



Literacy Innovations



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E d i t o r i a l

New Directions in Literacy Assessment

The World Conference on Education for All (WCEFA; Jomtien, Thailand, 1990) included a number of educational targets related to out-of-school youth and adults, including "to reduce the number of adult illiterates to half of the 1990 level by the year 2000." The WCEFA also stressed the need to monitor and evaluate the performance of individual learners as well as the delivery mechanisms and outcomes of literacy and other non-formal education programs. At the Mid-Decade Review meeting on EFA (Amman, June 1996) as well as at the UNESCO International Adult Education Conference (Hamburg, July 1997), the international community further called for efforts at both international and national levels to adopt new techniques to assess and monitor progress towards the Jomtien goals.

Although many countries have been actively striving to meet the basic learning needs of all, current capacities remain inadequate for assessing and monitoring the acquisition of literacy and numeracy for out-of-school youth and adults. Yet, nearly a decade ago, the UN Statistical Office released a model (under the direction of this author) on the various uses of low-cost literacy assessment tools within household surveys in developing countries. For a variety of reasons, this proposal lay dormant. In the meantime, a number of countries and regional agencies have conducted major adult literacy surveys. There have also been renewed efforts to measure basic skills achievement within the school systems of developing countries.

There remains a critical need for a practical and low-cost methodology that can bridge the gap between methodologies for out-of-school literacy assessment at the national survey level and at the program level. This new methodology would help UNESCO improve the quality of its worldwide gathering of international statistics, especially in moving away from simply counting the number of (self-proclaimed) "illiterates" in the world. Secondly, when properly adapted, such a methodology could open the way to much improved ways of gauging the effectiveness of literacy programs at the ground level in developing countries.

Naturally, there are numerous technical aspects—assessment instruments; conceptual, linguistic, and definitional frameworks; and sampling designs—which require a balancing of both contextual adaptation and practical relevance with the need for cross-national and cross-contextual comparison. Nonetheless, there is a serious need for a more reliable and practical information base on literacy, both within and across diverse contexts.

References

- Wagner, D. A. (1990). Literacy assessment in the Third World: An overview and proposed schema for survey use. *Comparative Education Review*, 33, 1, 112 - 138.
- Wagner, D.A., & Srivastava, A.B.L. (1989). (Principal authors). *Measuring literacy through household surveys*. (Doc. No. DP/UN/INT-88-X01/10E). New York: United Nations Statistical Office.

Direct Measurement of Adult Basic Skills: The International Adult Literacy Survey as Example

The International Adult Literacy Survey (IALS) was a nine-country initiative conducted in the fall of 1994. Its goal was to create comparable literacy profiles across national, linguistic, and cultural boundaries. Initial results were first published in the report *Literacy, Economy and Society: Results of the First International Adult Literacy Survey* (Organisation for Economic Co-operation and Development and Statistics Canada, 1995).

This article is intended to provide readers with an overview of the IALS study, to highlight the factors that lead to its conduct, and to outline the important additional information value that such assessments provide. This "improved" data has played a central role in defining and informing public policy in Canada and many other OECD countries.

The IALS venture started out with two underlying goals

- To develop measures and scales that would permit useful comparisons of literacy performance among people with a wide range of ability, and
- To describe and compare the demonstrated literacy skills of people from different countries.

The need to generate comparative data for several countries required that the study adopt a common assessment methodology and reference point. Thus, IALS chose to adopt both the literacy domains and the literacy proficiency levels developed for the United States National Adult Literacy Survey (NALS), the world's largest and most rigorous assessment of adult literacy skill undertaken to date.

In keeping with the design of the NALS, IALS provides data for three distinct literacy domains:

- Prose literacy—the knowledge and skills needed to understand and use information from texts including editorials, news stories, poems, and fiction.
- Document literacy—the knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables, and graphics.
- Quantitative literacy—the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a chequebook, figuring out a tip, completing an order form, or determining the amount of interest on a loan from an advertisement.

The Demand for Data on Adult Literacy

At the most general, data on the level and distribution of adult literacy are required by three different categories of

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Literacy Watch

In February and March 1998, the International Literacy Institute (ILI) and UNESCO organized two major regional forums on literacy, in Asia and in Africa. Each meeting brought a wide range of participants (from field specialists and academic researchers to senior policymakers and representatives from donor agencies) to focus on how to reinvigorate literacy work in the regions with the world's lowest rates of literacy. Papers from each of the forums may be located and accessed at ILI's website, Literacy Online (www.literacyonline.org), or through UNESCO's education website (www.education.unesco.org)

With one of the world's largest and most diverse societies, India was a most appropriate site for the Second Asia Regional Literacy Forum (the first was held in Manila in 1997). The theme of the Forum, "Innovation and Professionalization in Adult Literacy: A Focus on Diversity," emphasized the importance of higher levels of literacy for all members of society as the countries of the region prepare to enter the 21st century and face the new challenges of globalization and market economies. More than 240 specialist from 22 Asian nations participated in the Delhi Forum. The meeting was held in New Delhi, February 9-13, 1998, and was co-organized by the ILI, the National Literacy Mission of India, and UNESCO-PROAP, with co-sponsorship from Unicef, World Bank, DFID, SEAMEO-INNOTECH, and Norway.

With more than 100 papers presented, it is possible here to only mention a number of the Delhi Forum issues, as follows:

- Diverse and rapidly changing societies in Asia need to be particularly attentive to ethnic linguistic diversity, requiring a major shift toward improved tailoring and quality of basic education, literacy and non-formal education (NFE) programs.
- In Asia, where populations are large and highly dispersed, and where the technological infrastructure is growing rapidly, new technologies are becoming cost-effective, even for programs with relatively low budgets.
- Increased communication is required between government-based literacy providers and the growing numbers of NGOs active in literacy and basic education.
- There is increased recognition among donor agencies of the growing importance of non-formal education as a crucial route to reach out-of-school youth and young adults, many of whom have dropped out of school with low literacy skills.

The Africa Regional Literacy Forum—the first all-Africa meeting on literacy and NFE in decades—was held on March 16-20 in Dakar, Senegal on the theme of "Innovation and Professionalization in Literacy and NFE: New Directions for the Year 2000." More than 190 participants representing 34 African countries came to present and discuss literacy issues with particular resonance in many African countries, such as literacy in crisis situations, literacy for the handicapped and disabled, and the education and status of women. The Dakar Forum was co-organized by ILI, UNESCO-BREDA, and the Ministry of Basic Education and National Languages of Senegal, with co-sponsorship from Unicef, World Bank, ADEA, DSE, USAID, Cooperation Francaise, and Norway.

Among the significant issues emerging from the Dakar Forum were the following:

- There is a growing awareness that many literacy and NFE programs in Africa are far less effective than is proclaimed in political circles, and that greater training in management would help improve quality control.
- Clear and explicit language policies are needed that recognize the importance of first language literacy as the best first route to education in the region, particularly among the most disadvantaged populations.
- Women in Africa show great motivation for literacy and NFE programs, but time and work constraints often prohibit their participation. New ways must be found to provide support for gender-sensitive education programs.
- Intersectoral linkages—between literacy and health, population, agriculture—are likely to be critical for both resource development and sustainability in the African context. More must be done to foster such relationships.

Direct Measurement *continued from page 1*

users: government, program delivery institutions, and individuals. The information needs of each category are described below.

Government

The role of government can be simply defined as a system for allocating scarce societal resources among a plethora of competing demands. How this process is managed and what objectives are the most valued in the process varies a great deal from country to country. In confronting any issue, however, governments must find answers to a basic set of questions:

- What is the nature and extent of the "problem"?
- Are enough people affected to justify action? Is any particular segment of society particularly disadvantaged?
- What are the costs associated with "correcting" the "problem"? What are the risks associated with inaction, expressed in terms of individual and collective prosperity and security?
- Where are resources best invested? Which investments will provide the maximal social benefit?
- What system should be used to establish differential need in the allocation of funds?

Program Delivery Institutions

Although the structure, extent, and institutional locus of this sector varies considerably from country to country, each country has a group of societal actors whose objective is to deliver remedial literacy education to adults. These actors require information to serve three distinct needs.

First, they require an assessment tool to diagnose the needs of individual students. Equipped with this information, curriculum and technique can be adapted to achieve maximum effect.

Second, they require information to guide their own program and product development. Thought of as an industrial sector, the market for literacy goods and services is like any other market, constantly evolving as consumer demand and technology change.

Third and finally, literacy delivery organizations often need information to justify funding from government. Despite the market analogy used above, the market for literacy goods and services is an imperfect one, relying largely on funding from government for revenue rather than on sales to consumers. As a result, they need data to attract money from funders, particularly government funders.

Individuals

Individuals require information for two purposes. First, they have a requirement for information to define their own need for remedial training. Literacy is a phenomenon with social and economic consequences for individuals. As a result, it is in the interests of individuals to assess their own situation, to judge if a personal investment in remedial training will enhance their prospects or quality of life. Objective information on the likely returns to such an investment can complement anecdotal information gleaned from personal experience that individuals will bring to the decision.

Second, individuals, as members of a democratic society, are obliged to come to an understanding of the relative importance of literacy. Literacy is one of a multitude of social and economic issues competing for the attention of governments. To attract and hold the attention of government requires the implicit support of the electorate. Data on the nature, extent, and import of literacy serves the important purpose of marshalling societal awareness and maintaining the political will to justify continuing investment in initial and continuing education, including remedial literacy programming for adults.

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Direct Measurement *continued from previous page*

The Demand for Improved Data on Adult Literacy

For industrialized nations, the adequacy of indirect measures of adult literacy was questioned. By the mid-seventies, using educational attainment data as the standard, mass education should have virtually eliminated “basic” illiteracy. Yet governments were continually confronted with evidence that basic literacy remained a pernicious problem. Evidence mounted that educational attainment was, in fact, a poor proxy of literacy, falsely labelling both literates and illiterates. In David Niece’s words “... the evidence is clear that a strong positive, but certainly less than perfect, correlation prevails between grade attainment and real world skills. Some persons with quite high grade levels are not fully functional, and conversely some individuals with only modest education are highly literate.”

This finding challenged the standard conception of how literacy is acquired, the so-called “static model” wherein a known quantity of skills is accumulated in a burst of childhood schooling to be retained indefinitely. What seemed to emerge was a complex relationship wherein some adults found ways outside the formal schooling system to acquire the requisite reading skills and others found ways to lose the skills they once had. Such a “dynamic” notion of literacy skill acquisition and loss offers a much more realistic picture of the complexity of the issue.

Faced with unprecedented levels of global competition, countries are beginning to see the need to develop and nurture their own human capital. The ability of governments to maintain comparative advantage or to limit competition through other means has been sharply reduced by tumbling trade barriers, and unimpeded flows of capital and technology. Thus, the individual is, more than ever, seen to be a central component in a nation’s economic success.

The development of basic skills and lifelong learning are being promoted by many countries, in hopes of improving their economic health and the human condition of their citizens. Literacy is seen to be central to such goals. Without the ability to read and process information, further learning becomes both time consuming and expensive for participants, a fact that limits their economic success and life chances. Clearly, countries with an adequately trained work force have the short-term edge; however, those with a flexible work force will be best able to adapt to economic and social challenges. As a trading nation, Canada’s economic future is particularly sensitive to relative comparative advantage, making this assumption important. Thus, the 1994 IALS was conceived in Canada to allow the question of literacy parity to be addressed empirically.

Ten Key Findings from IALS

- Important differences in literacy skills exist, both within and among countries. These differences are large enough to matter both socially and economically. The differences in skill observed across demographic groups in some countries, including Canada, are large.
- Literacy is strongly associated with economic life chances and opportunities. This affects employment stability, the incidence of unemployment, and income, among other things.
- In North America, scores on the quantitative literacy scale provide the strongest correlates to income. There is a large “income bonus” in Canada and the United States for literacy proficiency at the highest level.
- Literacy skill levels are clearly linked to occupations and industries; some occupations need high level skills, and others reflect requirements for intermediate skills.
- Literacy’s relationship to educational attainment is complex. While the

association with education is strong, it also offers some surprising exceptions. For example, some adults have managed to attain a relatively high degree of literacy proficiency despite a low level of education. Conversely, there are some who have low literacy skills despite a high level of education. Objective skill testing is obviously emerging as a preferred tool to enable more rigorous evaluation of the real skills of the work force.

- Low literacy skill levels are found not just among marginalized groups, but also among large proportions of the entire adult population. The IALS data show that adult education and training programs are less likely to reach those with low skills, because most training goes to those with high skills.
- Adults with low literacy skills do not usually report that their skills present them with any difficulties. When asked if their reading skills were sufficient to meet their everyday needs, most respondents replied overwhelmingly that they were, regardless of tested skill levels. This may reflect the fact that many occupy jobs that do not require the use of literacy. Thus, many economies may suffer from a deficit in the demand for literacy as well as the more commonly acknowledged problem of literacy supply, a fact that could interfere with the success of remedial programs.
- Literacy skills, like muscles, are maintained and strengthened through regular use. While formal education provides a more or less required base, the evidence indicates that applying literacy skills in daily activities—both at home and at work—is associated with higher levels of performance.
- Literacy plays an important role in the determination of wages in all countries except Poland. The contribution of literacy comes on top of the effect of education on earnings. The data also suggest, however, that economies differ greatly with regard to the skills demanded, and that experience and skills are rewarded differently in different countries.
- Literacy outcomes vary considerably according to socio-economic status in some, but not all, of the countries investigated. Public policy in most OECD countries aims to reduce social disparity in economic opportunity. Economic inequality has tended to rise over the past two decades in most countries despite massive investment in education. Given literacy’s linkages to economic success, individuals so disadvantaged will bear large reductions in lifetime earnings and quality of life. The fact that disadvantaged youth fail to achieve in some countries but not others suggests that this inequity can be addressed through policy.

Conclusion

This article has attempted to provide readers with an overview of how data on adult literacy is used and what additional information value is associated with direct assessments of skill, using the International Adult Literacy Survey as an example. Few, if any, of the insights noted above could be gleaned from traditional proxies for skill, such as educational attainment. Convincing a broader audience of this position will ultimately depend on thoughtful analysis of an expanded dataset and the collection of new cross-sectional estimates for the original IALS countries. Only then will one begin to develop an appreciation of the underlying social and economic forces which define the supply of, and demand for, literacy. ■

This article derived from *Literacy, Economy and Society: Results of the First International Adult Literacy Survey* (Organisation for Economic Co-operation and Development and Statistics Canada, 1995), and *Literacy Skill for the Knowledge Society: Further Results of the International Adult Literacy Survey* (OECD and Human Resources Development Canada, 1997).

Monitoring the Quality of Basic Education: School-Based Assessments for Improved Literacy

Ensuring an education of quality for all remains a major challenge of the 21st century. UNESCO, in collaboration with Unicef, has since 1992 responded with the establishment of the Monitoring Learning Achievement (MLA) Project. This project focuses on strengthening national capacities to monitor the quality of basic educational programs in general, and learning achievement in particular, and it has reached different phases of implementation in some 27 countries. Monitoring programs for the improvement of the quality of basic education is viewed as a necessary process to further promote a “sustainable monitoring culture.”

The major objectives of the MLA Project are to (a) establish a mechanism for continuous monitoring of the quality of basic educational programs; (b) periodically undertake assessment of learning outcomes; (c) provide interventions for observed disparities between the level of learning outcomes (e.g., regional, gender, socioeconomic); (d) establish common levels of learning outcomes; and (e) develop methods and indicators for long-term monitoring in order to formulate policies to improve basic education. Broad-based capacity building programs are used to mobilize the national expertise to form a critical mass of core trainers and peripheral trainees through several national and sub-national workshops. The overriding aim has been to develop methodologies that are above all simple, flexible, feasible, and sustainable in the long term. The goal is to provide policymakers with the necessary analytical tools to raise the quality of education delivered.

The project develops national instruments to monitor the basic learning competencies of children in selected grades (especially Grade IV) as well as to monitor home, school, community, and personal variables that may influence children’s learning outcomes. For the first time in an international project of this kind, the mastery of “life skills”—problem solving, social and “attitudinal” skills, in areas ranging from health and nutrition to road safety and civic responsibility—is considered as important as literacy or numeracy. A common core of basic competencies is measured by criterion-referenced tests, while questionnaires are used to gather reliable information concerning key scholastic and environmental factors. Using the UNESCO prototype, countries develop their own tests adapted to their particular socio-cultural contexts. For example, Mali asked a question about the efficient use of wood in cooking and another on the importance of sending girls to school. Mauritius’ tests paid much attention to plant life, public cleanliness, and the protection of property. China included several questions on protecting the environment, especially young trees and polluted rivers.

The literacy tests administered in the MLA Project are highly culture specific and differentiated, since different languages require different linguistic skills. Furthermore, multiple languages call for widely varying linguistic skills. For example, Arabic and Chinese literacy tests focus less on grammar and spelling than other languages such as French and English. In some countries, more than one language are widely used for tests. For this reason, Mauritius administered two literacy tests to every child (English, the official language, and French, another important language in the country). In Lebanon, children were tested in Arabic, French, and English. Generally, the tests in the literacy domain fell under two main categories—reading skills and reading comprehension, and writing skills. The specifics of these skill tests varied considerably from country to country though the general structure was the same. To test reading, all countries presented a text and then asked multiple-choice questions about the content. However, Jordan also gave a number of sentences and asked the pupil to arrange them in the proper order to best reflect the meaning of the given text. China asked pupils to find the sentence that best expressed the main idea within a given text.

Several educational trends emerged from the initial phase of the project that are common to all five pilot countries (China, Jordan, Mali, Mauritius, Morocco):

- Pupils in urban schools perform better than pupils in rural schools.
- In the lower grades, girls perform better than boys, but later on, due to diverse cultural and socio-economic issues, the performance of girls begins

to decline.

- In general, pupils from private schools perform better than pupils attending public schools.

The MLA Project also found the need to make basic education more responsive to local and individual learner’s contexts. For example, there is the need to develop learner-centered teaching strategies for children attending different school types in different regions.

Since the national instruments were “customized” for each country, participant countries also benefited from new, individualized insights on improving the quality of education in their own countries. For example, the Nigerian results put emphasis on the relation between children’s achievement and language of instruction. In Nigeria, children begin to learn the English language from the first year in school and by the beginning of Grade IV, English becomes the language of instruction. Evidence showed that the vast majority of children at the end of Grade IV cannot read instructions written in English. In view of these results, the Nigerian task force concluded that much more early English language instruction was required. In Mozambique, the results from the MLA Project pointed at the need to considerably improve reading and writing skills in Portuguese, while in Slovakia the optimal use of maps, figures, graphics and any other forms of pictorial presentations in the development of textbooks for reading and writing acquisition was seen as imperative.

In sum, the MLA Project is providing new insights into the varied ways that schooling in many different countries impacts a nation’s literacy. A large number of children, especially in the poorest countries, never go beyond Grade IV. What these children learn, retain, and practice after leaving school has a direct impact on each nation’s competencies in basic skills. As we learn better how to assess relevant skills, in local and regional contexts, we will be in a better position to advise on how to strengthen both formal and nonformal educational programs. ■

Participating Countries in the MLA Project

- Phase I: China, Jordan, Mali, Mauritius, Morocco
- Phase II: Lebanon, Sri Lanka, Slovakia, Oman, Rodrigues Island/Mauritius, Zanzibar, Nigeria, Sudan, Kuwait, Mozambique
- Phase III: South Africa, Madagascar, India, Republic of Yugoslavia, Haiti, Ecuador, Sao Tome & Principe, Pakistan, Egypt, Brazil, Nepal, Tanzania, Chinaph, V. (1997). *Handbook on Monitoring Learning Achievement: Towards capacity building*. Paris: UNESCO Press.

National Report from 12 MLA Project countries (1994-1997): China, Jordan, Mali, Mauritius, Morocco, Oman, Slovakia, Sri Lanka, Lebanon, Rodrigues/Mauritius, Nigeria, Mozambique

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