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LITERACY, MINORITY LANGUAGES, AND MULTILINGUAL INDIA

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In a traditionally multilingual society such as India, literacy often involves more than one language. While much of recent research deals with literacy within a paradigm of individual skills, or literacy as a set of cultural practices, few studies address the problems of literacy in multilingual societies. There are several dimensions that need to be taken into consideration in the context of pluralistic societies, e.g., defining major and minor languages, major/minor languages without scripts, minor languages which are written in more than one script, etc. In India, where a significant number of people use several languages in their linguistic repertoire on a daily basis, literacy in several languages is needed. In order to present all the dimensions involved in discussing literacy, we have organized the paper as follows: We begin with a brief overview of Indian multilingualism, including a discussion on minority languages, followed by a section on literacy education in India. A detailed account of dimensions of multiple literacy education that need attention is presented using Kashmiri and Konkani as examples. A short concluding section raises issues related to these dimensions and to increasing dissemination and emphasis on information technology in multilingual societies with rich traditions in orality and literacy.

Introduction

In literacy research a critical debate is going on between the proponents of the view that conceptualizes literacy within a paradigm of individual skills, and the notion that conceives of literacy as a set of cultural practices (Reder 1994). The individual-skills approach focuses on mental processes underlying reading and writing, and downplays the effect of social contexts in which they occur. According to this view, literacy is a neutral technology that can be detached from specific social contexts, and is seen as a personal achievement.

The paradigm of cultural practices, on the other hand, views literacy as a set of social or cultural practices which develops and spreads through a process of socialization. The instruments of such socialization may include interaction with other practitioners, formal instruction in institutional setting, etc. The cultural-

practices paradigm better addresses issues of how the characteristics of literacy behaviors vary with, and are closely fitted to, the features of the contexts in which they occur (Reder 1994). This approach is in consonance with Scribner's 1986 observation that literacy must be regarded as 'a social achievement.'[1]

Within the domain of literacy as social and cultural work are situated the discussions of the multidimensional nature of literacy (e.g., in Hasan 1996, Wells 1987). For instance, the term 'literacy' may be employed to signal just the pairing of orthography with linguistic forms, which the term usually means when we talk of spreading literacy among the illiterate population. On the other hand, in most educational settings, it means more than that; it means equipping people to be able to manipulate written language to participate in social and cultural life, and, if possible, access and contribute to various areas of knowledge.[2] In a still more extended domain, the term signals empowering people so that literacy means 'both access to' and 'defence against' information. Literacy in this sense means 'being able to participate effectively in social processes by working with written language' (Halliday 1996:367).

Literacy in multilingual societies

Recent research on literacy is also coming to grips with the phenomenon of literacy in multilingual societies where literacy in more than one language may be involved (Hornberger 1994). It is being recognized that at the macro level, just as different varieties of one language are identified with high and low functions in monolingual societies, so, too, in bilingual societies, different languages undergo specialization of function. The important distinction is less the difference in languages than the differences in contexts, functions, and use. Similarly, at the micro level, the difference between monolingual and bilingual individuals is not so much that bilinguals possess two complete sets of functions and uses of language, one for each language. Rather, bilinguals switch languages according to specific functions and uses, whereas monolinguals switch styles in the same contexts. As Hymes (1986:38) observes, '[b]ilingualism … is a special, salient case of the general phenomenon of linguistic repertoire. No normal person, and no normal community, is limited to a single way of speaking'. Sridhar (1994:802) elaborates on the same theme when he states that accent, transfer from substratum languages, code-mixing and switching, etc. are enriching resources in stable multilingual communities with shared verbal repertoires. They are not an impediment to intelligibility; instead, they are as natural as style or register-switching in monolingual communities. Grosjean 1985 also argues for a bilingual ('wholistic') rather than a monolingual (fractional) view of bilingualism. In the bilingual view, bilinguals are realistically perceived to have unique and specific linguistic configurations that are different from those of monolinguals in either language, in the same way that a hurdler is neither a sprinter nor a high jumper, but something completely different (cf. Gumperz, 1969:244).

Indian multilingualism

In the context of Indian multilingualism, there is scope for both approaches to literacy, i.e., literacy as an individual achievement and literacy as a set of social practices. We would elaborate this point by considering the social practices of literacy in India on the one hand, and the problems an individual faces in acquiring literacy on the other. India not only presents a unique source for data and case studies, but also provides a testing ground for theoretical formulations and experimental methodologies as a result of its history and diversity in languages, ethnicity, and religions.

First, a brief look at the language profile of India is useful. India is politically organized into 22 linguistic states and 9 union territories. The country has four genetically unrelated language families: Indo-Aryan, Dravidian, Sino-Tibetan, and Austro-Asiatic. According to the 1991 census, there are over 300 languages spoken in India, out of which 18 languages are recognized as national languages (see Table 1) and a further four are recognized by the Sahitya Akademi (literary academy) for purposes of annual literary awards. The languages thus recognized are Rajasthani, Maithili and Dogri, and the associate official language, English.

Table 1. The national languages: Numbers and percentage of speakers*

LANGUAGE	NUMBER OF SPEAKERS (IN MILLIONS)	PERCENTAGE
Hindi	264.19	39.94
Telugu	54.23	8.20
Bengali	51.5	7.79
Marathi	49.62	7.50
Tamil	44.73	6.76
Urdu	35.32	5.34
Gujarati	33.19	5.02
Kannada	26.88	4.06
Malayalam	25.95	3.92
Oriya	22.88	3.46
Panjabi	18.58	2.81
Konkani	15.7	2.72
Nepali	13.6	2.03
Manipuri	9.01	1.40
Kashmiri	3.17	0.48
Sindhi	1.94	0.29

*Based on the 1981 census. The data for Assamese are missing, as no census was taken in Assam; the total number of speakers for the Sanskrit language is reported to be 2,946.

As is clear from Table 1, no language emerges as a majority language of the country in terms of number of speakers. Even Hindi-Urdu, the single largest lin-

guistic grouping, is spoken and understood by only slightly over 45% of the population. The constitution recognizes Hindi in Devanagari script as the official language, and English as the associate official language of India.

There are ten major script systems used to write these languages; these are:

Bengali-Assamese-Manipuri	Malayalam
Devanagari	Oriya
Gujarati	Tamil
Gurumukhi	Perso-Arabic
Kannada-Telugu	Roman

All the scripts of India, except Perso-Arabic and Roman, are derived from Brahmi script, which is one of the scripts of Ashokan inscriptions (third century BC). We will have more to say about scripts a little later.

Minority languages of India

Although states have been reorganized as linguistic states, each state in India is multilingual. The state language is taken to be the majority language, but that is not true. The minority language speakers in some of the states are more numerous than the speakers of the so-called majority languages. For instance, 86.06% of the population of Nagaland speak minority languages. Table 2 gives the figures of minority language speakers in different states.

The languages spoken by minority populations in a state are designated minor languages in the contexts of linguistic, educational and literacy-related discussions. The following states have significant number of minor-language speakers (almost 20% or more of the total population): Bihar, Jammu and Kashmir, Karnataka, Maharshtra, Manipur, Meghalaya, Nagaland, Sikkim, Tripura, Andaman and Nicobar, Arunachal Pradesh, Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Daman and Diu, and Mizoram. This is, however, misleading. Some of the populous states have small percentages of minor language speakers, but the populations involved are such that the small percentage exceeds the number of larger percentage in small states such as Nagaland, Meghalaya, or Arunachal Pradesh. For instance, 10.32% of the population of Uttar Pradesh adds up to almost 14.5 million, and 26.38 % of the population of Maharashtra adds up to almost 21 million.

Literacy practices and profile of literacy in India

Traditionally, there is evidence of writing in India in pre-historic times (Indus civilization of 5000 BC), and the Kharoshti and Brahmi scripts were well established by 500 BC and 300 BC, respectively. Literacy, however, played a marginal role in the transmission of knowledge in India. Knowledge was passed on by a dedicated teacher to his group of students who lived and learned with him between the ages of 8 and 25. Philosophical debates (Shastrartha) were also conducted orally. Brahmins were the guardians of literate knowledge, the warrior and the trading classes acquired literacy for the purposes of governing and conducting business and commerce, but the vast majority of the lower castes were not lit-

erate. Although the ancient literature suggests widespread literacy of a high level among Brahmin and other upper caste women, in later times, women of higher castes acquired literacy primarily for the purposes of reading sacred texts and writing personal letters to their kinsmen. This is still true of modern India to some extent.

Table 2. Minority-language speakers in states of India (Census of India 1981)

STATE/UNION TERRITORY	MAJOR LANGUAGE (% of speakers)	MINOR LANGUAGES (% of speakers)
Andhra Pradesh	Telugu (85.13)	14.87
Assam	(No census data available)	
Bihar	Hindi (80.17)	19.83
Gujarat	Gujarati (90.73)	9.27
Haryana	Hindi (88.77)	11.23
Himachal Pradesh	Hindi (88.95)	11.05
Jammu and Kashmir	Kashmiri (52.73)	47.27
Karnataka	Kannada (65.69)	34.31
Kerala	Malayalam (95.99)	4.01
Madhya Pradesh	Hindi (84.37)	15.63
Maharashtra	Marathi (73.62)	26.38
Manipur	Manipuri (62.36)	37.64
Meghalaya	Khasi (47.46)	52.34
Nagaland	Ao (13.94)	86.06
Orissa	Oriya (82.83)	17.17
Punjab	Punjabi (84.88)	15.12
Rajasthan	Hindi (89.89)	10.11
Sikkim	Nepali (62.57)	37.43
Tamil Nadu	Tamil (85.35)	14.65
Tripura	Bengali (69.59)	30.41
Uttar Pradesh	Hindi (89.68)	10.32
West Bengal	Bengali (86.34)	13.66
Andaman and Nikobar	Bengali (24.68)	75.32
Arunachal Pradesh	Nissi/Dafla (23.59)	76.41
Chandigarh	Hindi (55.11)	44.89
Dadra and Nagar Haveli	Bhili/Bhilodi (68.69)	31.31
Delhi	Hindi (76.29)	23.71
Goa, Daman and Diu	Konkani (56.65)	43.35
Lakshadweep	Malayalam (84.51)	15.49
Mizoram	Lushai/Mizo (77.59)	22.41
Pondicherry	Tamil (89.18)	10.82

This does not mean, however, that literacy and schooling were rare in India. In the pre-British period, every village had its schoolmaster, supported out of public funds, for children between the ages of 5-8. In the province of Bengal alone, there were 80,000 such schools, one to every 400 of population

(Venkateswara 1928). Children went for more rigorous training in the traditional areas of knowledge to a guru after schooling in the local schools.

The repeated Muslim invasions between the 8-14th centuries AD and the subsequent European colonization of the Indian subcontinent introduced political and economic changes that resulted in the destruction of the structure of the Indian village, and consequently, the indigenous system of education. The subcontinent is still struggling to reinstate a system of education that would serve its needs.

One of the factors complicating the issue of universal education is the historical and more recent political reorganization of states and Union Territories in India. The reorganization has shifted populations speaking one language to a state with other dominant language(s), or has incorporated linguistically separate populations into a single entity. This has resulted in populations that have become speakers of minor languages in many of the states of the Union. A case in point is Hindi in the state of Maharashtra. The region of Vidarbha used to be part of the Central Provinces, which was a Hindi-speaking province. However, Marathi-speakers were more numerous in the district than were speakers of Hindi or tribal languages. Consequently, when the states were reorganized, Vidarbha became a part of Maharashtra, a state with Marathi as its state language. Hindi speakers in the state are now in the minority.

Literacy in minor languges

There are several factors that contribute to the minority status of a language. If a language is not included in the eighth schedule of the Constitution, it is considered a minor language. Speakers of a major national language become minority language speakers if they migrate to a different state, or are incorporated into a language-different state, e.g., speakers of Bengali in Bihar or Uttar Pradesh, speakers of Hindi in Maharashtra, speakers of Tamil in Karnataka. Speakers of tribal languages, such as Gondi, Santali, Tulu, etc., since they are not in the majority in any state in India, represent minority-language speakers. Linguistic minorities who lack a specific geographic location within India, e.g., speakers of Gondi and Santali, who live in several states of India, speakers of Sindhi who migrated from the Sindh province of Pakistan and reside in several different states, are also considered speakers of a minor language. A majority language identified with a state may not be the official language of the state, and hence be reduced to the status of a minor language, e.g., Kashmiri, as Urdu was declared the state language of Jammu and Kashmir.

Kashmiri and Konkani: Case studies

In order to highlight the problems that face literacy efforts in minor languages in India, we will discuss two case studies here, that of Kashmiri and Konkani. Both are included in the eighth schedule of the Constitution, but both are spoken by relatively smaller populations and both are written in multiple scripts.

Kashmiri

The language is spoken in the state of Jammu and Kashmir by just over 3 million people. The state is divided into three administrative provinces: Jammu, Kashmir, and Ladakh. Ladakh is in the Himalayan Mountains to the east of the Kashmir valley and its Buddhist and Muslim populations speak Ladakhi, a Tibeto-Burman language. Kashmiri is spoken by the Hindu and Muslim populations in the valley. The language of Hindus and Muslims in Jammu, located in the south of the valley, is Dogri, a variety of Panjabi, spoken by just over 1.5 million.

No serious dialect research has been done on Kashmiri. Only one regional dialect has been conclusively identified: Kashtwari spoken in the Kashtwar region of the Southeast. It is written in Takri script.

Kashmiri is written in four scripts: Sharada, Devanagari, Perso-Arabic, and Roman. Sharada is the earliest traditional script for the language. It is derived from Brahmi (3rd Century BC) and has been in use since the 10th century AD. A large number of Kashmiri manuscripts are in this script. Early Christian missionaries used it for publishing translations of the Bible in this script. Its use, however, is now limited to the Kashmiri pandits (priests) who use it for writing horoscopes.

The Hindus of Kashmir (the Kashmiri Pandit Community) use a modified Devanagari script for writing Kashmiri. The rationale for its use is that it is a familiar script; Devanagari is used for Sanskrit and Hindi, two languages with which most Pandits are familiar.

The state government of Jammu and Kashmir have adopted modified Perso-Arabic for Kashmiri (see Table 3):

Teaching materials for primary classes are published in this script and Kashmiri Muslims use it for their literary creativity. The rationale for its use is that Kashmiris have to learn the script anyway to learn the official language of the state, Urdu. Additionally, Muslims are expected to learn the Arabic script for religious purposes, i.e., to read the holy Koran.

A few writers have used the modified Roman script to write Kashmiri. The rationale given for its use is that it is capable of representing Kashmiri sounds, especially vowels, much more unambiguously than the Perso-Arabic script. Also, the diacritics are not as cumbersome as in the case of Devanagari.

Problems for literacy efforts arise because Perso-Arabic script is the least suitable for Kashmiri, as Kashmiri has one of the largest vowel inventories (16 vowels) and Perso-Arabic script has the smallest number of vowel symbols, if any. As Table 3 makes clear, the same symbol is used to indicate multiple vocalic values with diacritics. Only teaching materials indicate the diacritics clearly, other texts usually do not bother with the diacritics. The same is true of Urdu texts, and we understand that that is the tradition in Arabic texts, too. The printing of diacritics in newspapers and literary works, for example, is felt to be insulting to adult readers of Arabic texts.

Table 3: Perso-Arabic Alphabet for Kashmiri (Kaye 1996)

Translit.	*Value*	*Isolated*	*Final*	*Initial*	*Medial*	*Translit.*	*Value*	*Isolated*	*Final*	*Initial*	*Medial*
b	[b]	ب	ـب	بـ	ـبـ	k	[k]	ک	ـک	کـ	ـکـ
p	[p]	پ	ـپ	پـ	ـپـ	g	[g]	گ	ـگ	گـ	ـگـ
t	[t]	ت	ـت	تـ	ـتـ	l	[l]	ل	ـل	لـ	ـلـ
ṭ	[ʈ]	ٹ	ـٹ	ٹـ	ـٹـ	m	[m]	م	ـم	مـ	ـمـ
s̱	[s]	ث	ـث	ثـ	ـثـ	n	[n]	ن	ـن	نـ	ـنـ
j	[ʤ]	ج	ـج	جـ	ـجـ	v	[w]	و	ـو	–	–
c	[ʧ]	چ	ـچ	چـ	ـچـ	h	[h]	ھ	ـہ, ـه	ھـ	ـھـ
ḥ	[h]	ح	ـح	حـ	ـحـ	y	[j]	ے	ـے	یـ	ـیـ
kh	[kʰ]	خ	ـخ	خـ	ـخـ	a	[a]	اَ	–	اَ	ـَ
d	[d]	د	ـد	–	–	ā	[aː]	آ	ـا	آ	ـا
ḍ	[ɖ]	ڈ	ـڈ	–	–	ạ	[ə]	اٗ	ـٗ	اٗ	ـٗ
ẕ	[z]	ذ	ـذ	–	–	ā̩	[əː]	اٚ	ـاٚ	اٚ	ـاٚ
r	[r]	ر	ـر	–	–	i	[iː]	اِ	ـِ	اِ	ـِ
ṛ	[ɽ]	ڑ	ـڑ	–	–	ī	[ɪ]	ای	ـی	ایـ	ـیـ
z	[z]	ز	ـز	–	–	u'	[ɨː]	اٖ	ـٖ	اٖ	ـٖ
ts	[ts]	ژ	ـژ	–	–	ū'	[ɨ]	اٟ	ـٟ	اٟ	ـٟ
s	[s]	س	ـس	سـ	ـسـ	u	[uː]	اُ	ـُ	اُ	ـُ
ś	[ʃ]	ش	ـش	شـ	ـشـ	ū	[ʊ]	اۆ	ـۆ	اۆ	ـۆ
ṣ	[s]	ص	ـص	صـ	ـصـ	o	[oː]	اۄ	ـۄ	اۄ	ـۄ
ẓ	[z]	ض	ـض	ضـ	ـضـ	ō	[o]	او	ـو	او	ـو
ṯ	[t]	ط	ـط	طـ	ـطـ	ǫ	[ɔ]	او	ـو	او	ـو
ẓ	[z]	ظ	ـظ	ظـ	ـظـ	ǭ	[ɔː]	اوآ	ـوآ	–	–
'	[ʔ, Ø]	ع	ـع	عـ	ـعـ	e	[e]	اےٚ	ـےٚ	ایٚـ	ـیٚـ
gh	[g]	غ	ـغ	غـ	ـغـ	ē	[eː]	اے	ـے	ایـ	ـیـ
f	[f, pʰ]	ف	ـف	فـ	ـفـ	ẏ	[ʲ]	اۓ	ـی	–	ـیـ
q	[k]	ق	ـق	قـ	ـقـ						

Most Kashmiris have to be multilingual by necessity; Kashmiri is of no use as a means of communication outside the valley. The languages with which Kashmiris come into contact in their day-to-day living are Hindi, Panjabi, and Urdu, and more recently, English. Educated Kashmiris find no functional use for Kashmiri in the contexts of administration, business and commerce, higher education, the legal system, etc., even within the valley. A very small minority of Kashmiri speakers in fact uses Kashmiri even for written communication. In a survey conducted in the 1980s, only 11% of the literate Kashmiri respondents reported using Kashmiri in casual written communication (Koul & Schmidt 1983). The energy, effort and time spent for learning the Perso-Arabic script for Kashmiri is thus of very limited use for the Kashmir speakers and most prefer other major languages, such as English, Hindi, or Urdu, as media of education for their children.

Konkani

Konkani is an Indo-Aryan language spoken by approximately two million people in Goa, and in parts of Maharashtra, Karnataka, and Kerala. Note that Karnataka and Kerala are predominantly Dravidian-language speaking states (Kannada/Tulu and Malayalam speaking, respectively). The largest concentration of Konkani speakers in Maharashtra is in the metropolitan city of Mumbai (Bombay).

Some historical facts may be useful to understand the scattered population of Konkani speakers. Portuguese conquest of the central parts of Goa in the early 16th century resulted in the total annihilation of the small ruling class of Muslim population and the coerced conversion to Christianity of the majority Hindu population. This in turn resulted in the mass migration of Hindus to adjacent parts of Southern India. The later conquest of the peripheral areas of Goa did not seem to have led to coercive conversion to Christianity. Consequently, whereas the Old Conquest areas are predominantly Christian, Hindus are in the majority in the New Conquest areas. Overall, Christians constitute 35% of the population of the state.

One major basis for dialect differentiation in Konkani is religion (Miranda 1978). Thus, the Christian dialect of Konkani is different from the Hindu dialect. There is also regional variation within these dialects. Thus, within the predominantly Christian Old Conquest area of Goa, there are two regional dialects: Northern and Southern. The Hindu dialects in the northern and southern areas are closer to the Northern Christian dialect, perhaps because the Hindus represent a later migration (or rather, reverse migration) to their original homeland in these areas of the Old Conquest. Additionally, there are two social dialects on the basis of caste. Both Hindu and Christian communities show the full spectrum of caste stratification. However, only the Brahmins and Gauddes of each community show marked dialect differences. Christians and Hindus living in the same area speak different dialects.

Four scripts are used for writing Konkani: Roman, Devanagari, Kannada, and Malayalam. Goan Christians use the Roman script under the influence of Por-

tuguese. Goan Hindus and Konkani speakers in Maharashtra use the Devanagari script as that is the script used for the state official language Marathi. Since literature written by Hindus, particularly Brahmins, is of superior literary merit, the Hindu Brahmin dialect is favored as the literary medium. This may lead to greater use of Devanagari script eventually.

Konkani presents many problems for literacy efforts. The case of Konkani is similar to Kashmiri. Konkani speakers have to be bilingual/multilingual in order to function in the modern society. Higher caste Goan Christians used to learn Portuguese in order to maintain their position in society; now they learn English. Konkani speakers in Maharashtra have to learn Marathi, the state official language. Konkani speakers in Karnataka, similarly, have to control Kannada, and those in Kerala have to be able to use Malayalam. There is mutual intelligibility among dialects, but users of one script are not able to read what is written in the other scripts.

In the context of literacy efforts, it is unrealistic to expect all Konkani speakers to learn all four scripts. This poses a challenge for policy makers in terms of which script to choose. Although Christian Konkani speakers have adopted the Hindu Brahmin dialect for literary creativity, it is not clear that they are keen to adopt Devanagari as the only script for Konkani. Sardesai 1985 has welcomed the adoption of Konkani based on the Hindu Brahmin dialect in Devanagari script for linguistic creativity in Karnataka. On the other hand, Miranda 1992 is not sure that the Christian writers from Goa are willing to adopt the Devanagari script, as their readers are familiar only with the Roman script. The situation has yet to resolve itself.

Literacy and education in India

There are several other languages in the same category as Konkani. Populations that speak these languages are scattered across several states, and their written representations are in several scripts. Speakers of Gondi, a Dravidian language, live in four states: Andhra Pradesh, Madhya Pradesh, Maharashtra, and Orissa. Speakers of Santali, an Austro-Asiatic language, live in three states: 49% of them live in Bihar, 30% are in West Bengal, and 13% are in Orissa. As a consequence of the historical development of writing systems for the language, Santali is written in five different scripts (Devanagari, Ol Chiki, Oriya, Bengali, and Roman).

In order to understand the problems of literacy education in India, it is useful to relate the issue to the overall problem of education in India. The figures for literacy in India are given in Table 4 (Census 1991).

The literacy rates in the tribal areas are lower than the figures in Table 4. According to the Fifth All India Education Survey, published by the National Council for Literacy Research and Training (NCERT), the school enrollment rate for rural tribal children between grades 2-5 in the mid-1980s was 58.6, 48.7, 36.8 and 29.1%, respectively, whereas it was 72.4, 72.4, 54.7 and 49.1% for all rural children. It is clear that more than 70% of the tribal children were not getting any

education at all beyond the primary level. It is not obvious that the situation has improved dramatically since then.

Table 4: Literacy figures and rates (in % of population)*

TOTAL NO.	MALE	FEMALE
359,284,417 (52.21%)	229,531,935 (64.13%)	129,752,482 (39.29%)
RURAL	MALE	FEMALE
226,144,087 (44.69%)	151,216,579 (57.87%)	74,927,508 (30.62%)
URBAN	MALE	FEMALE
133,140,330 (73.08%)	78,315,356 (81.09%)	54,824,974 (64.05%)

* The current figure for literate population, however, is 60%, up from slightly over 52% in 1991. For children ages 7+, provisions have to be made for instruction of a population of 39,249, 958 to achieve universal primary education (Singh 1999).

The overall figures for education are in Table 5, which lists the figures for enrollment and number of educational institutions at various levels.

Table 5: Figures for enrollment (Census 1991)

SCHOOLS	NO. OF SCHOOLS		SCHOOL ENROLLMENTS (IN MILLIONS)	
	1980-81	1993-94	1980-81	1993-94 (Prov)
PRIMARY SCHOOLS	494,503	572,923	73.8	108.2
MIDDLE SCHOOLS	118,555	155,707	20.7	39.9
HIGH SCHOOLS	51,573	88,411	11.0	23.3
COLLEGES (GEN ED)	3,421	5,639	------	-------
UNIVERSITIES	110	213	------	-------

Compounding the problem of the abysmal rate of enrollment at the post-primary level is the overall literacy rate in the country, as is clear from the following list:

RANKING OF STATES AND STATE-BY-STATE LITERACY (CENSUS 1991)

RANKING	% OF LITERACY	RANKING	% OF LITERACY
1. Kerala	90	13. Karnataka	56
2. Mizoram	82	14. Haryana	56
3. Goa	76	15. Tamil Nadu	55
4. Maharashtra	65	16. Assam	53
5. Himachal Pradesh	64	17. Orissa	49
6. Nagaland	62	18. Meghalaya	49
7. Gujarat	61	19. Madhya Pradesh	44
8. Tripura	60	20. Andhra Pradesh	44
9. Manipur	60	21. Uttar Pradesh	42
10. Punjab	59	22. Arunachal Pradesh	42
11. West Bengal	58	23. Rajasthan	39
12. Sikkim	57	24. Bihar	39
25. Jammu and Kashmir	31		

The latest figures of illiterates in India in the 7+ age group are given in Table 6.

Table 6: Population and number of illiterates
(age 7+; in millions; Krishnamurti 1998)

Year	Total Population	7+ Age Population	Number of Illiterates
1961	438.93	356.85	249.40
1971	548.16	445.65	283.03
1981	665.29	541.04	305.31
1991	846.30	688.16	328.88
1997	953.04	774.91	294.46*
2001	1031.63	838.82	258.42**

* Source: National Sample Survey Organization (NSSO) Survey 53rd Round.
** Extrapolation based on NSSO Survey 53rd Round .

Although there are over 700 governmental and voluntary agencies working in literacy programs, the results have not been spectacular, as the literacy rates show. The reasons have been many. One of the reasons is hidden in the data on languages. The figures in the ranking of states in literacy shows that the Hindi-speaking states, except for Haryana and Himachal Pradesh, rank very low in literacy (the states of Madhya Pradesh, Uttar Pradesh, Rajasthan, Bihar rank 19, 21, 23 and 24, respectively).

The fact is that though people of these states identify themselves as Hindi-speaking, they speak a multiplicity of dialects. Some of these dialects, such as Avadhi, Braj, and Maithili are, or have been, literary languages in their own right. They belong to different subgroups of Indo-Aryan and they differ in phonology, lexicon, and grammar to such an extent that the dialects spoken in the extreme east in Bihar are mutually unintelligible with the dialects spoken in the west, e.g., in Haryana, Himachal Pradesh, Rajasthan, and Uttar Pradesh. Speakers of these dialects have a difficult time in learning Hindi, which is based on the western dialect of Uttar Pradesh and Haryana. In fact, in the schools and colleges of Bihar, the failure rate in Hindi is some times higher than in English!

One noticeable fact that explains high illiteracy rates is the low enrollment in literacy programs of women, members of the so-called scheduled castes and tribes, and the age group between 26 and 35 across gender, caste, and tribe. One encouraging fact is that the most enthusiastic group of learners has been that of 15 to 25 year-olds.

There has been no in-depth study of literacy practices, or lack of them, among the groups that do not take advantage of literacy programs. For instance, not enough information is available as to why there is low representation of women and of the age group between 26-35.

Among the groups that succeed in acquiring literacy, once literacy is imparted, problems remain in maintaining functional literacy. First, the targeted population has to be convinced that literacy skills have definite functions in their lives. Often the content of literacy materials is too dry and drab, and totally irrelevant to the lives of the learners.

Second, the success of functional literacy programs depends on the choice of appropriate language. Whereas linguists would suggest literacy in the mother tongue as the most desirable course of action, the groups targeted to receive literacy do not see much use for literacy in their mother tongue if the mother tongue happens to be a minor language. They prefer the major regional languages, and increasingly, Hindi and English, in view of the low functional load of the mother tongue. This does not mean literacy in the mother tongue is not a worthy goal. Substantial resources, both human and financial, still need to be invested in devising scripts for unwritten languages and in preparing literacy materials, especially materials that would inspire neo-literates to maintain their literacy skills.

As regards women's literacy, wherever women have acquired economic power, their interest in acquiring literacy has increased. Similarly, wherever women are seen by their families as capable of contributing to family funds, they have been encouraged to obtain educational qualifications.

Although choice of a script in itself is not a major problem, maintenance of literacy becomes difficult if there is a huge gap between the properties of the script and the properties of the language. A case in point is the choice of Perso-Arabic script for vowel-rich languages. The Arabic script is barely suited to Modern Standard Arabic with its 3-vowel system, since vowels are not always predictable. The script, even though modified, is hardly suitable for vowel-rich languages, such as Urdu with its 10-vowel system and Kashmiri with its 16 vowels. At an individual level, the mismatch between script and language presents a big problem to beginning readers. As children, we often wondered why our Urdu-learning friends struggled to learn to read Urdu for years while we became fluent readers of Hindi in Devanagari script within weeks. At the societal level, changing the preferred script for a language is, however, difficult because of the religious sentiments attached to the script.

Conclusion

We have said earlier that the rich oral tradition has made it possible for a majority of the population in India to function well without literacy skills. The question naturally arises, what is wrong with continuing with the status quo? Why put so much emphasis on literacy skills?

The answer is obvious. India is a democracy and in a democracy, each ethnic, religious, caste, and class group is competing for power. In a modern democracy, power accrues to those who know how to manipulate the written language. Those who wish to participate in the democratic process have to be able to critically evaluate the multiple messages they get from print media, radio, television, and other sources. While we do not wish to suggest that literacy is essential for

developing a critical faculty, we do wish to claim that the ability to gather information from multiple sources, including the printed sources, makes it easier to evaluate situations.

Another argument in favor of promoting literacy has to do with people's economic lives. In the age of multinational corporations, GATT, WTO, fast developing information technology, and intellectual property rights, India is still playing the game of catching up with the developed nations. At the same time, the traditional sources of knowledge and creation of wealth in India are in danger of being appropriated by those internal and external agencies who have economic power. One example is traditional medicine and its exploitation by multinational pharmaceutical companies, which has attracted a great deal of media attention lately. Without literacy skills, it would be impossible for the majority of the population to protect their rights. The issue of economic development is thus intimately tied to the acquisition of a high level of functional literacy.

Once the need for enabling people to read and write is granted, it becomes necessary to look for successful ways of imparting literacy. We have already mentioned the need for identifying the appropriate language and script. We have also mentioned the need for devising scripts for and preparing appropriate materials in unwritten minor languages. These efforts are needed more to preserve the minor languages than to be of much use in imparting a high level of functional literacy. The reality of the multilingual situation demands proficiency in more than one language in the Indian context. The education policy has recognized this by instituting the three-language formula. Every school-going child in India receives instruction in the state official language, the official language of the Union (Hindi), and the associate official language (English). In states where Hindi is the state official language, school children are supposed to learn another modern Indian language, preferably a Dravidian language to follow the three-language formula. They may also elect to learn a classical language, Sanskrit or Arabic. Whatever the implementation and success rate of these programs, neither the children nor the parents feel multiple languages and associated scripts to be a burden and there is no wide-spread protest against the teaching and learning of multiple languages.

Once the language and script are identified, programs that aim at imparting functional literacy to adults involve discussion with the targeted groups to assess their needs. Some of the non-governmental organizations have had better success in this regard. One group worked with weavers of reed mats in Tamil Nadu. They first observed how the adults produced mats of various sizes and patterns. There were conversations about how the weavers knew how to measure without any measuring instruments, and how they knew which patterns would emerge without a pattern book. Once the weavers described what they did, the literacy workers asked them if they would be interested in a written version of their knowledge that could be handed down to succeeding generations of weavers. A pattern book and an instruction manual would make it possible for the younger generation to take up the craft once they were out of school, if they so desired. The weavers saw the point and participated in the program with great enthusiasm [personal communication].

Most traditional crafts of India depend upon oral instruction and apprenticeship. For instance, the master carpet weaver chants the colors and patterns as the workers knot the carpet. Traditionally, farming, animal husbandry, child rearing, sewing, knitting, cooking, all have involved observation and imitation. A majority of the population does not rely on instruction manuals, pattern books, or recipe books. Involving those who possess the knowledge in writing it down and using such material for literacy efforts may be one way of making literacy efforts more successful.

The introduction of information technology has added a new dimension to literacy efforts. In his recent visit to the subcontinent, the US President was impressed by the ease with which the barely literate women of a Rajasthan village manipulated computer technology to run their dairy business and thus contribute to the prosperity of their families and their village (see *The New York Times*, March 24, 2000:3). The development of information technology and its large scale introduction in the rural areas of several South Indian states is ushering in a new impetus to acquisition of computer literacy, which may yet change the face of literacy and education in rural and urban India.

In addition to the introduction of information technology in rural India, there is a great deal of excitement about developing software in Indian languages and scripts in many centers of higher learning. There are attempts at translation software that could automatically convert material from one language and script into another or several others. If the trend continues and achieves some measure of success, the issue of adoption of a common script for all Indian languages to facilitate technological development will become largely irrelevant. One immediate benefit of computer technology is in the area of desktop publishing of texts for literacy-related work that could lead to a less expensive method of materials production.

We said in the beginning that India presents a unique source for data and case studies, and a testing ground for theoretical formulations and experimental methodologies in literacy and education. Just in the field of literacy education, there are several potential research directions, some of which we have hinted at in this paper.

NOTES

[1] There are several trends in literacy research. For a discussion of different views and approaches, see, among others, Ellsworth, Hedley, & Baratta 1994; Ferdman, Weber, & Ramirez 1994; Freebody& Welch 1993; Goody 1987; and Schieffelin & Gilmore 1986.

[2] Hasan 1998 uses the terms 'recognition literacy', 'action literacy', and 'reflection literacy' to characterize these types of literacy.

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