

Chapter 8

The making of literate societies

In the mid-nineteenth century, only 10% of the world's adult population could read or write. At the dawn of the twenty-first century, UNESCO estimates that over 80% of adults worldwide can read and write at some minimum level. This unprecedented social transformation occurred despite the world's population quintupling from about 1.2 billion in 1850 to over 6.4 billion today.

The transition to widespread literacy was not uniform across societies, as the historical overview in this chapter shows. The spread of formal schooling, well-organized literacy campaigns and expanded adult learning opportunities have all played a role. The broader social context is equally important: the motivations for acquiring literacy, and the ability to sustain it, are closely related to the literate environments found at home, at work and in society more generally. The social character of literacy is revealed in the variety of ways – and languages – in which it is practised. Literacy today, in its many manifestations, has become a vital set of competencies and practices, interwoven in the fabric of contemporary societies.

The origins of literacy can be traced back thousands of years

Introduction

The aim of this chapter is twofold. First, it reviews the history of various countries' transitions to widespread literacy, examining the factors that have accelerated this process (formal schooling, literacy campaigns and adult learning opportunities) and, more briefly, those that have hindered it (protracted conflict, economic decline and social dislocation). Second, it examines the broader social context of literacy: how it is acquired and practised in particular social settings, and used in particular languages, how it serves different individual and societal purposes, and how it is influenced by public policies and family circumstances. In particular, the chapter focuses on language issues, literacy practices and literate environments.

Literacy in historical perspective

The rise of literacy

The origins of literacy can be traced back thousands of years through a multiplicity of civilizations and institutions (Collins, 2000). In ancient Mesopotamia, the Sumerian and Babylonian cultures developed the cuneiform script for administrative purposes. In the sixth century BCE, the Chinese Confucian movement spawned communities of devotees with a distinctive identity, known as *ju* (meaning 'scholars'). Although not the only literati in Chinese society, they were the custodians of valued books and teachings. In ancient Greece, religious brotherhoods (e.g. the Pythagoreans and Epicureans) emerged as closed communities of learning. Teaching as a profession – including fee payments and a short-term relationship with students – was pioneered by the Sophists. Formally organized schools, initially founded by several of Socrates's disciples to teach adults, later replaced the military, athletic and aesthetic training received by adolescents. The Brahmin priests of ancient India created guilds in which texts were recited at ceremonies; later, under Buddhism and Jainism, these priest-guilds became frameworks within which teachers and apprentices studied and commented on the ancient Veda texts. Jewish communities in the diaspora, cut off from the leadership of temple priests, developed a class of educated leaders – or rabbis – who possessed knowledge of the Torah and a growing body of interpretative texts, later codified in the Talmud.

As the Islamic civilization expanded, centres for higher learning, or madrasas, were established; these provided extensive instruction in Islamic law, Arabic language and literature and, to a lesser extent, in secular subjects such as philosophy, mathematics and science (Herrera, 2006).¹ At the same time, prominent Muslim intellectuals and court physicians contributed to the preservation and elaboration of new knowledge. In Christian Europe, beginning in the eleventh century, collectives of teachers acquired monopolistic rights from the Pope to teach certain professions. By 1600, they had founded more than three dozen universities, including those at Bologna, Paris, Oxford, Cambridge, Salamanca, Padua, Toulouse, Coimbra, Kraków and Leipzig. From the fifteenth century onwards, degree-granting universities were also established in Turkey (1453), Santo Domingo (1538), Peru (1551) and the Philippines (1611).² Most universities not only conferred professional licences but also became centres of higher learning in religion, law, philosophy, public administration and certain scientific fields.³

Across the Saharan desert, along the Asian silk routes and European rivers, and up and down the African coasts, merchants and traders developed and used an array of literacy and numeracy skills (Curtin, 1990, 2000b). Finally, as state (and imperial) bureaucracies grew, with their emphasis on record-keeping, text reproduction and accounting, so too did the demand for literate administrators and public officials.

And yet, despite this diverse array of literacy activities and growing interest in scholarly inquiry, the spread of reading, writing and calculating skills remained limited. As Graff (1987b) notes: 'In earliest times, literacy was highly restricted and a relatively unprestigious craft; it carried little of the association with wealth, power, status and knowledge that it later acquired. It was a tool, useful firstly to the needs of state and bureaucracy, church and trade.' In short, the spread of literacy skills was, until the eighteenth century, primarily limited to religious leaders, state servants, far-travelling traders, members of specialized guilds and certain nobility. The vast majority of adults had little involvement with written texts – sacred or secular.

Europe and North America

Transitions from largely illiterate to predominantly literate societies occurred earliest in Europe and North America. Using wide-ranging sources,⁴

1. The first madrasa, which housed over 6,000 volumes, was established by the Fatimid caliphs in 1005 in Egypt.

2. During the late nineteenth and early twentieth centuries, many various universities, many beginning as missionary colleges, were established in India (1857), Lebanon (1866), Japan (1877), Korea (1885–56), Hong Kong (1910), Thailand (1917) and Israel (1925).

3. Other institutions of higher learning that did not originally grant university degrees were established even earlier in China (Nanjing) and Egypt (Al-Azhar).

4. These include censuses, military records, wills, deeds, depositions, petitions, marriage records, book circulation, posted letters, job applications, business records and catechetical examinations. They also include 'aggregate data sources' such as educational surveys, statistical society reports, social surveys, government commissions and prison records.

social historians of literacy⁵ have identified three historical periods (pre-1800, 1800–1860s, post-1860s) and three groups of countries to discuss the history of these literacy transitions (Graff, 1987*b*; Vincent, 2000).

Prior to 1800, reading (though not always writing) skills were widespread in several northern European countries (e.g. Denmark, Finland, Iceland, Scotland, Sweden and Prussia), as well as in parts of England, France and Switzerland. In a second group – Belgium, Ireland, the Netherlands, and the remaining parts of England, France and Switzerland – literacy skills were used by members of the higher social classes and were more limited among other social strata, except in scattered communities, monasteries or households that possessed books and other printed matter. Finally, in most of eastern and southern Europe (Russia, the Balkans, the eastern Austro-Hungarian empire, the Iberian Peninsula and southern Italy), illiteracy was widespread, especially outside the cities and towns, and written materials were almost non-existent. Throughout Europe, gender disparities in literacy were the norm.

From 1800 to 1860, the more advanced and industrialized European countries made modest progress in reducing illiteracy, with more adults who could affix full signatures (rather than simple marks) to legal documents, provide written responses to census questions and pass literacy tests in army recruitment centres. Other countries in northern and western Europe saw significant reductions in male illiteracy, with similar (though varying) trends for female illiteracy (Vincent, 2000). The relative literacy ranking of countries changed little (although, in Sweden, the early neglect of writing skills, due to the Protestant Church's emphasis on the importance of reading, was overcome during the nineteenth century). By the 1860s, only a minority of adults in industrializing countries lacked rudimentary literacy skills. In eastern and southern Europe, however, the pace of change in literacy was slow and mainly extended to certain professions and elite populations.

In the latter decades of the nineteenth century, the spread of adult literacy in most of northern and western Europe was extensive. Yet in some countries, such as Belgium and Ireland, only three-quarters of all males could sign their full names. Around 1900, literacy levels in Hungary, Italy, Russia, Spain and the Balkan countries were significantly below those in other

parts of Europe. During the First World War, many European countries encouraged the acquisition of literacy skills among military recruits so they would be able to read instructions on weaponry use and to correspond with their families (Limage, 2005*b*).

While literacy levels improved in much of Europe during the late nineteenth century, subnational disparities in literacy by gender, age, social class, ethnicity and area of residence continued. For example, urban areas had a distinct advantage in literacy over rural areas. Books – and the social institutions encouraging their use – were more prevalent in cities and towns than in rural communities. Religious, secular, professional and private forms of learning were more available to urban residents, as was the supply of print media. The greater prevalence of literacy in urban areas had in turn an impact on the nature of the labour market and scale of commercial transactions. Thus, the dynamics of literacy acquisition and the forces of industrialization and urbanization tended to reinforce one another (Limage, 2005*b*).

During the early twentieth century, literacy levels increased throughout Europe, with few changes in the ranking of countries. By mid-century, central and northern Europe were reported to have achieved over 95% literacy; western Europe, over 80%; Austria and Hungary, over 70%; and Italy, Poland and Spain, over 50% literacy. In Portugal and the Eastern Orthodox countries, adult literacy rates were not above 25%; only after 1945 did the ability to use written languages extend to the masses (Johansson, cited in Graff, 1987*b*; Vincent, 2000).

In the United States and Canada, literacy levels increased steadily during the nineteenth and early twentieth centuries. In the United States, 80% of adults were estimated to be literate in 1870 and over 95% in 1940; in Canada, the literacy rate rose from 83% in 1901 to 95% in 1931 (UNESCO, 1957). Disparities in adult literacy levels by race, region, labour force participation, household economic status and foreign birth remained. By the 1960s, these disparities had lessened, with the exception of certain groups, such as those with disabilities and Native Americans.

Overall, the historical record in Europe and North America suggests that there was no single route to widespread mass literacy. In many Nordic countries and Protestant areas, high literacy levels *preceded* the expansion of formal schooling and reflected religious inclinations and pressures.

**Prior to 1800,
reading skills
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European countries**

5. See, for example, the pioneering work of Stone (1969) and Cipolla (1969), as well as important studies such as Furet and Ozouf (1977), Graff (1987*b*, 1991), Houston (1985), Johansson (1977, 1981), Schofield (1968) and Lockridge (1974). In addition to establishing major chronological trends in literacy, historical scholarship seeks to develop historically grounded interpretations of changing patterns of literacy in different places and to examine connections between literacy and social and economic development.

In other areas, the growing provision of public and private instruction, administered by centralizing nation-states or religious organizations, contributed to the spread of literacy. Among early industrializing countries, the transition to widespread literacy was a gradual process spanning centuries; among late industrializing countries the spread of literacy came later but at a more rapid pace. The literacy gaps between early and late industrializers only began to close during the twentieth century, with growing popular demand for, and increased public supply of, literacy [Mitch, 1992].

Africa, Asia, Latin America and the Arab States

Historical information about literacy trends in other world regions, many of them under colonial rule in the nineteenth and twentieth centuries, is

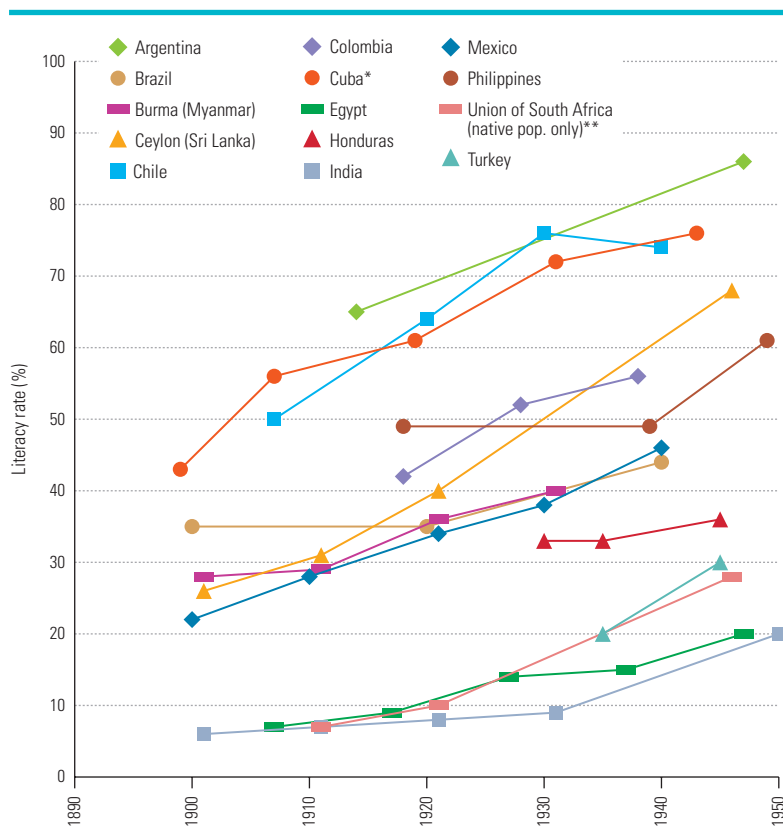
limited. Population censuses – a major source of literacy data – were usually conducted in the wake of national independence [Barrett and Frank, 1999], and few were carried out in the territories of European empires. Consequently, historical literacy data are available for only certain parts of Africa, Asia and the Middle East, though rather more widely for Latin America.

Trends in adult literacy rates for 1900–1950, based on census figures compiled by UNESCO (1953, 1957), are reported in Figure 8.1.⁶ A few countries (Argentina, Chile and Cuba) had literacy levels between 35% and 45% at the start of the twentieth century, which steadily increased during the next five decades. Others (Brazil, Ceylon [Sri Lanka], Colombia, Mexico, the Philippines and Turkey) had lower levels (20% to 35%) prior to the First World War, which rose modestly in the interwar period. In most other developing countries, the pace of change was slow: in Burma (Myanmar) and Honduras, literacy rates rose slightly in the interwar period; in Egypt, India and the Union of South Africa, literacy levels were very low and progress was minimal.

Moreover, rising literacy rates during 1900–1950 did not necessarily reduce the illiterate population. In many cases, modest increases in literacy levels (less than 10% over ten years), together with strong population growth, actually resulted in *increases* in the number of illiterates.⁷ Outcomes were mixed among countries reporting moderate progress in literacy rates. For example, while the adult literacy rate rose from 47% to 65% in Argentina between 1895 and 1914, the number of illiterates increased by over 450,000 during the same period. Only in countries where literacy rates increased significantly (i.e. by at least 25%), did the number of illiterates decline.⁸

By 1950, a more complete assessment of regional and national differences in adult literacy rates was possible. Figure 8.2, which presents UNESCO (1957) compilations of adult literacy rates, shows that many countries had made great strides by mid-century. Argentina, Barbados, British Guiana (Guyana), Ceylon (Sri Lanka), Chile, Costa

Figure 8.1: Trends in literacy rates in developing countries, 1900–1950



Note: For Ceylon (Sri Lanka), the adult population is defined as 5 years or older; for Burma (Myanmar), Chile, Colombia, Cuba, Egypt, India, Mexico, the Philippines, Turkey and the Union of South Africa, it is defined as 10 years or older; for Argentina, Brazil and Honduras, it is defined as 15 years or older.

* In the 1899, 1907 and 1919 censuses, all persons aged 10 and older who attended school were counted as among the literate population.

** The literacy rate of the adult white population was about 95% in 1904 and 98% in 1918.

Source: UNESCO (1957).

6. Because of a lack of historical census data, many countries with large illiterate populations (e.g. China) are excluded from this figure. In addition, caution is warranted when comparing literacy rates across countries, given different operational definitions of the adult population and of literacy.

7. This was true in Brazil, Burma, Ceylon, Chile, Colombia, Cuba, Egypt, Honduras, India, Mexico, Portugal and the majority population of the Union of South Africa.

8. Examples include Chile and Cuba, as well as (in Europe) Belgium, Bulgaria, Finland, France, Hungary, Italy and Spain, and (in North America) Canada and the United States.

Rica, Cuba, Israel, Japan, Panama, and Trinidad and Tobago all achieved adult literacy rates above 75% by 1950. In parts of Asia (Burma [Myanmar], China, Fiji, the Korean peninsula, Malaya [now part of Malaysia], the Philippines and Thailand) and the rest of Latin America and the Caribbean, literacy rates were in the middle range (35% to 75%). They were relatively low in Afghanistan, India, Iran and Pakistan, and throughout Africa (except Mauritius) and the Arab States.

Based on 1950 estimates, UNESCO (1957) also reported that:

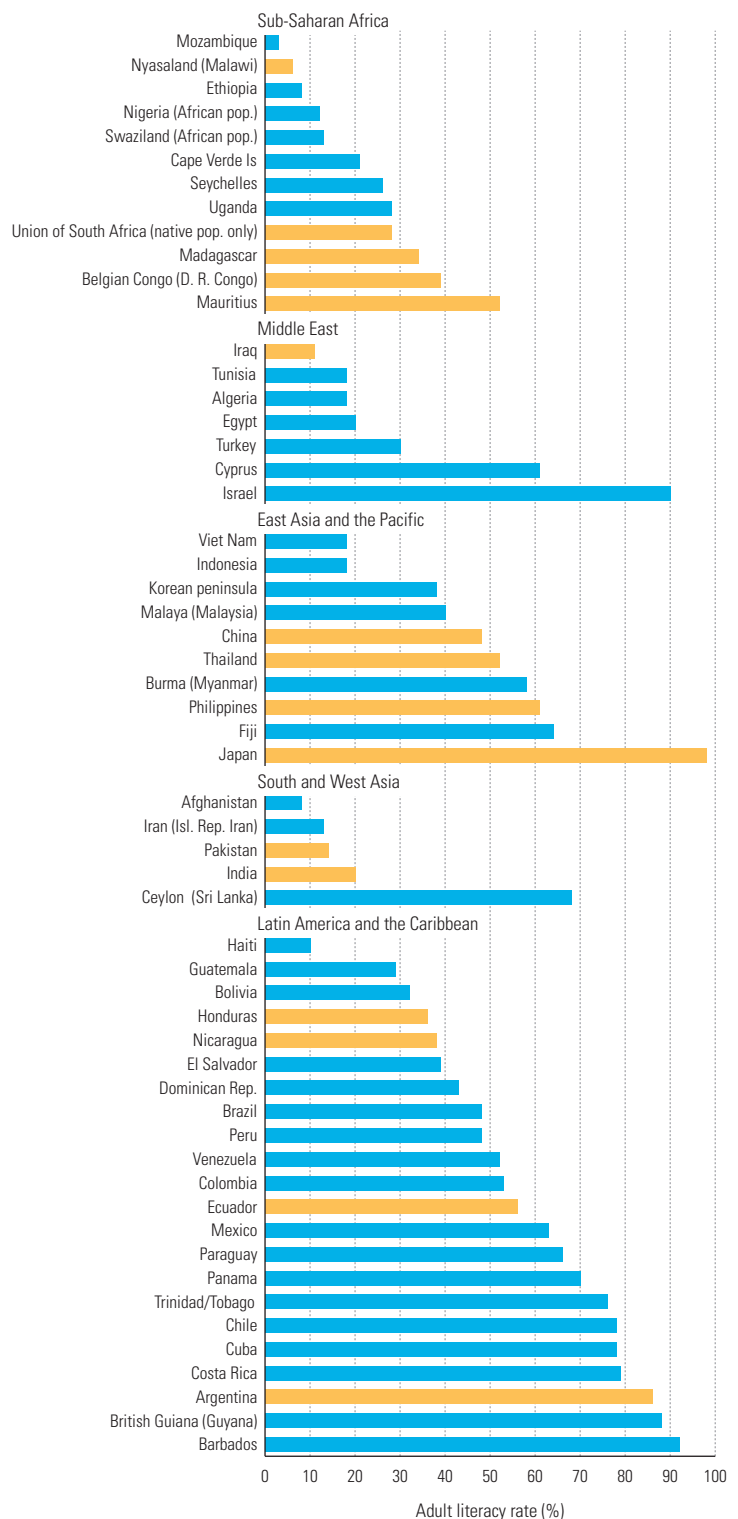
- Adult literacy rates were almost invariably higher among men than among women. On average, gender disparities were smaller in Latin America than in Africa or Asia.
- The prevalence of literacy, and the rate at which it increased, tended to be higher in urban areas than in rural areas.
- In developing countries for which subnational literacy rates were available, significant disparities in literacy levels were found between different linguistic, ethnic, religious and racial groups.⁹

Overall, the historical evidence suggests that, prior to 1950, there were already substantial inter- and intraregional differences in literacy transitions in Asia, Africa, the Arab States and Latin America. In Latin America, political independence led to changes in adult literacy levels but with a lag until the twentieth century. In the other regions, progress in adult literacy was generally limited to the specific cases discussed above. For the vast majority of adults residing in these regions, there was little, if any, access to literacy-acquiring opportunities.

Major determinants of literacy transitions

Keeping in mind the diverse and complex origins of literacy, this section examines those factors that have broadened access to literacy opportunities and featured prominently in the creation of literate societies (both historically and in the recent past) – the establishment and expansion of formal schooling, mass literacy campaigns,

Figure 8.2: Estimated adult literacy rates for selected countries circa 1950



Notes:

1. Literacy rates in blue are based on national census figures, and were calculated as the percentage of adults in the listed age levels who could read and write, based on self-declarations or third-party assessments. Literacy rates in orange are estimates prepared by UNESCO statisticians in the mid-1950s based on diverse sources.
2. Composition of world regions is different from United Nations in the 1950s and also from present-day EFA regions.

Source: UNESCO (1957).

9. For example, in the Union of South Africa in 1904, only 5% of the black population was literate, in contrast to 95% of the white population. In the United States in 1900, the literacy rate was 95% for US-born whites, 86% for foreign-born whites, and 55% for blacks; by 1920, the rates had increased to 98%, 87% and 77%, respectively. In 1920, among Bulgarian adults above the age of 10, the literacy rate was 48% for Bulgarians, 7% among the Turkish, Tartar and Roma populations, and 73% for Jews; by 1934, the rates had increased to 75%, 18% and 82%, respectively.

The single most significant factor influencing the spread of literacy worldwide over the past two centuries has been the expansion of formal schooling

and adult education and learning policies and programmes. It also looks at conditions that have hindered literacy transitions and resulted in literacy stagnation and pockets of illiteracy. The impact of language on literacy is discussed later (see *Languages and literacy* section).¹⁰

Establishing schools and increasing enrolment rates

The single most significant factor influencing the spread of literacy worldwide over the past two centuries has been the *expansion of formal schooling*. Schools have been, and continue to be, the sites in which most people acquire their core literacy skills – reading, writing and ‘reckoning’.

There have been, however, historical exceptions to this pattern. During the seventeenth century, in certain Nordic countries, German principalities and North American colonies, the Protestant Churches supported the *compulsory education* (not schooling) of children to ensure the piety of families. Out of religious conviction, parents saw to it that their children learned to read and write at home (with or without a tutor) and in church. Here the historical transition to widespread literacy *pre-dated* the consolidation of state school systems.

Only in the eighteenth century did communities in Norway, various Swiss cantons, Dutch provinces and German *Länder* establish local schools, with largely religious curricula emphasizing literacy, biblical knowledge and moral character. This movement towards *mass schooling* was intended to replace home- and church-based instruction. Later in the nineteenth and early twentieth centuries, systems of *compulsory mass schooling* were established – first in Western and then Eastern Europe (Ramirez and Boli, 1994; Benavot and Resnik, 2005). By legally establishing the principle of compulsory attendance, nascent states became the initiator, guarantor and administrator of a system of schools. At the same time, in the United States, northern states and western territories passed statutes requiring parents to send their children to school, although primary enrolment rates, even in rural areas, were already relatively high. The southern states eventually followed suit in the twentieth century (Richardson, 1980). Thus, with the exception of the mainly Protestant areas noted above, as formal schooling became more available and enrolments increased during the nineteenth century, adult literacy rates slowly began to rise.

Elsewhere, the interrelationship of compulsory schooling, enrolment expansion and adult literacy evolved differently. Countries in South and Central America, for example, passed compulsory attendance laws in the nineteenth and early twentieth centuries, but enrolment realities lagged behind legislative ideals (Benavot and Riddle, 1988). In many of these countries, compulsory laws went unenforced (Garcia Garrido, 1986). Overall, the cross-national association between the passage of compulsory school laws and primary enrolment rates is weak (Ramirez and Ventresca, 1992). The evidence suggests that countries tend to pass compulsory education laws in the wake of political independence, a legal move reflecting official intentions, but with limited impact on actual enrolment expansion.¹¹

In Asia, Africa and the Arab world, various forms of formal education were well established prior to contact with the West (Collins, 2000; Craig, 1981; Herrera, 2004). Indigenous, non-Western schools (e.g. Koranic, pagoda, temple and native schools) had existed for generations, albeit with enrolments usually limited to young boys. These forms of indigenous education, mostly oriented towards inculcating religious and traditional cultural knowledge and ideals, were transformed, assimilated or destroyed as they came into contact with European school models introduced by missionary groups or colonial authorities.¹² In parts of Asia, modernizing regimes adapted European models to local contexts (e.g. Japan in the 1870s, and the Korean peninsula between 1885 and 1910). The historical record suggests that contacts between indigenous and European models of education (although characterized by unequal power relations) initiated a process of expanding access to formal schooling, especially for children from households where there was no reading or writing. As such, they represent a major turning point in the transition to widespread literacy.

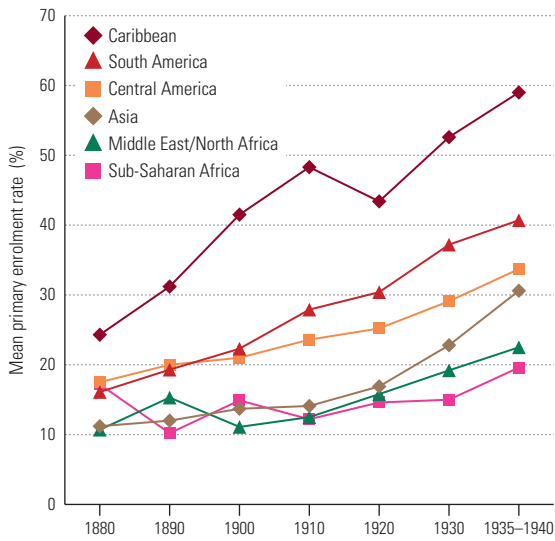
The unleashed dynamic of growing access to ‘modern’ forms of public and private schooling

11. Of the sixty countries that were independent by 1945, 60% had enacted compulsory education laws. Between 1945 and 2004, 125 former colonies and non-governing territories became independent in Africa, Asia, Europe and parts of the Americas; 85% of these countries had passed compulsory education laws by 2000 (Benavot and Resnik, 2005). Ramirez and Boli (1982) show that with each wave of political independence, the mean lag between independence and compulsory schooling got smaller. It was between twenty-five and fifty years in the nineteenth century and decreased to less than six years in the first half of the twentieth century. After the Second World War, most countries passed compulsory school laws within a year of independence.

12. The diffusion and influence of the United States-based school models were more limited geographically.

10. Several economic, political, cultural and demographic factors, some of which are associated with cross-national differences in adult literacy rates, are left unexamined in this section. Poverty (or per capita product) and urbanization, for example, are correlated with literacy levels and were discussed in greater detail in Chapter 7. Conditions of high fertility and rapid population growth have slowed the rise in literacy rates and, in some cases, contributed to a growing illiterate population. The impacts of manufacturing, rising living standards, and increased availability of newspapers and inexpensive books have been, at least in Europe, mixed (Graif, 1987b; Mitch 1992). In short, different sets of factors have combined in different contexts to influence the transition to widespread literacy (or the lack thereof). Here the emphasis is on *major* determinants of literacy, whose impact has been substantial and consistent across a multiplicity of contexts.

Figure 8.3: Mean unadjusted primary enrolment rates in developing regions, 1880 to 1935–40



Note: Unadjusted enrolment rates refer to the number of pupils enrolled in primary schools divided by the 5-14 year-old population.
Source: Benavot and Riddle (1988).

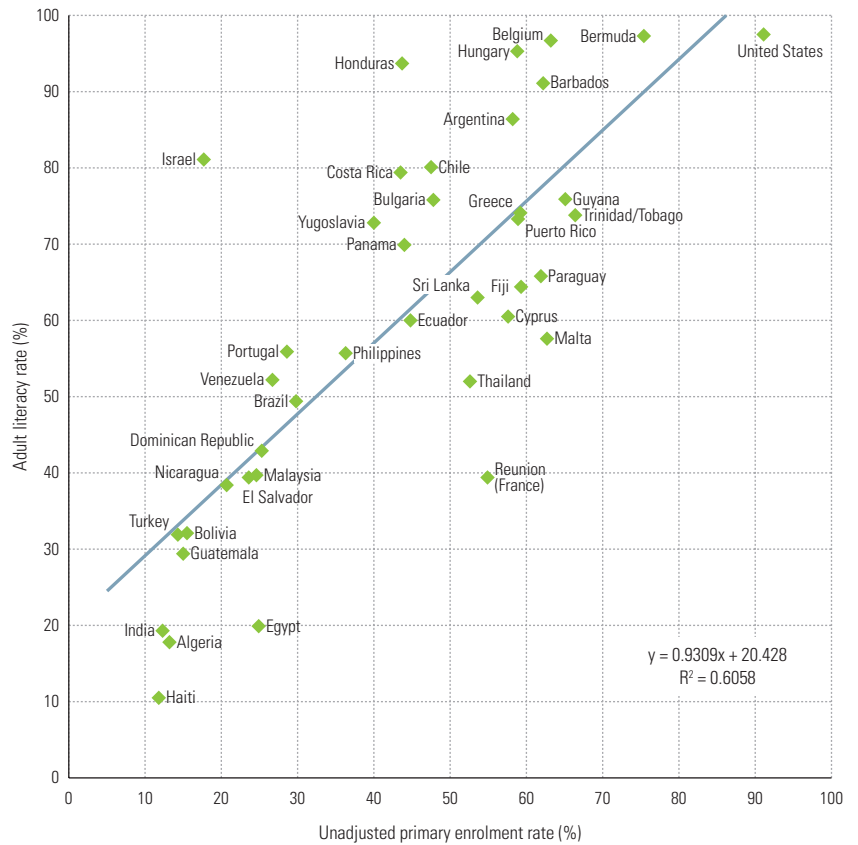
can be seen in Figure 8.3, which presents regional estimates of primary enrolment rates from 1880 to 1940.¹³ In South and Central America, about two out of ten school-age children attended school in 1880, whereas three to four out of ten did so by 1940. Increases in enrolment rates during this period were even greater in the Caribbean (from 24% to 59%), especially in British colonies. In Africa, Asia and the Middle East, where colonial rule predominated, the pace of primary school expansion was slow. Nevertheless, some countries (Ceylon [Sri Lanka], Japan, Lebanon, Lesotho, Malawi, Mozambique, the Philippines, Seychelles and Thailand) experienced relatively rapid school expansion before 1940. Not surprisingly, in many of the same countries adult literacy rates were on the rise.

Evidence of the strong association between educational expansion and adult literacy levels can be seen in Figure 8.4, which plots historical primary school enrolments (in the late-1930s) with subsequent adult literacy rates (circa 1950) for thirty-nine countries or territories.

Contemporary evidence for the education-literacy association is reported in Table 8.1, which shows that:

- Both net primary enrolment rates and measures of adult educational attainment are strongly correlated with both adult and youth literacy rates.

Figure 8.4: Association between unadjusted primary enrolment rate (1935–40) and adult literacy rate (circa 1950), for thirty-nine countries or territories



Sources: UNESCO (1957), Benavot and Riddle (1988).

Table 8.1: Correlations between measures of educational expansion and educational attainment, and literacy rates (Number of countries in parentheses)

	Adult literacy rates 2000–2004			Youth literacy rates 2000–2004		
	Total	Male	Female	Total	Male	Female
Net primary enrolment rate, 1998 (n = 52)	0.83	0.78	0.86	0.85	0.79	0.88
Percentage of relevant population with no schooling, circa 1990 (n = 74-78)	-0.92	-0.85	-0.94	-0.85	-0.79	-0.85
Percentage of relevant population with some primary education, circa 1990 (n = 74-78)	0.60	0.42	0.72	0.56	0.38	0.65
Percentage of relevant population who completed primary education, circa 1990 (n = 74-78)	0.56	0.46	0.58	0.51	0.40	0.52

Note: The relevant population refers to one of three groups: all adults, all adult males or all adult females. Thus, for example, the correlation of -0.94 refers to the cross-national association between the percentage of all females with no schooling and the female adult literacy rate.

Sources: Adult and youth literacy rates are the most recent estimates from the UNESCO Institute for Statistics (UIS). Data on education attainment (for 15+ population) come from Barro and Lee (1990). Net enrolment ratios are UIS estimates from 1998.

13. The regions in this figure are different from the EFA regions.

- Literacy rates are most strongly associated with the population which has had *at least some exposure to formal schooling*.
- The interrelationships between measures of schooling and literacy rates are stronger among women than among men.¹⁴

14. A possible explanation for this finding: cultural restrictions reduce women's exposure to, and interaction with, written and visual materials in the surrounding public environment. Thus, schooling becomes a more critical context for the acquisition and practice of literacy skills for women than for men, who encounter a wider range of literacy-enhancing settings.

15. As Wils concludes: 'The main key to rising adult literacy has historically been child school enrollment, with adult education programs being a secondary force.' Additional, but less important, variables facilitating the rise of adult literacy include: the age-structure of the population, levels of school expenditure per school-age child, adults with post primary education in general and those who become teachers in particular.

16. The history, ideological motivation and rationale for these campaigns are discussed in greater detail in Arnove and Graff (1987) and Bhola (1984). Other factors that have at times influenced such campaigns – e.g. industrial development, urbanization and democratization – are beyond the scope of this Report.

17. General compulsory education was introduced in the former USSR in 1930. In 1927, only half of children aged 8–11 attended school; by 1932 this had risen to 98% (Shadrikov and Pakhomov, 1990). The Soviet experience served as a reference point for later campaigns in Cuba and Nicaragua (Kenez, 1982). On Cuba, see Leiner (1987) and Bhola (1984); on Nicaragua, Arnove (1987), Miller (1985) and Arrien (2005).

18. Bhola (1984) divides anti-illiteracy work in China into three distinct phases: (1) from 1949 to mid-1966, (2) May 1966 to October 1976 (the Cultural Revolution) and (3) October 1976 to the present. Others (e.g. Hayford, 1987; Ross et al., 2005) use different periodizations.

Recent studies of literacy transitions using multivariate models conclude that educational expansion has been one of the most (if not *the* most) important determinant of historical rises in literacy rates (Verner, 2005; Wils, 2002).¹⁵ Notwithstanding certain methodological caveats (see Chapter 7), the significant impact of mass school expansion on the spread of literacy spans historical periods and geographical boundaries.

Overall, the historical record suggests that the emergence, consolidation and expansion of formal education systems were major forces in the reduction of adult illiteracy, with the exception of limited parts of Europe and North America. In most world regions, the spread of mass primary schooling in the nineteenth and early twentieth centuries became the motor for rising adult literacy.

Mobilization for mass literacy: organized campaigns

Many countries promoted literacy by organizing massive campaigns. This section examines two types of mobilizations – *sustained literacy campaigns over several years and short-term or one-off literacy campaigns* – both of which tended to complement the provision of primary education. Mass literacy campaigns sought to produce broad-based improvements in the literacy skills of adults for whom literacy had previously been inaccessible or unattainable. Unlike that of schooling, the influence of literacy campaigns has been limited to specific cases and historical periods.

In addition to the teaching of basic literacy skills, mass literacy campaigns have included an array of government actions: reformulating literacy policies, reforming administrative authority over literacy activities, creating new national or regional institutions to train literacy educators, creating new laws in support of literacy and setting up targeted partnerships with universities, schools and NGOs. Usually, countries initiated mass literacy campaigns as a means of promoting nation-building and national unity, and of expanding the base of their moral authority.¹⁶

Most *sustained mass literacy campaigns* were initiated by Socialist/Communist governments

and/or followed in the wake of decolonization. The Soviet literacy campaign between 1919 and 1939 represents the earliest and one of the most effective (Bhola, 1984). Only 30% of the Soviet population was literate in 1919; by the end of the campaign, this had risen to 85% (94% for men, 82% for women).¹⁷ Viet Nam initiated four well-integrated literacy campaigns, three in the north (1945–58) and, later, one in the south (1976–78), which provided expanded learning opportunities and basic skills training for most adults (Bhola, 1984; Limage, 2005b). China organized several campaigns from the 1950s to the 1980s to combat widespread illiteracy.¹⁸ Sustained campaigns were also carried out in Algeria, Brazil, Ethiopia, Indonesia, Japan, Mexico, Mozambique, Somalia, the United Republic of Tanzania and Thailand (see Box 8.1).

The effectiveness of mass campaigns in raising literacy rates has varied considerably. In addition to those in the former USSR, campaigns in China, the United Republic of Tanzania and Viet Nam succeeded in reaching large segments of the illiterate adult population. Elsewhere, adult participation in such campaigns was less extensive (Graff, 1987b). In several cases, the goals were never realized or the achievements were greatly exaggerated. For example, Mozambique ran four successive campaigns between 1978 and 1982; while over 500,000 adults participated in the first two, far fewer did so in the last two (Lind, 1988). The goal of the 1971–72 literacy campaign in the Philippines was to provide instruction to 2 million people; yet only 200,000 became literate during this period (UNESCO, 1978).

Short-term or one-off mass literacy campaigns, a second type of mass mobilization, have sometimes resulted in significant reductions in illiteracy over relatively brief time frames. For example, literacy rates increased in Cuba (1961) from 76% to 96%; in Somalia (1974–75) from 5% to 20%; in southern Viet Nam (1976–78) from 75% to 86%; in Nicaragua (1980) from 50% to 77%; and in Ecuador (1988–89) from about 85% to 89%. Several conditions appear to have contributed to the success of certain one-off campaigns (Lind and Johnston, 1990): First, except for Somalia, initial literacy levels tended to be high and the targeted populations limited before the campaigns began. Second, these campaigns were often initiated by newly installed political regimes when popular enthusiasm was high. Third, they occurred in countries with a principal majority language,

Box 8.1 Mass literacy campaigns: the United Republic of Tanzania, Somalia, Ethiopia, Thailand and Brazil

■ In 1970, eight years after he became president of the country, Julius Nyerere declared that **the United Republic of Tanzania's** 5.5 million illiterate adults (of which 56% were women) should learn to read and write. Teachers and other literacy educators were recruited, large quantities of books and documents were printed, vehicles and bicycles were donated, and a million pairs of eyeglasses were distributed (UNESCO, 1980). Enormous in scale, the campaign – which grew out of a Socialist development ideology emphasizing education and literacy – advanced with significant assistance from Nordic countries and Germany. Primary education expanded and, by 1980, more than 90% of school-age children attended school. It is estimated that the literacy rate increased from 33% in 1967 to 61% by 1975 (Bhola, 1984).*

■ The literacy campaign in **Somalia** was largely driven by language and development politics (Bhola, 1984). In 1973, the government introduced written Somali and launched the National Literacy Campaign. Educated Somalis were mobilized under the motto 'If you know, teach; if you do not know, learn' (UNESCO, 1980). Despite organizational difficulties, skilled teacher shortages, and the lack of classrooms and textbooks, about 400,000 adults successfully completed literacy training during the initial campaign. The overall programme was extended another five years to further reduce illiteracy (Mohamed, 1975; UNESCO, 1980).

■ **Ethiopia's** literacy campaign (1979–83) was also tied to language policies, which until 1974 had privileged Amharic over other languages. At the time of the revolution in 1974, the literacy rate for adults (aged 10–45) was 40% in urban areas and 8% in rural areas (National Literacy Campaign Coordinating Committee [Ethiopia], 1984). The campaign established over 450,000 literacy centres and reached over 22 million people (52% female), of which over 20 million (51% female) passed a beginners' literacy test. More than 5 million textbooks were produced, in over a dozen languages, and a

large quantity of learning materials (blackboards, exercise books) were distributed (Department of Adult Education and National Literacy Campaign Office [Ethiopia], 1989, cited in Shenkut, 2005). The vast majority of campaign participants continued through the post-literacy stage and successfully completed the programme (Mammo, 2005).

■ **Thailand** exemplifies a non-Socialist country that successfully carried out several mass literacy campaigns (Sunanchai, 1988, 1989; Varavarn, 1989). In 1937, only an estimated 30% of the population had minimal literacy skills. During the first national campaign (1942–45), 1.4 million people learned to read. A second campaign was organized during 1983–87.

■ During the twentieth century, **Brazil** carried out several adult education initiatives and literacy campaigns, offering short-term courses and mobilizing non-professional literacy monitors. Among the more significant campaigns were those of 1947–50, which were attended by over 800,000 adults (Beisiegel, 1974), and the 1970–72 Brazilian Literacy Movement (Mobral), in which 7.3 million adults participated (Corrêa, 1973). Census figures estimated the Brazilian adult literacy rate at 35% in 1920, 49% in 1950, 64% in 1970 and 74% in 1980. Only in the past twenty years has the illiterate population decreased. The evidence suggests that the great campaigns to eradicate illiteracy had a limited impact on raising literacy rates (Ferraro, 2002). Rather, increases in literacy rates were, first and foremost, a result of the constant expansion of Brazil's public education systems and, second, of gradual gains in adult education (Masagão Ribeiro and Gomes Batista, 2005).

For a discussion of the impact and effectiveness of these campaigns on literacy outcomes, see Chapter 9.

* For a critique of the United Republic of Tanzania literacy campaign, see Unsicker (1987).

which eased the mobilization of teachers and the preparation of literacy materials. Finally, many one-off campaigns involved follow-up literacy initiatives to increase adult learning opportunities.

Public policies in support of adult learning

In addition to the expansion of primary schooling and mass literacy campaigns, a third approach has also played a role in reducing illiteracy – the expansion of adult education and learning opportunities.¹⁹ As with mass literacy campaigns, the establishment and broadening of adult learning opportunities typically complemented the

expansion of primary schooling. Yet, unlike such campaigns, which were (in general) characterized by ideological fervour and a sense of urgency to 'eradicate' the 'scourge' of illiteracy, the implementation of relatively large-scale adult education programmes in Botswana, Brazil, Burkina Faso, Cape Verde, India, Kenya, Mexico and Zimbabwe sought to gradually expand adult access to learning opportunities within the context of various development plans, cultural policies or human rights initiatives (Lind and Johnston, 1990). These programmes constituted one part of broader governmental policies to address multiple objectives, including raising literacy levels.

19. An earlier variation involved national development policies or projects that incorporated a literacy component. During the 1960s and 1970s, and especially after the Tehran Conference in 1965, several developing countries (e.g. Burkina Faso, Gabon, Iraq, the Niger and Pakistan) embarked on rural development initiatives that included efforts to raise literacy levels. In Algeria and Tunisia, agricultural and industrial development projects also incorporated literacy efforts.

The transition to widespread literacy, once initiated, is not inevitable and may stagnate

In other cases, literacy-supporting policies or projects were introduced on a much smaller scale, sometimes in conjunction with other policy aims (Lind and Johnston, 1990). Examples include decentralized participatory projects incorporating local traditional institutions in areas of Madagascar, Mali, Peru and the Philippines. In the United Republic of Tanzania, the Ujamaa Village – a small, democratic rural unit – directly assumed responsibility for literacy activities (UNESCO, 1975b). Other countries (e.g. Guinea, Mexico and Viet Nam) focused on the role of language (see ‘Languages and literacy’ section, below) and implemented programmes in minority languages to increase learner accessibility to literacy. For example, Mali began literacy courses in Bambaram, Mandé, Peul, Songhay and Tamasheq. In Burundi, the Niger and Togo, literacy texts were prepared in different local languages. In Somalia, the local language was transcribed into Latin script, which was easier to read. Zambia used seven languages for instructional purposes. In certain regions, Peru adopted a system of literacy education that began in vernacular Quechua and switched to Spanish.

By their very nature, small-scale programmes reached out to targeted, often excluded segments of the adult population and therefore had a limited role in reducing illiteracy, unless combined with the expansion of formal schooling and other public policies. They broadened access to literacy on a more voluntary and self-motivated basis (see Chapter 9).

Literacy stagnation and pockets of persistent illiteracy

The transition to widespread literacy, once initiated, is not inevitable and may stagnate. Moreover, the speed of literacy transitions can vary considerably due to societal factors such as industrialization, urbanization and political independence, as well as policies concerning formal schooling, mass literacy campaigns, and the demand for, and provision of, adult learning opportunities. In addition, there exist important pockets of persistent illiteracy, even in highly literate or schooled societies, which often go unrecognized or ignored in the debate over literacy transitions.²⁰ This section focuses on these issues and highlights factors that have slowed progress towards widespread literacy or contributed to pockets of illiteracy. Protracted political conflicts, civil or ethnic warfare,

prolonged economic decline and massive social dislocations are important examples of such factors.

Literacy stagnation can occur on a national scale or among certain social and demographic groups. Chapter 7 reported apparent examples of this among youth cohorts in six countries: Angola, the Democratic Republic of the Congo, Kenya, Madagascar, the United Republic of Tanzania and Zambia. Similar processes are likely occurring in countries (e.g. Afghanistan and Iraq) for which statistical information is lacking. Box 8.2 reports examples of literacy stagnation and renewal in Uganda and Mongolia.

A type of literacy stagnation occurred recently in the Trans-Caucasus and Central Asia region, which, prior to the collapse of the Soviet Union in 1990, had had high literacy levels. Several interrelated factors contributed to the literacy crisis. First, there was a severe reduction in industrial output, followed by inflation and economic decline in much of the region. The economic downturn resulted in drastic cuts in government expenditures for education and health, and increases in poverty rates and economic inequalities.²¹ Second, in some areas (e.g. Georgia, Tajikistan and the Nagorny-Karabakh region), ethnic and military conflicts interrupted the provision of educational services and training programmes. Third, new laws governing language policy brought about a sharp transfer from the extensive use of Russian, especially in the workplace, to various national languages. Many Russian-speaking families emigrated, which contributed to a loss of highly skilled professionals. Speakers of national languages became, in relative terms, ‘functionally illiterate’, as their languages often lacked specialized scientific terminologies; and there were neither the skilled translators nor the educational materials needed to ease the transition from Russian in a wide spectrum of economic and social arenas (Abdullaeva, 2005).

The impact of armed conflict and political crises

Acute economic crises and violent conflicts have had deleterious effects on the quality of, and access to, schooling (World Bank, 2005c). Rarely, however, do such economic or political shocks result in irreversible literacy losses for an entire generation (UNESCO, 2000a). Prolonged armed conflicts, however, can result in school buildings being damaged or destroyed, qualified teachers

20. The poor literacy skills among members of excluded groups, discussed extensively in Chapter 7, are clear examples of these pockets of persistent illiteracy.

21. The one exception in the region is Uzbekistan, where in 2000 educational spending was at approximately 70% of the pre-independence rate (UNESCO, 2000a). On literacy in this region in general, see Meredith and Steele (2000).

Box 8.2 Literacy stagnation and renewal in Uganda and Mongolia

■ Following independence in 1962, **Uganda** developed a relatively well-organized system of formal schooling and, although education was neither free nor compulsory, literacy levels began to rise. In 1964, a national mass literacy campaign was launched. However, civil strife and economic decline during the 1970s and 1980s substantially weakened the campaign and progress came to a halt.

In the 1990s, the Ugandan government introduced several measures to address the literacy stagnation. Adult literacy programmes were promoted in eight representative districts of the country beginning in 1992. The universalization of primary education was introduced in 1997 by eliminating fees. While it initially applied to only four children per family, it was later extended to all children. Primary enrolments rose from 2.9 million in 1996 to over 7 million in 2000. All of these measures contributed to wider literacy acquisition.

■ **Mongolia** experienced reversals in school participation and literacy levels in the aftermath of massive political and economic changes beginning in 1990. Public educational expenditures substantially declined, leading to (among other things) the closure of dormitories for nomadic children. Many children from rural areas left school to help their families look after the privatized livestock. A devaluation of education and literacy ensued. Drop-out rates

increased and reached a high of almost 9% in 1992/93. Literacy rates among young adults (aged 15–19) also declined and, by 2000, were lower than those for older adults.^a

Several initiatives by the Mongolian government have sought to halt these negative trends. New programmes targeted hard-to-reach rural learners scattered over vast distances. In 1993, the Government, in partnership with UNESCO and the Danish International Development Assistance, developed the Gobi Women's Project to develop national capacity through non-formal education, and open and distance learning.^b Books and radios were distributed to women. Teaching was done over the radio, together with follow-up visits by volunteer teachers. The literacy achievements of older adults, combined with a relatively developed literate environment, enabled Mongolia to recover from earlier shocks, and literacy rates are now improving. Remaining challenges include providing literacy opportunities in scattered rural areas and creating a decentralized system of lifelong learning in a historical context of centralized planning and control.

Notes:

a. For educational figures see UNESCO (2000a).

b. See <http://www.unescobkk.org/index.php?id=1625> or Undrakh (2002).

Sources: Batchuluun and Khulan (2005); Okech et al. (2001).

being displaced or maimed, and parents being prevented from sending their children (particularly their daughters) to school because of the lack of security. Chronic violent conflict in parts of Burundi, the Democratic Republic of the Congo, Somalia and southern Sudan significantly reduced access to education. In Somalia in 2000, only 21% of school-age boys and 13% of girls were enrolled in primary school; among those enrolled, 80% never reached Grade 5 (Sommers, 2002). In such contexts, efforts to address the EFA goals are hindered.

Prolonged armed conflicts and the fear of persecution have pushed millions of families to flee their homes and seek safety in refugee or displaced persons camps coordinated by the international community (Hanemann and Mauch, 2005; Sommers, 2002; Waters and Leblanc, 2005). Not surprisingly, under such conditions, children's access to educational services is usually severely diminished. The United Nations recent Refugee Education Indicators and Gap Analysis (UNHCR, 2004), which covers 118 refugee camps in 23 asylum countries, sets forth a basic standard on five educational indicators²² and quantifies the gaps between current educational programmes and these standards.

As might be expected, none of the standards in any of the five indicators is being met. For example, only two-thirds of the camps achieved the standard of enabling 90% of students to successfully complete the school year. Some 50,000 refugee children dropped out during the school year, contributing to increased rates of out-of-school children and illiterates. Drop-out rates are critical in many camps in the Democratic Republic of the Congo, Guinea, Pakistan and the United Republic of Tanzania. Only one-quarter of the 860 schools studied have girl retention initiatives to prevent girls from dropping out of school because of household responsibilities, obligations to contribute to family income, or religious or cultural constraints.

Pockets of persistent illiteracy

A different problem occurs in highly literate and schooled societies, in which pockets of persistent illiteracy continue from one generation to the next (Limage, 1986; Vélaz de Medrano, 2005; Guy, 2005). Although these countries have largely completed their literacy transition and have well-established systems of universal primary education (as well as higher education), many school graduates possess only rudimentary

Some 50,000 refugee children in refugee camps dropped out during the school year, contributing to increased rates of out-of-school children and illiterates

22. Percentage of the population aged 5–17 enrolled in school (standard: 100%); percentage of students who successfully completed the school year (standard: 90%); student to teacher ratio (standard: 40 to 1); percentage of qualified or trained teachers (standard: 80%); and percentage of schools with structured retention initiatives for girls (standard: 80%) (UNHCR, 2004).

Literacy acquisition in highly schooled or literate countries should not be taken for granted

literacy skills. Indeed, recent international studies have revealed that significant proportions of the adult population in these highly literate countries have substandard literacy skills (see Chapter 7), results which are typically greeted with shock and disbelief by the public and government officials (Guy, 2005; Bailey, 2004).

Several factors may contribute to such illiteracy pockets. For example, adults whose mother tongues are different from the language of instruction tend to have lower literacy levels than other groups; immigrants (both legal and illegal) typically must contend with this problem. Illiteracy is also prominent among those native-born adults who have had to struggle with poverty, ill health or discrimination (Box 8.3). Individuals with disabilities and prisoners (discussed in Chapter 7) are additional examples of groups with literacy problems. High drop-out rates, low-quality schooling and lack of support for special needs further exacerbate literacy problems among these groups (Bailey, 2004; Benseman and Tobias, 2003).

In short, literacy acquisition in highly schooled or literate countries should not be taken for granted. The damage of missed opportunities to acquire sustainable literacy skills during childhood and adolescence may be compounded during adulthood, especially among those with limited employment opportunities.

Box 8.3 Illiteracy in Japan

The Burakumin are descendants of a formerly excluded caste created during Japan's feudal period and are among the 50,000 people in Osaka prefecture (population 8.8 million in 2000) who have substantial difficulties in everyday reading and writing. Although the caste was abolished in 1871, Burakumin are still subject to social discrimination, particularly in education and employment, and live in difficult conditions of poverty. Educational attainment and average income for members of this group are significantly lower than the national average. According to a 1980 study, illiteracy among this group in the Osaka prefecture was over 8%. Their situation is an example of how discrimination reduces literacy opportunities and incentives to acquire literacy among socially disadvantaged groups in highly literate societies.

Sources: Shikiji Nihongo Centre, 2005; Burakukaihou Jinken Kenkyusho, 2005; New Media Jinken Kikou, 2005.

Placing literacy in a social context

The spread of formal schooling, adult learning opportunities and (in some countries) organized literacy campaigns have played a significant role in historical literacy transitions. By contrast, political strife, warfare and economic decline have hindered progress towards widespread literacy. Today, illiteracy continues to affect those groups which were denied opportunities to acquire literacy in the past. In more developed regions, such groups typically constitute a minority of the population. In those developing countries where educational access is limited and social exclusion is pervasive, however, these groups constitute a majority.

In practice, one's literacy skills and competencies are largely determined by a complex interplay between one's own motivations and the available learning opportunities. This relationship between the demand and supply of literacy opportunities is itself influenced by the broader social context. The next sections discuss three critical issues – multilingualism and linguistic diversity, the social character of literacy practices and the importance of literate environments – in order to illuminate the social contexts of literacy and to suggest improvements for existing policy interventions (see Chapter 9).

Languages and literacy

Language policies and practices have played – and continue to play – an important role in literacy transitions and the development of literate communities. Despite the fact that, in practice, literacy skills are *applied* or *used* in a specific language, most definitions of literacy view it as a generic set of skills that are comparable across languages. According to this dominant view, whether a person acquires or practises literacy skills in Urdu, Modern Standard Arabic, Mandarin Chinese, Swahili, Portuguese, Amharic or English makes little substantive difference. Given the longstanding interest in measuring, monitoring and comparing literacy levels across diverse language contexts, this position is understandable.

Yet, in reality, the nature of literacy is not homogeneous across all languages, just as the features of different languages are not homogeneous. Thus, linguists use the notion of 'language development' to talk about the level and status of a language – e.g. whether it is

written, how widely it is in use and its official or non-official status (see Walter, 2004; Sadembou and Watters, 1987). The majority of living languages in Africa and Asia are spoken but not written. Conversely, some languages are no longer spoken but survive in written form (e.g. Coptic and Latin). Other languages are written for some purposes (e.g. religious rituals), but not for others. The oral and written forms of a language (e.g. Arabic) sometimes serve different purposes, so that the skills commonly used in the oral form do not necessarily provide access to the language's written form (Box 8.4). Moreover, the actual skills involved in reading or writing a text depend on the language in which they are applied. Different skills are required to master different script systems (e.g. for alphabets vs ideograms) (Box 8.5). Finally, other non-conventional semiotic systems – namely, sign language and Braille – allow communication and the conveyance of meaning without conventional scripts (Box 8.6).

Box 8.4 Arabic

Arabic, which has been an official United Nations language since 1974, is spoken by over 200 million people in the Middle East, in North Africa and in countries with significant Muslim populations. There are three types of Arabic: Classical (found in the Koran and religious texts), Modern Standard (used by many countries as the national or official language) and over thirty forms of colloquial, or modern spoken Arabic. Speakers of various Arabic dialects do not necessarily understand one another; thus many must learn Modern Standard Arabic (MSA) or use another language to communicate. Nevertheless, while MSA is the official language of the Arab States, many inhabitants do not have access to it. In the Sudan, for example, MSA is the official language, used in most written materials and taught in public schools. Spoken Sudanese Arabic, however, is quite distinct from MSA. Many Sudanese master neither language, but use local languages and dialects instead. This means that learners have to perform two distinct operations: first, learn the standard or classical form of Arabic; and, second, master the skills of encoding the oral language *into* a script and of decoding the spoken language *from* the script (see Maamouri, 1998). For adults in short literacy courses, the lack of correspondence between the spoken and written languages poses a particular problem.

Sources: Gordon (2005), Hammoud (2005).

Box 8.5 Script diversity

Each major script type – ideographic (Chinese), syllabic (Ethiopian languages and to some extent Burmese), and alphabetic (Latin, Cyrillic, Devanagari and other Indian alphabets) – has a long history. The acquisition of literacy is complicated not only by the challenges of particular scripts, but also by the common necessity to master a number of different scripts. The following are some examples of script diversity:

- **China:** Though Chinese languages all use the same ideographic script, they each require the recognition of 2,000 basic characters for literacy (1,500 characters for rural residents). Children gain access to literacy in this script via a romanized representation of Mandarin (Putonghua), which was adopted as the national dialect in the 1950s and, since then, has been used in the first years of primary schooling. The Bai minority writes its own language, with a Latin script, while also learning the ideographic script of Chinese.
- **Myanmar:** The Lahu minority writes its own language in Latin script, and learns Burmese (in Burmese script), as well as English; some other minorities use Burmese script for their own language.
- **Ethiopia:** A Wolaitta person may learn Wolaitigna in either the Ethiopic syllabary or in Latin script – both are in use: the Ethiopic script is used by older people, while school children are taught the language using the Latin alphabet. Students are also likely to learn Amharic (Ethiopic script)

and English. Some language groups, including the largest, Oromo, have opted to replace the Ethiopic syllabary with the Latin alphabet, so as to make a clear distinction with the past when Amharic was the dominant language (it is still the prevailing lingua franca).

- **Mongolia:** The Cyrillic alphabet is used today, although there is also an older, Mongolian one (the only one written vertically down, from left to right across the page). In the 1990s, schools introduced literacy learning in the older Mongolian script, but this proved too difficult to sustain in an environment where the Cyrillic alphabet was dominant. Now Cyrillic script is again used for basic literacy, but children are also taught the Mongolian script.

Cultural and political factors have played a role in the choice, maintenance, simplification and evolution of a script. The use of Latin scripts attests to the impact of European languages; on a smaller scale, the Cyrillic script reflects Russian influences. Chinese characters and foreign words (from English and Japanese) increased script and language diversity in the Republic of Korea, while a 'Koreanization' of the language occurred in the Democratic People's Republic of Korea.

While they may present certain difficulties to learners, language scripts are rarely the decisive obstacle in language acquisition. Learner motivation, practice and opportunities for use are more influential factors for achieving and sustaining literacy.

Source: Robinson (2005).

National language policies have a significant impact on language development and literacy acquisition

Box 8.6 Sign languages

Deaf communities are an important linguistic minority, who are served by various sign languages, the exact number of which is unknown. A sign language that a deaf child acquires early in life becomes a 'mother tongue' and contributes to the acquisition of other languages, both signed and non-signed. A sign language and an oral language in the same environment (e.g. British Sign Language and British English) are entirely different languages, with their own grammars and linguistic structures. A deaf person may also access the oral language through lip-reading, as a second language. Many deaf children do not have the opportunity to learn a sign language at an early age and are obliged to follow the same schooling as their hearing counterparts, with negative effects on learning and literacy.

Source: Skutnabb-Kangas (2000).

National language policies – in particular, the designation of an official language (or languages), the choice of languages of instruction in schools and adult learning programmes and the languages pupils are required to learn – have a significant impact on language development and literacy acquisition. Yet, surprisingly, there is a paucity of detailed knowledge about national language policies and their application in educational settings.²³ Countries privilege certain languages by designating them as national, regional or official languages (UNESCO, 2003a). The authority of a 'national' or 'official' language is reflected in its widespread use in governmental affairs, legal activities and public institutions. Most countries have one or two official languages, some three or more.²⁴ In the past, the designation of an official language was a politically charged and contentious issue, reflecting prior colonial ties, existing power relations and the languages used by dominant ethnic and cultural groups (Ouane, 2003). It remains so today.

Colonial language policies, especially in Africa, have impeded the development of literacy (Coulmas, 1992; Mazrui, 1996). While many African languages developed orthographies during the colonial period, their use was often limited to the religious domain (including missionary educational programmes). European languages, by contrast, served wider purposes, had abundant literatures, and facilitated

international ties; consequently, many were retained after independence as official languages. This policy reverberated throughout the post-colonial world; except for an elite minority, becoming literate meant first learning literacy in a new (typically European) language.

Language standardization has long been considered an essential means of unifying culturally diverse communities (as in early modern France). Although Indonesia has over 800 distinct languages, it designated Bahasa-Indonesia – a hybrid of several languages – as its official state language.²⁵ Swahili was meant to serve a similar function in the United Republic of Tanzania. Israel's language-as-nation-building process was reflected in the *ulpan*s – intensive Hebrew language programmes for adults – which helped create a national identity among diverse Jewish immigrants, many of whom were illiterate (Brosh-Vaitz and Lazerson, 2005).²⁶ Chinese authorities pursued a single-language policy based on Mandarin (Putonghua) to enable minority groups to communicate with, and assimilate into, Chinese (Han) society, and to unify speakers of other Han varieties. In some countries, the move to adopt a single national language (e.g. Hindi in India, or Urdu in Pakistan) was resisted by speakers of other languages. In Ethiopia, initial modernization favoured Amharic as the national language, but language priorities shifted following subsequent regime changes (Shenkut, 2005).

Despite attempts at language consolidation, linguistic diversity remains a significant factor in language policies and literacy acquisition (Spolsky, 2004).²⁷ At the national level, where language policies are set, monolingualism is a rarity, and most countries are home to many

25. Bahasa-Indonesia is a product of nation-building efforts: it was a custom-built language, designed to meet the needs of a multilingual community and to unify it. It combines several national languages with a simplified grammar and is relatively easy to use.

26. Arabic is also an official language in Israel.

27. *Ethnologue*, a major reference work cataloguing the world's languages, estimates that there are over 6,900 living languages worldwide. One-third of these are found in Asia, 30% in Africa, 19% in the Pacific, 14% in the Americas and 4% in Europe. A majority of the world's living languages have no written form and are used by numerically small populations. In fact, more than half of all living languages have less than 10,000 mother tongue speakers; an additional one-quarter of languages have between 10,000 to 100,000 speakers. Seen from a different perspective, there are a small number of dominant lingua francas: 85 languages constitute the first languages of 80% of the world's population. Many exclusively oral languages are disappearing, and, consequently, language diversity at the *global* level is declining. [Data are from <http://www.ethnologue.com/> [accessed 10 July 2005] [see Gordon, 2005].] It is estimated that, each year, ten languages become extinct and that the population of mother tongue speakers for languages with less than 10,000 speakers is declining rapidly (Wurm, 2001; UNESCO, 2003e).

23. Kosonen (2004) addresses language policies in education in East and South-East Asia. Surprisingly little research has examined the relationship between language policies and literacy acquisition in schools or adult literacy programmes in the developing world (Robinson, 2005). Williams and Cooke (2002) argue that there has been little research on language and development policies in general.

24. All together, there are 225 languages that have been designated as 'official' in at least one country (UNESCO, 2000b, Table 6). Countries with three or more official languages include India (with nineteen), South Africa (eleven), Singapore and Switzerland (four each), and Belgium, Bolivia, Egypt and Sri Lanka (with three each).

Table 8.2: Literacy needs and languages

Country	Percentage of world's non-literate population	Adult literacy rate* (15 and over) (%)	Number of living languages	Official languages	
				Number	Names
Twelve countries with 75% of world's non-literate population					
India	34.6	60.1	415	19	Assamese, Bengali, English, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu
China	11.3	90.9	235	1	Mandarin
Bangladesh	6.8	41.1	39	1	Bangla
Pakistan	6.2	48.7	72	2	Urdu, English
Nigeria	2.9	66.8	510	1	English
Ethiopia	2.8	41.5	84	1	Amharic
Indonesia	2.4	87.9	737	1	Bahasa Indonesia
Egypt	2.2	55.6	11	3	Arabic, English, French
Brazil	1.9	88.4	188	1	Portuguese
Iran, Isl. Rep.	1.4	77.0	75	1	Farsi
Morocco	1.3	50.7	9	1	Arabic
D.R. Congo	1.2	65.3	214	1	French
Five countries with lowest adult literacy rates					
Burkina Faso		12.8	68	1	French
Niger		14.4	21	1	French
Mali		19.0	50	1	French
Benin		33.6	54	1	French
Senegal		39.3	36	1	French

* In almost all the countries listed, literacy rates are based on literacy in an official language and/or at least one non-official language.

Sources: Literacy rates are from the statistical annex, Table 2; the number of living languages, from Gordon (2005); official languages and languages in daily use, from UNESCO (2000c).

Initial learning in the mother tongue has cognitive, psychological and pedagogical advantages

languages.²⁸ Even where language use has been standardized, regional languages persist (e.g. Breton, Basque and Occitan). Migrant communities, linguistic minorities and expatriates constitute important sources of on-going linguistic diversity.

Table 8.2 illustrates these issues by presenting comparative information on linguistic diversity for countries identified in Chapter 7 as facing especially significant literacy challenges. Each of the listed countries is linguistically diverse (ranging from 9 spoken languages in Morocco to 737 languages in Indonesia), and there is a notable disjunction between the great number of spoken languages in a country and the relatively small number of lingua francas that have obtained 'official' status. In some of these linguistically diverse countries, large majorities speak the national or 'official' language: in the Islamic Republic of Iran over 70% speak Western Farsi, in Brazil 95% speak Portuguese, in Bangladesh 98% speak Bangla. Thus, linguistic diversity in many countries is concentrated in particular regions or among specific minority communities.

Language, literacy and schooling are closely intertwined. The languages used in school (languages of instruction) are either officially or legally defined. Mother tongue education is advocated as a human right, language being recognized as an integral part of one's cultural identity (UNESCO, 2003a, 2003b). In addition, acquiring literacy in one's mother tongue is thought to facilitate the social participation of minorities.

Research has consistently shown that learning to read and write in one's mother tongue facilitates access to literacy in other languages (Ouane, 2003; Brock-Utne, 2000; Goody and Bennett, 2001; Heugh, 2003; Grin, 2005; Reh, 1981; Geva and Ryan, 1993). Literacy provision that uses initial learning in the mother tongue and then moves to a second language has cognitive, psychological and pedagogical advantages. Mother tongue education is advocated as a preferred policy in developing countries (see Ouane, 2003). Papua New Guinea is an interesting example, since over 800 languages are spoken and vernacular education is widespread. Primary school pupils begin in their mother tongue, then gradually shift to English (see UNESCO, 2004a, pp. 156–7). This

28. Such languages can be usefully classified in a three-tier scheme: a category of local languages used for everyday social intercourse; a second category of regional languages or lingua francas used for commerce and communication over wider geographical areas; and a third category of national, usually 'official', languages, some of which have an international dimension.

Adult literacy learners often prefer to learn regional or national languages

example shows that language diversity does not necessarily impede literacy acquisition, especially if language and literacy policies are calibrated.

Yet, despite its recognized value, this two-step language policy is not always successfully implemented or implemented at all (Dutcher and Tucker, 1997; Benson, 2004). The lack of specialized training and instructional materials for teachers who have to implement mother tongue education at school is a serious problem, particularly in developing countries (Chatry-Komarek, 2003). Even more problematic is how to facilitate the transition from literacy obtained in a mother tongue to literacy in a national or official language (Walter, 2004).

Learning literacy skills in minority languages can be more difficult than doing so in dominant languages (see Walter, 2004). Some linguistic minorities end up with weak literacy skills in both their own *and* the second language (Gordon, 2005). Where literacy programmes in the mother tongue are judged too costly, language minorities must either learn literacy in their second language or be left behind; thus many remain illiterate (see Walter, 2004). On the other hand, if the mother tongue is the only language of instruction, and pupil retention rates are low, it can result in:

- reduced access to wider sources of information, including electronic media;
- barriers to participation in the broader social, economic and political life of the country;
- the possible 'ghettoization' of a minority-language population;
- reduced intercultural contact and learning;
- greater chance of exploitation by unethical mediators within the wider society (e.g. economic intermediaries).

Language and adult literacy

A major challenge for adult literacy efforts has been the lack of a clear language policy for literacy programmes. While adult literacy programmes tend to have more flexibility than schools in choosing the language of instruction, this issue often involves practical problems and political sensitivities for national decision-makers. Many learners end up following lessons that are provided in a language different than their own. As a result, knowledge acquisition and literacy acquisition are mixed, lowering learner motivation and achievement, and contributing to higher drop-out rates (Robinson, 2005).

There is a strong case for decentralization and experimentation at the local level, with the

involvement of non-governmental organizations, which would allow learners to choose the language(s) in which learning is to take place (see Chapter 9). The demand for language in literacy programmes is a complex issue. Potential learners are likely to feel more comfortable if they are taught in their mother tongue, at least initially. This may involve using unwritten local languages in the classroom, to facilitate the acquisition of literacy in another (i.e. regional or national) language; it may also involve developing written materials in a local language. Minority peoples whose language is threatened may also prefer learning in their own language (e.g. Quechua-speaking people in Andean countries).

On the other hand, potential adult literacy learners often prefer to learn regional or national languages, which will yield more immediate returns and which may also be easier to teach, given the greater availability of teaching materials and the presence of a more developed literate environment. In the United Republic of Tanzania, for example, literacy programmes in Swahili proved to be far more popular than those in local languages. In Bolivia, many adult learners prefer to learn in Spanish.

Multilingualism and literacy

The key question is not whether multilingualism predominates in countries facing literacy challenges. It does. The central issue is how and in what ways multilingualism can be integrated into formal schools and adult learning programmes so as to enhance the literacy prospects of all. Literacy policies and multilingualism are deeply intermeshed. Literacy policies can be an instrument of language policies, by either promoting multilingualism or imposing monolingualism. Language policies cannot but influence literacy policies (an extreme example being languages banned from the public sphere, including the media and educational institutions). In short, given the nexus between language and literacy, policy decisions need to be well informed in this area, keeping in mind the following questions:

- In how many languages are literacy opportunities available?
- Which groups use major languages to acquire literacy skills and competencies?
- Which communities should be considered as linguistic minorities and therefore have access to literacy acquisition in their own language?

At present, the multilingualism found in most societies is absent from schools and literacy programmes. Languages that are spoken by relatively few speakers are largely excluded from publicly supported educational frameworks. Data from *Ethnologue* (Walter, 2004) show that the size of a language group has a significant impact on access to mother tongue education. Stated differently, communities who speak minority languages have far fewer opportunities to be educated in their mother tongue.

The core problem is that, while teaching literacy in the mother tongue is supported by research, and often by policy, educational realities are complex. Schools and adult education programmes often do not know in advance what the mother tongues of their pupils are; they often lack the teachers, learning materials and tried pedagogical practices in such languages; and often they find that the learners themselves (or their parents) prefer literacy skills to be acquired in official, national or even international languages, which are perceived as having greater value. Although teaching a 'transitional literacy in the mother tongue' may be a good approach, further research is needed on how to implement it, so as to ensure a smooth transition to literacy in other languages (Spolsky, 2004).

In sum, while language diversity is commonly considered an important cultural asset, it poses problems for literacy policies: training teachers in multiple languages can be difficult and developing materials in different languages is costly. Yet these difficulties must be weighed against the inefficiency of teaching in languages that learners do not understand and against the creative potential of multilingual teaching, which reproduces situations encountered by learners in their everyday lives.

Literacy practices

How do people commonly use the literacy skills they have acquired in a given language? How are literacy skills actually practised in different settings: at home, in markets, at work, while participating in religious activities or political movements, in government offices, or during warfare? How do such literacy practices evolve? How, and in what ways, do societies regulate the practice of literacy? Who is expected to perform different literacy practices and what meanings do they attach to them? This section briefly addresses

these questions, by paying particular attention to *the actual uses and applications of literacy in different contexts*. Drawing upon ethnographic research, it illustrates how the social embeddedness of literacy has important implications for both policy-makers and practitioners, at international, national and local levels.²⁹ Key insights from this literature are outlined below.

Individuals apply literacy skills to serve a multiplicity of purposes in their lives.

While literacy skills are used for practical purposes (e.g. to communicate with government offices and officials, read medical instructions, complete applications, pay bills and extract information from newspapers), they are also practised for a diverse range of cultural, social and emotional purposes (Box 8.7). People use their literacy skills to read religious texts, strengthen ties with family and friends, read literature, keep diaries, get involved politically, and learn about their ancestors and cultural heritage. These literacy practices are an integral part of people's lives and contribute to their sense of identity and self-worth.

Societies and communities regulate the practice of literacy – especially for women.

Historically, many social groups have been (and still are) denied access to literacy in written languages. Today, new forms of exclusion have evolved: many individuals are provided ample opportunities to acquire literacy skills but then learn that their practice is inappropriate, improper or even illegal in certain cases.

The social regulation of literacy practices is often gender specific: in many societies, it is men, not women, who are expected to practise literacy skills in public (e.g. in government offices and religious institutions), while women are expected to practise their skills in private. In Bangladesh, for example, the discovery and circulation of a woman's personal writings can result in humiliation or even physical violence (Maddox, 2005). Gender or ethnic discrimination in the labour market can also delimit how and where literacy skills are practised.

Literacy practices influence the literacy skills individuals hope to acquire, and their motivations for doing so.

Studies highlight how the practice of literacy affects the totality of people's lives, especially

Gender or ethnic discrimination in the labour market can delimit how and where literacy skills are practised

29. Most ethnographic studies of literacy published over the past two decades belong to the so-called 'New Literacy Studies.' (This section draws on the work of: Barton, 1994; Barton and Hamilton, 1998; Barton et al., 2000; Bett, 2003; Dyer and Choksi, 2001; Kell, 1995, 1999; Maddox, 2005; Papen, 2004, 2005; Robinson-Pant, 2000; Street, 1993, 2001a, 2001b, 2003.)

Box 8.7 The diversity of literacy practices in Ghana

The purposes to which Ghanaian individuals apply literacy skills differ widely, especially by gender, age, marital status, social class and residence. Among other things, literacy skills can serve practical, political, religious or cultural purposes. A recent study in Ghana by SIL UK, an NGO, gave examples of how learners actually used the skills they acquired:

- write in their mother tongue such things as stories, songs, children's names, letters to family and friends, letters to newspapers;
- use immunization clinics, attend antenatal and post-natal clinics, practise exclusive breast-feeding;
- properly administer medications to their children;
- help children with their homework and follow their progress in school by reading school reports;
- know about Ghana's laws, be more informed about rights and responsibilities;
- understand government policies and citizens' rights;

- understand family planning programmes, increase awareness of HIV/AIDS and STDs;
- properly apply fertilizer and chemicals to crops;
- read the Bible for oneself;
- see and read husband's pay slip, so he cannot claim not to have been paid;
- challenge husband's relatives when he dies, so that widows are not cheated out of husband's property or their own;
- use money; read prices, bills and receipts; calculate expenses; keep proper records; develop family budgets;
- improve chances of obtaining a loan, keep written records of payments, and open a savings account;
- interact in the wider society and with other communities;
- learn other languages (such as English, so as to be able to participate in discussions in which only English is used).

Sources: SIL UK (2004), Street (2003).

The real benefits of practising literacy skills are in their transformative power

their sense of self and social identity. In Guinea, as in many other countries,³⁰ women participating in literacy classes report increases in confidence, responsibility and autonomy (Aide et Action, 2005). It is largely because literacy practices affect core aspects of people's lives and social identity that there is such a strong demand for literacy. Becoming educated and acquiring literacy give expression to an individual's (and a family's) deep hopes, aspirations and plans for the future. Indeed, many studies indicate that the real benefits of practising literacy skills are in their transformative power, the ways they empower individuals to 'read' (and reread) their worlds. And, as Freire has demonstrated, literacy programmes have the potential to alter broader power relations by enhancing the assets and capabilities of the poor, as well as their sense of empowerment (Freire and Macedo, 1987).

Knowledge about literacy practices can improve policy design to support literacy acquisition and retention.

Formal schooling and adult learning programmes make many assumptions about literacy practices, if only implicitly. Schools typically emphasize skills such as the understanding of scholarly materials (what is termed 'school literacy') and

the demonstration of knowledge in examinations. Much less emphasis (if any) is usually placed on skills commonly used in real-life situations. By contrast, programmes targeting out-of-school youth and adults tend to have more practical and/or political orientations, such as providing marketable skills, strengthening political solidarity, helping generate income and improving reproductive health or childcare.

Analyses of literacy practices, and the social contexts in which they are embedded, provide policy-makers and designers of programmes with information about learner demands and motivations. Schools and adult literacy programmes are more likely to enhance learner participation and outcomes if they calibrate contents with learner demands. Learners in southern Africa placed priority on obtaining the status and labour opportunities available to those with formal schooling, rather than acquiring literacy skills for everyday needs. In El Salvador (Bett, 2003), India (Dyer and Choksi, 2001) and South Africa (Mpopiya and Prinsloo, 1996), many literacy programme participants insisted on receiving a school-like education, with its accompanying benefits, an indication of the importance of formal schooling in their societies.

30. See Chapter 5 for additional examples.

Literate environments and literacy

The social and cultural environments in which people live and work can be characterized as being either more or less supportive of the acquisition and practice of literacy. Undoubtedly, schools are meant to be especially supportive settings, containing diverse written and visual materials, enabling the acquisition of literacy skills and practices. What about other environments? How prevalent and valued are printed and visual materials in households, workplaces, occupational groups and communities? And do these environments make a significant contribution to the spread of literacy? To what extent do literate environments, which are more or less rich in written documents and visual materials, encourage individuals to become literate and help them to sustain and integrate their newly acquired skills in their everyday lives?³¹

The specific contents of literate environments vary from setting to setting. For example, in households, a stimulating literate environment would have an abundance of reading materials (e.g. books, magazines or newspapers) and/or communication and electronic media (e.g. radios, mobile phones, televisions or computers). In neighbourhoods and communities, a rich literate environment would have numerous signs, posters and handbills, as well as literacy-promoting institutions such as schools, offices, courts, libraries, banks and training centres. And yet literate environments are more than places offering access to printed matter, written records, visual materials or advanced technologies; ideally, they should enable the free exchange of information and provide an array of opportunities for lifelong learning. Indeed, whether they be in households, neighbourhoods, workplaces or communities, literate environments influence not only those directly exposed to them but also other members of the society.

In high-income countries, rich literate environments are common, whereas in low- and medium-income countries, literate environments vary considerably across and within countries. Cultures promoting reading and writing are often concentrated among privileged members of society (e.g. political leaders, educated professionals, cultural and religious elites). In many developing countries, existing printed materials are unevenly distributed and the

production of new ones is limited (Altbach, 1992). For example, Africa is home to 12% of the world's population, but produces only 2% of the world's books (Krolak, 2005). In many remote rural communities in Africa, Asia and Latin America, the circulation of newspapers, books, magazines or even posters is severely limited. Schools represent special settings – sometimes the only setting – in which books and written materials are (or should be) readily available, although access to them among adults and out-of-school youth may be restricted, thus further impoverishing their literate environment.³²

Scholarly interest in the effects of literate environments has increased in recent years, although the conditions under which literate environments spread and sustain literacy (and the mechanisms involved) remain under-studied (Chhetri and Baker, 2005). Many commentators associate stimulating literate environments with the demand for literacy: individuals residing in such environments are more motivated to become literate and practise their literacy skills (Oxenham et al., 2002). Less understood and empirically grounded are how these links emerge in different families, communities, language groups, work settings and societies.

Overall, measuring literate environments and their impact remains elusive, owing in large part to different conceptual and operational definitions. Moreover, studies with clear specifications of literate environments indicate that learning outcomes vary considerably within low-income communities (Neuman and Celano, 2001). With this in mind, the following sections review key insights from studies of the nature and impact of literate environments, with an eye to the appropriateness and effectiveness of national policy initiatives in this area.

Environments for literacy among school-age children

Comparative studies of educational achievement in developed countries have shown that students from homes with a greater quantity of literacy resources including books, magazines and computers attain higher achievements in reading and other subjects than those from homes with fewer literacy resources (e.g. Elley, 1992).

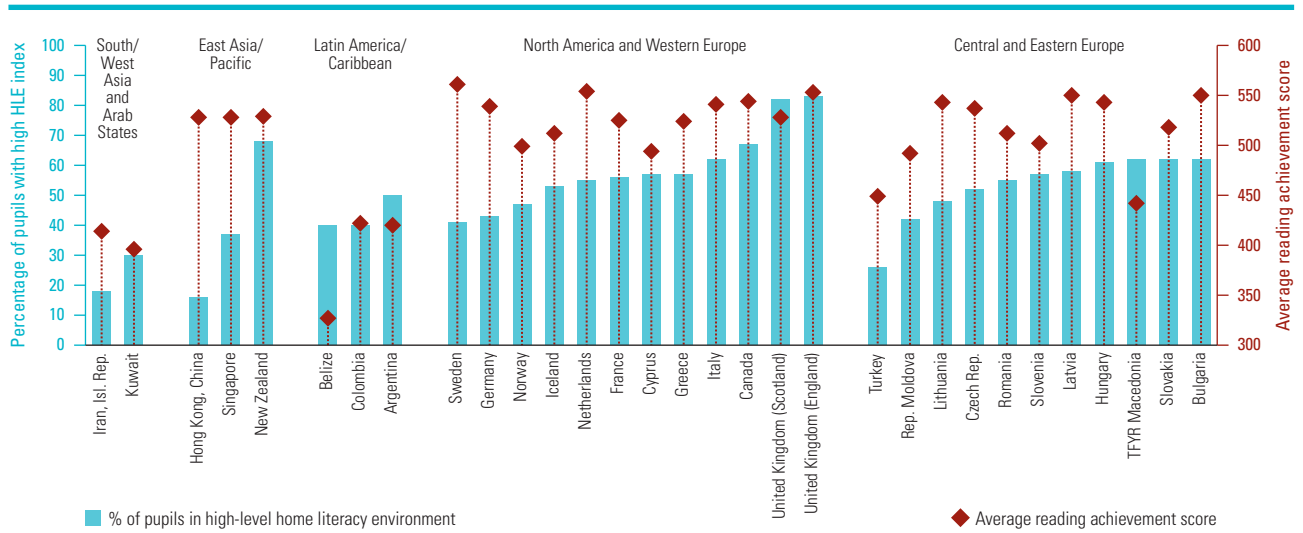
According to the recent International Association for the Evaluation of Educational Achievement (IEA) study *Progress in International Reading Literacy Study (PIRLS)*, exposure to home-based literacy activities (i.e. access to and use of reading

Literate environments should enable the free exchange of information and provide an array of opportunities for lifelong learning

31. The term *literate environment* has been used extensively in the early-child-development literature to describe how the surroundings of young children influence literacy outcomes such as language acquisition, school readiness and reading skills (Dickinson and Tabors, 2001; Nielsen and Monson, 1996). The critical role of the home environment for pre-school children, where initial language learning occurs, has received particular attention (Burgess, 1999). In addition to the physical surroundings of children, the child-development literature suggests that human relationships determine when, how often and in which kinds of situations young children use their newly acquired literacy tools (Neuman and Ruskos, 1997).

32. See the UNESCO/Danida Basic Learning Materials Initiative website: http://www.unesco.org/education/blm/blmintro_en.php

Figure 8.5: Percentage of Grade 4 students in high-level home literacy environments (HLE) and average reading achievement score, by country, 2001



Note: The index of early home literacy activities used in the Progress in International Reading Literacy Study was constructed from parental reports on six activities: reading books, telling stories, singing songs, playing with alphabet toys, playing word games and reading aloud signs and labels.
 Source: Mullis et al. (2003a).

33. The reports of Grade 6 pupils are less representative in countries where primary enrolment rates are relatively low (e.g. Mozambique and, to a lesser extent, the United Republic of Tanzania and Zambia).

materials, literacy-related play, television programmes emphasizing reading, reference books and information and computer technologies) was positively related to Grade 4 reading achievement (see Figure 8.5).

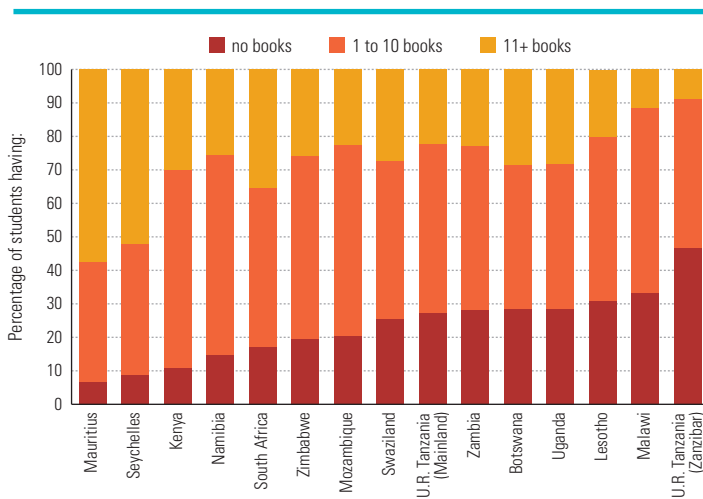
In Latin America, results from the UNESCO-sponsored Primer Estudio Internacional

Comparativo found that the two most important predictors of language and mathematics achievement were parents' education and the presence of ten or more books in the home (Willms and Somers, 2001, 2005; Carnoy and Marshall, 2005). In short, there is considerable evidence that home environments with significant literacy resources have a positive effect on pupil literacy acquisition.

In reality, however, the environments of many households in developing countries have few literacy resources. For example, The Southern and Eastern Africa Consortium on Monitoring Educational Quality (SACMEQ) (see Chapter 2) compiled data on the prevalence of books, newspapers, magazines, radios and televisions in the homes of Grade 6 students.³³ The SACMEQ survey found that the vast majority of student homes had a radio, with (in all but three of the African countries studied) at least 80% of student homes having one. In comparison, book ownership is limited: in twelve of the fifteen cases, at least 70% of students reported having fewer than ten books in the home (Figure 8.6). Only in Mauritius, Seychelles and (to a lesser degree) South Africa did student homes have a significant number of books (eleven or more).

In all countries except Mauritius, newspapers were more prevalent in student homes than magazines, with considerable cross-national

Figure 8.6: Grade 6 student reports of quantity of books in their homes in fifteen African education systems, 2000*



* There are fifteen education systems comprising fourteen countries. All data are from SACMEQ II archives (2000) except Zimbabwe, which is based on SACMEQ I archives (1995).
 Source: Ross et al. (2004).

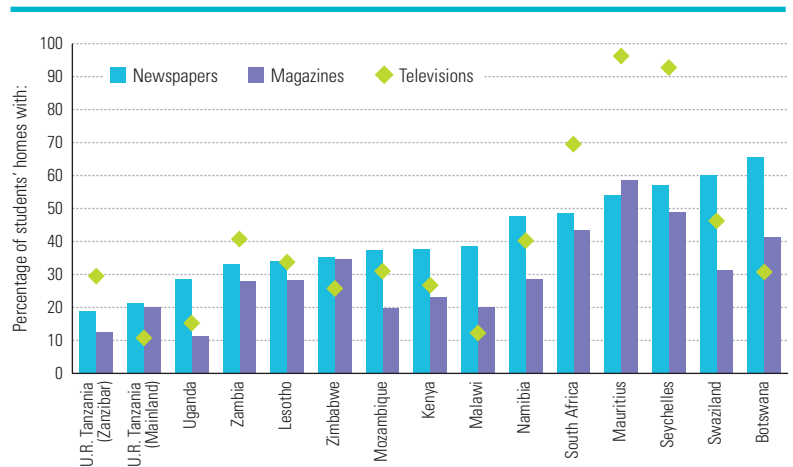
differences (Figure 8.7). The presence of newspapers in student homes ranged from 20% (in the United Republic of Tanzania) to over 60% (in Botswana and Swaziland); the range for magazines was somewhat greater (from 10% in Uganda to nearly 60% in Mauritius). While newspaper and magazine prevalence were fairly similar in each country, television prevalence varied to a much greater extent, most likely due to differential household access to electricity. The results also show that, between 1995 and 2000, the percentage of southern African homes with magazines and newspapers declined, whereas the percentage with a television increased.

The SACMEQ survey also provided information about the *literate environments of schools*, considering, for example, whether or not a school has a library (from pupil reports) and the number of books in the classroom (from teacher reports). The first measure provides an indication of a school's overall literate environment; the latter assesses the availability of literacy resources where instruction takes place. As Figure 8.8 shows, most Grade 6 pupils in Mauritius, Seychelles, Uganda and (to a lesser extent) Namibia attend schools with libraries. In the other countries, however, only 20% to 40% of Grade 6 pupils have access to a school or classroom library, with substantial differences among rural communities, small towns and large cities.

Of greater concern still are the large percentages of Grade 6 pupils whose classrooms have no books (Figure 8.9). In fact, over half of the Grade 6 pupils in Kenya, Malawi, Mozambique, the United Republic of Tanzania, Uganda and Zambia learn in *classrooms in which there is not a single textbook*. Thus, while research clearly shows that home and school literate environments significantly influence student reading and language achievement, the school literate environments of many pupils are impoverished, lacking even the bare minimum of written materials, a situation that has a negative impact on their literacy acquisition and retention.

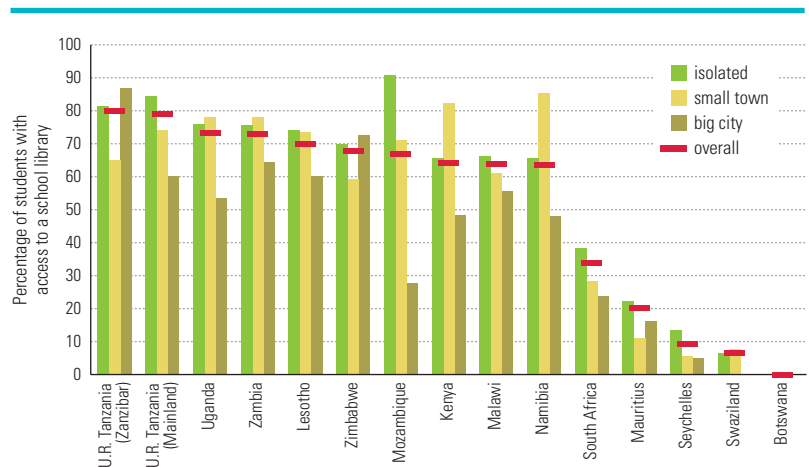
Significantly improving textbook publishing and provision in developing countries has been on the agenda of aid agencies for several decades (Limage, 2005c). Yet, there is little sign of a coherent strategy of book investment at either national or regional levels (Read, 1995). Investments in textbook production have often been one-shot, short-term projects, doing little to sustain local publishing capacity over time. In addition, ensuring that available textbooks

Figure 8.7: Prevalence of newspapers, magazines and televisions in students' homes in fifteen African education systems, 2000*



* See note to Figure 8.6.
Source: Ross et al. (2004).

Figure 8.8: Percentage of Grade 6 students attending schools where there is no school or classroom library, by country, and area of residence, 2000*

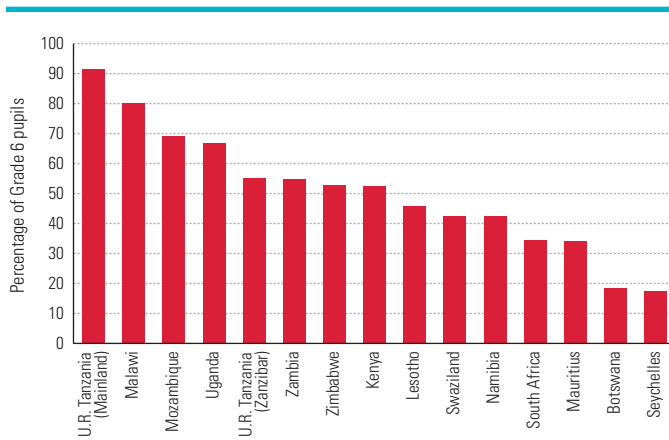


* See note to Figure 8.6.
Source: Ross et al. (2004).

actually find their way into the hands of learners remains an elusive target in many places. Studies have indicated, for example, that only about one-third of primary-school children in Bolivia, Brazil, Chile, Colombia, Ecuador, Panama, Peru and Venezuela actually had access to textbooks (Montagnes, 2000). Sustainable literacy and effective learning require extensive use of written and visual materials; yet many classrooms in developing countries must still do without them.

The school literate environments of many pupils are impoverished

Figure 8.9: Percentage of Grade 6 pupils in classrooms where there are no books available, by country and area of residence, 2000*



* See note to Figure 8.6.
Source: Ross et al. (2004).

Environments for literacy among adults

The International Adult Literacy Survey (IALS) examined factors associated with literacy proficiencies – including socio-economic background, educational attainment, labour force experience, and various home and work activities reflecting the richness of respondents’ literate environments – in twenty OECD countries (OECD, 2000).³⁴ Concerning their home environment, respondents provided information about their participation in literacy-promoting activities (e.g. reading books and newspapers, visiting public libraries), the presence of various print media and the time spent watching television. For their workplace, they provided information about the frequency and variety of reading, writing, and mathematical activities. The IALS study found that literacy practices at work and home (in addition to formal educational attainment, labour force participation and formal adult training) were significantly associated with literacy proficiency. The study concluded that home and work environments with substantive literacy-requiring activities promote higher levels of prose, document and numerical literacy.

National literate environments and literacy

In the past, many countries attempted to create sustainable environments for literacy through print and broadcast media (Box 8.8 describes the case of China). Quite a few countries developed special publications for individuals with minimal

proficiency in written language (UNESCO, 1975b). Journals in Thailand, Tunisia, the United Republic of Tanzania, Venezuela and Zambia prepared special articles for ‘neo-literates’. During the 1960s and 1970s, several periodicals were developed with the aim of expanding literacy in local languages.³⁵ In Brazil, the literacy movement Mobral published two newspapers: the *Journal do Mobral* (with a circulation of 2 million) for learners in literacy courses and *Integração* for new literates (Bataille, 1976).

The mobilization of mass media in support of literacy and literacy programmes has also been a common strategy. During the 1930s, directors such as Sergey Eisenstein produced popular films to promote the Soviet literacy campaign. During 1965–72, the number of developing countries using radio or television in conjunction with literacy programmes more than doubled (from ten to twenty-two). Many Latin American countries formed listening groups (e.g. ACPO in Colombia) to maximize the literacy impact of radio broadcasts. In Côte d’Ivoire, the Democratic Republic of the Congo, Ghana, the Niger, Nigeria, Senegal, Togo and the United Republic of Tanzania, radio clubs and listening groups were also initiated (Bataille, 1976).

Few studies have examined the overall effectiveness of changes in a nation’s literate environment. Box 8.9 describes a cross-national study of the influence of print materials, mass media or advanced technologies on literacy rates.

Box 8.8 Literate environments in China

Literate environments in China have developed dramatically in recent decades. For example, the number of periodicals in China has grown from about 250 in 1949 to more than 8,500 in 2001. During the past half century, the number of newspapers increased nearly tenfold. Today, China is home to over 400 daily newspapers, with print runs of 80–85 million copies. It has some 560 publishing houses, which send about 100,000 (new and old) book titles to the market each year. There are scores of electronic publishing units, thousands of radio and television stations, and a press corps of well over half a million. Estimates this year suggest that there are as many as 40 million computers in China connected to the Internet and 200 million users of data, multimedia and the Internet (Ross et al., 2005).

34. Not surprisingly, level of formal education attainment was the main determinant of literacy proficiency, serving as the first and strongest predictor in seventeen out of twenty countries, with each year of schooling increasing the literacy score by ten points, on average. Age and occupation were also major determinants of literacy.

35. Examples include the *Bekham Bidan* in Afghanistan, *Sengo* in the Democratic Republic of the Congo, the *Ujala* in India, *Ruz-Now* in the Islamic Republic of Iran, *News for All* in Jamaica, *New-Day* in Liberia, *Kibaru* in Mali, *Saabon Ra'avili* in the Niger, and *Game-Su* in Togo, and *Elimu-Haina-Mwishe* in the United Republic of Tanzania.

Box 8.9 Does the prevalence of print materials, mass media and advanced technologies influence literacy rates?

In a recent exploratory, cross-national study including over 100 countries, the correlations between measures of national literate environments and literacy rates were examined. Indicators of the quality of literate environments included, first, the prevalence of reading and learning materials, as measured by newspaper circulation, book production and registered library users per 1,000 inhabitants; and, second, the availability of information and communication technologies (ICTs), measured by the percentage of households with radios and televisions, and the number of personal computers per 1,000 people. Controlling for the net primary enrolment rate, this study found that there was a positive relationship between high ICT prevalence (televisions, radios and personal computers) and both adult and youth literacy rates, with the association between adult literacy rates and television prevalence being strongest, followed by personal computer use and radio use. These preliminary findings suggest visual media may be more influential than audio-based (especially in developing countries), although the mechanisms involved need further study.

High prevalences of books, newspapers and libraries have long been considered key indicators of healthy

literate environments and as central to the processes of literacy acquisition and sustainability. Yet, as for books, multivariate analyses indicate that national indicators of book production are only weakly related to literacy rates. It may be that the ubiquity of 'mundane' forms of print and writing (i.e. application forms, brochures, signs, banners, letters and medical instructions) is more influential on literacy than that of specialized literatures and textbooks. However, there is a significant positive relationship between newspaper circulation per capita and literacy rates. This is unsurprising, given the lower cost, greater availability and wider distribution of newspapers.

Overall, the evidence suggests that stimulating literate environments encourage individuals to become literate and provide a basis for new literates to sustain and develop literate practices over the course of their lives. Further analyses of the impact of literate environments might examine these processes among different ethnic groups, age groups, geographical locations and occupational categories, and would require detailed data on budgetary allocation in literacy programmes.

Source: Chhetri and Baker (2005).

Most people live in communities in which they have some access to the literacy skills of others

Overall, the evidence suggests that different components of literate environments have different impacts on aggregate literacy levels.

Equity issues: access to literacy in households and communities

In the developed world, widespread literacy is the norm: almost all adults have acquired basic skills in reading and writing, even though the quality of those skills and the frequency with which they are practised vary considerably (just as with numeracy). In the developing world, where literacy needs are most pronounced, the spatial and social distribution of literacy skills are highly uneven (see Chapter 7). This section focuses on the social geography of literacy, probes the relative inaccessibility of literacy for households in literate-impooverished communities and examines the extent to which individuals with weaker literacy skills interact with, or have access to, individuals with stronger skills.

Apart from extremely poor or remote rural communities in which not a single adult can read or write, most people live in communities in which

they have some access to the literacy skills of others. Basu and Foster (1998) refer to individuals in the first group as *isolated illiterates*³⁶ and to those in the latter as *proximate illiterates*. To the extent that proximate illiterates are inclined to request the help of people with stronger literacy skills, they can effectively perform some 'demanding' or complex literacy tasks (e.g. filling out applications, understanding administrative documents, reading medical instructions and writing letters to family members).³⁷ For example, older adults with weak literacy skills often call upon younger members of the household to carry out literacy-demanding tasks. Likewise, foreign migrants may request literacy-related assistance from extended family networks or ethnic associations. Gibson (1998) studied intra-household literacy dynamics and argued that the presence of even one literate member in an 'illiterate' household can have various external benefits. Gibson (2001) also showed how regional rankings of adult literacy rates in Papua New Guinea change if proximate illiterates are factored in and an 'effective' literacy rate calculated.

36. At present, few studies have examined in detail the characteristics of isolated illiterates or possible ways to overcome the literacy challenges faced by their communities.

37. The IALS survey also asked respondents to indicate the frequency with which they requested assistance from others in carrying out various literacy-related tasks (OECD, 2000).

In less than two centuries, the nature and social functions of literacy have changed dramatically

Table 8.3 shows that, while the South Coast region of Papua New Guinea has a higher literacy rate than the North Coast region, it has a lower level in terms of its effective literacy rate.

Rarely do studies examine the distribution of literate individuals across households. In a case where individuals with basic literacy skills are evenly distributed across households, the percentage of households with access to literacy skills could reach 100%, even though the individual-level literacy might be much lower. On the other hand, in a case where literate individuals are 'perfectly concentrated' within households, and all household sizes are the same, the percentage of households with literate members would be equal to the percentage of individuals who are literate. A percentage of households with any literate member that is only a little higher than the percentage of literate individuals would suggest a high degree of concentration of literacy within households and poor 'spread' of literacy over the population. It would be valuable to know both the causes and the effects of such concentration.³⁸

Conclusion

In less than two centuries, the nature and social functions of literacy have changed dramatically: from a means of understanding religious precepts and selecting military recruits to an essential building block of information processing and worker productivity; from a specialized tool of merchants, administrators and professionals to a vital instrument for cultural intercourse and global commerce; and from a way of enforcing legal contracts and determining voter rights to a basis for linking individuals and families to public institutions and international networks. Literacy today has become essential.

The expansion of formal schooling was the single most significant factor in past transitions to widespread literacy. For social, cultural and economic reasons, these transitions occurred earliest in Western Europe and North America. More recently, organized literacy campaigns and increased opportunities for adult learning and education (e.g. in Latin America, Africa and Asia) were two additional factors, which, together with school expansion, contributed to rising literacy rates. On the other hand, protracted political conflict and acute economic decline have resulted in stagnating literacy rates; and exclusion and discrimination continue to contribute to pockets of illiteracy, even within developed countries.

Table 8.3: Reported and effective adult literacy in Papua New Guinea, 1996

Region	% of adult population who are:				Effective adult literacy rate (%)
	Literates	Proximate illiterates	Isolated illiterates	Gender gap in literacy	
National Capital District	85.8	12.1	2.1	5.3	95.0
New Guinea Islands	77.7	15.2	7.1	5.8	89.3
South Coast (Papua)	59.0	23.4	17.6	15.8	76.7
North Coast	56.3	28.6	15.1	25.1	78.0
Highlands	34.6	37.7	27.7	17.8	63.2
Papua New Guinea	51.9	29.1	19.0	18.2	74.0

Source: The 1996 Papua New Guinea Household Survey, cited in Gibson (2001). Estimates are for the population aged 15 years and older.

38. This discussion benefited from comments by Julie Schaffner.

Language issues, literacy practices and literate environments underscore the importance of the broader social context in which literacy is acquired and sustained. The evidence suggests:

- There is value in providing youth and adults with learning opportunities that more closely suit their literacy needs and reflect the actual uses to which literacy is put in their communities.
- The challenge is how to do this in ways that carefully consider the complex language situations of teacher and learners, while enabling learners to enrich their literacy skills in both their mother tongue and additional languages.
- Creating (and maintaining) a stimulating literate environment is an effective way of generating motivation to acquire literacy and of encouraging its uses and practices.

Chapter 9 discusses the policy and programme implications of these findings. ■