The benefits of literacy

The rationale for recognizing literacy as a right is the set of benefits it confers on individuals, families, communities and nations. Indeed, it is widely reckoned that, in modern societies, 'literacy skills are fundamental to informed decision-making, personal empowerment, active and passive participation in local and global social community'. However, the benefits of literacy ensue only when broader rights and development frameworks are in place and operating effectively. Individual benefits, for example, accrue only when written material is available to the newly literate person, and overall economic benefits only when there is also sound macroeconomic management, investment in infrastructure and other appropriate development policy measures. Similarly, certain benefits, such as women's empowerment, will result only if the sociocultural environment is accommodating of them.

The extent to which literacy has negative effects is keenly contested and has more to do with how literacy is acquired than with literacy itself – an important reminder that benefits also depend on the *channels* through which literacy is acquired and practised. Some channels can have effects that some consider detrimental. For example, the forced acquisition of literacy in official languages can lead to the loss of oral languages. Literacy programmes and written materials can be a mechanism to indoctrinate people to participate uncritically in a political system. Complex value judgements are involved here, which this Report points out but does not enter into.

Providing a systematic, evidence-based account of the benefits of literacy is not easy, for several reasons.

- Most research has not separated the benefits of literacy per se from those of attending school or participating in adult literacy programmes. More generally, there is a 'tendency to conflate schooling, education, literacy and knowledge'
- Little research has been devoted to adult literacy programmes (as opposed to formal schooling) and existing studies focus mainly on women; the benefits of acquiring literacy in adulthood are thus less clearly established than those of acquiring cognitive skills through education in childhood.
- Research has focused on the impact of literacy upon the individual: few authors have examined the impact at the family/household, community, national or international level.
- Some effects of literacy, e.g. those on culture, are intrinsically difficult to define and measure.
- Literacy is not defined consistently across studies and literacy data are frequently flawed.

This section thus briefly rehearses the benefits of education in general and, whenever possible, examines the specific benefits of adult literacy programmes. The limited available evidence suggests that, as far as cognitive outcomes are concerned, the successful completion of adult literacy programmes yields benefits similar to formal schooling. A qualification is that few rigorous assessments of adult literacy programmes in terms of cognitive achievement have been made; nor, usually, has there been any attempt to assess how long effects last after programmes end. Providing such evidence clearly should be a research priority. In addition, adult literacy programmes can produce

more adult-specific outcomes, such as political awareness, empowerment, critical reflection and community action, which are not so much identified with formal schooling. Indeed, learners' statements on the benefits of participating in adult literacy programmes include the positive experiences of the process and the social meeting space of literacy groups. Less measurable benefits such as these are about human development dimensions, including social cohesion, social inclusion and social capital.

The benefits of literacy can be conveniently, if arbitrarily, classified as human, political, cultural, social and economic.

Human benefits

The human benefits from literature are related to factors such as the improved self-esteem, empowerment, creativity and critical reflection that participation in adult literacy programmes and the practice of literacy may produce. Human benefits are intrinsically valuable and may also be instrumental in realizing other benefits of literacy: improved health, increased political participation and so on.

Self-esteem

There is extensive reference to the positive impact of literacy on self-esteem. Improved self-esteem has been reported in studies of literacy programmes in Brazil, India, Nigeria, the United States, and several African and South Asian countries. A review of forty-four studies on the behavioural changes involved in literacy training also provides many examples. Statements such as 'I have more self-confidence', quoted by Canieso-Doronila (1996) in a study of the Philippines, are typical.

Empowerment

Literacy may empower learners – especially women – to take individual and collective action in various contexts, such as household, workplace and community, in two related ways. First, literacy programmes themselves may be designed and conducted so as to make participants 'into authors of their own learning, developers of their own knowledge and partners in dialogue about limit situations in their lives'. Second, literacy programmes can contribute to broader socio-economic processes of empowerment provided they take place in a supportive environment. Recent evidence exists for Turkey, Nepal, India and Bolivia. Many learners of both genders surveyed in Namibia – explaining why they wanted to be able to read and write letters, deal with money and master English – mentioned a wish to be self-reliant and to exert control over everyday-life situations, citing, for instance, 'keeping secrets' and 'not being cheated'.

Political benefits

The empowering potential of literacy can translate into increased political participation and thus contribute to the quality of public policies and to democracy.

Political participation

The relationship between education and political participation is well established. Educated people are to some extent more likely to vote and voice more tolerant attitudes and democratic values. Participation in adult literacy programmes is also correlated with increased participation in trade unions, community action and national political life, especially when empowerment is at the core of programme design. For example:

An adult literacy programme set up by workers at a Brazilian construction site increased participation in union activities.

Literacy programme participants in the United States reported an increase in community participation and were more likely than non-participants to register to vote, though they did not actually vote more than non-participants.

Literacy programme graduates in Kenya participated more in elections and local associations than did illiterates.

Women who took part in literacy programmes in Turkey voted more and participated more in community organizations than did illiterate women.

Among Nepalese women, those who had spent two years in state-run literacy programmes demonstrated more political knowledge than those not in the programmes and were more likely to believe they could serve as political representatives. On various measures of political participation, the more intense participation in a literacy programme was, the larger the proportion of women reporting changes in their political attitudes, except as regards voter registration. Much the same results held for NGO-run programmes in Bolivia.

Qualitative studies yield similar results to these quantitative analyses. Literate women in Nigeria, for example, reported being confident enough to participate in community meetings, unlike illiterate women.

Rural women who participated in literacy programmes in El Salvador claimed a voice in community meetings and several were able to engage in sophisticated socio-political analysis.

Democracy

The expansion of education may contribute to the expansion of democracy and vice versa, yet the precise nature of the relationship between education and democracy remains unclear and difficult to measure accurately. For example, a comparison of countries over 1965–80 and 1980–88 found no impact from expansion of primary and secondary schooling on various measures of democracy, controlling for such factors as economic development and ethnic homogeneity. The role of civic education as such is also unclear, although it is typically included in the curriculum of formal schools and adult literacy programmes. The Civic Education Study by the International Association for the Evaluation of Educational Achievement (IEA), covering 14-year-old students in twenty-eight countries in 1999 and 17- to 19-year-old students in sixteen countries in 2000, found that the more students knew about democratic institutions, the more likely they were to plan on voting as adults. The IEA study also found that democratic classroom practices were the most effective means of promoting civic knowledge and

engagement among students. It can be surmized, although it has not been established, that the same may be true of literacy programmes for youth and adults.

Ethnic equality

There appears to be no research into the impact on ethnic equality of either literacy or participation in adult literacy programmes. It is probably reasonable to assume, however, that the impact of literacy is likely similar to that of educational expansion, i.e. that it has the potential to benefit disadvantaged ethnic groups but will not necessarily do so. A range of experiences appears to support the statement that 'It is not safe to assume that expansion in access to education will allow disadvantaged minorities to "catch up" with initially advanced ethnic groups, at least in the short run'.

Ethnic disparities in formal education have persisted in Israel, Nepal and China, for example. Similarly, education does not consistently reduce ethnic occupational inequality.

Racial inequality decreased with educational expansion in Brazil for most occupations but increased in the professions and other whitecollar sectors.

Rising ethnic disparities in north-west China are explained by rising ethnic differences in education, despite improved educational access for ethnic minorities.

Post-conflict situations

Literacy programmes can have an impact on peace and reconciliation in post-conflict contexts. For example, CLEBA, a Colombian non-governmental organization providing literacy programmes in Medellín, emphasizes the 'pedagogy of the text' approach, in which learners write texts based on their own experiences. About 900 men and women, who migrated to Medellín from rural communities heavily affected by armed conflict, participated in an adult literacy project whose key themes were citizenship and peace education. Mobilizing people's capacity for resilience by having them write down their experiences and share them with others appeared to be a promising approach, helping them come to terms with multiple traumas and shift towards constructive action.

Cultural benefits

The cultural benefits of literacy are harder to identify clearly than benefits in terms of political participation. Adult literacy programmes may facilitate the transmission of certain values and promote transformation of other values, attitudes and behaviours through critical reflection. They also provide access to written culture, which the newly literate may choose to explore independently of the cultural orientation of the literacy programmes in which they participated. Adult literacy programmes can thus be instrumental in preserving and promoting cultural openness and diversity. However, 'any effect that literacy may have on the culture (i.e. what people believe and how they do things) of an individual or group will be slow, will not be easily and immediately accessible, and will be difficult to identify as the outcome of a single intervention such as a literacy and adult education programme'.

Cultural change

Literacy programmes can help challenge attitudes and behavioural patterns. Indeed, this type of cultural transformation is central to the Freirean approach, which aims to develop skills of critical reflection. This approach is often used in conjunction with active 'experiential learning' or learning by doing. Many programmes also aim to promote values such as equity, inclusion, respect for cultural diversity, peace and active democracy. However, such transformation typically is limited.

In Uganda, it was observed that the difference in attitudes between participants and non-participants was less than the difference in knowledge.

In Nepal, adult literacy programmes influenced women's attitudes towards family planning and made them more open to speaking up for change. Women's ability to translate their new attitudes into new fertility practices, however, was limited by household structures.

Both of these studies emphasized the possible impact of adult literacy programmes on gender relations. In Pakistan, women's access to reading and writing resulted in a norm of privacy that had been non-existent in the culture.

Preservation of cultural diversity

Adult literacy programmes can help preserve cultural diversity. In particular, literacy programmes that make use of minority languages have the potential to improve people's ability to participate in their own culture. This has been observed in programmes whose outcomes included the writing down of folk tales in Botswana, in an Orang Asli community in Malaysia, the Karen in Myanmar, the Limbu in Nepal and among the Maori in New Zealand.

The UNESCO Institute for Education has interpreted the 'four pillars of lifelong learning for the twenty-first century', outlined in the report of the International Commission on Education for the Twenty-first Century, in terms of the human rights situation of indigenous people. The 'four pillars' provide principles that should be followed in the design of carefully planned and culturally relevant adult literacy programmes aimed at contributing to the protection of the cultural rights of indigenous peoples.

Social benefits

The practice of literacy can be instrumental in people's achievement of a range of capabilities such as maintaining good health and living longer, learning throughout life, controlling reproductive behaviour, raising healthy children and educating them. Improving literacy levels thus has potentially large social benefits, such as increased life expectancy, reduced child mortality and improved children's health. The evidence has often focused on the benefits of education, as opposed to literacy per se, but evidence on the effects of adult literacy programmes is beginning to accumulate.

Health

A growing body of longitudinal research evaluating the health benefits of literacy programmes points to the same impact as that of education, and indeed in some cases, to a greater impact. For example, infant mortality was less, by a statistically significant amount, among Nicaraguan mothers who had participated in an adult literacy campaign than among those who had not, and the reduction was greater for those made literate in the campaign than for those made literate in primary school. Bolivian women who attended literacy and basic education programmes displayed gains in health-related knowledge and behaviour, unlike women who had not participated in such programmes; the former group was more likely, for instance, to seek medical help for themselves and sick children, adopt preventive health measures such as immunization and know more about family planning methods. A survey in Nepal found similar effects but was less able to link these to programme participation, because women in the control group of nonparticipants, like women in the programmes, had been exposed to radio broadcasts and other health interventions.

In Mexico, women with no or low literacy had the most difficulty following verbal health explanations by medical personnel.

Small-scale qualitative studies provide evidence about how literacy affects cultural beliefs that in turn affect health, e.g. concerning female circumcision in Nigeria. Studies indicate, however, that literacy programmes that themselves attempt to transmit health information have not been particularly successful, as the participants value reading and writing over receiving health knowledge. Behaviour change is more dependent on changing attitudes and values than on gaining new knowledge.

Reproductive behaviour

The negative correlation between education (in particular that of females) and fertility is well established. It was demonstrated by Cochrane (1979) and Wheeler (1980), and has consistently been reported since in studies both within and between countries. For example, studies based on Demographic and Health Surveys find that, on average, a 10% expansion in the primary gross enrolment ratio (GER) lowers the total fertility rate by 0.1 child and a 10% increase in the secondary GER by 0.2 child. However, there is much debate about how this correlation arises and the extent to which it is causal. The mechanisms whereby education may reduce fertility include its effects on women's autonomy, infant mortality and child health, spouse choice, marriage age, female employment outside the home and the costs of educating children.

Some of the same mechanisms may also apply to adult literacy programmes, depending on participants' age. Unfortunately, however, little research into the impact of adult literacy programmes on fertility has been done.

Education

Literacy has important educational benefits. These were largely discussed in Chapter 1, where the interconnectedness of all six EFA goals was established, in particular the fact that parents who themselves are educated, whether through schooling or adult

programmes, are more likely to send their children to school and more able to help the children in the course of their schooling.

It used to be thought that literacy contributed to the development of abstract reasoning. This now appears less likely. Studies in Liberia, Morocco, the Philippines and the United States indicate, rather, that abstract reasoning is the result of formal schooling. In general, 'the effects of literacy are more likely to be determined by formal schooling, socialisation, and the cultural practices of a particular society than by literacy per se'. However, literacy does help people understand decontextualized information and language, verbal as well as written.

Gender equality

Most literacy programmes have targeted women rather than both sexes, limiting the ways in which gender equality can be addressed holistically and directly through the programmes themselves. The programmes have thus tended to concentrate specifically on women's inequality rather than gender equality. Participation in adult literacy programmes does enable women to gain access to and challenge male domains by, for instance, entering male-dominated areas of work, learning languages of power previously associated with men (where only men had access to formal education) and participating in household finances. Examples of elite languages newly available to women include English in Uganda and 'posh Bangla' in Bangladesh. In some Bangladesh households, literacy has enabled women to become involved in the financial management of the household, previously controlled by men. In India, an evaluation of a literacy programme using the Total Literacy Campaign approach showed that 'women learners had a strong desire to learn. They liked to go to the literacy classes because this gave them an opportunity to meet others and study collectively. Thus, literacy classes provided women with a social space, away from home'. Many women have reported that acquiring literacy and attending a class is in itself a threat to existing gender relations.

Literacy programme participants can gain more voice in household discussions through their experience of speaking in the 'public' space of the class, though this may vary according to context and the kind of decisions involved. Detailed case studies reviewed by Robinson-Pant (2005) indicate that, while a newly literate woman may be able to decide whether to send her daughter to school, for example, she may not feel able to assert herself regarding family planning. Similarly, women may become aware of further education possibilities or of information about AIDS prevention through literacy programmes but still find it difficult to make actual changes in the household. The same

social barriers that kept these women from attending school in the first place may, for example, impede their access to education beyond literacy programmes. There are, however, many instances of social mobilization due to literacy programmes' tackling of gender issues at the community level, including campaigns against men's alcohol use in India and the use of legal measures to address abuse.

Economic benefits

The economic returns to education have been extensively studied, especially in terms of increased individual income and economic growth.

Economic growth

Education has been consistently shown to be a major determinant of individual income, alongside professional experience. While the number of years of schooling remains the most frequently used variable, recent studies tend also to use assessments of cognitive skills, typically literacy and numeracy test scores. These studies show that literacy has a positive impact on earnings, beyond the impact of the quantity of schooling; studies of the impact of adult literacy programmes are much rarer, however. The relationship between educational expansion and economic growth in the aggregate has proven surprisingly difficult to establish, for several reasons. Hannum and Buchmann (2003), in their literature review, propose that the apparently inconsistent findings may result from the 'difficulty of distinguishing the effects of growth on education from the effects of education on growth, and the possibility that other factors drive both educational expansion and economic growth.' Krueger and Lindahl (2000) suggest that the issue has more to do with measurement errors in education data and with the time horizon: they show an increase in schooling having no short-term impact on growth, but a statistically significant effect over the longer term (ten to twenty years). Several studies nevertheless find that economies with a larger stock of human capital or rate of human capital accumulation do experience faster growth. An influential paper by Pritchett (2001), however, concludes that educational expansion has failed to contribute to economic growth owing to the lack of an adequate institutional environment.

Several studies have taken on the difficult task of trying to disentangle the impact of literacy on growth from that of education. Most recently, Coulombe et al. (2004), using data from the International Adult Literacy Survey (IALS) to investigate the relationship between literacy skills and economic growth, concluded that differences in average skill levels among OECD countries explained fully 55% of the differences in economic growth over 1960–94. This implies that investments in raising the average level of skills could yield large economic returns. Furthermore, the study found that direct measures of human capital based on literacy scores performed better than years-of-schooling indicators in explaining growth in output per capita and per worker.

Other studies that have examined specifically the relationship between literacy and economic growth include:

Barro (1991), which, using cross-country data for 1960–85, found that adult literacy rates, as well as school enrolment rates, exert a positive impact on growth;

Bashir and Darrat (1994), which found the same relationship for the same period for thirty-two Islamic developing countries;

Hanushek and Kimko (2000), which identifies a relationship between student achievement in mathematics and science and economic growth that is consistently strong across thirty-one countries. However, the apparent relationship is reduced: a) when South Korea, Singapore, Hong Kong and Taiwan, with high growth and high scores during the period, are removed from the analysis; and b) in the most recent period when many Asian countries went into a slow-growth phase. This suggests that the overall effect between mathematics and science achievement and economic growth may not be a causal one.

Naudé (2004), which, using panel data for 1970–90 for forty-four African countries, found that literacy was among the variables with a positive effect on GDP per capita growth.

Two studies suggest that the impact of literacy on economic growth depends on the initial literacy level. Azariadis and Drazen (1990) found a threshold effect: countries that experienced rapid economic growth based on technology transfers had first achieved a literacy rate of at least 40%, a finding reminiscent of the 1960s economic history studies of modernization.14 Sachs and Warner (1997) found a statistically significant S-shaped relationship with maximum effect when literacy rates were neither very high nor very low. This suggests that small changes at high and low levels might not affect economic growth, but small changes at the intermediate levels characteristic of many developing countries do have an important effect.

Thus, while there is evidence relating literacy and education to economic growth, the mechanisms are not well explained. Today the contribution of education to economic efficiency lies to some extent in the very nature of the growth process, in which new technology and skilled labour complement each other. Economies are increasingly based on knowledge and less on physical capital or natural resources, and knowledge is characterized by strong network effects. The more people with access to knowledge, the greater its likely economic benefits. Thus, the average literacy score in a given population is a better indicator of growth than the percentage of the population with very high literacy scores. In other words, a country that focuses on promoting strong literacy skills widely throughout its population will be more successful in fostering growth and well-being than one in which the gap between high-skill and low-skill groups is large.

Besides its relationship with economic growth, literacy is related to economic inequality, as Figure 5.1 illustrates for twelve countries that participated in IALS: greater disparities in literacy rates between the richest and the poorest deciles are associated with higher degrees of income inequality. This phenomenon may reflect an impact of literacy on inequality, or simply indicate that countries that are less tolerant of economic inequality also tend to have stronger literacy policies benefiting the deprived.

Returns to investment

Whether the returns to investing in adult basic education are higher or lower than those to investing in formal schooling is an important question that remains difficult to answer from the existing research. In some countries, adults spending a year in a basic education course outperform primary school children from Grades 3 and 4 in standardized tests. Thus, depending on relative costs, adult basic education may well be costeffective. Indeed, it has been suggested that the level of cognitive achievement of literacy programme trainees is the equivalent of that resulting from four years of schooling.

A review of four literacy projects in three countries (Bangladesh, Ghana and Senegal) conducted between 1997 and 2002 estimated that the cost per successful learner lay within a range of 13% to 33% of the cost of four years of primary education (Table 5.3). In practice, it takes more than four years to complete four years of primary school in most of these countries, so the actual schooling cost is likely higher. Interestingly, the findings are consistent with, albeit less dramatic than, those comparing the relative costs

thirty years earlier during the Experimental World Literacy Programme (UNESCO/UNDP, 1976): in seven out of eight countries, literacy was cheaper per successful adult learner by significant margins, ranging from 85% to 2%; only in one country was primary school cheaper.

The relative returns to investment in primary education compared to other levels of education have been hotly contested in recent years; moreover, the returns to education may have been overestimated. Nonetheless, a recent review of the literature concludes that the effect of education on individual earnings is unambiguously positive and large, relative to returns on other investments. One of the rare attempts to estimate the specific returns to adult literacy programmes covers three countries with World Bank-financed projects. The Ghana National Functional Literacy Program of 1999 had a private rate of return of 43% for women and 24% for men, with social rates of 18% and 14%, respectively; benefits were estimated on the basis of differentials in earnings profiles. A programme in Indonesia produced returns of around 25%, compared to 22% for primary education, though in this case the returns were estimated by measuring the rate of growth of individual income compared to the rate of growth of the cost of training. A Bangladesh programme had an average private rate of return as high as 37%. However uncertain these estimates, they suggest, first, that the investments are productive and, second, that what poor people learn from literacy programmes does help them raise their incomes and move out of poverty. Further insight comes from a study of the effects of adult literacy programme participation on household consumption in Ghana. Programme participation made no difference to households in which at least one member had already had some formal education. However, among households in which no member had any formal education, the difference was dramatic: households with a member in a literacy programme consumed 57% more than those without, controlling for all other relevant variables. In Ghana generally, only the most educated household member's level of education appears to matter for income generation.

The sparse evidence that exists indicates, therefore, that the returns to investment in adult literacy programmes are generally comparable to, and compare favourably with, those from investments in primary education. In practice, the opportunity cost for a child to attend school is typically lower than for an adult to attend a literacy programme. Yet, the opportunity to realize the benefits is more immediate for an adult who is already in some way involved in the world of work.

Conclusion

Literacy is a right and confers distinct benefits, whether acquired through schooling or through participation in adult literacy programmes. Adult programmes appear to yield some benefits, particularly in terms of self-esteem and empowerment, that go beyond those that result just from schooling; the very scant evidence also indicates that adult programmes are as cost-effective as primary schooling, raising important questions as to why investment in adult programmes has been relatively neglected until recently.

Source: *Literacy for Life: EFA Global Monitoring Report 2006*, UNESCO publishing, pp. 137-145