Current definitions of illiteracy and functional illiteracy are reviewed, and their relationship both to estimates of the scope of the problem and to efforts toward its solution are discussed. Applying functional standards according to the requisites of particular societies, it can be seen that even countries with high literacy rates, such as the United States, harbor large functionally illiterate populations. It is argued that adult basic education efforts in the United States and abroad should be planned on a situation-specific basis, with goals, content, and evaluative components derived independently of the usual grade school equivalencies. (Editor/CK)
Mr. Harman reviews current definitions of illiteracy and functional illiteracy and discusses their relationship both to estimates of the scope of the problem and, by implication, to efforts toward its solution. Applying functional standards according to the requisites of particular societies, it can be seen that even countries with high literacy rates, such as the United States, harbor large functionally illiterate populations. The author argues that adult basic education efforts here and abroad should be planned on a situation-specific basis, with goals, content, and evaluative components derived independently of the usual grade school equivalencies.

Nearly half of the world's adult population is illiterate. Over half is functionally illiterate. Yet basic education for adults remains one of the least developed areas in education.

What is meant by illiteracy? At what levels of functioning in reading and writing is one considered literate? Until the early 1950's most governments considered the ability to read, write, and compute at fairly elementary levels a criterion. UNESCO's Expert Committee on the Standardization of Educational Statistics (1951) proposed that:

A person is literate who can, with understanding, both read and write a short, simple statement on his everyday life.¹

The 1950's saw a growing trend to differentiate between a "literate" person and a "functionally literate" person, as in this 1962 UNESCO definition:


A person is literate when he has acquired the essential knowledge and skills which enable him to engage in all those activities in which literacy is required for effective functioning in his group and community, and whose attainments in reading, writing and arithmetic make it possible for him to continue to use these skills towards his own and the community's development.²

However, most governments still adhere to the earlier UNESCO standard coupled with a grade completion equivalency (usually fourth or fifth grade) to identify their illiterate or functionally illiterate populations.

In the United States, the Bureau of the Census defines illiteracy as "the inability to read and write a simple message either in English or any other language."³ Despite its contention that "the completion of no one particular grade of school corresponds to the attainment of literacy . . . " the Bureau uses a fifth-grade equivalency to distinguish functional literates.

The U.S. Army was the first to define functional literacy when, during World War II, it defined illiterates as "persons who were incapable of understanding the kinds of written instructions that are needed for carrying out basic military functions or

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²A quantitative standard was also proposed by UNESCO: "In quantitative terms, the standard of attainment in functional literacy may be equated to the skills of reading, writing, and arithmetic achieved after a set number of years of primary or elementary schooling." Both statements were adopted by the International Committee of Experts on Literacy (Paris, 1962), and were reaffirmed at a later conference in Teheran (1965).

³This definition is elaborated: "Illiterates include persons who are able to read but not write. Persons who formerly knew how to read and write but were unable to do so at the time of the survey because of mental or physical impairment such as blindness, are classified as literate." Bureau of the Census, Current Population Reports, Ser. P-20, No. 45, 9, and P-23, No. 8, 1.
tasks. The Army, too, set a fifth-grade equivalency as its standard.

The Office of Education uses grade equivalencies ranging from the fourth to the eighth grades. As late as 1961 its standard was a fourth-grade equivalency.\(^4\)

A 1970 conference on planning strategies for a national adult "right to read" movement decided that adult literacy assessments should be made independent of grade equivalents:

The challenge is to foster through every means the ability to read, write and compute with the functional competence needed for meeting the requirements of adult living.\(^6\)

Illiteracy does not define a person. Indeed, the mere allegation that an adult illiterate is deficient assumes that literacy is a necessary commodity. One who makes this assumption should be willing to accept a definition of literacy encompassing the following three stages.

The first is the conceptualization of literacy as a tool. The second is literacy attainment, the learning of reading and writing skills. The third is the practical application of these

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\(^4\)Current Population Reports, Ser. P-23, No. 8, 1.


\(^6\)Conference on Strategies for Generating a National "Right to Read" Adult Movement, Raleigh, North Carolina, January 22-23,
skills in activities meaningful to the learner. Each stage is contingent upon the former; each is a necessary component of literacy.

Conceptualization of literacy is applicable at the societal as well as the individual level. Pre-literate societies need to undergo a process of "literalization" before their members can be considered literate. Such a process is tantamount to a cultural metamorphosis, and will not be achieved through the relatively simple "alphabetization" of the language. It implies, more fundamentally, the internalization of a literacy consciousness.

Schuman, Inkeles, and Smith found significant correlations in East Pakistan between literacy attainment and both the level of political identity and willingness to consider change.\(^7\) Lerner, Rogers and Herzog, and Rahim, in Turkey, Colombia, and Pakistan respectively, all found highly significant correlations between literacy and exposure to mass media (radio, newspapers, etc.) and awareness of new opportunities.\(^8\) Indeed, few would dispute


the significance of literacy for either individual or national
development. Even the view of Shuman, Inkeles, and Smith is
widely held, that "...the skill of reading and its later use are
more important than any specific content learned in school."
Because of the general lack of credible statistics, it is difficult
to assess the extent of world illiteracy. However, UNESCO estimates
that in 1950 approximately 700 million (44.3%) of the people aged
15 and above were illiterate. (See appendix A for a breakdown by
continents.) By 1950 the estimated percentage had decreased to
39.3%, but the absolute figure had increased to 740 million people.
Assuming that the rate of decrease of the fifties remained constant
during the sixties, UNESCO estimates that, in 1970, 810 million
people, or 34.8% of the fifteen and above age group, are illiterate.
Meanwhile, the estimated number of literate adults in the world
(aged 15 and above) has increased from 870 million in 1950 to
1,525 million in 1970.9 UNESCO analysts have estimated that the
increase in number of illiterates in a given country is related to
the illiteracy rate by a correlation coefficient of 0.55.11 Thus,
countries with high rates of illiteracy (70% or more) have a
propensity for increasing the absolute numbers of adult illiterates,
while countries with relatively low illiteracy rates (35% or less)
tend to lower both the rate and absolute number of illiterates.11

9Assuming an increase in the rate of decrease of one and a
half times during the 1960's the percentage would be 32.5% or 760
million people. Doubling the rate of decrease, the figures would
be 30.5% and 710 million people. Literacy 1967-1969 (Paris:UNESCO,
10Statistics of Illiteracy (Paris: UNESCO, MinLit,
5, 1965), p. 3.
The proportion of female illiterates generally exceeds that of males, often significantly. In at least three countries -- Saudi Arabia, Somalia, and Yemen -- the total adult female populations are reported to be illiterate while in many others the figure is over 90%.\(^\text{12}\)

UNESCO experts contend that four years of primary schooling are the minimum requisite for attaining permanent literacy. There is no indication, however that even the completion of four grades ensures any permanent attainment of many cases fourth-grade "graduates," or even primary school graduates, can barely read and rapidly regress to total illiteracy.

Increase in enrollments in school systems is often as a predictor of an increase of future literacy rates. But while school systems are being significantly expanded in most countries, the quality of education in many remains dubious, and it is difficult to infer that present school enrollees will not be the functional illiterates of the next generation.

**Illiteracy and Functional Illiteracy in the United States**

United States government figures placing the rate of illiteracy among the population aged fourteen and above at 2.4% in 1960 grossly understate the extent of the problem. Equally as understated is the 8.3% figure for functional illiterates in the group

\(^{12}\text{Statistics of Illiteracy, op.cit., pp. 45, 118, 129.}\)
aged twenty-five and over. In fact, over half of that group may be functionally illiterate.

The last collection of data for the individual states was in the 1930 census, all subsequent figures being based on extrapolations from rates and national data. Illiterates were those who, when asked how many years of school they had completed, answered, "None." Functional illiterates were determined on the basis of grade completion data. No tests of any kind were administered. Hence, application of different grade standards results in different assessments of the extent of illiteracy revealed by the 1960 Census data:

- 3.0 million illiterates (no school attended) age 14 and above (2.4%);
- 8.3 million functional illiterates (less than 5 years of schooling) age 25 and above (8.3%);
- 24.0 million (less than 8 years of schooling) age 25 and above (24.0%);
- 58.6 million (less than 12 years of schooling) age 25 and above (58.6%);
- 69.0 million (less than 12 years of schooling) age 16 and above.

In a study conducted in 1963 in the Woodlawn area of Chicago it was reported that "although only 6.6% of the group studied reported that they had not gone as far as the sixth grade, 50.7% of the group, when subjected to achievement tests to determine their actual level of functioning, showed up as

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functional illiterates."\textsuperscript{14} A survey of participants in Adult Basic Education programs around the country in 1967 indicated that 53% of the program entrants had a seventh grade or higher level of education.\textsuperscript{15} It seems clear that lack of testing, reliance upon grade-completion criteria, and inadequate definitions of functional literacy combine to produce serious official underestimates of the extent of illiteracy in the United States.

**Literacy Programs in the World**

The first organized attempts at teaching adult illiterates date back as far as the 18th century when a number of church groups mounted literacy campaigns expressly to teach people to read the Bible. Through the first half of the twentieth century most literacy programs were planned and sustained by volunteer organizations, churches, missions, and other non-governmental organizations. Between 1950 and 1970, however, an increasing number of government-operated literacy programs came into being, and now ninety-two countries and nine non-governmental organizations report the existence of programs.\textsuperscript{16}

\textsuperscript{14} It was also found that a large number of those scoring at the fifth-grade level were so little above that it made little difference. Raymond M. Hilliard, "Massive Attack on Illiteracy," American Library Association Bulletin, December 1963, p. 1038.

\textsuperscript{15} Adult Basic Education -- Meeting the Challenge of the 1970's, First Annual Report of the National Advisory Committee on Adult Basic Education, August 1968, Appendix A. The survey polled 25% of the 406,000 participants.

\textsuperscript{16} Literacy 1967-1969, op. cit., p. 5.
In 1965, the World Conference of Ministers of Education on the Eradication of Illiteracy recommended that traditional literacy campaigns be replaced by functional literacy programs "closely linked to economic and social priorities and to present and future manpower needs."\textsuperscript{17} Julius Nyerere expressed the urgent need for functional literacy programs as opposed to primary education for children and adult education for leisure. "We must educate our adults. Our children will not have an impact on our economic development for five, ten or even twenty years. The attitude of our adults, on the other hand, will have an impact now."\textsuperscript{18}

The typical literacy campaign is still largely based on a primer or set of primers. The learner is taught the alphabet and reads a series of graded texts including short stories, rudimentary history, and some information on the country's political and public institutions. One "graduates" from such a program when he has read the primer from cover to cover. However, some governments are extending the post-literacy phase of instruction with a variety of more advanced readers, such as Tunisia's 71-text Petite Encyclopedie des Adultes. Newspapers specifically designed for newly literate adults are beginning to appear in many countries, and broadcast and televised literacy programs are increasing in number.

Functional literacy programs take a number of different forms. Some countries merely revise and expand existing elementary

\textsuperscript{17}Final Report, World Conference of Ministers of Education on the Education of Illiteracy, Teheran, 1965, p. 7.

\textsuperscript{18}Quoted in Literacy -- A Social Experience (Teheran: International Council of Women, 1965), p. 3.
reading material. In others, functional literacy programs have been tied in with vocational training, rural and agricultural extension programs, industry, and home economics. Intensive programs of this nature have been launched in 18 countries.\textsuperscript{19}

Some formerly colonized nations are utilizing literacy programs to reinstate their own long-suppressed languages. Others are teaching literacy in native languages to different language groups within their population, as in a Guatemalan program to teach Indians in their own languages, Quiche' and Cakchique'. Several countries with multilingual populations are attempting to advance one lingua franca through literacy efforts, as in Upper Volta, where French is being taught through the spoken languages (More', Diouka, and Gourounsi). Israel is teaching Hebrew to an immigrant population speaking 79 different languages and dialects.

The usual program consists of evening classes meeting two or three times a week, lasting between six and ten months and culminating in a "functional reading level." Classes are often held in primary schools and staffed by primary school teachers, a situation which can present serious obstacles to success. This is particularly true in Latin America where adults are commonly taught condensed versions of primary school curricula, emphasizing the three R's.\textsuperscript{20}

\textsuperscript{19} Algeria, Chile, Equador, Ethiopia, Guinea, Indian, Iran, Madagascar, Mali, Syria, Tanzania, Tunisia, Venezuela, Brazil, Jamaica, Nigeria, Upper Volta, Sudan, Literacy 1967-1969, \textit{op. cit.}, p. 29.

The large majority of literacy teachers are volunteers instructing classes or, as in the Laubach "Each-One-Teach-One" approach, individuals. Highly trained and competent teaching personnel is lacking everywhere. However, countries are beginning to train special teaching cadres. Iran's "Army of Knowledge" mobilizes eighteen-year-olds for teaching in lieu of their military service, and Israel has had a teachers corps of army girls for the past seven years.

Countries that claim to have eradicated illiteracy, such as Cuba, have inaugurated adult continuing education courses. Elsewhere, as large numbers of mass campaign "graduates" regress to states of illiteracy, governments have begun to shift from mass campaigns to selective programs as in the Korean re-education program for mothers of school children, the Turkish program for army recruits, the English program for new immigrants, and a Nigerian program for tobacco growers.

UNESCO has sponsored international conferences, initiated studies, and published a wide range of material. In 1964 it conceived the Experimental World Literacy Program to explore and evaluate the relationship between literacy and development in various countries and to test new methods. By June of 1969 fifty-two countries had submitted proposals to participate. Programs in existence include large-scale experimental and pilot projects in nine countries (Algeria, Equador, Iran, Mali, Ethiopia, Guinea, Madagascar, Sudan, and Tanzania); one large-scale project in Venezuela locally funded but assisted by a UNESCO expert; agricultural development projects in India and Syria and eight
smaller "micro-experiments" in Algeria, Brazil, China, India, Jamaica, Nigeria, Tunisia, and Upper Volta.

All the UNESCO projects include evaluative components. This seems to represent a significant advance, for little meaningful evaluation has been undertaken to date.

Methodologies

Many literacy campaigns prescribe methods of instruction to their teacher step-by-step, cookbook fashion, often because of a severe lack of materials suitable for adult instruction. Also, teachers in these campaigns are usually poor qualified and must be trained in crash courses permitting little more than quick familiarization with the prescribed materials. There are two main approaches to teaching adult illiterates how to read: the "synthetic method" and the "global method." The synthetic method is based on the recognition of letters of the alphabet and their associated sounds. The global method is based on the recognition of words or phrases with their meanings. In many programs an eclectic approach, combining elements of both the global and the synthetic methods, is superseding strict adherence to a particular methodology.21

The greatest single impact on mass literacy campaigns throughout the world has been that of Dr. Frank Laubach. First developed for teaching the Maranow language of the Philippines, the sound-syllabic Laubach method has been applied to date in 312

languages. In Laubach's original Key Word Method, several words including all consonants in the language are derived (not necessarily with meaning), and new words are constructed by different juxtapositions of consonants and vowels. From a series of charts presented at the outset of instruction the students learn to identify letters and associate them with sounds by superimposing drawings of objects on the appropriate letters. Laubach stresses the need for simplicity in both method and materials. The initial alphabet instruction phase is followed by three stages of graded readers on a variety of topics in which the newly acquired technical reading skills are utilized.

Other educators have introduced pre-literacy elements into literacy campaigns, on the assumption that an adult illiterate must undergo a process of conceptualization before he begins actual literacy training. The most significant work in this area has been that of Paulo Freire. His approach, developed in Brazil (where both approach and author were expelled following the 1964 coup d'état), emphasizes conscientization as an integral part of the process of literacy attainment. Literacy is viewed as a medium for the freedom of man, and the concept of freedom is to be understood before or along with the acquisition of reading and writing skills. The teacher serves as a co-ordinator of and participant in an ongoing dialogue around themes generated from the culture and

and concepts of the learner aimed at expanding his levels of awareness. The method of instruction in reading is a sound-syllabic one but is introduced only as the individual grasps the meaning of literacy. While several C....ian programs have adopted Freire's approach, many governments are wary of its potential consequences and prefer to maintain the more "neutral" methods. Freire considers the latter to be "education for domestication" as opposed to "education for freedom."

Adult Basic Education Activities in the United States

The National Center for Educational Statistics estimates that, during the year ending in May 1969, more than 13.1 million people aged 17 and over, 10% of the total age group not enrolled as fulltime students, participated in organized continuing education activity, ranging from "traditional" literacy instruction to job training program, neighborhood community or church activities, to university extension courses. However, only half a million of these adults were engaged in adult basic education programs.

The most extensive formal adult basic education efforts are those administered under Title II-B of the Economic Opportunity Act of 1964 and the Adult Education Act of 1966, both of which represent an attempt to mount a mass functional literacy campaign on a national scale.24

23 Paulo Freire, La Educacio Como Practia de la Libertad (Santiago: ICIRA, 1969).

24 The 1964 Act defined the aims of adult basic education programs as education for adults "whose inability to read or write the English language constitute a substantial impairment of their
Enrollment in ABE (Adult Basic Education) programs dramatically increased as a result of the 1964 Act. In 1965, programs in 19 states enrolled 37,991 people. By fiscal 1966, 49 states, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam had programs, with total of 377,660 enrollees. Since 1966 there has been a steady growth: 388,935 persons were enrolled in 1967; 455,730 in 1968 and an estimated 532,000 in 1969. Programs offer three levels of courses: beginning, corresponding to grades one to three; intermediate, grades four to six; and advanced, grades seven and eight. Neither content nor form of the programs can, however, be inferred as no two states place similar interpretations on duration of instruction in each level.

Attrition is a plague of all adult education programs. In 1968 a reported 160,705 students dropped out of ABE classes, representing roughly 25% of enrollees. Of these, 29,219 left to assume employment, 8,243 entered job training programs, 9,513 left ability to get or retain employment commensurate with their ability so as to help eliminate such inability and raise the leve of education of such individuals with a view to making them less likely to become dependent on others, to improving their ability to benefit from occupational training and otherwise increasing their opportunities for more productive and profitable employment, and making them better able to meet their adult responsibilities." The 1966 Act specified "services or instruction below the college level" for people without a secondary school completion certificate or a comparable level of education currently not enrolled in school. In June, 1969 the minimum age qualification was reduced to 16.


26 Hawaii, for example, offers a beginning level course of 540 hours, an intermediate course of 260 hours, and an advanced
because of job changes, 97,222 did not report any reason, and 16,508 reported lack of interest as the cause. In many areas the attrition rate exceeded 50 percent. 27

Curricula and teaching methodologies around the country vary, although a series of prescriptive curriculum guides published in 1966 by the U.S. Department of Health, Education and Welfare for each of the three levels are in wide use. The first of these, for the beginning level, proposes a curriculum including reading (taught by a global method), communication skills (handwriting, spelling, listening, and speaking), arithmetic, social living (basic information about the country, locality, institutions, and individual rights), everyday science (personal hygiene, diet) and enrichment through the arts (elements of culture). The guide also proposes organizational patterns and administrative behavior.

ABE programs are funded jointly by the Office of Education and the states on a 90/10 matching basis. Actual funds allocated fall far short of the needs. While the National Advisory Committee on Adult Basic Education recommended an appropriation of $125 million for fiscal 1970, Congress authorized only $80 million and the actual appropriation will amount to $50 million—$75 million less than recommended and far less than is needed.

The National Advisory Committee on Adult Basic Education in its Second Annual Report (1968) states that in ABE programs in 1967,

62,000 adults learned to read and write for the first time;

28,000 registered and voted for the first time;

240 hours while South Dakota offers courses of 71,74, and 80 hours respectively for the same levels. Adult Basic Education Program Statistics, op. cit., pp. 22-23.

Adult Basic Education Programs, op. cit., pp. 28-30.
3,500 used their public libraries; 
37,000 found jobs, received raises or were promoted; 
48,000 entered job training programs; 
25,000 opened bank accounts for the first time; 
27,000 became subscribers to newspapers or magazines; 
8,000 left the welfare rolls and became self-supporting; 
5,000 helped their children with school assignments.

While the Committee claims that "these results show that the program of Adult Basic Education has become one of the nation's positive investments in human resources," there is absolutely no conclusive evidence of a cause-effect relationship between these achievements and the actual programs.

Publicly sponsored programs such as "Americanization" courses for new immigrants, on-the-job basic education courses, and special programs for Indian and military veterans are all administered separately. Their participants, however, are included in the overall figure for the country.

Lack of coordination between the various efforts, overlap, and lack of ongoing systematic planning and evaluation combine to hamper adult basic education activities around the country.

Strategies for the Future

Literacy efforts cannot be prescriptive designs adaptable to all countries and areas. Rather, they should be designed for specific situations and target populations, with clearly articulated aims. In Adult Basic Education programs in the United States, for example, the eighth-grade completion equivalency needs to be supplanted by a clearly defined delineation of adult reading requisites.

28Adult Basic Education: Strengthening the Foundation of Our Democratic Society, op.cit.
and related functional goals. Income tax forms, driving instructions, job application forms, television guides, and newspapers, among others, could be analyzed to derive a precise definition of adult reading level, which could then become the articulated aim of literacy instruction. Functional aspects of the programs should also be clearly delineated and their relationship to literacy defined.

A common program deficiency resulting from the adoption of grade equivalencies is the transference of actual grade school curricula to adult courses. Although this approach facilitates both program organization and curriculum design, the main effect is that adult illiterates are often equated with children and treated as such. Furthermore, many teachers identify illiteracy with a lack of intelligence, an unwarranted and potentially counter-productive expectation.

Psychological and cultural constraints need to be taken into account in planning literacy efforts. In some cases formalized learning situations such as classes may not be practical and less structured teaching might be more acceptable. As a rule, solutions to these problems can be found and incorporated into the program plans if the constraints are known.

Optimally, literacy programs should form the first stage of a continuing "lifelong" adult education. Basic literacy training needs to continue into new materials and subjects. This could be facilitated by the creation of permanent adult learning centers with specially designed curricula. These learning centers could also serve as community centers.
Evaluation should be incorporated into programs from their inception, not to prove success, but rather to facilitate innovation and revision of programs.

In charting strategies for future adult basic education efforts a case has been argued for the systematic planning of programs and for the adoption of a situation-specific approach, allowing for different projects for different areas and groups.

Meager resources necessitate the close coordination of efforts. Equally as important is the dissemination of information among programs. The object of such centralized coordination, however, should not be consolidation and standardization, but rather the direction, planning, and dissemination of experience and ideas.

Finally, if meaningful action is to be taken, professional educators must realize that functional illiteracy is far more widespread than has been commonly thought.