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Who's a Literate? Assessment Issues in a Global Perspective

Abstract

Demographic and economic changes around the world and the linkage between literacy and development have made literacy a critical issue especially in the developing countries. But the uncertainty about the nature and extent of literacy has necessitated taking a new look at literacy assessment. Policy-makers have been hampered not only by too little data, but also by a failure to capture varying types and levels of literacy in each society. Dichotomies like "literate—illiterate" are inappropriate for conceptualising the problem and limit the potential for more effective decision-making. The paper analyses the problems of determining reliable and valid criteria for literacy. The way in which the problem of "who's a literate?" is resolved has serious policy implications.

Disciplines

Education | Educational Administration and Supervision | Educational Assessment, Evaluation, and Research | Educational Methods | Educational Psychology | International and Comparative Education | Language and Literacy Education

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WHO'S A LITERATE?

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USING SOCIAL SCIENCE FOR LITERACY WORK IN DEVELOPING COUNTRIES

I. Introduction

II. Measuring literacy

The origins of popular discussions of "who's a literate?" or even more often, "who's an illiterate?" go back at least several centuries. Ever since colonial explorers made it their mission civilatrice to bring imperial culture and education to "poor, uncivilized, ignorant and illiterate savages" around the world, there have existed political, cultural, moral and instructional dimensions to the definitions of and the provision of literacy. Of course, what constituted "savagery" depended greatly on the perspective of the not unbiased colonialists who did the categorizing. A century or two later, when public education began in Europe, the same discourse appeared in the mother countries themselves -- namely, how to provide for the poor, uneducated and illiterate masses at home.

Obviously, the use of "illiterate" in such descriptions of the poor, destitute "other" cannot truly be seen in terms of the ruling classes' interest in the betterment of the peoples they ruled. Nonetheless, the category of illiteracy was certainly a good deal more accurate two or more centuries ago than it is in the late 1980's. What makes literacy assessment so important today is that the various communities which make up the contemporary world are so variegated that simple dichotomies, such as literate vs. illiterate, fail to capture what are real differences in what people know and how they behave in certain situations.

A central paradox in efforts to reduce illiteracy in today's world is that so much effort has been invested and so little knowledge gained about how best to achieve success. According to one recent analysis by a Unesco expert (Gillette, 1987), the well-known Experimental World Literacy Program (Unesco, 1976) ended with very little information being used by subsequent literacy programs. Yet, although adult illiteracy rates of most developing countries are thought to be relatively stable (roughly 35-55% in Africa and Asia; cf., Unesco, 1985), population growth has meant that the actual number of illiterates has actually grown dramatically (from 760 million in 1970 to 857 million in 1985). Demographic and economic changes around the world have meant that literacy has again become a critical issue. In spite of an increased sense of urgency, there is a lack of understanding of the breadth and depth of the "literacy problem" in almost every society, and particularly in societies where illiteracy appears greatest and evaluation resources are least available. Uncertainty about the nature and extent of literacy provides an important rationale for taking a new look at literacy assessment.

II. Debates in literacy assessment

In order to provide worldwide statistical comparisons, Unesco (1978; 1983) has relied almost entirely on data provided by its member countries. These countries, in turn, usually rely on national census information, which typically judges literacy ability by self-assessment questionnaires and/or by the proxy variable of "years of primary schooling." Many specialists would agree that such measures are likely to be unreliable indicators of literacy ability. Nonetheless, up to the present, little change in national literacy measurement has been forthcoming.

In order to improve assessment of literacy, there are several areas in need of attention which would have a significant impact on establishing reliable and valid national literacy rates.

A. "Literate" vs. "illiterate": A false dichotomy?

There is considerable diversity of opinion as to the usefulness of classifying individuals in the traditional manner of literate vs. illiterate. Several decades ago, when Third World countries began to enter the United Nations, it was common to find that the vast majority of the adult populations of these countries had never gone to school, and had not learned to read and write. It was relatively easy in those contexts to simply define all such individuals as "illiterate." So, the question "Who's a literate?" was simply answered by asking whether the person had gone to school. The situation as we begin the 1990's is much more complex, as some contact with primary schooling, non-formal education programs, and the mass-media is now present for the vast majority of families in the Third World. Today, it is not unusual for individuals from quite diverse societies to be able to read and write to some widely varying degree. For this reason alone, it would seem that dichotomies and simple self-assessment questions -- still in use by international organizations and most national governments -- ought to be replaced, since they tend to misrepresent the range or continuum of literacy abilities that are common to most contemporary societies.

... A modest proposal for determining literacy levels

While many definitions exist, for the present purposes literacy may be defined in terms of the individual's ability to read and write within the context of his or her society. The direct measurement of literacy skills using assessment instruments clearly provides information than is possible with self-assessment questions. While it is possible to make as many levels of literacy as there are items on a literacy test, it would seem advantageous to choose a categorical breakdown which would provide just enough information for use by policy-makers, but which could be easily constructed. Note that this testing strategy differs importantly from the approach used in school-based standardized tests, which usually aim for grade-related and standardized norms. In the present schema, there are four main classifications which would make sense in many countries:

Non-literate: A person may be classified as non-literate who cannot read a text with understanding and write a short text in a significant national language, and who cannot recognize some words on signs and documents in everyday contexts, and cannot

perform such specific tasks as signing his or her name or recognizing the meaning of public signs.

Low literate: A person may be classified as a low literate who cannot read a text with understanding and write a short text in a significant national language, but who can recognize some words on signs and documents in everyday contexts, and can perform such specific tasks as signing his or her name or recognizing the meaning of public signs.

Moderate literate: A person is moderately literate who can, with some difficulty (i.e. make numerous errors), read a text with understanding and write a short text in a significant national language.

High literate: A person is high literate who can, with little difficulty (i.e. make few errors), read a text with understanding and write a short text in a significant national language.

Naturally, the use of four levels has some of the same inherent problems of two levels. However, there are some clear advantages. These four levels can be determined relatively simply, and policy-makers can understand them as well. More important is the face validity which is inherent in the four levels, and which is not present in the simple dichotomous split. A further elaboration on this proposed schema is provided in Wagner (in press)

B. Does my literacy count? Language policy and literacies

Most countries have formulated an explicit language policy which typically states which language or languages have official status. Often, the decision on national or official language(s) is based on such factors as major linguistic groups, colonial or post-colonial history, and importance of a given language to the concerns of economic development. One linguist colleague suggested to me that the decision as to which language is "official" depended primarily on which linguistic group controlled the army; this is, unfortunately, not such a bad heuristic for judging language dominance! Official languages are, of course, those commonly used in primary school, though there may be differences between languages used in beginning schooling and those used later on. The use of mother tongue instruction in both primary and adult education is a topic of continuing debate (cf., Dutcher, 1982; Engle, 1975; Unesco, 1953; Wagner, Spratt & Ezzaki, 1989).

While there is usually general agreement that the official language(s) ought to be assessed in literacy surveys, there may be considerable disagreement over the assessment of literacy in non-official languages (where these have a recognized and functional orthography). For example, in a number of countries, there exist a multitude of local languages which have varying status with respect to the official language; how these languages and literacies are included in a national literacy assessment may be a matter of debate. In certain predominantly Muslim countries in sub-Saharan Africa (e.g., Senegal or Ghana), the official language of literacy might be French or English, while Arabic -- which is taught in Islamic schools and used by a sizable population for certain

everyday and religious tasks -- is usually excluded from official literacy censuses. Thus, "who's a literate" in Senegal really depends on which literates get counted.

...A modest proposal for literacy assessment in multilingual contexts

To determine which literacies to include for national assessment, some countries might wish to pick an arbitrary cut-off point, such as when the estimated population of that minority group exceeds a certain percentage of the national population, or to simply pick the most used two or three literacies. In practice, of course, there are countries such as China and India where even a small percentage may represent such a large number of people that smaller language/literacy groups might need to be assessed; conversely, in countries such as Niger and Botswana, where many small population groups exist, a different strategy may be necessary. There are also cases where a major spoken language has a written script, but its literacy usage is quite restricted and not used in education or other official contexts. Such an example would be Vai literacy in Liberia, as documented in the work of Scribner and Cole (1981).

In most situations where resources are limited, one approach would be to assess only in an official language taught in formal schooling, and in the respondent's primary household language (either mother tongue or a written language used by household members). This method would tend to set a two-literacy limit for individual assessment, as well as reduce the number of potential literacies needed to be assessed in a given country. In countries where resources are even more restricted, it may be necessary to simply ask the respondent the literacy in which he or she is most proficient, and simply assess in that single literacy. Even though an individual may be assessed in only one or two literacies, the survey itself may be obliged to prepare more than two literacy instruments, depending on how many significant languages there are in the country.

However, cross-language and cross-orthographic (cross-script) comparison of literacy then becomes a problem. Little is available on how to construct equivalent test materials for the comparative assessment of language/literacy effects. In the present schema, it is suggested that "rough equivalency" be sought between the assessment instruments designed for multilingual/multi-literacy contexts. This may be achieved through the acceptance of a model which gathers information on the same types of component skills in each language, and, at the same time, using pre- and pilot-testing to obtain approximate norms for responding which are reliable within a single language/literacy.

C. Once a literate, always a literate?: Issues of retention and social change

The political discourse of literacy campaigns often invokes the image of bringing the ignorant illiterate out of his or her stultifying life into a sunshine of books and world information. Furthermore, it has been suggested that once a person achieved a certain threshold of literacy (say, fifth grade reading level), then the person would be "permanently" literate. There is debate on each issue, but the latter is clearly an empirical question which could be answered. The notion of a literacy "relapse" is part of the current discourse on "post-literacy" courses and materials. Logically, it would seem quite possible that some relapse ought to occur in unpracticed cognitive abilities, such as

reading and writing, but surprisingly little research has been done in this area. In our own work in Morocco (Wagner, Spratt, Klein & Ezzaki, 1989), we found little evidence for relapse among fifth grade school dropouts two years after leaving school. Yet, more needs to be known in this area. If literates can gain or lose literacy skills over time, then national rates will need to take into account such changes, and campaigns which render literate whole populations literate in six months will need to demonstrate that something is retained later on.

But it is not only individual skills which may change; societal yardsticks may change as well. Just mentioning computer literacy, geographic literacy, statistical literacy and cultural literacy -- to name a few -- demonstrates how many societies define what the literate or educated person needs to know to cope with modern demands of the changing world economy. Up until this century, literates in Europe and America were those who could sign their names, read the bible aloud, and accomplish simple arithmetic. Standards have now changed dramatically in most industrial societies as well as in many Third World countries as well. Thus, as national assessments are undertaken, so must analyses of "what counts" in literacy. As shown in the recent NAEP study on adolescent literacy in the U.S. (Kirsch & Jungeblut, 1986), there may be wide discrepancies between social and ethnic groups depending on which literacy skills are measured. In short, both individual skill and social demands are characteristics which must be known and measured over time in order for reliable literacy rates to be determined.

III. Literacy surveys and literacy policy

This paper argues for improved national assessments of literacy which should be designed to gather a broad range of data on the respondent's literacy abilities and educational background, and not be geared only to school-based standardized tests. In this way literacy surveys can provide critical information to address the following set of policy questions .

A. How much literacy is retained after school leaving?

It is sometimes claimed that a certain level of primary school attainment will "ensure" that academic skills such as reading, writing and arithmetic are retained after school leaving (cf., Hartley & Swanson, 1986). While hypotheses abound concerning the minimum amount of primary schooling (or non-formal education or campaign experience) necessary for literacy to be "fixed" in the child or adult, little reliable information is currently available. One recent study of primary school dropouts in Morocco appears to support the notion that moderate literacy levels are, indeed, retained after five years of primary schooling (Wagner, et al., 1989), but whether less schooling or more schooling would have differential effects is still unknown. Since the amount of educational instruction is a primary cost factor in policy decisions, more information on this question should be obtained; the household literacy survey is one of the most efficient means to gather such information.

B. How important is literacy to the family in low-literate societies?

A major assumption among many development specialists is that literacy is a key component in economic development. This argument posits the need for literate individuals to accomplish economic tasks in an increasingly complex world. In addition to the economic argument, it is often suggested that literacy can also contribute to a safer world by providing a "defense" against the incursions of both literate government officials and poorly understood literate materials in the ecology. Thus, literacy can protect the family against erroneous or unscrupulous taxation, and against improper use, say, of medicinal products.

There is little doubt that these latter forms of "literacy defense" may be of considerable importance to the family. Yet, the situation of family literacy in the Third World has changed dramatically over the past several decades. Where it was once the case in many communities that no individual was literate in an extended family, the advent of primary schooling and non-formal campaigns has meant that most extended and even nuclear families have someone to rely on for literacy help in case of need. It will be the rare Third World community in the 1990's where everyone is completely illiterate. What then is the development rationale for trying to achieve universal literacy? While all would probably agree that universal literacy is a laudable goal, both economic and "defense" rationales have been weakened by virtue of the changing demography of literacy in the late 20th century. The days of the "illiterate" society are virtually gone. Both communities and families have some literate resources to draw upon. The consequences of such change in the "literacy ecology" require further exploration.

C. Does female literacy lead to lower fertility and mortality?

According to estimates, the number of female illiterates in today's world exceeds that of the male population by between 50-100% depending on the geographic region of the world. Unesco (1985) states that world illiteracy rates (for the adult population aged 15 and over) were 34.9% for females, while the male rate was 20.5%. In Africa, the rates were 64.5% and 43.3% respectively; in Latin America, 19.2% and 15.3%; in Asia 47.4% and 25.6%; and in Oceania 10.2% and 7.6%. Although these statistics are based on uncertain estimates derived from national census information, it is clear that female illiteracy has generally been found to be considerably higher in most parts of the world. Given the common recognition of the key roles that women play in (a) fertility planning and (b) infant care/nutrition, it is not surprising that female illiteracy is seen as a major obstacle to making gains in the reduction of fertility and infant mortality (cf. Bernard & Gayfer, 1983).

Although the correlation between female literacy and such health indicators is often significant -- for example, with high literacy correlated with low fertility in cross-national comparisons -- there is remarkably little evidence which shows that there is a causal relationship between these variables. Indeed, the little evidence that is available shows that it is formal schooling which changes the motivation and aspirations of women, which then could be a potential cause for decreased fertility (LeVine, 1988). However, there is little evidence at present which links literacy, per se, to decreased fertility. Considerably more information will be required before major policy decisions should be taken to increase female literacy on the basis of a rationale and desired outcome of lowered fertility and infant mortality.

D. How effective are adult literacy programs and campaigns?

As noted earlier, little reliable data are available on the effectiveness of most contemporary literacy campaigns. Available evidence shows that adult literacy campaigns may be costly and inefficient methods of promoting literacy in many countries (Wagner, 1986, 1987, 1989). With literacy and education returning to the top of the political agenda in many developing countries, it is increasingly important to provide adequate evaluations as to the effectiveness of campaigns.

E. Are there informal systems for literacy diffusion in society?

How literacy ability is spread from one person to another within and across generations is sometimes referred to as literacy "diffusion." The data collected from a literacy survey can be useful for understanding how this diffusion takes place in a given society. There are a number of key variables which are thought to influence the spread of literacy, such as age, gender, access to schooling and to educated parents and siblings. The use of multiple regression techniques with survey data should provide some idea of the contribution of various inputs leading to literacy levels in a given language/script. In this regard, it would also be useful to supplement such data with a more sociological or anthropological descriptive account of literacy use in the home and community. Such descriptions have been found to be especially useful in interpreting quantitative findings, in correcting erroneous generalizations, and in developing new hypotheses which a statistical survey would not generate. Ethnographic or descriptive accounts of literacy in both industrialized and developing countries may be found in several recent volumes, such as Heath (1983), Schieffelin and Gilmore (1986), Scribner and Cole (1981), and Wagner (1983, 1987).

IV. Conclusion

Literacy provision and educational efficiency are increasingly important development goals. To make better policy decisions is always subject to the limitations imposed by the reliability and validity of the data one can bring to bear on the problem addressed. In the case of literacy, policy-makers have been hampered not only by too little data but also by a failure to capture the varying types and levels of literacy extent in each society. Up to the present, policy-makers and educational specialists have been misled by simplistic dichotomies, such as literacy vs. illiteracy, which not only suggest inappropriate ways of conceptualizing human resources, but also limit the potential for more effective decision-making. "Who's a literate?" turns out to be a non-trivial empirical question, and one with serious policy implications.

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