations Children's Fund.
- UNSO. 1989. *Measuring Literacy through Household Surveys*. Principal authors D. A. Wagner and A. B. L. Srivastava. New York, United Nations Statistical Office. (Doc. No. DP/UN/INT-88-X01/10E).
- USAID. 1998. *Promoting Education for Girls in Nepal*. Washington, D.C., US Agency for International Development. (CDIE Impact Evaluation Number 5.)
- VENEZKY, R. L.; WAGNER, D. A.; CILIBERTI, B. S. (eds.). 1990. *Toward Defining Literacy*. Newark, Delaware, International Reading Association.
- WAGNER, D. A. 1990. Literacy Assessment in the Third World: An Overview and Proposed Schema for Survey Use. *Comparative Education Review*, Vol. 33, No. 1, pp. 112–38.
- . 1992. *Literacy: Developing the Future*. Paris, UNESCO. (UNESCO Yearbook of Education.)
- . 1993. *Literacy, Culture, and Development: Becoming Literate in Morocco*. New York, Cambridge University Press.
- . 1995. Literacy and Development: Rationales, Myths, Innovations, and Future Directions. *Int. J. Educational Development*, Vol. 15, pp. 341–62.
- WAGNER, D. A.; HOPEY, C. 1999. Literacy, Electronic Networking and the Internet. In: D. A. Wagner, R. L. Venezky and B. V. Street (eds.), *Literacy: An International Handbook*. Boulder, Colo., Westview Press.
- WAGNER, D. A.; VENEZKY, R. L. 1999. Adult Literacy: The Next Generation. *Educational Researcher*, Vol. 28, No. 1, pp. 21–9.
- WAGNER, D. A.; VENEZKY, R. L.; STREET, B. V. (eds.). 1999. *Literacy: An International Handbook*. Boulder, Colo., Westview Press.
- WHO. 1999. *Guidelines: Life Skills Education Curricula for Schools*. Geneva/Canada, World Health Organization/ICI-Canada.
- WINDHAM, D. H. 1999. Literacy and Economic Development. In: D. A. Wagner, R. L. Venezky and B. V. Street (eds.), *Literacy: An International Handbook*. Boulder, Colo., Westview Press.
- WORLD BANK. 1997. *Education Sector Report*. Washington, D.C., World Bank.

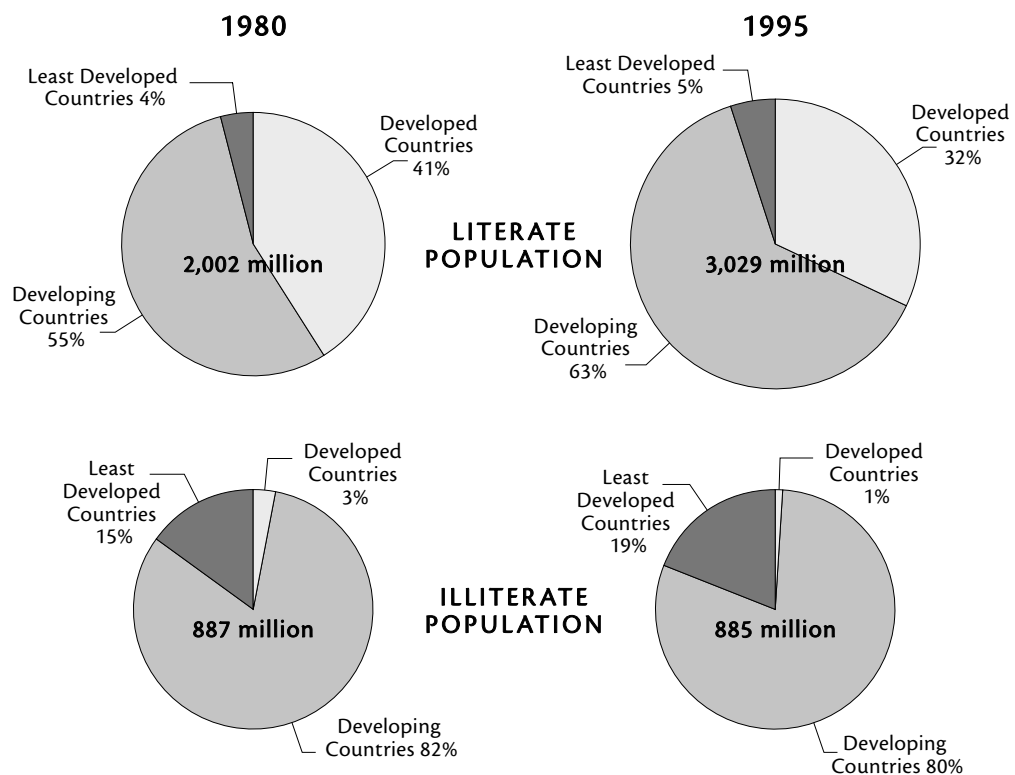
# Figures

**Figure 1. Adult illiteracy rates (age 15+), by region**



Source: UNESCO (1997).

**Figure 2. Percentage distribution of world literate and illiterate populations, 1980 and 1995**



Source: UNESCO (1997).



Figure 3. Gender gap in adult literacy rates by region, 1980 and 1995

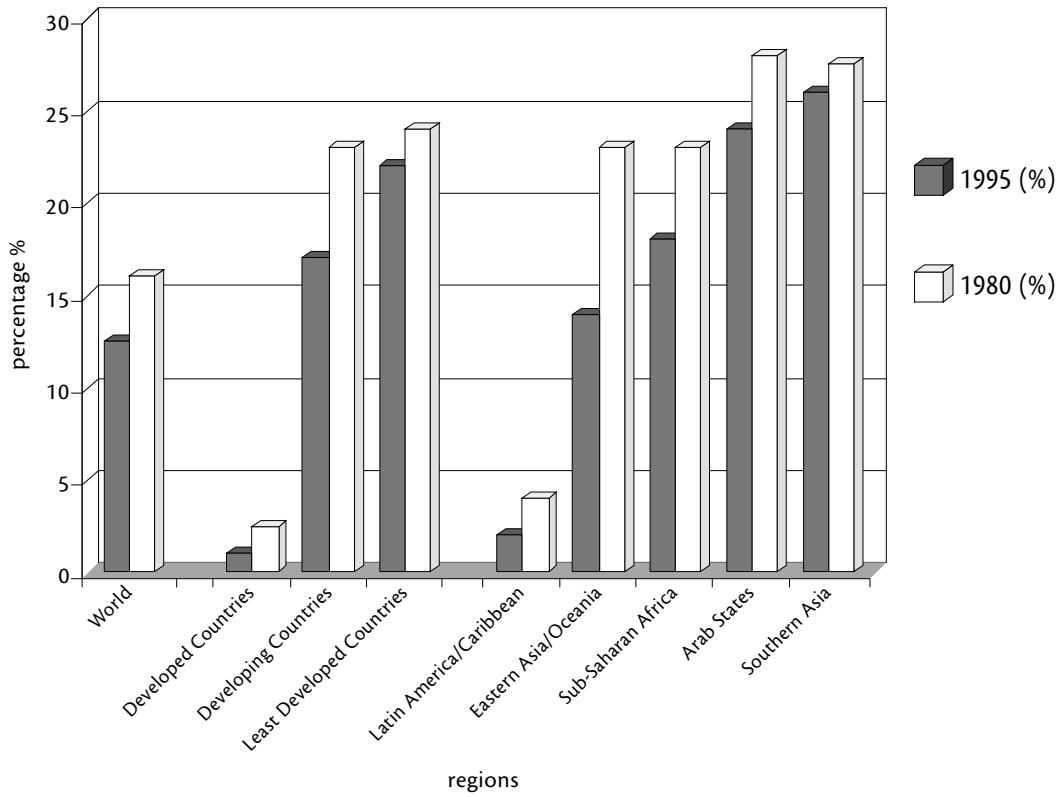
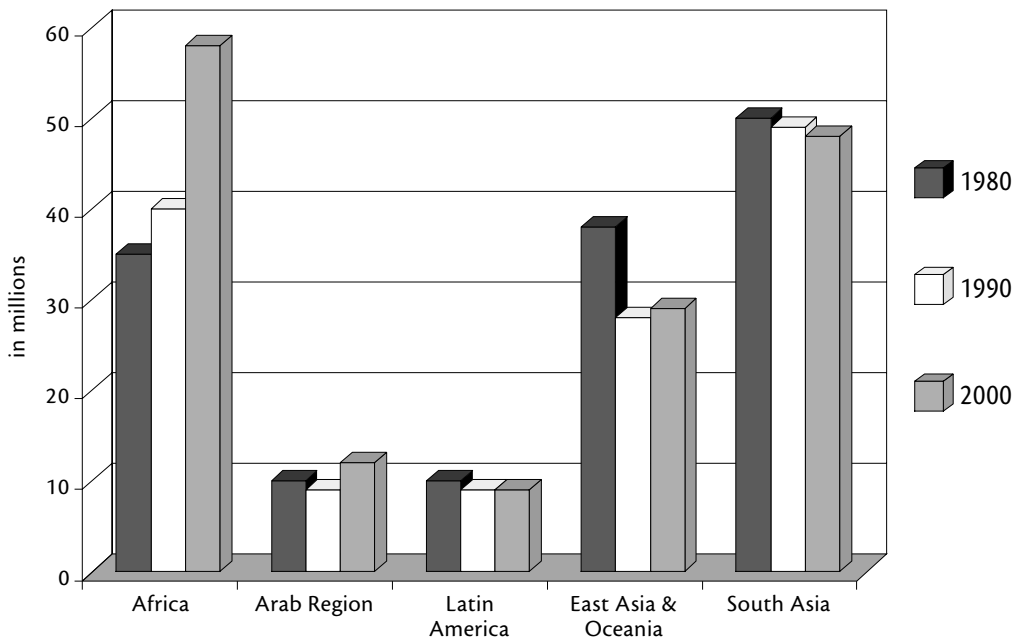
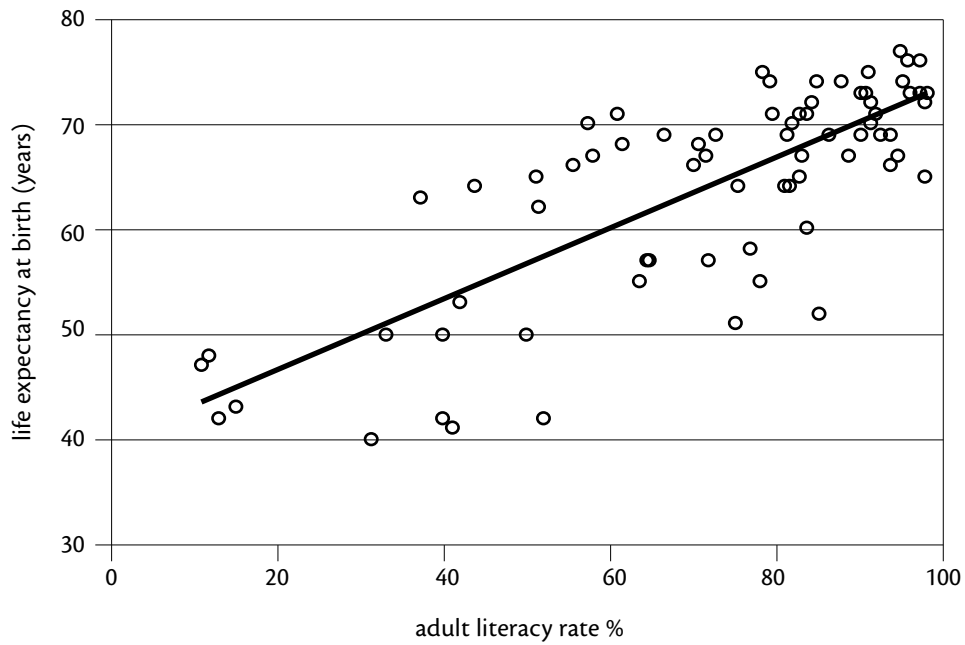


Figure 4. Out-of-school youth (age 6-15)



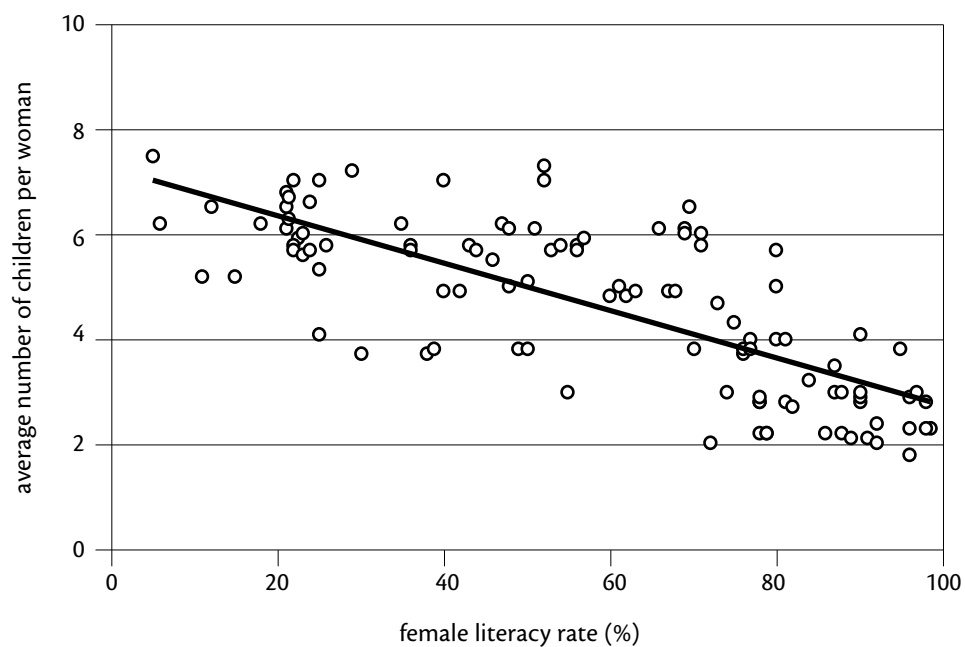
Source: UNESCO (1997a).

**Figure 5. Adult literacy rates (age 15+) and life expectancy at birth in developing countries, 1995**



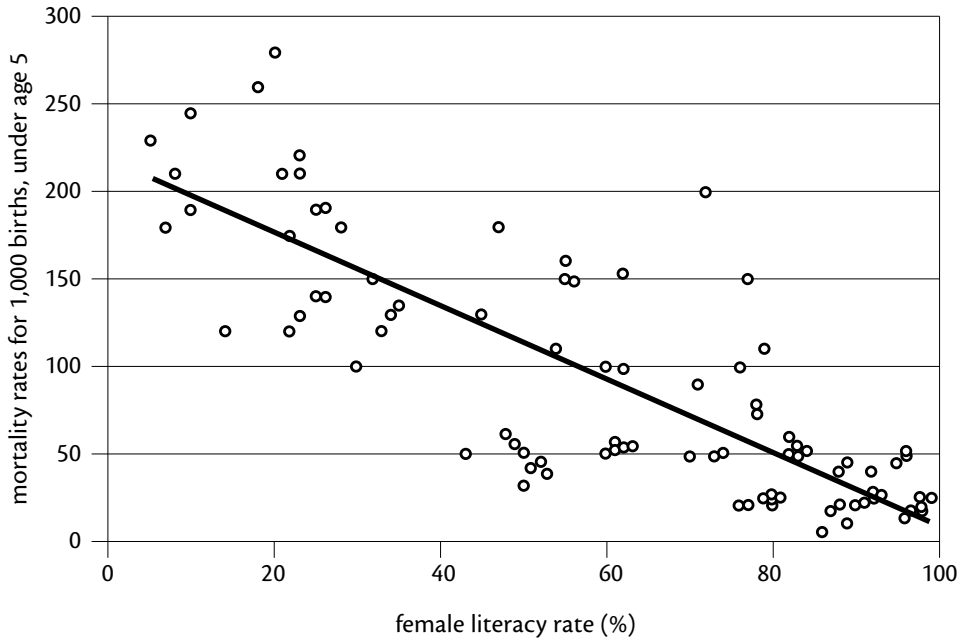
Source: UNESCO (1997a).

**Figure 6. Total fertility rates and female literacy rates (age 15+) in developing countries**



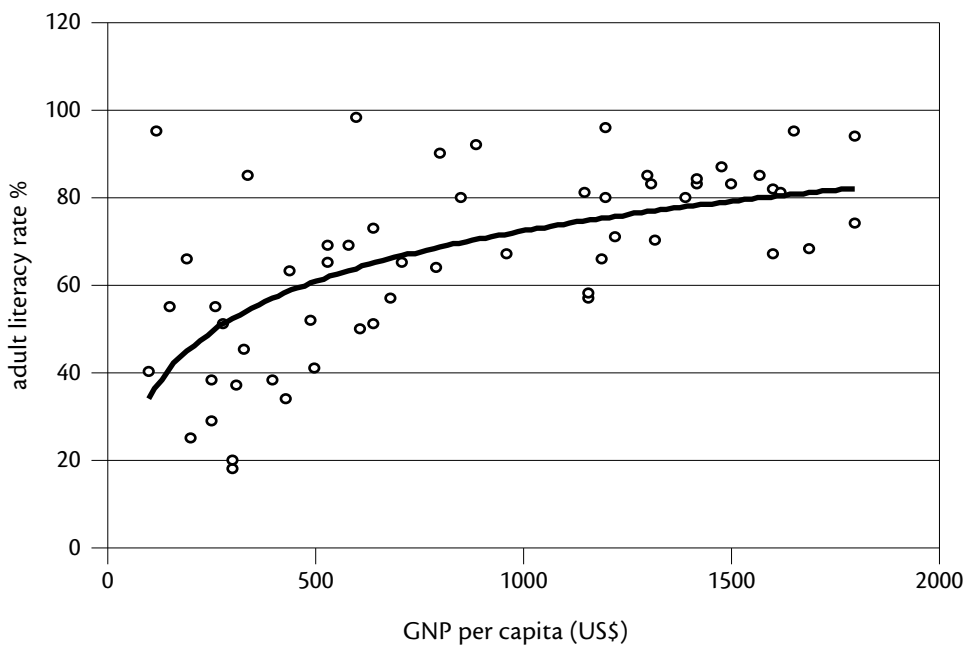
Source: UNESCO (1997a).

**Figure 7. Female literacy rates (age 15+) and mortality rates of children up to age 5 in developing countries, 1995**



Source: UNESCO (1997).

**Figure 8. Adult literacy rates (age 15+) and GNP per capita in developing countries**



Source: UNESCO (1997).

# Tables

**Table 1. Percentage adult illiteracy rates by age group and region**

Countries and territories	Age group	Total			Male			Female		
		1970	1990	2000*	1970	1990	2000*	1970	1990	2000*
Developing countries	15–19	33.9	19.1	6.1	23.7	13.9	11.8	44.5	24.7	20.6
	20–24	39.8	21.5	17.8	28.2	13.9	11.8	44.5	24.7	20.6
	25–44	52.9	30.9	23.2	39.3	21.6	16.4	67.2	40.6	30.2
	45+	74.4	57	45.9	62.2	42.6	32.3	86.4	71.3	59.2
Sub-Saharan Africa	15–19	61.8	35.9	26.4	49.9	28.5	20.9	73.5	43.3	31.9
	20–24	68.3	40.3	31.6	56.2	31.3	25	80.3	49.2	38.1
	25–44	79.8	55.5	42.4	69	43.2	32.7	90.1	67.2	31.8
	45+	92.6	82	72.5	86.6	71.6	59.9	97.8	91.5	83.7
Arab States	15–19	54.6	27.7	20.6	39.3	19.8	14.9	70.5	36	26.6
	20–24	61.8	32.9	23.7	45.1	23.3	17	78.5	43.1	30.7
	25–44	73.9	48.5	35.2	56.5	34.4	24.7	88.8	63.3	46.2
	45+	85.3	76.3	66.4	74.1	61.1	48.6	96.1	90.3	82.1
Latin America/Caribbean	15–19	14.6	6.2	4.1	13.3	6.1	4.2	16	6.3	4
	20–24	17.6	7.6	5.1	15.8	7.3	5.1	19.4	8	5
	25–44	24.9	12.7	8.5	21.4	11.6	8	28.3	13.7	24.3
	45+	37.3	27.5	21.4	31	23.1	18.2	43.3	31.5	24.3
Eastern Asia	15–19	19.5	6.3	3.6	10.3	4	2.5	29.2	8.8	4.8
	20–24	25.5	8.5	4.7	14	5.1	3.1	37.9	12.2	6.4
	25–44	43.8	16.8	9.8	27.9	9	5.5	61	25	14.2
	45+	78	51.8	36.2	63.5	34.1	20.9	91.6	69.4	51.3
Southern Asia	15–19	56.7	37.7	29.4	42.7	26.8	20.7	72	49.5	38.6
	20–24	61.1	42.3	33.4	46.7	30.4	23.7	76.2	55.3	44
	25–44	69.2	53.1	64.7	55.4	39.7	32	83.9	67.7	57.2
	45+	79.1	71.1	64.7	67	57	50	92.4	85.5	79.7

Source: UNESCO (1990).

\*Estimated

**Table 2a. School enrolment literacy rate and number of adult illiterates by region and country Arab States, Africa and Middle East**

Countries and territories	1st graders reaching (LYA) (%)		Estimated adult literacy rates (%)				Estimated number adult illiterates (1000s)			
	Grade 4	Final grade (years)	Men		Women		Total % F		Total % F	
			1980	1995	1980	1995	1980	1995	1980	1995
Algeria	98	90 (6)	54.8	73.9	24.3	49	6 103	64	6 582	65.8
Bahrain	95	83 (6)	79.5	89.1	60.2	79.4	63	54	56	55.5
Djibouti	96	94 (6)	45.3	60.3	18.1	32.7	108	61.1	181	63.8
Egypt	99	98 (5)	53.9	63.6	25.5	38.8	15 946	61.5	18 954	62
Iraq			55.3	70.7	25	45	4 188	62.1	4 848	64.6
Jordan	98	79 (10)	82.4	93.4	53.9	79.4	464	71.1	414	74.7
Kuwait	99	99 (4)	72.8	82.2	59.1	74.9	264	48.5	200	58.6
Lebanon			90.6	94.7	82	90.3	222	67.1	151	66.7
Libyan Arab Jamahiriya			72.4	87.9	31	63	749	68	702	73
Mauritania	71	62 (6)	41.4	49.6	18.7	26.3	613	59.2	806	60.4
Morocco	83	72 (6)	42	56.6	16.2	31	7 824	59.8	9 730	61.8
Oman	98	94 (6)								
Palestine Auton. Terr.	100	98 (6)								
Qatar	97	92 (6)	72	79.2	64.8	79.9	47	36.2	82	27.1
Saudi Arabia	96	91 (6)	60.2	71.5	31.7	50.2	2 786	56.7	3 871	55
Somalia										
Sudan	94	81 (6)	43.1	57.7	17	34.6	7 216	59.6	8 507	60.9
Syrian Arab Republic	95	85 (6)	72.4	85.7	34.4	55.8	2 073	69.7	2 259	75.4
Tunisia	95	87 (6)	61.1	78.6	32.3	54.6	1 974	64	1 930	67.8
United Arab Emirates	99	96 (6)	71.8	78.9	63.7	79.8	219	28.8	272	29.5
Yemen										

Source: UNESCO (1997a).

**Table 2b. School enrolment literacy rate and number of adult illiterates by region and country  
Sub-Saharan Africa**

Countries and territories	1st graders reaching (LYA) (%)		Estimated adult literacy rates (%)				Estimated number adult illiterates (1000s)			
	Grade 4	Final grade (years)	Men		Women		Total % F		Total % F	
			1980	1995	1980	1995	1980	1995	1980	1995
Angola	34	34 (4)								
Benin	71	61 (6)	28	48.7	9.7	25.8	1 532	56.7	1 792	60.2
Botswana	91	84 (7)	70.4	80.5	43.2	59.9	207	69.6	255	69.1
Burkina Faso	87	61 (6)	18.8	29.5	4.3	9.2	3 458	55	4 597	57.1
Burundi	75	74 (6)	37.4	49.3	12	22.5	1 740	61.7	2 221	62.4
Cameroon	70	58 (6)	58.9	75	29.7	52.1	2 695	64.3	2 712	66.5
Cape Verde			64.2	81.4	38	63.8	79	69.6	64	71.2
Central African Republic	38	16 (6)	40.5	68.5	19	52.4	956	60.3	760	62.5
Chad	39	21 (6)	46.7	62.1	19.4	34.7	1 751	61.5	1 868	64.3
Comoros	84	76 (6)	56	64.2	40	50.4	89	58.4	143	57.9
Congo	64	44 (6)	64.5	83.1	39.6	67.2	444	64.9	354	67.7
Côte d'Ivoire	79	72 (6)	34.3	49.9	13.7	30	3 309	54.7	4 339	57.2
Dem. Rep. Congo	83		74.6	86.6	45.2	67.7	5 931	70.1	5 184	73
Equatorial Guinea			77.2	89.6	44.7	68.1	51	70.6	49	76.5
Eritrea	87	79 (5)								
Ethiopia	54	51 (6)	32.1	45.5	14	25.3	15 117	56.8	19 052	57.5
Gabon			54.3	73.7	28	53.3	321	62.6	295	65.1
Gambia	87	82 (6)	37	52.8	12.5	24.9	278	59	403	62.3
Ghana	84	78 (6)	59	75.9	30.5	53.5	3 286	63.7	3 387	66.5
Guinea	87	73 (6)	34.4	49.9	10.7	21.9	1 877	58.2	2 272	61
Guinea-Bissau			53.4	68	25.6	42.5	295	62.7	282	65.5
Kenya	78	42 (8)	72.2	86.3	44.2	70	3 479	67.1	3 237	69
Lesotho	85	68 (7)	70.5	81.1	45.2	62.3	334	68	340	68.1
Liberia			38	53.9	11.2	22.4	787	58.4	1 014	62.4
Madagascar	37	28 (5)								
Malawi	94	91 (8)	63.9	71.9	27.8	41.8	1 789	69	2 587	68.9
Mali	81	61 (6)	20.2	39.4	8.7	23.1	3 135	55.5	3 917	57.4
Mauritius	100	99 (6)	81.6	87.1	66.5	78.8	163	65.6	138	62.4
Mozambique	48	47 (5)	44	47.7	12.2	23.3	4 558	3.8	5 298	65.5
Namibia	86	74 (7)								
Niger	83	62 (6)	13.9	20.9	2.8	6.6	2 730	54.4	4 081	55.3
Nigeria	83	74 (6)	46.7	67.3	23	47.3	26 229	60.2	26 075	62.7
Rwanda	69	44 (7)	55	69.8	29.6	51.6	1 534	62	1 695	62.5
Sao Tome & Principe										
Senegal			31	43	12.1	23.2	2 376	56.3	3 084	57.7
Seychelles	99									
Sierra Leone			30	45.4	8.5	18.2	1 494	58.2	1 727	61.3
South Africa	77	68 (7)	76.9	81.9	74.5	81.7	4 234	53.2	4 731	51
Swaziland	83	69 (7)	63.8	78	57.1	75.6	120	55.8	114	56.2
Togo	93	85 (6)	49.2	67	18.4	37	967	62.9	1 085	66.5
Uganda	63	40 (7)	61.8	73.7	31.7	50.2	3 669	65	4 172	66.2
United Rep. Tanzania	87	77 (7)	65.8	79.4	34.1	56.8	4 912	67	5 171	68.7
Zambia	92	78 (7)	64.7	85.6	43.2	71.3	1 308	63.6	1 082	68
Zimbabwe	79	69 (7)	82.8	90.4	68	79.9	919	65.7	940	68.3

Source: UNESCO (1997a).

**Table 2c. School enrolment literacy rate and number of adult illiterates by region and country  
 Eastern Asia/Oceania**

Countries and territories	1st graders reaching (LYA) (%)		Estimated adult literacy rates (%)				Estimated number adult illiterates (1000s)			
	Grade 4	Final grade (years)	Men		Women		Total % F		Total % F	
			1980	1995	1980	1995	1980	1995	1980	1995
Brunei Darussalam	95	91 (6)	85.7	92.6	67.8	83.4	27	63	22	66.7
Cambodia	59	50 (5)								
China	95	92 (5)	78.6	89.9	52.7	72.7	218 848	67.6	166 173	71.9
Cook Islands										
Dem. People's Rep. Korea										
Fiji	87	82 (6)	87	93.8	78.9	89.3	66	60.6	43	63
Indonesia	92	85 (6)	77.5	89.6	57.7	78	28 325	66.5	21 507	68.5
Kiribati	91	90 (7)								
Lao People's Demo. Rep.	59	53 (5)	55.6	69.4	27.7	44.4	1 083	61.8	1 170	65.6
Malaysia	99	96 (6)	79.6	89.1	59.7	78.1	2 400	67	2 057	66.8
Mongolia			81.5	88.6	63.3	77.2	261	67	256	66.6
Myanmar			85.7	88.7	68.2	77.7	4 727	69.2	4 913	67.1
Papua New Guinea	67	52 (6)	70	81	45.1	62.7	737	62.4	724	64.5
Philippines	74	69 (6)	90.6	95	88.7	94.3	2 911	54.8	2 234	53.1
Republic of Korea	100	100 (6)	97.4	99.3	90.1	96.7	1 566	79.5	697	82.3
Samoa										
Singapore			91.6	95.9	74	86.3	301	75.1	196	76.6
Solomon Islands	85	73 (6)								
Thailand	91	87 (6)	92.3	96.5	77.6	91.2	5 133	72.2	2 916	73.1
Tonga	92	90 (6)								
Tuvalu	96	96 (8)								
Vanuatu	72	53 (6)								
Viet Nam			90	96.5	77.6	91.2	5 133	72.2	2 916	73.1

Source: UNESCO (1997a).

**Table 2d. School enrolment literacy rate and number of adult illiterates by region and country  
 Arab States, Asia**

Countries and territories	1st graders reaching (LYA) (%)		Estimated adult literacy rates (%)				Estimated number adult illiterates (1000s)			
	Grade 4	Final grade (years)	Men		Women		Total % F		Total % F	
			1980	1995	1980	1995	1980	1995	1980	1995
Afghanistan	53	37 (6)	32.6	47.2	5.7	15	7 371	57	8 169	60.5
Bangladesh	60	53 (5)	41.3	49.4	17.2	26.1	33 551	57.2	45 082	57.7
Bhutan	88	70 (7)	41.1	56.2	14.9	28.1	532	59	558	62.1
India	67	62 (5)	55.3	65.5	25.3	37.7	250 592	60.9	290 705	62.8
Islamic Rep. Iran	93	90 (5)								
Maldives	93	93 (5)	90.6	93.3	89.2	93	9	55.6	9	49.2
Nepal	55	52 (5)	30.6	40.9	7.3	14	6 784	56.3	9 149	58.9
Pakistan	52	48 (5)	38.4	50	14.7	24.4	34 575	55.6	48 693	58
Sri Lanka	100	98 (5)	90.9	93.4	79.5	87.2	1 410	68.3	1 241	66.8

Source: UNESCO (1997a).

**Table 2e. School enrolment literacy rate and number of adult illiterates by region and country  
Latin America/Caribbean**

Countries and territories	1st graders reaching (LYA) (%)		Estimated adult literacy rates (%)				Estimated number adult illiterates (1000s)			
			Men		Women		Total % F		Total % F	
	Grade 4	Final grade (years)	1980	1995	1980	1995	1980	1995	1980	1995
Antigua & Barbuda										
Argentina			94.3	96.2	93.6	96.2	1 185	54.2	935	51.9
Bahamas	87	84 (6)	97.5	98.5	96	98	4	75	3	59.6
Barbados			96.6	98	93.7	96.8	9	66.7	5	64.6
Belize	72	60 (8)								
Bolivia	79	44 (8)	80.9	90.5	58.8	76	937	69.5	745	72.6
Brazil	74	37 (8)	76.3	83.3	72.8	83.2	18 717	54.3	18 331	50.5
British Virgin Islands										
Chile	93	79 (8)	92	95.4	90.9	95	634	54.1	485	53.6
Colombia	65	59 (5)	87.4	91.2	86.5	91.4	2 080	52.8	2 046	50.6
Costa Rica	92	84 (6)	91.6	94.7	91.4	95	118	50.8	115	48.6
Cuba	94	92 (6)	91	96.2	87.3	95.3	716	58.2	364	55.3
Dominica	90	83 (7)								
Dominican Republic	65	52 (8)	75.3	82	73.5	82.2	842	51	908	48.8
Ecuador			85.5	92	78.7	88.2	815	59.6	719	59.8
El Salvador	64	39 (9)	66.4	73.5	59.9	69.8	904	56.2	975	55.7
Grenada										
Guatemala			56.3	62.5	41	48.6	1 920	57.1	2 627	57.7
Guyana			96.4	98.6	93.1	97.5	24	66.7	11	65.9
Haiti	55	39 (6)	36.2	48	28.9	42.2	2 145	54.7	2 360	54.5
Honduras			64	72.6	60.6	72.7	710	52.4	869	49.9
Jamaica	99	89 (6)	73.2	80.8	81.1	89.1	289	42.9	254	36.5
Mexico	88	81 (6)	73.2	80.8	81.1	89.1	289	42.9	254	36.5
Netherlands Antilles										
Nicaragua	65	53 (6)	61	64.6	60.8	66.6	574	51.2	822	51.5
Panama			86.3	91.4	84.9	90.2	157	52.2	161	52.8
Paraguay										
Peru	79	65 (6)	89.9	93.5	83.7	90.6	241	61.4	235	58.6
Saint Kitts & Nevis										
Saint Lucia	95	95 (7)								
Suriname			91.5	95.1	83.8	91	27	66.7	19	65.9
Trinidad & Tobago	95	94 (7)	96.9	98.8	93.3	7	35	68.6	19	72
Uruguay	96	92 (6)	94.3	96.9	95.3	97.7	110	46.4	65	44.9

Source: UNESCO (1997a).

**Table 3. Percentage illiteracy rates of rural and urban populations (age 15+) in selected countries**

Country	Rural area	Urban area
Afghanistan	85.3	62.5
Pakistan	82.6	53.1
Nepal	81.3	52.6
Togo	78.3	43.1
Bangladesh	74.5	51.8
India	67.3	34.9
Tunisia (age 10+)	62.2	35.3
Brazil	46.3	16.8
Dominican Republic	43	20.9
El Salvador (age 10+)	42.2	15.5
China	37.8	17.6
Indonesia	37.6	16.5
Malaysia (age 10+)	32	19
Ecuador	27.3	6.2
Colombia	24.8	9
Philippines	23.1	6.9
Sri Lanka	15.2	6.6
Argentina (age 10+)	14.6	4.1

Source: UNESCO (1998). Data from censuses carried out between 1980 and 1982.

# World Education Forum

Dakar, Senegal  
26-28 April 2000

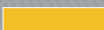








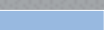
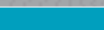


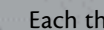
## Education for All 2000 Assessment



At the World Conference on Education for All (Jomtien, Thailand, 1990), one target was to reduce the adult illiteracy rate in each country by 50 per cent by the year 2000. This did not happen in any country. There is a widening recognition that low literacy and poor basic learning competencies (by varying standards) are even more prevalent today than had been assumed a decade ago. Furthermore, with population growth, the absolute number of illiterates has declined very little since Jomtien. With national economies and civic participation more dependent than ever on an educated and literate citizenry, the world education community is faced with multiple and serious challenges. This global thematic study highlights some of important problems and prospects in improving the quality of literacy and adult education work, and efforts to meet the needs of people who are often excluded or marginalized from quality education.

Literacy and Adult Education is one of the thematic studies published by UNESCO for the International Consultative Forum on Education for All as part of the Education for All 2000 Assessment. This worldwide evaluation was undertaken towards the end of the decade following the World Conference on Education for All (Jomtien, Thailand, 1990) as preparation for the World Education Forum on education for all held in Dakar (Senegal) in April 2000.

The complete list of titles in the series is given below.

-  Achieving Education for All: Demographic Challenges
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-  Education in Crisis: The Impact and Lessons of the East Asian Financial Shock 1997-99
-  Education in Situations of Emergency and Crisis: Challenges for the New Century
-  Funding Agency Contributions to Education for All
-  Girls' Education
-  Inclusion in Education: The Participation of Disabled Learners
-  Literacy and Adult Education
-  Reason for Hope: The Support of NGOs to Education for All
-  School Health and Nutrition
-  Textbooks and Learning Materials 1990-99

Each thematic study aims to provide theoretical vision and practical guidance to education planners and decision-makers at national and international levels. In order to provide a global review, they draw upon and synthesize submissions from partner institutions and agencies in each of the EFA regions. They attempt to describe 'best practices' as well as successful and unsuccessful experiments in policy implementation.