A more literate society cannot be created in the United States or elsewhere without a more comprehensive conceptual framework. This framework attempts explicitly to link children's acquisition of literacy with that of adults and assumes there is no single normative theory to literacy development. In a life-span and life-space approach, literacy may be understood as a cluster of skills and practices that begins with early oral language skills in all children and proceeds to be acquired and retained in varying degrees across the lifetime of the individual. Individuals who never come into contact with written materials will not learn to read, but many who live in contact with the literate world may learn only a few of the practices thought of as literacy. Some policy implications of a life-span and life-space approach are as follows: (1) connect child and adult literacy theory with action; (2) build on local/cultural strengths; and (3) do not assume that literacy is a vaccine. (Contains 28 references.) (YLB)
LIFE-SPAN AND LIFE-SPACE LITERACY:
RESEARCH AND POLICY IN NATIONAL AND INTERNATIONAL PERSPECTIVE

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Abstract

Literacy is a term which continually evolves in meaning. Over the past several decades, American researchers have invested tremendous effort in attempting to better understand how children learn to read and write. In this regard, we have come to hear with regularity such terms as “emergent literacy,” “computer literacy,” and even “cultural literacy.” Meanwhile, both in renaissance Europe, and in post-colonial developing countries, literacy often was taken to mean what reading and writing skills adults needed to learn in order to partake in social practices (such as religion) or in economic development schemes requiring the use of printed materials. These two separate literatures—children’s literacy and adult’s literacy—have only rarely come into contact.

This paper reviews some of the reasons for this lack of contact, and highlights some of the areas in which child and adult literacy research and policy will likely come to interact in the coming decades. The basic argument is that the worlds of literacy, among child and adult learners, and across diverse parts of the globe, will soon be in much greater and more useful communication. “Life-span” literacy refers to an approach which may be applied to literacy development across an individual’s lifetime, while “life-space” literacy refers to the crucial social and cultural factors which influence individual literacy learning and literacy practices.
I. Introduction

We have all seen the headlines in the newspaper: the literacy “crisis in the schools,” the debate over “high skills vs. low wages,” the President appealing for more volunteers in the campaign to eliminate adult illiteracy in America; Jonathan Kozol claiming that 60 million Americans are functionally illiterate, and more recently that urban schools are declining rapidly, and the Governors’ education “report card” showing the U.S. lagging behind many other industrialized nations.

Education in general, and literacy in particular, is fast becoming, again, a national preoccupation in the United States. In this paper the focus is on literacy, but perhaps with a more expanded and inclusive framework for literacy than is typically the case. Indeed, it will be argued that a new field is beginning to emerge, what I will call “lifespan and life-space literacy”—a field not only ripe for researchers to explore, but of practical consequence now, for addressing a significant part of the educational crisis in America and abroad.

Two stories help to illustrate the present thesis. The first takes place in the distant land of Morocco (in North Africa). I became acquainted with an elderly woman during the time I was working intensively on literacy in developing countries. I would like to offer a short vignette I once wrote about her connection with literacy:

Oum Fatima has labored virtually everyday of her 55 or so years of age, and with four children and a chronically ill husband unable to help financially, she could only hope to do housecleaning in the wealthier homes of the labyrinthine medina (or old city) of Marrakech.

Beyond regular washer-woman duties, it was normal for Oum Fatima to handle a gamut of contacts between the “outside world” and the home and children for which she worked so hard. Such activities varied enormously. On some days, the mailman would arrive with letters; Oum Fatima would deliver each to the addressee, knowing simply by the type of handwriting or script used—Arabic or French—who should receive which letter.
Once a month, the "electric man" would arrive to collect money for the months charges. Oum Fatima handled this affair with just a question or two, drawing money from an earthenware jar in which she stashed odd coins and bills in anticipation of his visits. At the *souk* (market), Oum Fatima’s skill in mental arithmetic and bargaining was legendary. Not only could she switch effortlessly between the several parallel currencie in use—dirhams, francs and rials (a base-five system)—but her ability to negotiate the lowest possible price made her a well-known figure in the *derb* (quarter). To those of her social class, as well as to those “higher up,” Oum Fatima was a woman worthy of great respect.

Now, let me relate a second story, seemingly quite different. It relates to my own almost-six-year-old son. Each night his mother and I take turns reading to him, as we have done probably since he was two years old. Over the years, our boy has become very involved in the stories told and stories recited. He knows what is on every page, though he still only knows the letters of the alphabet, and cannot recognize more than few isolated words. He loves his books, I think, almost as much as his Legos (plastic blocks), which is pretty high up on the charts! He is, obviously, just beginning to learn to read. With more time and practice and nurturance, we have every expectation that he will become a part of the literate world.

What is the relationship, you may be asking, between these two disparate stories across lifetime and life-space? There are two relevant linkages. First, both actors—Oum Fatima and my son—are “normal” for her and his context. Each functions well, and neither is stigmatized for being “behind” or underdeveloped, though neither would be considered to be extraordinarily ‘intelligent’ by the terms of IQ that we in America tend to apply. Second, both are active learners, and are motivated to seek new information with all the skills they possess.

Are these individuals “deficient” in “basic skills”? Probably, by current Western normative definitions of literacy. Could each of them learn more of such skills? Yes, of course. But, unfortunately, it will not be easy. Oum Fatima has her busy life to lead, and so does my son. Fortunately for my boy, we will provide him with such a rich literate environment that it will be impossible (we think!) to escape from books, print, and the like.

Thus, in their own milieu, both Oum Fatima and my son are contributors to their contexts, and should not be stigmatized as
“deficient.” But how do we create contexts for individuals to wish to read, even though they may function reasonably well in the lives they lead? This fundamental problem—essentially one of culture—is basic to literacy work today. My son will inevitably become literate if things continue as they are. Oum Fatima will continue to be one smart lady with print and numbers, but still unable to read or write with competence, and unlikely ever to change.

In sum, literacy is practiced in ways that can be understood across the life-span, and across life-spaces, whether in America or in Africa. It is becoming increasingly clear that in a number of fundamental ways, we will not be able to create a more literate society in America or elsewhere without a more comprehensive conceptual framework—one that explicitly attempts to link children’s acquisition of literacy with that of adults’, and one that assumes that there is no single normative theory to literacy development.
II. Conceptualizing life-span and life-space literacy

What I would like to do next is suggest that it is both possible and crucial to create new conceptual linkages in literacy, across the life-span and life-space.

Let us take the essential domain of the acquisition of literacy in children and adults as a first pass with a focus on cultural context. In industrialized countries, it is usually assumed that most children grow up in "literate households," that is with both parents educated and able to read and write proficiently. While specialists in industrialized countries are now much more likely to discuss the diversity of their respective societies (also useful as explanations for the diversity of literacy achievement in the entire population), the so-called "average child" typically starts to come into contact with written language about the age of two, three, or four years, beginning with what has been termed the emergent skills of scribbling and storybook "reading." Subsequently, children are socialized for literacy through many years of attendance in school, reinforced by parents who read and wish their children to read.

Naturally, this normative, schematic, and idyllic picture of literacy learning in industrialized countries leaves out many children in today's world, both in industrialized countries and in the developing world. With respect to illiteracy or low literacy in industrialized countries, specialists have stressed the importance of class structure and ethnicity/race as explications of differential motivation and socialization of young literacy learners. Some claim that many minority and marginalized children in these countries are simply unmotivated to learn to read and write in the cultural structure of the school. This approach to understanding social and cultural differences in literacy and school achievement has received increased attention in that it avoids blaming the child for specific cognitive deficits, while focusing attention more on changes in the social and political structure of schooling.

Such an approach to children's literacy achievement in developing countries seems to have only modest attraction to Third World social scientists, most of whom see the problem of illiteracy in broader social terms. Rather than focus on those who "fail" in the school system (which
is usually the emphasis of Western social scientists), these specialists are mainly concerned with how to provide more literacy to the entire population. Thus, the developing country context is seen as one in which there is simply too little literacy in the environment (e.g., books, newspapers, etc.), too few literate parents to teach and add value or "cultural capital" to literacy in the home, and too few children who attend sufficient numbers of years of schooling to become literate.

Overall, when consideration is given to children in low-literate settings (whether in the Third World or America's urban ghetto), this cultural perspective on literacy learning provides a ready explanation for the lack of literacy acquisition among children and youth.

Now we turn briefly to literacy acquisition in adults. Compared to the considerable progress made in understanding the acquisition of literacy in children, far less is known about literacy acquisition in adults. Indeed, the research base is so slim that there are no major journals that specialize in adult literacy research, and there are few university research programs that train new scholars in this field. In contrast to the study of children, adults who do not learn to read and write in industrialized countries are considered to be "failures" since they should have learned to read and write in school. Children, while eventually stigmatized in school for failing to read adequately by the end of primary school, are nevertheless given time to develop skills "naturally" through home and school learning. By contrast, adult illiterates or low-literates are assumed, in most industrialized countries, to already have failed. The distinction is exceedingly important, and is one of the key issues in adult literacy today. Especially in industrialized countries, where the population density of literacy and literacy requirements is relatively high, the illiterate and low-literate individual may become demoralized by the stigmatization of illiteracy. Thus, motivation to achieve and to become literate is a critical element in the success of most contemporary literacy programs in industrialized countries.

The situation may be more mixed in developing countries. With a population density of literacy so much lower, the stigmatization factor may be considerably diminished, as in the story of Oum Fatima described earlier. But a diminished stigmatization may not necessarily have a salutary effect on motivation. Even if literacy in numerous Third World countries is reserved primarily for the educated classes, uneducated and illiterate individuals may, for a variety of sociohistorical reasons, perceive themselves as stigmatized and unable to break the cycle of poverty and illiteracy. Thus, motivation for learning can be
just as great a problem for adult literacy programming in developing countries as it is in industrialized ones.

Cultural and environmental explanations for illiteracy and low-literacy in industrialized and developing countries are quite similar, and reside principally in the individual's lack of schooling (through non-attendance or premature dropout). As in the case with children, the low incidence of schooling, and more recently, lack of participation in adult literacy programs and campaigns may be seen as a sociological and cultural phenomenon. Adults, certainly more than young children, are prone to make decisions independently, particularly vis-a-vis their parents, though this can vary importantly across societies. This means that the dual coercive influences of parents and teachers have considerably less influence on the adult learner than on the child learner. As a result, not only are motivational forces reduced, but also the incentives for participation in adult literacy programs may be entirely absent in developing countries.

While statistics on adult literacy programs are far from adequate, statistics on participation are often quite revealing (and disappointing) for providers of literacy services. It has been estimated, for example, that only one in ten Americans in need of basic skills training receives or has received such training as of 1990. In addition, the available evidence suggests that more than half the new adult literacy students in America drop out before completed two weeks of their program. Similarly, it has been reported that low participation rates are an important factor in the inability of many countries with significant adult literacy program investments to make significant progress toward improved adult literacy rates.

The linguistic dimension

Children. Almost two decades ago, Downing (1974) published *Comparative reading* which surveyed the acquisition of reading skills across different languages and different orthographies. Based on his work and others, we know that mastery of the spoken language is a typical prerequisite for fluent reading comprehension in a given language.

Until fairly recently, it has been taken as "axiomatic" that learning to read in one's "mother-tongue" or first language is *always* the best educational policy for literacy provision, whether for children or adults. Based on several well-known research studies undertaken in the 1960's, it has been generally assumed that children and youth who have had to learn to read in a second language are at a disadvantage relative to others.
who learn in their mother-tongue. While this generalization probably holds true in many of the world's multilingual societies, more recent research has shown that there may be important exceptions.9

We also know that languages which have a relatively close correspondence between spelling and sound (of languages such as Spanish) tend to make literacy learning easier than languages where there exist many exceptions to "sounding out" rules (such as in the English language). Yet, it has also been shown, contrary to earlier anecdotal information, that reading problems (and disabilities) exist in all known written languages, even those in which there is no spelling-sound correspondence (such as in Chinese).10

Overall, it can be safely said that while important differences exist among written languages, the normal, healthy child, with the proper environment and instruction, ought to be able to learn to read and write. That there remain large individual differences in literacy achievement is usually thought to be explicable by addressing individual level approaches to literacy learning (as described a bit later on).

Adults. It has been often assumed by national and international development agencies that the language learning characteristics of children are roughly the same for adults. Indeed, this author has been able to find little or no reference to a child-adult distinction in the policy arena. Generally speaking, Unesco and literacy policymakers in numerous countries have assumed that, like children, it is preferable, for efficient learning, to teach adults in their mother tongue rather than in a second language. The only caveat is that governments, putting learning efficiency aside, may prefer a second (usually metropolitan or European) language for the larger purposes of economic development. The scientific research literature is similarly absent on the topic of first and second language and literacy learning in adults.11

In second language learning (oral and aural skills), the available literature seems to be varied in its conclusions. Contrary to popular belief, some specialists believe that adults are faster at second language learning than are children, particularly with respect to syntactic and lexical development; by contrast, children may out-distance adults in learning proper pronunciation of a second language, since their muscular habits are less ingrained.12 Thus, it is doubtful that adults should be considered "like children" in the domain of second language learning, as they possess many more lexical items in their native language than children, and have cognitive and metalinguistic skills that may make second language learning far easier than it is for children.13
Thus, the picture of language and literacy learning is even more uncertain with adults. Even if literacy learning in the mother tongue is necessarily easier than in a second tongue (and this has yet to be substantiated), it does not follow that adult literacy should always be taught in the mother tongue. For example, the presumed cognitive advantage of learning a first literacy in one's mother tongue may be small relative to the motivational aspects of learning to read in the second language/literacy. In the few studies which have looked at the preferred language of literacy in adult literacy programs, policymakers have often been surprised to find that individuals often prefer the metropolitan language of literacy to the relatively ineffective (for economic purposes) mother tongue local language, whether in the U.S. or developing countries.14

In sum, linguistic factors in adult literacy acquisition are just beginning to be understood. In many countries—both industrialized and developing—the issue of “which language of literacy” is often bound up in a host of political issues. Oftentimes it is difficult to obtain objective information on adult preferences, as lobbyists tend to take opposing positions on the issue of language learning, with governments usually opting for “national” languages, and disadvantaged ethnic groups often opting for the importance of cultural strength, preservation, and resistance through literacy in the mother tongue.

In sum, linguistic factors in adult literacy acquisition are just beginning to be understood. In most countries around the world, the issue of “which language of literacy” is often bound up in a host of political issues. Oftentimes it is difficult to obtain objective information on adult preferences, as political figures and lobbyists tend to take opposing positions on the issue of language learning.15

**The cognitive/psychometric dimension**

**Children.** Perhaps the greatest quantity of research on literacy has been undertaken within the traditions of psychological testing, developed at the beginning of the twentieth century in Western countries. This tradition, often termed psychometric in the intelligence testing community, became better known as cognitive or skill assessment by mid-century and up through the present.

Because studies using psychometric tests (on samples of Western middle-class school children) demonstrated that reading ability was usually correlated with cognitive skills such as perceptual discrimination, eye movements, and aural (auditory) discrimination, it has been claimed that these skills (the ones that correlate most highly with
reading skill) are the basis for effective reading.\textsuperscript{16} This finding, which has been replicated many times, has had major ramifications for literacy instruction the world over.

First, it was concluded that these basic cognitive skills (sometimes termed prereading skills) necessitate direct instruction (of these same skills) in the school curriculum. Thus, the past several decades have seen a tremendous growth in the use of "basal" textbooks which stress the learning of cognitive skills and an instructional approach favoring the decomposition of the reading task into simple skill (or subskills) components. One main example is the emphasis on "sounding out" of simple pronounceable words or wordlike strings (morphemes).

Second, it was suggested that children who were "slow learners" of literacy (sometimes termed "dyslexic") were thought to lack certain of these basic cognitive skills, therefore requiring remedial instruction on the component skills (rather than more practice on reading itself). This approach to seeing literacy acquisition as a consequence of the basic cognitive skills or subskills that underlie reading led to a long-term tendency of reading and literacy specialists to emphasize the individual learner as the "cause" of reading deficiencies.\textsuperscript{17}

Third, the cognitive approach has led to a number of important theories of reading and literacy acquisition. One of the most prominent has been termed the "stage theory" of reading.\textsuperscript{18} In this theory, it was proposed that all children (and, implicitly, adults as well) would normally learn to: 1) decode the alphabet; 2) learn to read written language; and then 3) read to learn from the written language. Presumably, these are stages that all readers must go through to become proficient in any written language. While this theory has been widely debated in the United States, it has yet to be tested widely in other societies.\textsuperscript{19}

Finally, since most of the research upon which these conclusions were drawn has been based on Western middle-class children, cultural and linguistic factors have tended to be minimized. It was only with the advent of ethnographic studies described above that the cognitive perspective came under critical review, particularly with respect to the large-scale literacy problems in Third World countries and amongst minority populations in industrialized countries.

**Adults.** While there exists a vast literature on the cognitive and psychometric aspects of literacy acquisition in children, the opposite is true in studies of adult literacy acquisition. Work is only just beginning on establishing testing equivalencies amongst the varied
standardized tests currently used in countries such as the United States. Since almost no direct assessment of adult skills (i.e., out of school literacy and basic skills) has taken place in developing countries, there is little basis upon which to form solid conclusions for other parts of the world.

As with language learning, it has usually been assumed (due to lack of relevant data) that adults learn literacy like children do, though perhaps faster or perhaps slower, depending on the research cited. It is often taken for granted, nonetheless, that adults can learn to read in “crash” courses in a matter of weeks or months in literacy campaigns, even though it is usually assumed to take years in children. Whether this learning is retained for functional use is seldom explored, and this area of research has just begun to receive serious attention.

In summary, when data from research studies are brought together, it may be seen that considerable progress has been made in understanding the life-span acquisition of literacy in children and adults, particularly in industrialized societies. Far less is known about literacy acquisition in a truly global or life-space perspective and in multilingual societies. Since the bulk of non-literate people live in these areas of the world, there is much more that needs to be known if we are to improve literacy provision in the coming decades.

We can also see that there are certain similarities between adult learning and children’s learning, such as in the early emphasis on letter learning and pronunciation. But important differences are also apparent. Perhaps most important is the observation that learning to read may have enormously different personal significance to adults than to children, who tend to be socialized by parents and teachers (and even coerced) into literacy. Motivation will depend greatly on these differing perceptions of literacy learning, and thus may vary enormously by context. Similarly, we have numerous studies of second language literacy learning in children, but almost none with adults. A comprehensive life-span approach will require a filling in of the “empty cells.” Thus, despite some important preliminary conclusions that carry across life-spans and life-spans, there remains a great need for a comprehensive and intersecting research base.
III. Policy implications of a life-span and life-space approach

In the view presented above, literacy may be understood as a cluster of skills and practices which begins with early oral language skills in all children and proceeds to be acquired and retained in varying degrees across the lifetime of the individual. Individuals who never come into contact with written materials will not learn to read, but many who live in contact with the literate world may only learn a few of the practices we think of as literacy.

If present trends continue, particularly with the universalization of primary schooling, the world of illiteracy will diminish over the next century. Indeed, the number of “naive” illiterates—those with no knowledge that literacy exists and with no knowledge of the uses of literacy by others—is dwindling as we begin the 1990s; few, if any, Americans would fall into that category. As many observers have noted, the absolute numbers of individuals with low literacy skills (e.g., with only a few years of primary schooling) continues to increase in many parts of the world. And in the U.S., these trends are particularly sensitive to race, ethnicity and social class.22

What are some of the policy implications of this life-span and life-space approach? A few suggestions are provided below:

1. Connect child and adult literacy theory with action. Both child and adult literacy programs need to benefit not only in terms of new knowledge, but also in the contexts in which literacy learning occurs. One new area of work, that of family literacy, is an excellent example of this nexus of work. Yet work has only begun, and the study of both children and adults learning to read together is an important new area of research.23

2. Build on local/cultural strengths. Although obvious in everyday life, building on strengths is a concept often ignored in educational programming such as adult literacy, as well as in schooling for children.24 For example, if a government seeks to promote literacy, then literacy training ought to be built on the languages which people have the most motivation to learn. Literacy
programs can be built into family and social services, such as early childhood education programs, which are part of the whole of family education. Clearly, to be effective, literacy and basic skills need to be much better linked with people’s work lives and life-spaces. Only in this way can the real disincentives (such as time away from work and family) for participation in literacy programs be reduced.

3. Do not assume that literacy is a vaccine. Talk of eradicating literacy, as in Unesco’s literature or in the NGA report card, creates the illusion that literacy learning can be done not only very quickly (and with only a little pain), but that it is virtually permanent (perhaps with a little booster from time to time). The vaccine metaphor seems erroneous on almost all counts. We have not yet integrated what we know about the life-span trajectory of literacy skills. Some may increase, others may wane, all as a function of the practice and practices engaged in by individuals in a diverse and variegated set of life-spaces.
N. Final thought

With the advent of new literacy initiatives, we have a unique opportunity to support educational efforts, nationally and internationally. In spite of the clear needs for cultural sensitivities and specificities, this new effort suggests possible important economies of scale. Methodologies for pilot programs, assessment and evaluation, and computerized textbook preparation, as examples, may be transferable with local adaptations to many cultural contexts, in this country and abroad. The need for literacy and other basic skills has never been greater, as the gap between literate and non-literate lifestyle becomes ever wider, with parallel growth in income disparities. Understanding and developing the conceptual framework for literacy across the life-spaces may be useful in improving the way we think about and create the literacy programs of the future. It may not be easy to apply such a theoretical approach; but, as has been said before, there is nothing as practical as a good theory. In literacy work, the difficulties and failures of the past necessitate some new thinking if we are to move forward in an increasingly complex world.
ENDNOTES


3 Bourdieu, 1977

4 Kirsch & Jungeblut, 1986


7 There exist, nonetheless, many exceptions. Some Islamic scholars can read and interpret the Quran, even though they cannot speak classical Arabic, the language in which the Quran is written (Wagner, 1986). And, of course, many individuals can read and write languages which they may not speak fluently.

8 See Unesco (1953), page 11; also, Bijeljac-Babic (1983). Also note that the Appendices to this volume, reflecting national attitudes about adult literacy tend to reinforce this claim concerning the importance of learning to read first in the individual’s maternal language.

9 See Wagner, et al., 1989, for details of a study involving Berber-speaking children learning to read in Standard Arabic. See Dutcher (1982), Engle (1975) for more general reviews.

10 See Stevenson et al. (1982).

11 The exception, of course, is in the area of second language learning by secondary and tertiary (university) students learning a “foreign” language. See, for example, Lambert & Freed (1982).


13 Indeed, the available educational research suggests that it is probably incorrect to treat adult learning “like children’s learning” in almost any respect.

14 Wagner, 1990; Lind & Johnson, 1990. On a visit to Botswana in 1992, the author heard government officials complain that adults would not attend non-formal education classes unless they were provided in English, rather than in the local Setswana language.

15 Unfortunately, selected (rather than comprehensive) scientific findings on the matter of language policy are often used by one faction or another in support of a political agenda that is not always in the best interests of the individual learner.

16 See Barr et al. (1991) for several chapters on skills and reading.

17 See, for example, Vellutino & Denckla (1991).

19 It would appear that the Chall (1983) theory, though normed on American children, has some wide applicability to other societies. One major lacuna would occur in societies where alphabets are not the primary form of written language, such as in Chinese, a non-alphabetic script.

20 See Arnove & Graff (1987) for some examples of literacy campaigns and time to teach adults to become literate in campaigns.


23 Family literacy or intergenerational literacy programs usually utilize settings which can involve parents and young children learning to read together. Little research has, as yet, been undertaken on this area of work.

24 The well-known Kamehameha project for children in Hawaii is one of the most cited examples of trying to build local cultural dimensions into the school curriculum. See Au (1980).
REFERENCES


