

Précis

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Increasing Adult Literacy: A Focus on Reading Speed and Accuracy

Almost one billion people worldwide cannot read, despite increased primary education enrollments. Literacy is essential to meet the Millennium Development Goals. Further, one of the objectives of the Education for All initiative is to achieve “a 50 percent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.” How much progress has been made toward increased adult literacy, and how should future investments be targeted?

Early Bank Programs: A Cautious Entry

Since the 1960s, many countries and donors hoped to achieve quick and inexpensive adult literacy through top-down, government-led campaigns that offered brief courses and no follow-up. A minority of eligible adults enrolled. Of that number, about half dropped out. Of those who stayed on, about half passed literacy tests, and among those who passed, roughly half dropped back into illiteracy. Thus, only about one in eight adults who enrolled in the literacy campaigns of the 1960s and 1970s acquired stable literacy skills.

The World Bank included adult literacy components in 45 of the 304 education projects financed between 1963 and 1985, in countries such as Afghanistan, Ethiopia, Malawi, Somalia, and Yemen. But lending for adult literacy was limited to 1–3 percent of overall lending for education. Components for any kind of nonformal education often accounted for less than 10 percent of project costs, and were often canceled.

Because of unwillingness to finance recurrent expenditures in that era, the Bank offered little support for reading materials, library services, or audiovisual aids, and donors made few attempts to strengthen implementation capacity. Predictably, objectives often were not achieved. Donor and government interest in adult literacy activities peaked in 1975–79, diminishing thereafter. The limited outcomes spawned views that adult literacy was really unnecessary or that it should be financed through linkages to income generation, although such linkages have proven difficult to implement.

The 1990s: A More Comprehensive Approach

The Bank financed almost no adult literacy in the 1980s, but cautiously launched a new approach in the 1990s. In 1990–02, seven adult literacy-only (“freestanding”) projects were implemented in Bangladesh, Ghana, Indonesia, and Senegal. (Fourteen



other projects had adult literacy as a component, usually a small one.) The free-standing projects of the 1990s were large and complex operations, focused on strengthening management and government support services. They relied extensively on nongovernmental organizations (NGOs) for implementation and instructional expertise (the approach known as “faire faire”), empowering them to teach literacy as they knew best. Other donors have adopted this strategy.

How successful have these operations been? The Operations Evaluation Department (OED) examined the outcomes of completed projects financed by the World Bank and other organizations to answer this question.

Results

Literacy outcomes

The Bank-financed free-standing literacy programs of the 1990s were largely implemented as planned, and their outcomes were rated satisfactory by OED. **Altogether, they reached about 13 million, mostly female, participants (compared with targets of 11.8 million) and showed that it is possible to bring large numbers of adults to classes.**

Nevertheless, the relatively few adults were reached in comparison with the size of the illiterate populations (just 7 percent of the illiterate adults in Bangladesh were reached, for example). Overall, borrowers demonstrated commitment and their performance was satisfactory, as was Bank performance. (The 14 projects that included adult literacy as a minor component, however, rarely met their numerical or learning targets.) Sustainability was rated likely in two projects and uncertain in two others. Monitoring and evaluation typically proved too complex to implement, and it was not possible to verify learning outcomes or monitor closely which classes were actually held. Some evidence pointed to significant teacher absenteeism, inflated enrollment records, and limited class time actually spent reading.

Evaluations of programs financed by other donors found that attendance and performance data were sparse, highly variable, and difficult to interpret. Nevertheless, **overall course dropout and completion rates have shown improvements since the 1960s.** Of 32 literacy programs for which statistics were available, the median completion rate was 78 percent, and the median attendance rate (5 programs only) was 62 percent. **Pass rates were about what they were around 1976:** the median pass rate on a final test was 56 percent, but **the extent to which participants learned to read and remained literate is uncertain.**

Relapse into illiteracy is rarely reported, but seems significant. Only 12–60 percent of graduates sampled from other programs met literacy criteria later on (for example, in Ajmer-India, Bangladesh, and Kenya). Even when graduates remember the mechanics of reading, evidence suggests that they may understand little of what they read. About 25–30 percent of participants in adult literacy programs in many countries had been to school, but dropped out illiterate because of limited and low-quality instruction.

Social and economic outcomes

One of the most commonly reported social outcomes of adult literacy programs is that participants are more likely than nonparticipants to send their own children to school. Others report that programs oriented toward income generation with literacy are effective in specific circumstances. For example, some groups in West Africa have acquired stable literacy skills to fulfill specific workgroup goals. Benefits such as self-confidence and empowerment are sometimes reported, possibly as a result of group discussions about local problems. It is uncertain, however, if literacy instruction by itself brings about confidence and empowerment in the long run, given that some program graduates relapse into illiteracy.

Empowerment may be an elusive goal for many reasons. The unschooled perform less well in essential memory tasks linked to decision making, such as recalling a series of digits backward and forward, remembering lists of words, or reproducing a short story or complex figures. The level of education influences the ability to solve abstract problems, use readily presented data in decisions, recognize and name pictures of objects, and understand radio broadcasts. Research suggests that three years of efficient schooling during childhood may be sufficient to realize these benefits. More research is needed to find out how to bring about sustained improvements in these skills among adults through literacy instruction.

Organization and costs

Empowerment of village-level authorities, recruitment of existing groups (such as cooperatives), and outsourcing of instruction to private parties have been found effective in reaching large numbers of potential learners. However, it has been difficult to determine costs per participant in a course. They vary greatly (US\$12–1,246 annually), depending on whether teachers are paid or if ministry-level staff salaries are included. Volunteer teachers are difficult to retain and replace, so the cheaper programs may be less efficient, but the limited data show no clear relationship between cost and acquisition of stable literacy skills. Overall, costs per participant are seen as low, but the costs for each successful graduate are about three times higher. Literacy may appear less expensive than primary education, but it costs more on an hourly basis.

A better understanding is needed of recent learning research and its implications for learning and retaining functional literacy. New concepts have arisen in the field (such as automaticity, phonological awareness, working memory, word superiority effect, and perceptual learning) that are unknown in the adult literacy community (see box). The next frontier in providing sustained literacy skills should involve extensive research and dissemination about these issues. Experiments should be carried out to determine the methods that yield the best results, given their cost. Also, the cost of specific components (teacher pay, giving participants financial aid, and the like) may be var-

Putting Science to Work for Adult Literacy

Scientific research conducted in the past 10 years has direct implications for improving the outcomes of adult literacy programs. Neuropsychologists have been working to understand how literacy affects various parts of the brain; others scan the brains of dyslexics in hopes of finding out how to help them read more fluently. The findings may help make literacy instruction more effective.

Some features of human memory affect reading performance

Brain imaging studies show three regions activated in the brain during reading: two slower analytical neural pathways that are used by beginning readers and an express, instant word-recognition pathway used by skilled readers. Cognitive research suggests that literacy skills become permanent when the express pathway is activated and people read quickly and effortlessly.

Fast reading is needed: because our short-term memory is exceedingly brief, an individual must read a sentence within about 12 seconds to understand written messages. The slower analytical pathways used by novice readers challenge the limits of short-term memory. The buffer is filled with individual letters and overflows, and by the end of a sentence, the new readers may forget the beginning. Novice readers, who must make conscious decisions about letters, can only read small amounts of text and may have to read a message repeatedly to understand its meaning.

To finish a sentence by the 12-second deadline, learners at the end of a literacy course should be able to read at least one word in 1–1.5 seconds with about 95 percent accuracy. But few attain this performance level; spotty attendance and wasteful use of class time are partly to blame. Furthermore, the instant word recognition pathway may not be activated in adults as easily as it is in children. Research in Burkina Faso found that new literates took 2.2 seconds to read a word and were correct only 80–87 percent of the time. Skills that are not automatized (made automatic) tend to be forgotten rapidly after training. The cognitive obstacles may also add to the burdens of poverty. Overworked women may become discouraged by limited progress and give up.

Research points toward a **minimum standard for literacy acquisition:**

- **By the end of a literacy course, learners should read a word in about 1-1.5 seconds with about 95 percent accuracy.**

At this rate, readers decipher many script features automatically, although they still tend to struggle with comprehension. Adult literacy instruction should focus on increasing speed and accuracy, objectives that are usually not central in literacy courses. Literacy tests should be timed.

OED observations suggest that valuable time is frequently lost in oral repetition and absenteeism. Literacy instruction is often a task assigned to poorly paid persons of limited education or training, who use class time inefficiently. To reach the required speed and accuracy rates, participants must actually spend the allocated class time learning and practicing reading.

ied to find out how outcomes increase per extra dollar spent. Using more science-based methods may increase costs per participant, but may lower costs per successful graduate.

Policy Implications

The future of adult literacy is again in some doubt. Bringing about large-scale adult literacy is a complex task that poses considerable managerial, technical, and financial challenges for governments. Adult literacy programs make up 1–5 percent of government and donor education budgets, and they remain severely underfunded in comparison with primary education and in relation to the number of illiterate adults. The modest efficiency of the interventions may be one reason governments and donors remain ambivalent about financing adult literacy. They expect that once taught, people will remain literate. When literacy programs are inefficient, neoliterates may fail to attain fluency, they may be unable to read a few months after training, and a vicious circle of low financing and low efficiency may be created. **Unless the coverage and efficiency of adult literacy programs can be improved, they may not contribute significantly to a 50 percent reduction in adult illiteracy rates by 2015.**

Even with the best of efforts, it is difficult to reach illiterates once they have become productive adults. The number of adult illiterates may increase in the medium term if more poor students enroll in primary school, systems are strained from increased enrollments, and the numbers of illiterate dropouts rise. This will not happen if **children can be made literate before they drop out** of primary school. Thus, to reduce the size of the next generation of illiterates, primary school instruction must use time more effectively and focus on methods to teach fluent reading early. In countries where children are at risk of dropping out early, efforts should be made to spend all available time in literacy and numeracy so that children can become fluent readers by the end of grade 2.

Key Lessons and Recommendations

- Donor attention to organizational and financing issues is crucial, but it is not sufficient on its own to help learners acquire stable skills. Attention to instructional variables is necessary, as well as technical knowledge of issues such as reading speed and accuracy. The challenge is how to disseminate effective instructional methods to large numbers of implementers worldwide, many of whom have limited education.

- Agencies and donors financing adult literacy should experiment with new methods of literacy acquisition based on scientific research and adapt those that can be disseminated to teachers, such as methods to increase reading speed. Better-qualified and better-paid teachers may be necessary to impart the necessary quality and intensity of instruction.
- Free-standing adult literacy projects are more likely to be implemented effectively than are literacy components in projects of various sectors. If adult literacy is not the main objective of a project—or at least not a significant component—it may receive little financing, attention, or expertise in implementation, and is apt to yield limited outcomes. The poor implementation record of isolated literacy components suggests that without resources for supervision, outcomes may continue to be unsatisfactory.
- Although literacy instruction generally incurs low costs per participant, the costs per permanently literate graduate are higher. Also, management costs are sizeable. The lowest-cost programs depend on a volunteer teacher corps, which may be unstable. A vicious circle can be created, whereby cheap but ineffective programs displace point financiers and preclude the higher expenditures that might make them more efficient.
- Countries that decide to engage in adult literacy must consider their long-term commitment and determine the extent to which they are willing to fund more effective—but also more expensive—programs. To reduce the number of adults needing such services, primary education must become more efficient.
- Intensive government training and supervision of NGOs is important. Though many NGOs can carry out quality literacy programs, others need considerable support and monitoring. NGOs may reach beneficiaries in specific local areas effectively, but they do not always possess expertise in instructional delivery.
- The monitoring designs conceived thus far in adult literacy projects are too complex to be sustained during implementation. The research and evaluation capacity of organizations need to be strengthened, but evaluation designs must also be simplified. Monitoring based on representative samples rather than data collection from the entire population of learners may prove a more sustainable tool.

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