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## Researching Literacy in Industrialised Countries: Trends and Prospects

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*avec un résumé en français*

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## Introduction.

In the past twenty years questions of adult literacy have come to the forefront in many industrialised countries. Firstly, in many of these countries it has been found that a significant proportion of children are leaving school without adequate levels of reading and writing. Secondly, rapid social and technological change means that literacy demands are changing. During this period, researchers have also expressed renewed interest in literacy. There have been major developments in literacy research in many disciplines, to the extent that the shape of the field has changed dramatically. For these reasons, it is appropriate to review the trends in literacy research over the past twenty years and to examine the needs and demands of the future.

To prepare this report we have reviewed a wide range of material. Inevitably, we have focussed more on some countries than others, but our intention is to cover the countries defined by UNESCO as developed in its statistical reports (UNESCO 1990a), roughly the countries of Europe and North America, along with Australia, New Zealand and Japan. We find that while they share certain similarities with developing countries, there are also a set of distinct issues which industrialised countries with universal schooling still need to address. In this report we review literacy research and its relation to adult literacy provision. We do not cover children and schooling specifically, except to the extent that it is important to do so for understanding general issues.

In order to bring together this large and quickly changing field and in order to incorporate the disparate experiences of different industrialised countries, we have distilled what we have found into a small number of trends which we have identified as indicative of the general direction of research. We have provided many examples but we are not trying to list every piece of research or cover every detail. Given how research is interwoven with government policy, with provision, and with public perceptions of what is important, the trends are much broader than just trends in research.

There has been a gradual acceptance of literacy as a serious area of concern for industrialised countries, and in the first trend we review research which tries to determine the extent of difficulties with literacy and the causes of such difficulties. The second trend we identify is a shift which has taken place in views and definitions of what literacy is, both in research and practice. This has been a shift towards what we will call a "social view" of literacy.

Thirdly, there is a noticeable trend toward developing models of literacy learning which are appropriate for adults. Related to this, new forms of research have developed. The fourth trend, which follows on from the third one, is an appreciation of the diversity of needs for literacy within the populations of industrialised countries, and the development of flexible types of provision to meet these different needs. Finally, there is a trend toward seeing literacy within the broader framework of language policy with a country, and investigating the accessibility of contemporary language.

We are two British researchers with backgrounds in linguistics and adult education, and with commitments to interdisciplinary research and to improving the links between research and practice. Inevitably our own

biases and interests are reflected in this analysis of trends. Nevertheless we have tried to be as broad as possible in what we have covered. In addition to our own research and participation in conferences, workshops and networks, we have been able to utilise the resources of the Unesco Institute of Education in Hamburg; as well as using the extensive library of books, articles and learning materials there, we have had access to the first round of questionnaires from the functional literacy network based in the Institute. (This is described in a separate background paper.)

### **What influences trends?**

Within any one country there is a range of literacy research and practice, some developments opposing others and some contradicting each other. When we begin looking across different countries the diversity increases. Nevertheless, accepting this range and diversity, we can detect clear patterns and definite directions in which research is moving. These visible trends are ideas which are dominant at a particular time. The ideas described in this report are not necessarily new ones, but they are currently increasing in importance. It is important to realise that such trends do not emerge in a neutral way, but they come about as a result of particular patterns of communication and influence between people working in the field of literacy. We think it worth tracing some of these important patterns in order to understand them, and perhaps change them in the future.

#### ***National and international agendas influence trends in literacy.***

Whenever a national or international agency sets in motion a literacy campaign or training programme, practice in literacy is shaped by this initiative: certain kinds of provision are developed, documents are produced, justifications are made for promoting literacy. Resources for literacy are part of the general funding of education, which in many countries is being cut; even where there is consensus on the direction research and practice should take, reduced or reallocated funding can have drastic effects.

Sometimes literacy initiatives arise as responses to broader social, economic and political change. For example, changes in employment patterns, immigration patterns, or new technology can push new issues to the foreground. Sometimes they are the direct result of a change in government and form part of a general package of social or educational reform. Generally speaking, literacy initiatives reflect political priorities as well as needs within the community. Such initiatives define agendas for literacy which we can pick up as highly visible trends, associated with significant bursts of activity. We give examples of these international agendas in Appendix A.

However, we should be cautious in evaluating these as the only trends that should concern us. Particularity in the areas of knowing how to respond to the needs of local communities and how to promote effective methods of learning and participation among adults, innovative trends often proceed unnoticed. They may only surface much later in national agendas having been nurtured with very little financial support but committed and knowledgeable practitioners supported bill grassroots

movements like the women's movement, the labour movement or community activists. Any researcher wishing to gauge future developments should be sensitive to these less visible but key movements within the literacy field, and should work on ways of helping such developments move more quickly onto national agendas for action. This is true of many of the innovations in provision described in trends three and four, such as the growing emphasis on student writing or the development of programmes for specific groups.

**Active networks influence trends.** The flow of ideas in literacy is affected by the networks that exist both internationally and within a country. Networks may affect the flow of ideas by organising meetings and conferences, publishing journals, acting as clearing-houses for other publications and advocating policies. In some countries, there are strong professional associations, for example the Movement for Canadian Literacy is a national coalition that produces a journal and has provided an active voice for community based literacy that continues to influence government initiatives. In Quebec the Régroupement des Groupes Populaires en Alphabétisation has had a similar influence, as has Lire et Ecrire in Belgium. In other countries government funded networks and co-ordinating agencies play an important role, such as The Adult Literacy and Basic Skills Unit (ALBSU) in Britain. The European Community has encouraged new networks as part of its initiatives to improve educational opportunities; these have begun to open up new channels of exchange and influence between workers in member countries (e.g. Freynet, 1987).

However, these international networks are by no means representative of those working in the field. Researchers and policy makers are often part of international networks, teachers form national networks, while basic education students often have no networks at all. Each group has its own vision of what they are doing and there are built-in differences of perspective. Much innovative work which originates in practice still goes undocumented. It may be described in reports that are circulated locally, but descriptions of provision are unlikely to become part of the resource of internationally available and translated documents and they tend not to be permanently archived. Certain points of view on literacy, most importantly those of adult learners themselves, rarely get heard internationally at all. (There are exceptions to this: conferences where adults with literacy difficulties have been able to speak on their own behalf include the ICAE conference in Toronto in 1987 and EC conferences in Angers in 1988.)

**Language barriers restrict the circulation of information about literacy.** English language predominates in the functional literacy network (particularly in the research aspects of literacy) followed by French, German and Spanish. English speakers, therefore, can have a very full and straightforward exchange of information while remaining oblivious of trends in non-English speaking countries which are very close to them. It is then easy to elevate trends in the dominant language community above other equally important developments. For example, Spain and Portugal have an exchange of ideas and practice with Latin American countries which has influenced their approach to basic education in interesting ways (such as their use of popular education and popular universities) but we have not detected these ideas having much influence in other European countries. There is fruitful exchange between France,

Belgium and French-speaking Canada. But in the UK we know more about Australia than we do about France!

***The role of research.*** Research and the academic community influence trends in literacy. Some key functions for educational research are to document and reflect on practice, to evaluate developments, to help generate new understandings through action-research, and to circulate theories. Through international exposure at conferences and in journals, key academic researchers can have enormous impact on thinking in a number of countries. However, there are several constraints on the effectiveness of research. Firstly, researchers have tended to work narrowly within their own disciplines and not be aware of relevant developments in other fields. The need for broad interdisciplinary research raises new challenges for researchers. Secondly, there may be a fatal gap between research and practice. Lack of communication may mean that research lags behind the insights derived from practice, or that practitioners are unable to take advantage of ideas developed elsewhere. We have discussed this issue and solutions to it at length elsewhere (Hamilton and Barton 1989). Good links between research and practice are essential for adult literacy.

***Public images of literacy influence trends.*** In any country at any time there seems to be a public image of literacy. Decision makers both influence and are influenced by these public images which are aired on the television and in newspapers and articulated by popular writers (such as Kozol 1985, Vélis 1990). These images can have more sway over policy than concrete research results. A powerful contemporary image is that of there being a "literacy crisis". Interestingly the image differs from country to country; our anecdotal observations suggest that media images differ in Canada, US and Britain. In Britain you won't get a job if you can't read and write; in the United States you are a drain on the country's economy if you have literacy problems; in Canada, literacy problems are connected with deviance and crime, a link rarely made in Britain. It would be interesting to compare other media images of literacy. (See also the discussion of literacy and national identity in Street and Street, in press.)

The mass media are increasingly directly involved in efforts towards public awareness. In the functional literacy network questionnaires, there is a significant interest from people working in the media which reflects the important role radio, TV and even film play in promoting public images of literacy, awareness and recruitment as well as in distance learning and teaching, and tutor training.

***Recognising the existence of problems with literacy despite schooling.***

Over the past one hundred and twenty years all industrialised countries have gradually established systems of universal compulsory education. It is hard to summarise this development, as each country has a different educational system and there can be a great gulf between the legal requirement for everyone to attend school and the actual reality of the attendance levels. Nevertheless, all industrialised countries now claim in official statistical returns, that at least ninety five per cent of children

enroll in school, and every country now provides at least nine years of compulsory schooling for children (UNESCO 1988).

The time when universal compulsory schooling is established for children is a period when consideration may also be given to adult literacy. In Eastern Europe and the USSR, for example, the emphasis on adult literacy has been prominent alongside the development of schooling, with concerted though short term campaigns ( see Bron and BronWojciechowska, 1983). The assumption is one common in developing countries, that universal schooling will eventually solve problems of literacy: adult basic education is seen largely as a temporary vehicle to speed the process up. However, other countries, including much of Western Europe and North America did not develop adult literacy in this way, and provision has mostly been piecemeal and marginal.

**Identifying a Crisis.** More recently, a second distinct concern with adult literacy has arisen in countries like Britain and the United States which have well established systems of schooling. There has been a gradual recognition that the achievement of universal schooling does not ensure full literacy for all: it has been observed that most people attain some competence in reading and, to a lesser extent, writing from attending school. However, there is a sense in which they are not fully literate. Many people leave school not feeling in control of the written communication they need in their day to day adult lives. Politicians, employers and educators express concern about people's reading and writing abilities.

In countries where the provision of universal schooling has only recently been achieved ( such as the Southern European countries Spain, Portugal and Italy) people working on literacy issues still focus on getting children into school or on working with adults who have not had any formal schooling. The newer concern with improving the literacy skills of those who have been through the schooling system merges with this. So, for example, recent action in Portugal has contained three strands: the provision of adult basic education, improved recruitment of children into schools, and a focus on improving school effectiveness.

Official recognition that the public school system of a country has not solved difficulties with literacy is often reluctant and it may come after pressure from campaigning community groups. Debate around the issue can be full of accusation, shock, disbelief and claims of falling standards. It is often centred around competing views of teaching methods and the way education should be organized. This attitude generates an atmosphere of "crisis" and short-term measures are designed to solve it. In some countries we can trace recurrent crises of this sort. ( See for example Shor, 1986 for an analysis of this in the United States. ) An alternative approach to the crisis mentality is to regard basic education as an integral part of adult lifelong learning and to incorporate literacy provision into well established adult education systems.

In the early 1970's the United States and Britain launched national campaigns. Scandinavian countries paid some attention to literacy at this time as part of part of their adult education tradition (Nyberg, 1981; Olsen, 1981). Other Western European countries, Australia and Canada, have recognised the issue more recently during the 1980's; as late as 1979 West Germany, France and Luxembourg were still responding to European Parliament enquiries by saying they had no literacy problems among their native-language speaking populations (Freynet, 1987).

Some countries do not appear to officially recognise adult literacy as an issue at all. As far as we can tell, literacy is not yet officially a focus of special concern in the USSR or most Eastern European countries, although current economic and political changes may alter this. For example, in East Germany action around literacy has related only to developing countries; however, this year, as a result of the influence of International Literacy Year, we have heard that a working group has been set up to explore the issue in East Germany itself. Bulgaria, too, is beginning to take up the issue and since the mid-80's individual researchers from Poland, Hungary and Yugoslavia have voiced concern about literacy in their own countries at international meetings. ( See UNESCO, 1987; Vélis, 1990.)

The 1980's have also seen a recognition of the issue among international bodies: several organisations supported a conference in London in 1981 (ALBSU 1981). The European Bureau of Adult Education held one in Scotland in 1983 (South, 1983). The European Community laid out "measures to combat illiteracy" in June 1984, acknowledging that this was already a matter of concern and called for action among member states. This has led to series of conferences and reports. The UNESCO Institute of Education held its first meeting on the issue in 1986 on "prevention of functional illiteracy and integrating youth into the world of work". In 1987 the International Council for Adult Education held a major international conference in Toronto "Literacy in the Industrialised Countries - A Focus on Practice" (Gayfer, 1987). In each case, these meetings have been followed up by a series of actions aimed to promote activities, research and further exchange of information between industrialised countries. In 1990, International Literacy Year, there have been more such conferences.

## **Trend 1. Assessing needs, examining causes.**

Recognising that adults have difficulties with reading and writing leads to efforts to describe and measure the extent of the problem and to establish its causes. Identifying a need for literacy provision leads gradually to the formation of a distinct area of education with its own approaches, questions, and methods - and needing its own distinct research. In this section we briefly describe the main approaches to assessing the need that have been developed, and then indicate what is known about the causes.

**Assessing the Need.** In assessing the need for help with adult literacy, many countries have relied on census data, general educational statistics or sheer guess-work (as in the UK at the start of the adult literacy campaign in 1973) to estimate the extent of the need for adult basic education. Depending on the criteria adopted, the countries concerned have identified between five and twenty five per cent of their adult population as having some difficulties with reading and writing. It is, however, not possible to compare these figures across countries in terms of what people are actually able to do with reading and writing. This is partly because of different approaches to assessment, and partly because literacy can only be fully understood relative to the context in which it is used. ( See below, trend two) .

Three main approaches have been developed to assess the extent of difficulties with reading and writing and the need for adult basic education:

1. Traditional "threshold" measures of literacy. These view literacy as a discrete characteristic that individuals either possess or do not possess and on the basis of which it is possible to divide people into mutually exclusive levels. Measures such as minimum Reading Age, Grade level or number of years of schooling, are all examples of this approach. For example, in Poland, a person is described as being "functionally illiterate if they have not completed compulsory education. Where enrollment figures in school are not one hundred per cent or where compulsory primary schooling is not long-established, those with no experience of formal schooling can be counted up as an indicator of the percentage of people who cannot read and write at all. For Greece, the 1981 census produced a figure of 23.2% of the adult population without adequate literacy: 9.4% had never been formally to school, 13.8% have not finished nine years of compulsory schooling. Dymock (1982) gives a figure that in 1978, 2 million Australians had not received schooling beyond the primary level. Comparable 1981 figures for Italy were 47% of the population have only primary schooling (Napoli, 1987) and there are similar figures for Hungary, see Terestyeni 1987.

Such an understanding of literacy may be useful where policy makers need a short-term, readily identifiable goal to aim for and particularly where literacy is being introduced for the first time. However such measures are not accurate or sophisticated in identifying the literacy needs of populations overall and can offer little illumination about what literacy involves for learners and those teaching them. These figures also define literacy solely in terms of the educational system and the technical skills of literacy acquired within it.

2. Multi-component "profile" approaches to literacy. These measures have been favoured in recent surveys of literacy skills in the United States (Kirsch and Jungeblut, 1986) and Britain (Assessment of Performance Unit, 1988). People using these approaches acknowledge the complexity of literacy, in devising a range of tasks to measure different domains or dimensions of literacy skills. For example, the widely influential U.S. survey identifies three dimensions: prose literacy, document literacy and quantitative literacy, and it uses school-based and everyday tasks.

Profile measures can lean more towards school defined literacy activities, or be more closely geared to the demands of adult life. However, they have similar advantages and disadvantages: they are more complex than threshold measures and therefore cannot be used to give simple indicators. Profiles are not so satisfying to policy makers but may be more useful to teachers in indicating specific areas of strength and weakness. But, as with the threshold measures, profiles are still essentially an "outsider" view of literacy - a selection of competencies and activities chosen by educationalists and other literacy experts and presumed to mirror the goals and needs of those learning to read and write. There is generally little attempt to validate them by looking at what people do day-to-day with literacy and the desire to provide nationally valid standards pulls such measures away from recognising the diversity of literacy activities that people actually engage in different regions and social groups.

3. Self-assessment approaches to literacy. This is the approach taken in the British study based on the National Child Development Study (Hamilton 1987). As part of the study, twelve and a half thousand people were asked to report whether they had experienced difficulties with reading or writing since leaving school. If they had, they were then asked to explain the practical problems these difficulties had caused. In this way both an overall measure and an individual profile were produced, based on people's own perspective, their own valuing of literacy in their life. This is a crucially different "insider" approach to defining what counts as adequate literacy for a given society.

Though all forms of assessment have their limitations and do not in themselves give information about how to improve literacy skills, they have an important publicity role for national initiatives in justifying funding and raising public awareness. In at least five countries, Australia, the U.K., Canada, France and the United States, there have been national surveys. Particularly in the U.S. a great deal of effort has gone into devising national surveys of literacy which are now being emulated in other countries. Appendix B illustrates in detail the methods used and the results for the U.S, Canada, Australia and the U.K.

Looking for Causes. In the U.K. survey (Hamilton, 1987) the questions were embedded in a larger survey which could also tell us something about the causes of literacy difficulties and the backgrounds of people with low levels of literacy. The picture given by this survey was a complex one, suggesting not one but many different causes that may come into play for different individuals. Another source of information which provides a similar picture in the work in several countries which documents the experiences reported by adult learners themselves. See, for example, reports in: ATD - Quart monde, 1983; Eberle, 1980; Fuchs-

Bruninghoff et al, 1986; Hautecoeur, 1984; Lire et Ecrire 1985; Marquet, 1990; National Adult Literacy Agency, 1987.

All the classic factors of disadvantage associated with educational underachievement appear in these accounts. Literacy is clearly linked with poverty and social disadvantage of various sorts. These studies underline the fact that in the richest of industrialised countries, there are still pockets of underdevelopment where people have only very fragmented or inadequate exposure to education. Native populations in countries such as Canada and Australia are examples of this: Lippman (1976) reported that among the Australian Aboriginal population, 18% have no schooling while 56% have only primary schooling. For many in this latter group, schooling will have been for 4 years or less, with sporadic attendance.

Bringing the results of these different approaches together, the causes of problems for adults can be broadly grouped into three kinds:

a) Causes rooted in cultural and social background: such as belonging to a marginalised social group, being discriminated against; having a home life disrupted by poverty, unemployment, ill-health of parents, the experience of conflict or violence within family or the wider community, sometimes in combination and sometimes affecting whole communities of people, as currently in Northern Ireland, for example.

b) Those lying within schooling: such as large classes, lack of remedial help, children dropping out; teachers being poorly trained or lacking time to give individual attention; children having nothing in common with teachers or the culture of the school, not valuing education and not feeling valued themselves, by the school and feeling excluded from the world of literacy presented to them at school, seeing it as of little relevance or usefulness.

c) Causes associated with individual factors: such as special learning needs due to disability, differences in the pace of learning, missing school for health or other reasons, lack of motivation.

It is important to stress that when talking about people in industrialised countries with problems of reading or writing that they are a heterogeneous group. The evidence from large-scale macro surveys and from detailed micro accounts emphasises that, for the large part, they are ordinary people who lead ordinary lives and who function normally in society (Fingeret, 1983). Despite some media images, they are not strange, dysfunctional outsiders.

## **Trend 2. Shifts in the dominant view of literacy**

There has been a significant shift in the past twenty years in how researchers and others define the area of literacy. The focus has moved from concern with the technical aspects of learning to read and write, through taking account of the functions of reading and writing, and on to broader social definitions. These are three stages which definitions have moved through which we will refer to as autonomous definitions, functional definitions and social definitions; we can also regard them as three competing views of literacy.

**Autonomous views.** We will use the term autonomous (following Street, 1985) to refer to views of literacy which regard it as a psychological skill which is autonomous, or separate, from other activities. Such approaches originate in school based work, and research in this area draws its inspiration primarily from psychology. Typically in this approach learning is viewed as an individual process with problems of reading and writing representing an individual deficit. It tends to be assumed that people are similar in how they learn and that teaching can be the same for everyone. Discussion about improving literacy is a technical question which revolves solely around teaching methods. Historically, there has been a focus on reading and on books, to the exclusion of other aspects of literacy, such as writing, and other areas of communication, such as different media. Briefly, reading is decoding, writing is neatness. Twenty years ago this was the most common paradigm for reading research.

**Functional literacy.** This is a common term but it is used in several distinct ways. An early definition was that someone is functionally literate if they are able to 'engage effectively in all those activities in which literacy is normally assumed in [their] culture or group' (Gray 1956, 24). The importance of this and other similar definitions which have been used in international declarations is that they make central the idea that literacy is a relative matter, relative to a particular society or group.

The term is used in industrialised countries in this relative way and the term functional illiteracy has been coined to describe the abilities of people who can read and write a little but not enough to meet the demands of the complex modern world. In practice, in Britain and the United States, as in developing countries, the notion of functional literacy has always been closely tied to employment and has been related to economic development. Functional literacy has become associated with particular methods of literacy teaching involving tasks like filling in forms. (See the criticisms of functional literacy in Levine 1985.)

**Social views.** One of the shifts in the past twenty years is that there has been an explosion of interest in literacy across many academic disciplines. Part way through this change it is hard to define this developing approach precisely. We will refer to it as a social view of literacy. In English there has even been a subtle shift in technology: people use the term literacy, rather than talking about reading and writing. (This causes problems in other languages such as French. See Limag 1990a.)

Three aspects of this shift are important for our purposes. Firstly, rather than taking for granted the functions of reading and writing, recent work has examined in detail the uses of reading and writing in particular social situations. Secondly, there has come an increasing recognition of the breadth and complexity of the idea of literacy, that it involves more than reading books and that it has to include what people do with reading and writing in their lives. Literacy becomes being able to operate effectively in the literate world of books, signs and forms. It often involves collaborating with others, in activities that include reading and writing. Thirdly, it makes clear that the availability and accessibility of literacy are related to the social structure of society and this approach can lead to a critical analysis of literacy and its role in reinforcing and challenging power relations in society.

Related to this there are different "literacies" and print literacy is seen as one among other communication technologies, all of which are in rapid state of change. People then talk in terms of other literacies, such as computer literacy. It becomes relevant to ask new questions about literacy in other contexts, investigating other cultures and other historical periods.

Psychologists are trying to go beyond traditional psychological models, such as Scribner & Cole's work on literacy practices (1981). Psychological approaches have moved on and are attempting to incorporate social factors. One development has been the work on activity theory ( Taetigkeit in German) based on the theories of Russian psychologists such as Vygotsky. A conference on activity theory in Finland in May 1990 included sections on literacy, and attracted researchers from afar afield as Japan, Germany and the United States.

Researchers in many other disciplines have become interested in literacy. End are making significant contributions to the topic. Street, an anthropologist, has used ethnographic approaches to document how different literacies exist side by side (Street, 1985). Heath (1983) has used ethnographic and sociolinguistic methods to provide detailed descriptions of people's everyday uses of reading and writing. Recent sociolinguistic research in Hungary shows similar concerns (Terestyeni, 1987). We include within social definitions the work on critical literacy inspired by the ideas of Paulo Freire which makes explicit the political nature of literacy (such as Giroux, 1983; Shor, 1987).

Graff, a historian, has examined the relationship between literacy and employment in Canada (1979) and more generally has explored the development of literacy in industrialised countries (1981). Historical studies cover many aspects, including work on the development of literacy and standardised language in specific countries ( such as Illich, 1981 on Spain, Furet and Ozouf, 1977 on France) and on the recent historical basis of contemporary literacy and schooling (e.g. De Castell, et al, 1985; Luke, 1988). Levine, a sociologist, has studied people with low levels of literacy in Britain and problems encountered in obtaining work (Levine, 1985). There have been studies of bilingual literacy, and of learning outside schools, at home, in the community. ( See the articles in Barton & Ivanic, in press. ) Many workers in these different disciplines have been moving in the same direction and are looking for interdisciplinary ways of uniting these different strands. This social paradigm is the dominant one for researchers in the United States today and it is growing elsewhere.

**Relations between these three definitions.** Much research in the past has had a concern with technical aspects of literacy and with its psychological basis. The emphasis has been on the act of reading, on individual learning processes and remedial issues. Teaching methods drew upon this tradition of research. Meanwhile international declarations were, and still are, articulating something closer to the social view.

As far as the notion of functional literacy is concerned, there has always been a great gulf between, on the one hand, definitions of functional literacy and, on the other hand, the research base they draw upon and the teaching methods they espouse. In this paradigm, understanding the relative nature of literacy has not been translated into the teaching methods used. There is a tension which has never been sorted out between rhetoric of functional literacy and the practice based on an autonomous view.

There are ways of expanding the functional approach. One is to move toward thinking in terms of skills rather than a single skill. Literacy is seen as a set of skills. Related to this is to move from skills in isolation to situated skills. Skills are viewed as communicative skills, life skills or social skills. These directions have been taken and are common in some contemporary views of literacy.

It is very easy for these three different views of literacy to represent competing definitions of the subject, with researchers trained in particular traditions supporting one view, or funders with certain ends in mind narrowly promoting one view. However it is important to accept the complexity of the idea of literacy and of the many ways to research it. Thus, the three views should be seen as providing a more complete view of literacy. What we end up with is a more complex view, with the three aspects - the technical aspects of the autonomous view, the functional and the social significance - building upon each other.

If we go back to the definition of functional literacy we started with, of literacy being concerned with people being able to engage in the activities of their culture, and if we follow through the implications of this for research and teaching, we get to the need for a social view of literacy. Current research is articulating what is actually involved in people engaging in the activities of their culture. We are beginning to get from research a view of literacy which is in tune with the rhetoric of international declarations. This could have a very positive impact on how all the participants in literacy work view literacy and on the effectiveness of literacy provision.

***Trend 3. From school based to adult based models of literacy learning.***

A trend which has been discernible over the past two decades has been a move towards the creation of a learning approach appropriate to adults, with a distinctive theory of teaching for adult literacy. It has been a shift from pedagogy - a theory of children's education - to androgogy - a theory of the education of adults; this is part of a general trend in adult education. It is still true that when a country first identifies a need for literacy provision for adults (see Trend one), it often starts from ideas and resources to do with children's education: ideas about how to teach children are applied unquestioningly to adults learning to read and write. This has meant that when countries have begun adult literacy programmes and have needed to think about how to provide it, what methods and materials to use, they have often used schools as a model. If adults missed schooling, they were given a second chance, schooling was repeated for them, complete with classrooms, rows of desks, teachers at the front and a text-book to work through. Parallel to this, available research on teaching methods, on materials, on how people learn was research with children in schools: it was literally a pedagogy - a theory of how to teach children.

However, experience of working with adults on literacy quickly makes it obvious that a different approach is needed. This is especially where adults coming to programmes have had bad experiences of school and need to regain confidence in themselves as learners after many years of seeing themselves as failures, in terms of the formal education system.

The development of an adult based view of teaching and learning has progressed in different ways in different countries and in different areas of provision. The acceptance of adult literacy as a distinct area of education, which is not child education and which has developed beyond traditional adult education, has several implications. However, if we had to identify one key aspect of this shift it would be that adult-based approaches treat adults as adults, respecting their autonomy and perspective on the world; everything else follows from this. There are many ways of expressing this: we will refer to it as a learner-centred approach.

It is important to stress that much of the innovation has come from practice, it has not come from research, from theories or from "the top" but from the everyday teaching of adults. Where appropriate people have drawn upon theories of general adult education (such as the work of Knowles, 1980). The work of Paulo Freire (such as Freire, 1985; Freire and Macedo, 1987) is probably the only theory of education articulated with adult literacy in mind and in industrialised countries there are examples of his influence, including in Spain (Gracia Navarro and Lopez Eisman 1985), the United States (Shor, 1987), Scotland (Kirkwood and Kirkwood, 1989). In many countries there was great interest in Freire's work twenty years ago when his books were first translated into English. Literacy provision was influenced by aspects of his approach, particularly the idea of literacy for empowerment, with its emphasis on the process of learning to read and write as developing a critical reflection on social reality and the tools to transform it. There is renewed interest in this work now and attempts to go beyond his original ideas (Req. Miller, 1988, on Quebec).

There are many different forms of provision appropriate to adults, such as providing locations outside of school, in community-based facilities, in the work-place, in homes, distance learning. These are illustrated in the next section, trend 4. Here we want to pursue the implications of a learner centred approach for the process of teaching and learning. Of course, many of these principles of working with adults are still ideals: we do not know enough yet about how to ensure effective participation, or about the constraints which make it impossible to achieve.

**Methods and Materials that emphasise learner control** Although some programmes interpret learner-centred as simply designing an individualised programme of work for each student, experience has shown that individual tutor-student pairs can be isolating and encourage dependency. Other programmes have gone further to regard group work as central to adult learning in developing a reflective and collective approach to experience (e.g. Mace, 1983; Martin, 1989). They argue that discussion in small groups helps people become aware of common issues in their experience and develop an analysis together in a way they would not be able to do alone. The idea that other learners are a resource for learning as much as a tutor is also found in the idea of peer tutoring and collaborative writing projects. Some distance learning and open learning schemes take this even further, where groups of students may work together for extended periods without a tutor present.

Writing has taken on a central importance in adult literacy programmes, with the development of methods which enable even beginning readers to express themselves in writing. With the help of another person acting as "scribe", students can compose pieces of writing - individually or in a group. They can be involved in all the production stages of transforming a piece of writing into a published book or newspaper. This can then be used as future reading material for others. The processes involved in this student writing and publishing are beginning to be documented (Gardener, 1986; Gatehouse, 1985; Moss, 1986). Being involved in all these activities has been found to be powerful in changing people's views of themselves as writers, and their feelings of being in control of literacy. The possibility of using word-processors and desktop publishing is also being explored as part of this approach.

Methods and materials that emphasise links with everyday life concerns and skills. Another important principle behind designing learning materials has been to base them on everyday tasks that adults need to carry out, such as passing a driving test, dealing with a household budget, reading a map, finding a job. People use work sheets and authentic materials rather than reading books and primers. In some cases, literacy learning is integrated into a wider course or specific vocational training, focussed for example on electronics, or woodworking or catering. In England and Wales ALBSU has developed a great deal of material of this sort and supports innovatory forms of provision through Special Development Projects (Charnley and Withnall, 1989).

New methods of assessment and evaluation. Different approaches to assessment of student progress and achievement have been taken in different countries. The extremes are illustrated by United States, where formal testing and accreditation of programmes have been the

norm, and by Britain, which for a number of years rejected any kind of grading, testing and certification in basic literacy programmes. However, there is now a common concern with developing participatory methods of assessment and self evaluation consistent with a learner centred approach. In Britain this recent trend is a reaction to increased demands for accountability by funders. In North America, it is developing as a reaction against restrictive and inappropriate testing methods carried over from schools (see Hill and Parry (1989) for a critique of the U.S. situation). Holland (1989) describes a recent British approach, while Lytle (1986) provides an alternative approach to testing which recognises that assessment of needs in adult literacy is a gradual process; she makes use of an interview technique which explores more realistic ways of helping people identify their patterns of literacy skills and learning goals over a period of time. The extent to which assessment can truly respect the learners' own goals and pace of learning will depend on the aims of the particular literacy programme and outside pressures on it.

***Student control of programmes.*** A learner-centred approach implies that learners take part not only in day to day decisions about their own learning, but that they participate in the decisions affecting schemes more broadly. It is generally community-based programmes that have taken this most seriously. Effective participation at all levels remains an ideal. The kinds of areas that have been tried are: representation of learners on managing committees and boards of programmes and community centres, conferences and meetings of learners to define their own agendas for change, student associations, involving students in recruitment of others, and in advocacy through public events and the media, sensitising the public to issues around literacy. There are many examples of this in Canada, some in the U.K., Portugal and generally in programmes that are rooted in community groups where social change is a priority (as, for example, in East End Literacy, 1984).

***Training for adult tutors.*** With no tradition of training teachers for adult literacy work, countries have often started out using teachers trained as school teachers (for example in Greece) . Another widespread approach has been to make use of volunteers with very little training and to turn their enthusiasm, informality and contacts with the learners' community into a virtue. In Britain the volunteers have often been supported by low status part-time teachers who have few training opportunities themselves. More recently there has been a push towards the provision of training appropriate to basic education, and in several countries we can see pre-service and in-service training being gradually provided. This is part of an increasing trend toward professionalisation as adult basic education becomes a field of education in its own right. There are individual examples of innovative views of training which get away from the teacher-training model more, such as work in Germany where provision is regarded as counselling rather than teaching ( Fuchs-Bruninghoff, 1987) and training for community educators. Where adult education is well-established, models of training for adult literacy can be adapted from these. Though there are clear advantages in professionally organised training for adult educators there is also the loss of the openness and informality that are valued strengths in community-based programmes, so the issue of professionalisation versus volunteerism is a live one (Moore and Westell, 1989).

**Research and practice.** The logic of a learner-centred approach to literacy also affects the kind of research that is appropriate in this field. Examining the research needs of adult literacy and accepting importance of the adult learner's perspective has led many people to question the standard definitions of research and to reassess the relationship between research and practice. It has led to favouring certain forms of research and to developing new forms of research; the emphasis has been upon participatory methods of research. This movement can be seen in Australia, Canada, the Netherlands. It has a long history, being associated with the International Council for Adult Education's work in developing countries; it is now being rediscovered by the new field of adult basic education in industrialised countries.

We will give as an example how it has developed in Britain, where there has been a movement which has led consciously to the setting up of an approach to research which reflects this philosophy; we call this the Research and Practice approach. In the past six years there have been several conferences in England which have aimed to improve links between researchers and practitioners and to explore what sort of research is appropriate for adult literacy. As well as the planning, carrying out and reporting of research at these conferences, there have been basic questions about what counts as research and criticisms of traditional models of research. The criticisms are not just minor ones of technique, such as preferring interviews over surveys, but they are basic dissatisfactions about what counts as research, who does research and who should do it, who should benefit from it.

This has led to involving tutors and students in more aspects of research. Gradually, different partnerships in the research process have been explored, as tutors and students have posed their own research questions. In addition to the conferences, there have been innovative training courses, including research methods courses for basic education tutors and students. A group, Research and Practice in Adult Literacy Group (Rapal), produces a regular Bulletin to improve communication between practitioners and researchers in adult basic education and to examine new views of research. For examples of the diversity of the research and practice approach, see Barton and Murphy, 1990.

#### **Trend 4. The development of flexible and diverse provision.**

As we have noted in the previous section, an initial response to literacy has often been to see it in simplistic terms as an undifferentiated remedial problem to be dealt with by sending people back to school. As experience in the area increases, along with the approaches to adult learning and the new views of literacy we have described, there is a trend towards appreciating the different needs of particular groups and developing flexible and diverse models of provision to respond to these needs. In terms of research, only some of these developments have been documented and there is only a little evaluation of them. This section briefly describes developments for specific groups of people, such as parents, unemployed people, linguistic minorities, rural populations. These are groups mentioned frequently in the network questionnaires and identified in international and national agendas. The section ends by discussing the trend toward flexibility, and the general principles underlying it.

**Literacy and parenting.** The crucial role that parents play in supporting children's literacy has been recognised in many industrialised countries. New understandings of children's early emergent literacy learning (summarised in Hall, 1987) has reinforced this interest in parents' role. A common motivation among adults coming to basic education is to improve their own literacy in order to help their children. For both these reasons, literacy programmes directed towards parents are becoming increasingly common. In the U.S. this work is known as "family literacy" and has developed materials and methods of working with bilingual and ethnic minority families as well as English speaking parents (Auerbach 1989). Literacy programmes aimed at parents sometimes take place in collaboration with schools, sometimes in family or community centres where they form part of other support or educational activities. Fitting in with their general emphasis on prevention, the European Community has set up action research projects on parental literacy.

**Literacy and employment.** This is a huge area and one which is most likely to attract national funding since it frequently meshes with the aims of other government programmes on employment and training. There are three distinct aspects. Firstly, literacy is part of general initial training programmes. This is often referred to as foundation training and has a focus on school leavers and young adults, such as where it forms part of European Community transition from school to work programmes, or Canadian and U.K. Youth Training schemes.

Secondly, there are workplace literacy programmes, which are not specifically vocational but form part of adult workers entitlement to paid leave and basic education. These involve new partnerships between educational establishments, trade unions and employers. The U.S. and Canada have made recent efforts to raise awareness among employers and persuade them to fund literacy programmes (see, for example, the newsletter of the U.S. Business Council for Effective Literacy). Traditionally, though this has been an area that employers have not taken seriously enough, and trade unions and other labour organisations have had to lobby hard for these rights. Italy is a pioneer among Western European nations with its "150 hours" programme (see Mace and Yarnit, 1987). Eastern European countries have generally a much more

advanced legal framework for paid educational leave than other industrialised countries and this is one of the areas where an exchange of information would be especially valuable.

Thirdly, there is literacy provision for unemployed people. With the advent of mass unemployment in Western European countries, this has become an important theme (e.g. Holmes, 1989). Provision has varied from broad based programmes for unemployed workers, including self-help groups and union funded centres to narrowly defined state-funded vocational preparation programmes that have an element of compulsion to them.

There is research that urgently needs to be done in the area of literacy and employment. We still know very little, for example, about the literacy demands of the workplace (Sticht 1988; Scribner 1984). It also bears analysis as an area of literacy where the priorities of workers, employers and government training policy may conflict.

***Literacy and rural populations.*** When countries review the need for literacy in their populations, an early finding is often that there are regional and geographical variations in educational achievement. This may be due to uneven economic development and disparities of wealth between rural and urban areas. It may be compounded by the isolation of rural areas, and by differences in rural lifestyles that do not mesh well with schooling. Such widely differing countries as Finland, Canada, Ireland and Yugoslavia have identified such differences and rural populations are a particular focus of attention in these and other countries. To respond to the needs of rural populations, appropriate kinds of provision have to be identified: group work may be difficult to organise among a scattered population and extra support in the form of transportation may be needed. Distance learning programmes involving use of television or radio, or home tuition may be the best options ( see Gracia Navarro and Lopez Eisman, 1985 for an example from Spain). Frontier College in Ontario, Canada was a pioneer in this field, training tutors to travel from urban areas to remote logging and mining camps (Pearpoint, 1989). Where the rhythms of the agricultural year or seasonal hunting control the pattern of peoples lives, literacy programmes have to accommodate to these. The content of programmes also must reflect concerns and technologies familiar to rural areas.

***Literacy and inner city groups.*** Although urban areas generally have higher levels of literacy than rural areas, the central areas of large cities in many countries contain pockets of extremely disadvantaged people, poor, homeless, drug abusers, ex-offenders, street people, among whom the need for help with literacy is great. Voluntary, community oriented programmes often support such groups, offering basic education within a framework of general social support and in community centres rather than colleges or schools. They may get funding from government social service funds of various kinds or be independent. Many of the most innovative forms of literacy provision have developed from such groups: for example, the inner-city based university settlements that initiated the UK literacy campaign; the popular literacy groups in kebec; Beat-the-Street in Toronto; ATD 4th World in France; and developments in Switzerland.

**Literacy for women.** In some industrialised countries, educational opportunities for women still lag significantly behind men's and this is reflected in literacy levels in, for example, Greece and Hungary. In other countries, these inequalities are no longer evident at the level of basic literacy, and indeed there is some evidence that in the population as a whole, men have more difficulties with functional literacy than women do. (See, for example, the U.K., Australia and Canada surveys in Appendix B. The U.S. survey did not report on gender.)

Following the wave of interest and activity generated by the women's movement in the 1970's, there has been a strong trend in the development of adult education and training for women, especially access courses for women returning to study and to paid work. Recent literacy programmes specifically designed for women are part of this trend. There are examples of this in Canada (Canadian Woman Studies, 1988), Greece (Vaikoosi, 1990), the Netherlands (van Dijk, 1990) and elsewhere. Access to basic literacy for ethnic minority women is of special concern in the U.S. and U.K. There are also broader issues of women's differential access to and use of literacy in society (Rockhill, 1987) and of the role of women as low paid tutors and volunteers in literacy programmes.

**Literacy with transient populations.** Most countries have itinerant minorities who in the past have had very little in the way of educational rights. Many of these have high rates of illiteracy, having never properly attended school and they still face much prejudice and discrimination from settled society. Travelling people are part of strong, traditional cultures and are not interested simply in assimilating into mainstream education. They require mobile teachers, distance learning programmes and resources such as tapes and books that can travel with them. The need to make provision for travellers and gypsies is recognised as an issue in Spain, Hungary, Yugoslavia, UK, Ireland and elsewhere. In the 12 member states of the EC alone there are reckoned to be one million itinerant people working as barges and in circuses and fairgrounds (Ezeomah, 1990). These numbers are not necessarily diminishing: with homelessness and unemployment increasing in Britain and the United States there is a new generation of people choosing or forced to be on the move.

**Literacy for offenders.** Literacy is an important issue in working with offenders, both because of high rates of literacy difficulties they experience and because of the literacy demands of the legal system. The Correctional Service of Canada has estimated that more than 50% of the prison population are not functionally literate (Vélis, 1990). Literacy Work in prisons and with ex-offenders has been going on in several countries for many years, but it has not been well documented and has stayed a separate enclave in many ways. A new "Bridge the Gap" programme in the U.K. emphasises links with general adult education, trying to get more continuity of educational opportunities for offenders. Recent documents and links with prison programmes in Canada, Australia and the U.S. are beginning to make this area of work more visible (for example, see Black, Rouse and Wickert, 1990).

**Literacy within the armed forces.** There have been several cases where mass conscription into the armed forces has drawn attention to the low levels of literacy of ordinary people (Sticht, 1988; Metzger, 1983). This has

led to literacy programmes within the armed forces, many of which predate national campaigns. There can be contradictions involved in working under conditions of custody or conscription, where the methods and materials available are often at odds with prevailing theories of adult learning; this is an area of potentially interesting development and analysis.

**Literacy and special learning needs.** A minority of adults who enter adult basic education programmes have specific learning difficulties associated with learning to read and write, and some attention has been paid to teaching approaches geared to their specific difficulties. The contentious issue of whether or not it is appropriate to use the label dyslexic for adults with such learning difficulties is discussed extensively in Young and Tyre, 1983. (See also Loblely and Millar, 1987.)

Other mental or physical disabilities affect reading and writing and give rise to special learning needs. Generally in our societies, the need for adult basic education among disabled minorities is high compared with the population as a whole. This is largely because of the inadequate educational opportunities offered to them in childhood. Canada is beginning to give some attention and voice to disabled learners, a recent conference called them the "forgotten people" (Horsman, 1989). Special learning needs are distinct and cannot be considered together, so that the needs of visually impaired learners, for example are entirely different from those of deaf learners.

**Literacy and older people.** A special focus on the literacy needs of older adults is only recently developing. This is despite statistics which have consistently shown that older people have the highest rates of difficulty with literacy. There are several reasons: they may have received fewer years of schooling as they grew up in a period when compulsory schooling was more restricted; they may have had their schooling disrupted by wars or migration; they may have newly emerging difficulties associated with failing sight, isolation or lack of opportunities to keep up with changing technologies. It is really only in North America that we are aware of basic education programmes for the third age developing, though there is a strong self-help group "University of the third age" which has European origins. The focus on literacy and older people is potentially a strong future trend. The slow development of provision for older people may be "agist": they are a less attractive group for governments to invest in because the return in terms of employment productivity is seen to be low.

**Literacy in community development.** There is a long tradition in many industrialised countries of literacy work that grows directly out of community development groups. Such groups have often focussed on the situation of working class people and their efforts to improve the conditions in their communities. This community development approach is one that also runs through many grassroots literacy initiatives focussing on the other groups described in this section.

Literacy is not a separately identified part of the activities of these groups, but grows out of others concerns. There is an emphasis on informal learning, skill-sharing and practical outcomes in the form of positive social change. Bill their nature, such programmes are critical of

formal, state programmes. Their strength lies in their support from local activists, commitment to the well-being of the community they have grown out of and methods of organisation that reflect these. Such projects rarely receive large scale national funding except at particular moments of significant political change (for example, Portugal's support of popular culture groups during the 1980's) but their contribution to the theory and practice of adult education has been enormously important. Examples include Highlander College and Universidad Popular (Heaney, 1983) in the U.S.; the Ulster Peoples' College in Northern Ireland; Popular Literacy groups in Quebec; Popular Universities in Spain; along with the many other examples of workers education and folk schools which exist within Europe (Lovett et al, 1987).

**Literacy and linguistic minorities.** In several countries, accepting the existence of literacy problems among migrant groups predates any official recognition of literacy difficulties in the population at large (France, the Netherlands are examples of this) and provision for them has developed separately. In terms of special provision, the ideal is for literacy programmes integrated closely into the local community, staffed by people who are also of the community and responding to the variety of local needs. Support would be offered not just with spoken and written language but acknowledging the prejudice and discrimination experienced by these groups and problems associated with integration into a new culture or having to move constantly on the edges of it as a temporary worker. However, the reality of provision still falls far short of this ideal. National or international funding, where it exists tends to be geared primarily toward integration into employment rather than community-identified priorities.

The literacy needs of indigenous linguistic minorities are tied up with the overall language policy of a country and the political status of the group concerned. We have identified this increasingly important topic as a trend in its own right and we deal with it in the following section, Trend five.

**Responding to diversity.** As can be seen above, the diversity to which adult basic education has to respond is enormous. We can summarise the main principles underlying the trend towards flexibility and diversity of provision:

Firstly, there is increasing flexibility in the agencies involved, where literacy help is offered and the type of provision available. In some places, people are being offered more choices and specially tailored opportunities. However, there is still a long way to go. For example, residential opportunities for ABE, common in Sweden, are a rare idea in the U.K. where the first residential college for ABE is currently being built by a collective of learners (See Pecket Well Collective, 1989). Even where the principle of special provision is recognised, specialist programmes still tend to receive a very small percentage of the overall funding available.

Where literacy work is carried out in small-scale community-based organisations, specialist knowledge and programmes tailored to specific needs are more easily developed. Where national or international organisations are involved there can be a tendency toward more uniform provision, less flexible to local circumstances and more instrumental or

vocationally oriented; this can be in tension with small-scale, more informal approaches which get marginalised in terms of both funding and visibility.

Current national campaigns in Canada and the U.S. are notable for their efforts to mobilise a whole range of different agencies and sources of funding, including private industry, libraries, and using different locations. There have also been attempts to decentralise the resources provided by the state (as in Ontario's regional resource bases in Canada). This appears to be less true of European initiatives, for example in the UK and, more recently, the Netherlands (Hamminck, 1990). As another type of provision, the mass media have been extensively used in Scandinavian countries since the mid 1970's for both publicity and teaching. Spain has also developed distance learning programmes in this way and many other countries have used television and radio as methods of publicity and recruitment.

Secondly, there is a growing recognition that help with literacy needs to be linked flexibly into other education and training opportunities to form part of an integrated system of lifelong learning. This can move countries away from seeing the need for adult basic education as a "crisis" - a temporary problem which can be eradicated and it can enable them to bring adult literacy in from the margins. This is important in protecting ABE from the drastic fluctuations in funding and state support which we have identified in many industrialised countries and which typically have accompanied political changes.

It is clear what a good system of lifelong education could be like, given adequate funding. It involves: broadening literacy out to become adult basic education, including numerary, spoken language, and other linked skills; integrating literacy into the general area of language study and enabling people to move easily from private literacy into gaining a public voice, via community publishing, understanding media and so on; creating straightforward pathways into other areas of education such as colleges and vocational training programmes flexible systems of accreditation and credit transfer have a central role in this.

#### **Trend 5. Literacy seen as part of language policy and use.**

There are two ways in which issues concerning language have become more important.

**Language choice.** Each industrialised country has a distinct language situation and there are great differences between them. Whether this is made explicit as a national language policy or implicit as a general approach, the educational provision of each country embodies a view of the language situation of that country. There has been a trend to take more account of language questions and this has implications for literacy.

Countries like Britain, France and Germany have traditions of monolingualism with one dominant language and may be perceived as largely monolingual, even though they contain much diversity. France, for example, has five regional languages, including two, Languedoc and Breton, with more than a million speakers each, and around four million speakers of other minority languages (Limag 1990b). One change has

been the increasing evidence of the great linguistic diversity of the countries which are perceived as monolingual, so that surveys of the range of languages spoken in British cities, for example, reveal that a quarter of London schoolchildren know a language other than English and that around 170 different languages are represented (Martin-Jones, 1989). In Australia, Spain and Canada there has been official acceptance of the multi-lingual nature of the countries in the time period we are studying and, not without struggle, there have been changes in government policy and in provision.

Other countries, like the USSR and Yugoslavia, are explicitly multilingual and for some time have had education policies which reflect this. Countries differ from each other in other ways. Some countries, like Australia and the USA, use a language which is dominant internationally, while others, like Denmark and The Netherlands, do not, and they have second language learning as a central part of their educational system. Countries vary in how much variation there is in the spoken language according to geographical location or social class, and in the relation of the spoken language to the standardised written forms. All this diversity emphasises that in industrialised countries, no less than in developing countries, the language situation in any particular context needs to be described and taken account of before literacy work is undertaken or if different countries are to be compared. Transferring experience from one country to another is never straightforward.

The choice of language for literacy work has always been of interest to UNESCO. The use of vernacular languages in education varies from country to country and, where they are used, in some places these languages are taught as a right in themselves and in others as a bridge to other national languages. What languages are used in education is an issue requiring complex choices to be made that are particular to the situations of individual countries, and decisions on this obviously have implications for adult literacy. Many developing countries have had to face this issue and there is a wealth of expertise on this in developing countries. (See Giere et al, 1990.) In almost all industrialised countries, linguistic minorities and second language speakers are a significant group in adult literacy. However, concern has been almost exclusively focussed on teaching proficiency in the official language of the host country, rather than the mother-tongue. According to Limage (1984), Sweden is the only European country where the government pays for mother tongue teaching for adults of migrant origin. There may be provision for second language teaching for minorities, for example teaching English in England, but it has often been seen as quite distinct from adult literacy provision. The two areas, second language learning and adult literacy, have grown up as separate traditions. Consequently there is not a lot of research on bilingual literacy or second language literacy, but there is growing interest in this area and a clear rationale for its importance (e.g. Baynham, 1988; Hornberger, 1988; Klassen, in press). The topic of literacy and migrant workers has high priority in the European Community, and is especially important in FRG, Greece, Italy, Spain and France.

Making written language more accessible. Another way in which language has become more important is that there is a growing interest in what in Britain is called Plain English, in simplifying and making accessible the written language we use (Butts & Maher, 1981). Government departments have revised information leaflets and forms. There have been examples of

insurance companies and banks simplifying legal agreements. Related to this there is research on document design, the layout of tables, forms, notices, legal agreements (for example, Kirsch and Mosenthal, 1990). Pressure for change often comes from consumer groups and there can be resistance from entrenched bureaucracies.

The issues involved go far beyond concern with readability formulae and includes the many other factors which contribute to whether or not an adult can make sense of and use something which is written. Experience in Britain suggests that the levels provided by readability formulae provide very little indication of whether or not an adult learner can make sense of a text. Other approaches are needed and there have been examples of students in literacy schemes becoming involved in simplifying official documents and investigating bureaucratic language.

This topic goes beyond using straightforward language and covers the clarity of signs in airports and the labelling of food. It affects not just print media but also includes the design of video screens and word processing packages as much as the written word. It is an area where literacy connects up with other technologies.

This has been extended by some people to include broader issues of the control of language and the accessibility of information (See Progressive Literacy Group 1986 in Canada). There is greater understanding of what language is and its importance in shaping knowledge and understanding. Advances in areas of linguistics such as sociolinguistics and pragmatics, on the use of language, on differences between written and spoken language have led to a greater interest in language (Ivanic & Barton 1988). Teaching about language now has a place and it includes: analysing the language of newspapers and television and assessing their influence; exploring people's own dialects and language histories. The topic is sometimes known as critical language awareness. In Britain for example, afro-caribbean literacy projects in Manchester and London have included teaching about language, including work on language and power, language and identity, in basic education programmes (Schwab 1990).

We believe that making language accessible is also an obligation of researchers and that commitment to it is one important part of improving the links between research and practice. Academic language, no less than official business language, can be used to obscure as well as to clarify.

**Key issues, new prospects.**

So far, we have tried to provide a general idea of the direction in which research is moving. In this final section we look forward, examining the research needs which come from the trends we have identified; we summarise the trends, as well as providing actual examples of potential research questions. We will go through the trends one at a time, although many of the ideas are in fact common to more than one trend. Finally, we will outline what we see as some of the essential prerequisites for research appropriate to this new and distinct field of adult literacy research.

The first trend concerns the increasing recognition of the existence of literacy issues in industrialised countries. Surveys of the levels and distribution of literacy are often demanded by policy makers and funders of literacy programmes. Questions are asked about the causes of difficulties with reading and writing. There are a number of options open to researchers facing these demands. The very idea of a literacy crisis needs to be examined critically and the implications of what we mean by literacy in a given country. We need to be clear about the purposes of specific surveys, for whom they are intended to be useful, whether for teachers, educational planners, advocates of those with literacy difficulties. Quite different sorts of research may be appropriate for different needs, and it is possible to choose between them, according to available resources.

Large scale surveys are expensive and are not necessarily the most useful. Often they serve primarily as a public relations exercise, to convince funders and the general public of the urgency of the need for literacy programmes. In order to improve provision, however, local surveys of detailed situations may be more appropriate, to examine who comes forward for tuition and who does not, whether literacy students are representative of all those who want help with reading and writing, and what this help is needed for. Questions of causes can often be answered by asking people with literacy difficulties directly about their lives, as well as by examining large scale patterns of experience.

The second trend concerns the question of what we mean by literacy. This still needs to be explored more. There is a need to develop a critical analysis of the role of literacy in the society: its relationship to schooling, to the other powerful institutions in the society like political and legal structures; its role in employment; how literacy has developed historically; what its relationship is to other communication technologies. As part of this we can see the usefulness of the detailed study of particular situations. This has to be interdisciplinary work, including detailed ethnographies, documenting local contexts of literacy, including language, social context, actual literacy needs. What do specific groups of people use literacy for in their lives, and what levels and what types of literacy do they want? In this respect, it is important to recognise that the literacy problems of industrialised countries in fact overlap with those of developing countries and that we need to make these connections too. Limage (1990) questions the suspect reasoning behind trying to define one kind of "illiteracy" for industrialised countries and another for developing countries and immigrant groups.

From the third trends the shift to adult based models of literacy learning, comes the need to describe more fully how adults learn. In

particular we need to know much more about how to encourage effective participation in learning at all levels. This includes examining the relationships between tutors and students, and between learners themselves. It involves knowing more about how to develop materials, learning programmes and evaluation in negotiation with learners, how learners can effectively have a voice in shaping policy and administration of literacy programmes to their own ends, and how they can participate in research itself.

From the fourth trend comes the need to explore the diversity of literacy needs within a country and to monitor and evaluate the different forms of provision which exist in adult literacy. What is the effect on learning of different forms of provision, for example full-time versus part-time, groups versus one-to-one tuition, the use of volunteers or of resourcebased open learning workshops? What role can computers and other media play in literacy learning? There is a whole set of questions related to how learning is affected by the different settings in which it takes place and by different organisational approaches. For example, how is prison education organised, or a workplace literacy scheme? How are these different from informal, community-based programmes, and why do these differences arise? How do different philosophies lead to different methods being used, and do these different methods in fact differ in their effectiveness?

From the fifth trend is the need to have a clear understanding of the language situation of individual countries, and how literacy fits in with this, particularly for linguistic minorities. Most research on second language learning ignores literacy, and assumes that students are literate in their first language. Research is needed where students have varying amounts of literacy in their first language and where different scripts are involved. Research on the accessibility of documents and on plain language is an important development beyond readability. Investigating and criticising language itself provides a crucial counterpoint to efforts to improve the literacy skills of individuals.

**Appropriate research.** Overall, the value of research depends on who wants the information gained, and what they want to use it for. Different information is of use to policy-makers, academics, teachers, the learners. What sort of research is of value to adult basic education, which now exists as a distinct area of educational provision in its own right? There are some essential prerequisites for appropriate research. Firstly, links between research and practice need to be examined closely. Since many of the developments in adult literacy have come from practice, there has not been a lot of research associated with them. It is important for them to be documented, evaluated and reflected upon. Academic researchers need to recognise and respect the depth of practical experience and knowledge which exists in this field. Literacy teachers and students need to be involved in all stages of the research process, from posing the questions through to carrying out the research and utilising the results. This changes the nature of research in a fundamental way.

Secondly, in order to reflect current approaches to literacy, appropriate research needs to be interdisciplinary: involving a range of disciplines including sociology, history, anthropology, media specialists, and not just those subjects which have traditionally been approached for educational research.

Researchers need to ensure they are not swept along by public images of literacy, with the notion of literacy crisis - something which comes along and which has a short-term solution. They need to develop an analysis of literacy which will give a sounder understanding of how literacy is more permanent than this; how it is embedded in a wider context of schooling and culture; and how it is part of the unequal structures and experiences of poverty which are long-term features of our societies.

Finally, this review has reinforced our belief that networks of communication between different countries can be extremely important, especially those crossing language divides, calling for comparative studies which can deepen our understanding of all the issues raised here.

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#### **Note.**

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## References

- Applebee, A.N., Langer, J.A. and Mullis, I.V.S. 1987. Learning to Be Literate in America. Reading, Writing and Reasoning. NAEP.
- Assessment of Performance Unit. 1988. Language Performance in Schools. Review of APU Language Monitoring 1979-1983. Her Majesty's Stationery Office, London.
- ATD - Quart Monde. 1983. Analphabetisme et Pauvreté Dans Les Pays Industrialisés. UNESCO, Paris.
- Auerbach, E. R. 1989. Toward a social-contextual approach to family literacy. Harvard Educational Review. 59:2, 165-181.
- Austrian Commission for UNESCO. 1989. Seminar on Functional Illiteracy in Industrialised Countries. Final Report and Recommendations. UNESCO and International Institute for Children's Literature and Reading Research (CLARE).
- Barton, D. and Ivanic, R. (eds.) in press. Writing in the Community. Sage.
- Barton, D. and Murphy, S. 1990. Linking Research and Practice: Ten Examples Of Adult Literacy Research In Britain. ALPEA 90.
- Baynham, M. 1988. Literate, biliterate, multiliterate? Some issues for literacy research. In Street, B. and McCaffery, J. Literacy Research in the U.S. Adult and School Perspectives. p 51-9,.
- Black, S., Rouse, R. and Wickert, R. 1990. The Illiteracy Myth. A Comparative Study of Prisoner Literacy Abilities. Faculty of Adult Education, University of Technology, Sydney.
- Black, S. and Sin, S. 1990. The Learning Experience. Perspectives of Former Students From Two Adult Literacy programmes. Adult Literacy Information Office, Australia.
- Bron, M. and Bron-Wojciechowska, A. 1983. Adult Basic Education in Yugoslavia and Poland. An Introduction to a Comparative Analysis. Uppsala Reports on Education 18. Department of Education, University of Uppsala.
- Canadian Woman Studies. 9(3/4) 1988. Special Issue on Women and Literacy.
- Charnley, A. and Withnall, A. 1989. Developments in Basic Education. Special Development Projects 1978 - 1988. ALBSU. London.
- Commission of the European Communities. 1988. Social Europe. Report on the Fight Against Illiteracy. Supplement 2/88. ECSC-EEC-EAEC, Brussels.
- Council of Ministers of Education, Canada. 1988. Adult Illiteracy in Canada: Identifying and Addressing The Problem. Council of Ministers of Education, Canada.

- Cutts, M. and Maher, C. 1981. Writing plain English. Plain English Campaign.
- Darville, R. 1988. Framing Illiteracy in the Media. In Learning. V: 1. Canadian Association for Adult Education.
- Darville, R. 1989. The Language of Experience and the Literacy of Power. In Taylor, M.C. and Draper, J.A. (Eds.) Adult Literacy Perspectives. Culture Concepts.
- De Castell, S. Luke, A. and Egan, K. 1986. Literacy, society and schooling. Cambridge University Press.
- Dymock, D. 1982. Adult Literacy Provision in Australia- Trends and Needs. Australian Council for Adult Literacy.
- East End Literacy. 1984. A model for delivery: submission to Toronto Board of Education. Toronto.
- Eberle, A. 1980. The Adult Illiterate Speaks Out: Personal Perspectives on Learning to Read and Write. National Institute of Community Development, Washington D.C. ERIC Report No. 195-771.
- Educational Testing Service. 1990. National Adult Literacy Survey. Educational Testing Service. Princeton, New Jersey, USA.
- Ezeomah, C. 1990. Educating nomads for self-actualisation and development. Literacy Lessons. Geneva: UNESCO.
- Fingeret, A. 1983. Social networks: A new perspective on independence and illiterate adults. Adult Education Quarterly. 33(3):133-146.
- Fingeret, A. 1984. Adult Literacy Education: Current and Future Directions. ERIC Clearinghouse on Adult, Career, and Vocational Education.
- Freire, P. 1985. The Politics of education: Culture, power and liberation. Macmillan.
- Freire, P and Macedo, D. 1987. Literacy: Reading the word and the world. RKP.
- Freynt, P. 1987. Illiteracy and Adult Literacy Practice in the European Community: A General Overview. Centre Universitaire de Formation Continue (CUFCO). Université de la Gascogne.
- Fuchs-Bruninghoff, E. 1987. Personally-Related Training for Counselling Work in the Field of Literacy Provision. (in German) in Tietgens, Hans U.A. Forschung und Fortbildung IIrsg. Pädagogische Arbeitsstelle Deutscher Volkshochschul-Verband Bonn.
- Fuchs-Bruninghoff, E., Kreft, W. and Kropp, U. 1986. Literacy in the Federal Republic of Germany. Pädagogische Arbeitsstelle des Deutschen Volkshochschul-Verbandes ( PAS/DVV ) .
- Fukasz, G. 1978. Adult education in Europe. Studies and Documents, No. 1. Prague: European Centre for Education and Leisure.

- Furet, F. and Ozouf, J. 1977. Lire et écrire. Paris: Editions de Minuit.
- Gardener, S. 1986. Conversations with strangers. London: ALBSU.
- Gatehouse 1983. Where Do We Go From Here? Adult Lives Without Literacy. Gatehouse Community Publishing Group, Manchester, England.
- Gatehouse. 1985. Opening Time. Gatehouse Community Publishing Group, Manchester, England.
- Gayfer, M. (ed.). 1987. Literacy in the Industrialized Countries: A Focus on Practice. Special Issue of Convergence, Vol. XX No. 3-4, 1987. International Council for Adult Education.
- Giere, U. 1987. An Analytic bibliography of loiterer in Industrialised countries. Hamburg: Unesco Institute for Education.
- Giere, U., Ouane, A. and Ranaweera, M. 1990. Literacy in developing countries: An analytic bibliography. Hamburg: Unesco Institute for Education.
- Giroux, T. H. 1983. Theory and resistance in education: A pedagogy for the opposition. Bergin & Garvey.
- Goffinet, S. and Van Damme, D. 1990 Functions Illiteracy in Belgium UNESCO Institute for Education.
- Goyen, J. D. 1976. Incidence of adult illiteracy in the Sydney metropolitan area. Literacy Discussion, 8:3, 63-72.
- Gracia Navarro, M. and Lopez Eisman, J.C. 1985. Adult Education in Andalusia. In Prospects Vol 15, 1985 No. 3 pp. 399-406.
- Graff, H. 1979. The literacy myth: Literacy and social structure in the nineteenth century city. Academic Press.
- Graff, H. (ed) 1981. Literacy and social development in the west. Cambridge University Press.
- Grant, A.N. 1987. Opportunity To Do Brilliant45r. Commonwealth Dept. of Education. Australian Government Publishing Service, Canberra.
- Gray, W.S. 1956 The Teaching of Reading and Writing. UNESCO.
- Grebelsky, O. and Tokatli, R. i i&\_ Literacy in Israel. Widening horizons. Jerusalem.
- Group Permanent de Lutte Contre L'Illettrisme. 1990. L'Illettrisme En France. Aspects Realisations Projets. Groupe Permanent de Lutte Contre L'Illettrisme, Paris, France.
- Hall, N. 1987. Emergent literacy. Edward Arnold.
- Hamilton, M. 1987. Literacy, Numeracy and Adults: Evidence from the National Child Development Study. ALBSU.
- Hamilton, M. and Barton, D. (eds). 1989 Research and practice in adult literacy. Nottingham: Association for Recurrent Education. Second edition.

- Hammink, K. 1990 Functional Illiteracy and Adult Basic Education in the Netherlands UNESCO Institute for Education.
- Harman, D and Hunter, C. 1979. Adult illiteracy in the United States. McGraw Hill.
- Hautecoeur, J.P. 1984. Anonymus. Autoportraits. Montreal: Editions SaintMartin.
- Hautecoeur, J.P. 1990. ALPEA 90. Ministry of Education Quebec and UNESCO Institute for Education.
- Heaney, T.W. 1983. Struggling to be free: the story of Universidad Popular. Northern Illinois University.
- Heath, S. B. 1983. Ways with words. Cambridge University Press.
- Hill, C. and Parry, K. 1989. Autonomous and pragmatic models of Reading Assessment in Adult Education. Linguistics and Education. 1 (3), 233-284.
- Holland, D. 1989. Assessment of student progress in adult literacy. London: Report to the Adult Literacy and Basic Skills Unit.
- Holmes, B. 1989. Literacy and Numeracy: What Cause for Concern? Employment Gazette, March 1989. London: Department of Employment.
- Hornberger, N. H. 1988. Becoming biliterate: what do we know? MS. Graduate School of Education: University of Pennsylvania.
- Horsman, J. 1989. Lifeline to Literacy: People with Disabilities Speak Out. TV Ontario, The Ontario Education Communications Authority, Canada.
- Illich, I. 1981. Shadow work. London: Marian Boyars.
- Ivanic, R and Barton, D. 1988. The role of language study in adult literacy. in McCaffery, J and Street, B. (eds). Literacy Research in the U.X. Adult and School Perspectives.
- Kirkwood, G. and Kirkwood, C. 1989. Living Adult Education. Freire in Scotland Open University Press.
- Kirsch, I. and Jungeblut, A. 1986. Literacy: Profiles of America\* Young Adults. National Assessment of Educational Progress (NAEP) Educational Testing Service Report No.16-PL-02. USA.
- Kirsch, I. and Mosenthal, P. 1990. Exploring Document Literacy: Variables Underlying the Performance of Young Adults. Reading Research Quarterly 25(1),5-30.
- Klassen, C. in press. Bilingual literacy: the adult immigrant's account. in Barton, D and Ivanic, R. (eds) Writing in the Community. Sage.
- Knowles, M. 1980. The modern practice of adult education: from pedagogy to andragogy. Follet Publishing Co.
- Kozol, J. 1985. Illiterate America Plume.

- Levine, E. 1985. *The social contest of literacy*. Routledge and Kegan Paul.
- Limage, L. J. 1984. Young migrants of the second generation in Europe. *International Migration*, 22:4.
- Limage, L. J. 1988. Prospects for Adult Literacy in a Period of Economic Austerity. In *Comparahze Education*, 24:1.
- Limage, L. J. 1990a. *Illiteracy in Industrialized Countries: Realities and Myths*. Literacy Lessons Geneva: UNESCO.
- Limage, L. J. 1990b. *Language and Literacy: The Impact of Policy on Practice*. UNESCO. Paper presented at the Annual Conference of the Comparative and International Education Society (CIES) Anaheim, California, 22-25 March 1990.
- Lippman, L. 1976. Literacy and Ethnic Minorities in Australia. In *Literacy Discussion VII (No. 2)*, Summer: 23-25.
- Lire et Ecrire, 1985. *Paths of Illiteracy*. Report to the European Community. Belgium.
- Lobley, G. and Millar, R. 1987. I think I'm dyslexic. *RaPAL Bulletin* No. 3.
- Lovett, T. Clarke, C. and Kilmurray, A. 1987. *Adult education and community action*. Croom Helm.
- Luke, A. 1988. *Literacy, textbooks and ideology*. Falmer Press.
- Lytle, S. et al. 1986. *LiteracJr theory in practice: assessnng reading and writing of low-literate adults*. Paper presented at the annual meeting of American Education Research Association, San Francisco.
- Mace, J. 1983. *Forking With Words. LiteracJr Beyond School*. Readers and Writers Cooperative.
- Mace, J. and Yarnit, M. 1987. *Time off to learn: Paid educational leave, and low paid workers* Methuen.
- Marquet, M. 1990. *Michael's marathon: my experience of overcoming illiteracy as an adult*. Literacy Lessons. Geneva: UNESCO.
- Martin, R. 1989. *Literacy From The Inside Out*. Self-published, Boston, Mass.
- Martin-Jones, M. 1989. *Language Education in the Context of Linguistic Diversity: Differing Orientations in Educational Policy Making in Britain*. in Esling, J.H. (ed) *Multicultural education and Policy: ESL in the 1990's*. OISE Press, Toronto, Canada.
- Melo, A. and Benavente, A. 1978. *Experiments in Popular Education in Portugal 1974-1976*. UNESCO
- Metzer, D. 1983. *Adult Education in the Israeli Defense Forces*. In Grebelsky, O. and Tokatli, R. *Literacy in Israel. Widening Horizons*. Jerusalem.

- Miller, L. 1988. Le Regroupement des Groupes Populaires en Alphabétisation du Québec. In Learning, Vol. Y:1. Canadian Association for Adult Education.
- Moore, A. and Westell, T. 1989. Voluntarism in Community Based Literacy. In Taylor, M.C. and Draper, J.A. (Eds.) Adult Literacy Perspectives. Culture Concepts.
- Moss, W. 1986. From conversation to composition: Language experience writing in adult basic education. M.A. dissertation. Lancaster University.
- Napoli, A. 1987. Literacy and Immigrant Communities in Industrialized Countries: The Case of Italy. In Gayfer, M. (Ed.) Literacy in the Industrialised Countries: A Focus on Prsetice. Special Issue of Convergence, Vol. XX No. 3-4, 1987. International Council for Adult Education
- National Adult Literacy Agency (Dublin). 1987. Causes of Literacy Difficulties. Special issue of NALA Newsletter, No. I, Dublin, Ireland.
- Nickse, R.S., Speicher, A.M. and Buchek, P.C. 1988. An Intergenerational Adult Literacy Project: A Family Intervention/Prevention Model. In Journal of Reading, Vol. 31:7.
- Northeutt, N. 1975. Adult Functional Competency: A Summary. Univ. Texas at Austin, ERIC Report ED-114-609.
- Nyberg, K. 1981. Sweden. In Adult Literacy and Basic Skills Unit, Adult Literacy in Industrialised Countries: An International Seminar. ALBSU.
- Olsen, E.A. 1981. Danish For Adults: A Multimedia Project. In Adult Literacy and Basic Skills Unit, Adult LiteracJr in Industrialised Countries: An International Seminar. ALBSU. London.
- Pearpoint, J. 1989. All Welcome! Everyone Belongs!: Leadership From Voices Seldom Heard. International Review of Education. Vol. 35, No. It, 1989. UNESCO Institute for Education.
- Pecket Well Collective, 1989. Sharing Dreams Halifax, England.
- Progressive Literacy Group. 1986. Writing on our side. Vancouver.
- Reder, S. M. 1987. Comparative aspects of functional literacy development: three ethnic American communities. In Wagner, D (ed). The future of literacy in a changing world. Pergamon Press.
- Rockhill, K. 1987. Gender, language and the politics of literacy British Journal of Sociology of Education. 8(2)
- Ryan, J. 1990. Publishing Women's Stories. In Voices Rising, Volume 4, Number 1. The ICAE Women's Program.
- Schwab, I. 1990. Language and power. London: Harcourt Brace Jovanovich.
- Scribner, S. 1984. Studying working intelligence. In Rogoff, B. and LaveJ F. (eds) Everyday cognition: Ittg development in Aocial context, p 9-40. Cambridge, MA: Harvard University Press.

- Scribner, S. & Cole, M. 1981. The psychology of literacy. Harvard University Press.
- Shor, I. 1986. Culture wars: School and society in the conservative restoration. 1969-1984. Routledge Kegan & Paul.
- Shor, I. (ed) 1987. Freire for the classroom. Boynton/Cook Heinemann.
- Simola, R. 1981. Finland. In Adult Literacy and Basic Skills Unit, Adult Literacy in Industrialised Countries: An International Seminar. ALBSU.
- South, R.J. 1983. Adult Basic Education. Conference Report - University of St. Andrews, Scotland, June 26 - July 1, 1983. European Bureau of Adult Education.
- Southam literacy survey: Literacy in Canada, a research report. 1987. Southam News, Ottawa, Canada.
- Statistics Canada. 1990. Survey of Literacy Skills Used in Daily Activities. Statistics Canada.
- Sticht, T.G. 1988. Adult Literacy Education. In Rothkopf E.Z. (Ed.) Review of Research in Education, 15. Washington, DC, American Educational Research Association.
- Street, B. 1985. Literacy in theory and practice. Cambridge University Press.
- Street, B. 1989. Literacy, Nationalism, and Assessment. Literacy Center, Teachers College, Columbia University.
- Street, B. & Street, J. in press. The Schooling of Literacy. In Barton, D. and Ivanic, R. Writing in the Community. Sage.
- Taylor, M. & Draper, J. (eds). 1989. Adult Literacy Perspectives. Cultural Concepts.
- Terestyeni, T. 1987. Una encuesta sobre el papel de la lectura y la escritura en la comunicacion cultural en Hungría. Perspectiva, XVII, no. 2.
- Thomas, A. 1983. Adult illiteracy in Canada: A challenge. UNESCO/CODE.
- UNESCO 1987. Workshop of Specialists in Europe on Prevention of Functional Illiteracy and Integration of Youth Into the World of Work. UNESCO.
- UNESCO, . 1988. Development of Education in Europe: A Statistical Review. Fourth Conference of Ministers of Education of Member States of the Europe Region. Paris, 21-27 September 1988. UNESCO.
- UNESCO, 1990a. Basic Education and Literacy: World Statistical Indicators. UNESCO, Office of Statistics.
- UNESCO. 1990b. Literacy Lessons. Geneva: Unesco.

Vaikoosi, D. 1990. On the training of Tutors for Women's Literacy: A Woman's Experience With Women in Greece. In *Voices Rising*, 4, ( 1 ) . The ICAE Women's Program.

van Dijk, F. 1990. Women and Illiteracy. ALPEA 90.

Vélis, J.P. 1990. Through a Glass Darkly Functional Illiteracy in Industrialised Countries. UNESCO.

Wickert, R. 1989. No single measure; a survey of Austrian Adult Literacy. Sydney College of Advanced Education.

Young, P. and Tyre, C. 1983. *Dyslexia or Illiteracy*. Open University Press.

## **Appendix A. International and national agendas for literacy.**

Trends in literacy research and practice can be significantly affected by priorities outlined by international agencies and national programmes. Such agendas shape the content of discussions in international meetings and policy documents. They directly influence the level of activity in the field through the way funds are allocated, both for literacy programmes and research. We provide examples of these agendas as they are not easily available; wherever possible we have kept to their words for describing literacy.

### **INTERNATIONAL BODIES**

**UNESCO** Source: Seminar on Functional Illiteracy in Industrialised Countries, Austria, May/June 1989 with representatives from 17 countries.

The recommendations from this group emphasise that access to literacy and basic education is a human right and that humanistic values in literacy education should not be lost to economic and technological concerns. Illiteracy is recognised as marginalising people from culture. Literacy should not be dealt with as an isolated factor, but must be linked with action to reduce poverty and inequality in society.

The group recommends that national resources should be committed to ensure all adults the right to literacy provision. However, non-governmental groups (private, voluntary and community based) have a key role to play. Governments should act in partnership with them to ensure diverse and decentralised networks and decision making.

An essential principle of literacy programmes is that learners should themselves participate in decisions affecting them, locally and nationally.

Special attention should be given to:

- \* Young people in relation to literacy, training and employment.
- \* Working with parents and their children together.
- \* Action to improve literacy teaching in primary schools, particularly through teacher training.
- \* Improved training for teachers of adult literacy.
- \* Ensuring access to books among children and adolescents through public facilities.

**International Council for Adult Education (ICAE)** Source: Seminar on Literacy in the Industrialised Countries: A Focus on Practice, Toronto, Canada. October 1987.

This seminar brought together 300 delegates from 15 industrialised countries. There were also 11 literacy specialists from developing countries to act as resource people for the seminar. The ICAE worked hard to make this a meeting of practitioners, as it is committed to participatory research and importance of practitioner and learner perspectives in developing policy. 10 key topics were identified for workshops: Women and Literacy, Labour and employment, Culture and mother tongue literacy, Literacy and the disabled, Computer Assisted Learning, Student Writing, Schooling, Literacy and Justice, Community

Based Initiatives versus Large Scale central funding, Building Literacy Coalitions.

The declaration produced by the seminar included these points:

- \* Literacy is a human right.
- \* Illiteracy is a sign, an effect of poverty and oppressive social structures.
- \* Literacy promotes social and individual change.
- \* People should have universal access to literacy in their mother tongue. t Literacy programmes should be developed with communities and emerge from their needs.
- \* Literacy programmes should be learner-centred in their design and content, learning materials, evaluation and administration.
- \* Funders must respect the autonomy of community-based groups working for literacy.
- \* Adequate state funding should be provided for literacy and the state should work in partnership with non-governmental groups.

The European Community Source: EC Documents available from the EURIDYCE documentation centre, Brussels.

In 1984 The European Community launched an initiative to "combat illiteracy" in member countries. This has involved commissioning qualitative research (Lire et Ecrire, 1985) and a programme of action research projects; organising a series of seminars and information exchange via the EURYDICE documentation centre. The emphasis of the EC is on prevention and on taking action across all levels of the education system to improve access to literacy, including concern with pre-school education and adult literacy. Despite this integrated policy approach, the EC's ability to fund practical action is fragmented by its structure. Responsibility for literacy falls across several of the Directorates General: for example, literacy as it concerns schools is dealt with by one section whereas action to do with adult literacy falls within another dealing with training and employment. A programme looking at the role of new technology in literacy learning would fall under yet another directorate and tutor training would also be separate. In practice, the EC's approach to literacy is directed strongly by its wider priorities in facilitating European economic development.

The EC encourages member states to take action in the following areas.

In terms of schooling:

- \* An integrated programme of pre-school, school and adult literacy.
- \* Motivate children to see the pleasure and usefulness of reading and writing.
- \* Importance of developing spoken language.
- \* Monitor attendance of children during compulsory schooling and provide help for those who are unavoidably absent eg for health reasons.
- \* Improve teacher training and familiarise teachers with children's' problems in disadvantaged homes. Encourage home/school links.
- \* Flexible syllabuses to allow children to progress at their own rate

- \* Provide adequate resources, both for teaching and equipment.
- \* More research, better information exchange.

In terms of adult literacy:

- \* Adult literacy is distinct from schools and is not their responsibility
- \* Need improved training for literacy instructors
- \* Careful selection of teaching materials
- \* Suitable timetabling for adults
- \* Positive publicity to encourage people to come forward and learn
- \* National initiatives are important, but should be followed up with regional initiatives and co-ordinated efforts between all interested groups.

Action on literacy meshes in with other EC programmes, namely those promoting equal opportunities, especially for the children of migrant workers; foreign language teaching programmes; programmes aimed at the transition from school to work; introduction of new technologies; vocational training programmes, where literacy can be an integrated component. This last one would also cover the training of unemployed people as literacy tutors.

The EC has sponsored several conferences and a summer school on literacy. A series of conferences have taken place at the University of Angers, France focussing on training issues for literacy staff and research.

Participants at a seminar held in Athens, in Sept. 1987, made the following recommendations:

Literacy programmes should

- \* recognise the different realities of diverse learners
- \* encourage links with parents
- \* develop better pre-school education
- \* discourage the ghettoisation of minority groups
- \* employ new methods of evaluation
- \* improve teacher training

A need was identified for an action research programme and strengthened links with universities.

#### **EXAMPLES OF CURRENT NATIONAL AGENDAS**

A few examples are given below of the definition of the literacy problems and priorities for action in individual countries. In some cases this is encapsulated in brief statements of purpose, in other cases it is a more detailed agenda for action.

**CANADA** (Council of Ministers of Education, 1988) "Provincial ministers recognize that ...adult illiteracy significantly restricts the social options and the income potential of individuals and limits their participation in and contribution to Canadian life. It poses major problems in regard to

equity and the right to education. For several sectors of the economy, the inadequate education of a portion of the work force reduces opportunities for increased productivity and the introduction of new technologies and raises concerns about Canada's ability to compete internationally. "

The statement goes on to identify a number of priorities for action including: information sharing; close co-operation of government agencies across provinces and with voluntary agencies and community groups; provision of publicity and information on adult illiteracy; expansion of training for literacy personnel and funding for literacy programmes; encouragement of diversity in literacy programmes and the development of coherent standards for them.

**FRANCE** The national programme in France is spearheaded by the Groupe Permanent de Lutte Contre l'Illettrisme (GPLI) which consists of representatives from all government departments involved. As summarised by Freynet (1987) the GPLI works in partnership with non-governmental groups in the areas of social policy, education, employment and culture. Initiatives are of three kinds: prevention, remediation and retention of previously acquired skills.

\* Prevention through action in schools, developing policies on the teaching of reading, preventing early school drop outs and encouraging out-of-school activities involving literacy

\* Remediation of basic skills for reasons of personal development, autonomy and self-esteem; for better social integration and participation in family and community life, to enable people to exercise their civic rights and encourage their own children's schooling; for cultural reasons, giving people better access to their own culture - art, literature, music and theatre, local history and finally, for economic reasons, introduction to the world of work, preparatory training, job search skills, certificated training and apprenticeships.

Particular target groups are women living alone, people in rehabilitation centres, offenders and ex-offenders, early school leavers without qualifications, unskilled workers with retraining needs.

\* Retention of previously acquired skills involves more general efforts to develop a culture of literacy and should be integrated with anti-poverty programmes and programmes encouraging civic involvement.

**GREECE** A new education policy designed to "prevent and eradicate illiteracy" in Greece was announced by the government in 1987. The Aim of the policy is two-fold: to improve the provincial school network and to provide extra help for the children of Greek immigrants who have recently been repatriated. Alongside this programme is a programme of "Popular Further Education" dealing with both literacy and numeracy problems among the adult population (Ministry of Culture (1988). Special courses have been developed for groups such as rural workers, the defence forces, and gypsies. Teaching is in small groups and can lead to a primary school certificate, obtained by taking an examination. Radio and television have been used widely to publicise opportunities and set up a telephone referral service.

**PORTUGAL** In 1979, Portugal announced a National Plan of Literacy and Adult Basic Education designed to ensure permanent access for adults to literacy and continuing education. The programme had the following objectives:

- \* To ensure the cultural and educational development of the population, encouraging personal development, increased participation in cultural, social and political life.
- \* To develop a stable system of provision for adult basic education through co-ordinating all existing national resources and organisations catering for adults and building on their experience..
- \* To improve the quality of literacy teaching.

The concept of literacy behind this initiative, was a broad one, taking in all the instrumental, social, civic, political and professional aspects of literacy in adult life. The methods and approach guiding the programmes drew heavily on the ideas of Paulo Freire. The development of oral language was emphasised as well as reading, writing and numeracy, the ability to communicate using different kinds of materials and in a variety language forms; critical analysis of issues and the ability to act on this analysis; to demand and understand information from a variety of media.

## **Appendix B. Surveying Literacy: recent examples from Industrialised Countries**

This appendix is included to give details of the methods and results of selected large scale surveys undertaken over the last two decades. The surveys included here illustrate the range of approaches to assessing literacy so far developed in industrialised countries.

### **The United States.**

The U.S. has pioneered efforts to assess and measure the literacy competence of their adult population, and recently has given extensive funding to this exercise.

The first large scale survey of adults was carried out by the University of Texas at Austin, (Northoutt 1975). This was the Adult Performance Level Study. This research asked a sample of 7,500 adults to perform a range of literacy tasks similar to those encountered in their everyday lives (described as a competency-based approach). From this survey, the researchers inferred that 23 million adults in the U.S.A. lack basic literacy competencies and a further 34 million function at a low level.

Between 1971 and 1984 a series of studies of reading competence were carried out in school, with 9,13 and 17 year olds (Applebee et al 1987) and recent surveys of adult literacy have built on the approach taken in these studies in order to give some measure of comparability between school children and adults.

The most recent and influential survey is that of the National Assessment of Educational Progress (NAEP) carried out by the Educational Testing Service using a more sophisticated version of competency-based approach.

The survey covered a national sample of 3,600 respondents aged between 21-25 years. It consisted of a short background interview followed by more than 100 literacy tasks using authentic materials, which demand a mixture of reading, writing, oral and calculation skills, with the emphasis on reading. This test was designed specifically for the U.S. and makes use of an overall reading scale, plus three literacy components: Prose Literacy (such as reading a newspaper article, magazine or book); Document Literacy (such as filling in forms, charts, tables, using an index; and Quantitative Literacy (such as using a menu, chequebook or responding to advertisements). Each dimension was scored on a scale from 0-500 and results presented of the percentage of adults who scored at particular points on the scale, representing "levels" of difficulty.

Since a profile of scores are obtained for each person, the results of the NAEP study are quite complex to describe. They can only be properly understood in terms of the content of the test items themselves. For example, on the Prose Literacy dimension, the survey found that overall, 96% of young adults could perform above the 200 level, which required them to locate a single fact in a news article or write a brief description of a job they would like to have. The percentages failing to reach this level were however higher for ethnic minority groups and for those with less than eight years of schooling.

72% of young adults successfully reached the 275 level on the Prose scale. At this level, people were required to interpret the instructions

given with a household appliance, write a letter pointing out an error in a bill, and state the main theme of a poem. Fuller details are given in (Kirsch and Jungeblut, 1986) and other publications from the U.S. Educational Testing Service.

As well as a study of workplace literacy, The U.S. federal government is currently planning an even more extensive general survey based on the NAEP approach. This will involve interviewing 13,000 adults, aged between 16 and 64 years, with a larger battery of tasks and will take place in 1991-92 (Educational Testing Service, 1990).

### **Canada.**

Canada has only recently given national resources to this kind of study.

The earliest estimates of literacy levels in the country come from a UNESCO report (Thomas, 1983) which used completed grade level as a guide to adult competence, based on census information. This report divided adults into those with basic literacy difficulties (up to Grade 4) and those who were functionally illiterate (between Grade 5 and Grade 9). This gave figures of 1% lacking basic literacy and a further 23% who were functionally illiterate.

In September 1987 on a wave of public interest generated by a new national literacy initiative, a national survey was carried out by a national newspaper publisher, Southam News. The survey adapted the approach used in the U.S. by NAEP, and interviewed a national sample of 2398 adults over 21 yrs. (Southam, 1987) 60 test items were used, specially adapted to Canadian society and the items were translated into both official languages of Canada - French and English. Although results were analysed for the same components as the NAEP identified (a reading scale, prose, document and quantitative literacy) a summary "key items" scale was devised in the Southam survey. This contains a subset of the items that a Canadian jury agreed should be able to be completed by a functionally literate Canadian. The results from this "key items scale show 24% of Canadians to be functionally illiterate (nearly a quarter of the population): 8% at a very basic literacy level and the remaining 16% below functional level. This is likely to be conservative estimate, given that the survey did not include offenders, transient populations, native Canadians living on reserves, mentally disabled people or non-French or non-English speaking immigrants. The survey showed substantial regional differences in literacy levels, more difficulties with literacy among older people, among the Francophone population and among those who had experienced disadvantage in their childhood.

Following criticisms of the validity of the Southam report, the Federal government commissioned a more extensive study in 1989, interviewing 9,500 people between the ages of 16-69 years. A new set of items were devised, still based on authentic materials but with separate questionnaires for reading, writing and numeracy. Each questionnaire was scored on a single dimension, divided into 4 levels.

This survey found similar patterns of results across the different population groups and regions. Results from the reading tests showed 62% of the population at the top level 4, 16% at the bottom levels 1 & 2, and the remainder in between. (Statistics Canada, 1990)

## Australia

Earliest estimates were based on an army survey in 1943 (See Dymock 1982) which reported "4% total illiteracy and anything up to 20% near illiteracy, depending on the criterion adopted".

Goyen's (1976) study of the population of Sydney, used a criterion referenced test of "survival skills" adapted from the U.S.A. The results were extrapolated to the whole country. 1000 adults were included, all of whom spoke English as their mother tongue. They were asked to complete tasks such as reading telephone dialling instructions, classified advertisements and completing a job application form. Using a criterion of a reading age of less than 10 years, 4% of these respondents were judged to be functionally illiterate.

In 1989 the first national survey of adults was carried out, based on the NAEP approach (Wickert, 1989). The survey covered 1,500 adults over 18 yrs. old. 25 items were used, adapted for the Australian situation.

As in the original American research, the profile results are complicated. Examples of the findings are: adults scored lowest on the quantitative literacy component, with 10% unable to complete any of these items. 51% of the sample were able to complete an advanced level document literacy task where they had to identify from a manufacturer's paint chart which product would be needed to do a particular paint job. Only 22% of the sample correctly completed all four items on the prose dimension. At least 10 % of the sample were unable to add up two entries on a bank deposit slip. One third of the sample said they needed help to fill in official forms. Literacy difficulties were greater among older people, those in unskilled work and those coming from poor and otherwise disadvantaged backgrounds.

## United Kingdom.

When the Adult Literacy campaign began in 1973, it was based on an estimate of 2 million adults out of a population of 55 million needing help. This was just a guess and not based on any hard information.

There has not been any national survey of adult literacy in the U.K. of the kind devised in the United States, Canada and Australia. There have been a number of surveys of school literacy, most recently carried out by the Assessment of Performance Unit (APU). Over the period 1979-83 the APU developed a detailed literacy profile based on tasks which aim to closely reflect the school literacy curriculum and in some cases the assessment included pieces of "real" writing produced by children as part of their day-to-day school work (see APU, 1988) an approach that could be reproduced with adults, especially where constrained forms of literacy are the focus of interest (for example work-related literacy).

National information about the literacy skills of young adults has come from a large scale longitudinal survey: The National Child Development Survey, which has followed all children born in one week in 1958. It has collected a wide range of information about the lives of the 12,500 respondents who have been studied. They have been interviewed at seven-year intervals. In 1981, when they were 23 years old, they were

asked to report on any difficulties they had experienced with literacy or numeracy since leaving school. 13% of the group who responded reported such difficulties and gave details of the practical problems they had experienced. More men than women reported difficulties and many mentioned work related contexts as causing problems, especially applying for jobs and training programmes. In terms of the size and representativeness of the sample, this study is much bigger than any of the others reviewed above. It contains much information about literacy at different stages of peoples lives, embedded in more general information about their education, medical and home background. The self-report measure can be compared with school-based tests of reading and maths and can also look at causal factors, and the past development of literacy difficulties (Hamilton, 1987). The next stage of the survey will be carried out in 1990-91. There is currently a similar study being carried out with a newer longitudinal survey, the Youth Cohort Study, involving 16,000 children born 1979.

This is a different approach to surveying literacy in that it makes use of existing research and inserts a literacy dimension into it, rather than funding a separate literacy survey. It also differs from the competency based approach of NAEP in offering adults the chance to define and describe their own needs.

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**Appendix C. Unesco/UIE exchange network on functional literacy  
in industrialised countries.**

INFORMATION SHEET

AN EXCHANGE NETWORK ON  
FUNCTIONAL LITERACY IN INDUSTRIALIZED COUNTRIES

RESOURCE CENTRE: THE UNESCO INSTITUTE FOR EDUCATION

1. The Unesco Institute for Education (UIE) and Literacy

Founded in 1951, UIE is an international centre for research and dissemination with a focus on the concept of lifelong education and its implications for the qualitative aspects of formal and nonformal education. Its research activities are specifically concerned with curriculum, learning strategies and techniques, teacher education and evaluation covering both formal and nonformal systems of learning. It conducts its activities through an international cooperative programme involving governmental and non-governmental agencies, educational institutions and individuals from all regions of the world.

One of the major areas of the application of the principles of lifelong education has been in the field of literacy, post-literacy and continuing education. Recognizing the importance of this field, UIE in 1980 mounted an international project of research, research-based training, documentation, publication and dissemination on the subject of post-literacy and continuing education of neo-literate adults and out-of-school children in developing countries. With the growing awareness of the problem of functional illiteracy in industrialised countries, this project was extended in 1985 to include various activities on a systematic basis pertaining to the issue of functional illiteracy in industrialised countries. Prior to this, UIE carried out a pilot study of this subject in the UK starting it in 1981 under the post-literacy project and publishing its findings in 1985.

2. The Need for a Network

Realizing that the phenomenon of functional illiteracy at first perceived as marginal was much larger than had been thought, and that it required educational, social, economic and political action, more and more industrialized countries

have undertaken national, sub-national or local initiatives. Although international cooperation among industrialised countries on problems of functional illiteracy has a relatively short history, it has been gaining in intensity during the last decade. Some of the early landmarks are

- (i) One of the first international seminars in this context, organized jointly by the Adult Literacy and Basic Skills Unit, the British Council, the National Institute of Adult Education (all UK) and the International Council for Adult Education (Toronto) in 1981;
- (ii) The conference organized by Lire et Ecrire (Belgium) for participants from many industrialised countries in 1984, followed by
- (iii) An International Conference which took place at the University of Oldenburg (Federal Republic of Germany) in 1985.

The participants from these and other forums had expressed the need to intensify cooperation and extend the range of countries participating. In response to this and other initiatives, Unesco and UIE jointly organized in 1986 a workshop for industrialised countries within the Europe Region. While experiences previously documented were mainly concerned with the situation in western European countries, at the 1986 workshop participants from east and west shared their experiences for the first time. They unanimously expressed the need to strengthen and widen the cooperation through an active exchange of information and experiences. One of the recommendations of the Unesco/UIE workshop was to establish a network to achieve this aim.

As a follow-up to this recommendation, the 24th General Conference of Unesco approved in November 1987 a specific programme action pertaining to the establishment, in conjunction with the Unesco Institute for Education in Hamburg, of a network for exchange of information and documentation on functional illiteracy among interested industrialised countries" (Unesco's Programme and Budget 1988/ 1989, 24 C/5 Approved para 02104).

UIE was entrusted with the responsibility of acting as a resource centre on account of its involvement in research in this and related fields which had led to contacts with many resource persons and institutions, a collection of relevant documents, and the rendering of information services to a large number of enquirers.

### 3. The Network's Goal and Function

This network has now been established with the support and cooperation of Unesco, Paris, in order to generate, exchange and store information pertaining to activities, experiences and documentation among institutions and individuals in need of and/or in a position to supply and share significant results and insights gained from their research, teaching administrative or promotional work on functional literacy and, more importantly, with functionally illiterates in the industrialized countries.

The information pool will consist mainly of two components: 1) the personal experience and expertise of the network members, and 2) a collection of relevant publications and other documents. The main task of the network will be to feed, activate and draw on this information pool, and to stimulate interaction among its members, promoters and animators.

UIE, in collaboration with Unesco, and relying on a continuously updated list of addresses and stock of documentation, will function, within its limited resources as a clearing house for the collection and dissemination of materials and information, and will carry out promotional activities in the field of functional illiteracy. More specifically, it will function as a

- major nodal point for connecting information seekers with informants,
- resource centre supplying bibliographical and related referral services and a limited number of publications and extracts,
- study centre putting its documentation at the disposal of visitors for information and research,
- facilitator of contacts between existing fully developed networks or embryonic and informal networks,
- stimulator of personal contacts among field facilitators (instructors) researchers, and policy-makers from industrialized Countries, and
- disseminator, where possible and relevant, of pertinent transferable experiences, methods, materials, etc. to and from developing countries,

thus aiming at multi-dimensional exchange between members/institutions within the network UIE, with the support of Unesco, will act as a facilitator whose role should decrease with the increase in the capacity and intensity of the flow of information exchange between members.

#### 4. Networking - Towards a Dynamic Information Pool

UIE will initiate action to be taken up and developed by participating members according to their needs and interests. In this respect, the following activities have been planned and are being implemented:

##### 4.1 Identification of potential network members

The experts' address file existing at UIE will be systematised and regularly updated and augmented with a view to achieving a balanced distribution between countries, and within countries between individuals and institutions / organisations. Attempts will be made to involve governmental as well as non-governmental and inter-governmental organisations.

As for individuals the following categories will be considered:

- authors
- literacy workers/practitioners
- researchers
- university teachers
- selected decision-makers
- journalists (newspapers, TV, radio)

Among institutions/organisations the following categories will be considered:

- teaching institution;
- research centres
- learning groups
- voluntary organisations
- commissions
- foundations
- associations
- local education authorities
- mass media
- .specialized documentation centres

#### 4.2 Augmentation of the stock of documentation

The existing stock of documentation will be augmented systematically by collecting materials from as many countries as possible. An attempt will be made to collect different types of materials such as:

- theoretical studies
- comparative studies
- case studies, other operational studies and surveys
- research reports
- conference reports
- policy papers (acts, other legal documents, recommendations, etc.)
- teaching and learning materials
- news items (newspaper cuttings, TV spots, tapes and video-cassettes)
- periodicals and newsletters
- bibliographies

#### 4.3 Action to stimulate interaction

- (i) Selected on the basis of certain criteria such as familiarity with any aspect of this complex topic, involvement in local, national, regional and international programmes and events, and publications brought out in this field, some 100 specialists and institutions from as many industrialized countries as possible will form an active nucleus around which the network can grow.

Within the restricted budgetary provision presently available to USE, specific information will be supplied in response to requests. The nucleus of core personnel will supplement the response capacity of the network coordination/resource centre by providing information direct from their field of specialisation.

- (ii) Further dissemination and publication of networked information will be achieved by providing the editorial staff of Unesco's "Adult Education and Notes" bulletin with selective information on significant newsworthy events in the area of functional literacy in industrialized countries, e.g., publications, meetings, programmes, training sessions, etc.
- (iii) The Possibility will be explored of using existing newsletters, journals, etc. as network information channels.
- (iv) Members will be put into contact with each other by distributing a list of addresses from time to time.

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## FUNCTIONAL LITERACY NETWORK QUESTIONNAIRE

Code: PRG 94.45  
March 1989

1. NAME:
2. ADDRESS:
3. TELEPHONE:  
TELEX:
4. WORKING LANGUAGE(S):
  - ... 4.01 English
  - ... 4.02 French
  - ... 4.03 German
  - ... 4.04 Spanish
  - ... 4.05 Others (specify):  
.....
5. NATURE OF WORK:
  - ... 5.01 Researcher
  - ... 5.02 Literacy tutor/teacher/animator
  - ... 5.03 Administrator/Manager
  - ... 5.04 Media specialist
  - ... 5.05 Other (specify):  
.....
6. FIELD OF SPECIALIZATION:  
(Please tick one or more)
  - ... 6.01 Conceptual and historical aspects
  - ... 6.02 Promotion of reading
  - ... 6.03 Issues related to writing
  - ... 6.04 Preparation of personnel
  - ... 6.05 Conception and production of  
learning/teaching/motiva-  
tional material
  - ... 6.06 Public information and aware-  
ness raising
  - ... 6.07 Use of media/computers
  - ... 6.08 Literacy and employment
  - ... 6.09 Literacy and schooling
  - ... 6.10 Literacy and orality
  - ... 6.11 Gender related studies
  - ... 6.12 Dyslexia
  - ... 6.13 Minorities/migrants
  - ... 6.14 Instructional methods
  - ... 6.15 Statistics
  - ... 6.16 Documentation
  - ... 6.17 Others (please specify):  
.....
7. COUNTRY/IES to which your work  
is related:
8. Your most relevant PUBLICATIONS:
9. Information about your ongoing or  
recently completed RESEARCH pro-  
jects:  
(Please attach separate sheet)
10. Information about meetings etc.  
related to DEVELOPMENTAL ACTIVI-  
TIES:  
(Please attach separate sheet)
11. Please suggest PERSONS who should  
be included in the network  
(Also give address, if possible):

To allow us to process and store these data through the services of a computer, we need your explicit agreement. For this purpose, please sign the following statement:

I have been informed that the data obtained from this Questionnaire will be computerized and I hereby give my permission for this to be done it being understood that these data will be used for network purposes only.

.....  
Signature and date

LA RECHERCHE EN ALPHABETISATION  
DANS LES PAYS INDUSTRIALISES :  
TENDANCES ACTUELLES ET  
ORIENTATIONS POUR L'AVENIR

Un document de travail préparé par  
David Barton et Mary Hamilton,  
résumé de l'anglais par Jean Paul Hauteceur

## INTRODUCTION

Depuis 20 ans, l'alphabétisation des adultes s'est développée dans la plupart des pays industrialisés à la suite de la reconnaissance de l'échec scolaire chez un grand nombre d'enfants, également de changements sociaux et technologiques importants qui ont modifié la demande en matière d'alphabétisation. Ce développement s'est manifesté aussi dans la recherche qui implique maintenant beaucoup de disciplines et qui a singulièrement changé depuis les débuts. Le propos du présent document est d'essayer de saisir dans cette histoire récente, encore diffuse, les tendances majeures qui se dessinent dans la recherche sur l'alphabétisation ainsi que d'identifier des orientations importantes pour la recherche à venir.

Le document a été préparé comme document de travail pour la Conférence des directeurs de centres de recherche en éducation (Bled-Youg. 9-12 octobre 1990) et pour l'Institut d'Education pour l'UNESCO. Il est fait à partir d'une perspective générale et d'une expérience particulière, celle de deux chercheurs britanniques en même temps engagés régionalement sur le terrain pratique de l'alphabétisation et au fait des développements internationaux dans la théorie comme dans la pratique.

La méthodologie de l'étude est plus impressionniste que systématique. Les auteurs ont exploité la connaissance empirique qu'ils ont du sujet et de la documentation internationale. Ils ont aussi consulté le matériel recueilli par l'IUE dans le cadre du réseau de spécialistes. Ils ont traité de l'alphabétisation des adultes, non pas des questions qui touchent les jeunes et l'école. Les tendances observées concernent la recherche située dans le champ global des pratiques, des politiques et des représentations de l'alphabétisation. Les tendances sont des idées dominantes à une époque donnée, qui résultent de rapports particuliers entre les gens qui travaillent sur ce terrain (une partie du texte traite précisément des facteurs qui influencent ces rapports, dont la recherche; une annexe donne en exemple plusieurs institutions internationales qui influencent, par leurs priorités d'action et leur dominance idéologique, les politiques nationales, les investissements en recherche, finalement les grandes tendances d'une époque).

TENDANCE 1: LE DEVELOPPEMENT DE LA RECHERCHE  
 COMME CONSEQUENCE DE LA RECONNAISSANCE DU PROBLEME IMPOR-  
 TANT DE L'ANALPHABETISME DANS LES PAYS INDUSTRIALISEES

Deux séries de faits ont amené la plupart des pays industrialisés à donner une nouvelle importance à l'alphabétisme et à définir des politiques d'alphabétisation pour les adultes:

- la reconnaissance qu'une partie de leur population, malgré la scolarisation universelle, demeurait illettrée,
- certains changements sociaux, économiques, technologiques et politiques qui ont promu la formation au rang des priorités nationales et internationales, en particulier pour les populations sous-scolarisées.

En Europe de l'Ouest en Amérique du Nord, on parle du problème d'analphabétisme en terme de "crise", et conséquemment des campagnes ont été lancées de "lutte contre l'illettrisme" ou d'alphabétisation. Dans certains pays ( ex: Portugal ), ces interventions d'éducation de base des adultes sont conçues dans un dispositif plus large qui inclut la prévention en milieu familial et l'amélioration du rendement scolaire. En Europe de l'Est, les récents changements politiques peuvent contribuer à faire émerger le problème, au moins comme sujet de recherche (ex: RDA ).

L'une des conséquences de la révélation du problème a été la forte demande pour des enquêtes qui mesurent l'étendue de l'analphabétisme ou qui stratifient la population suivant le degré de compétence face à l'écrit ( une annexe donne des exemples de ces enquêtes) . Elles sont schématiquement de trois types:

- scolaire: populations classées suivant le niveau de scolarité atteint, le nombre d'années passées à l'école, le niveau de lecture identifié à un âge scolaire.

- compétence fonctionnelle: des tests spécifiques mesurent le degré de performance en lecture, écriture ,calcul et résolution

de problèmes à l'aide de documents courants dans la vie quotidienne et de situations simulées.

- évaluation individuelle des compétences face à l'écrit: au lieu de soumettre les populations à des critères et des tests extérieurs de mesure des compétences, les individus évaluent eux mêmes les difficultés rencontrées dans l'usage de l'écrit, ainsi que l'importance qu'ils donnent à l'écrit....

L'autre demande adressée à la recherche concerne la description et l'explication de la survivance, voire de la croissance, de l'analphabétisme dans les pays industrialisés. Trois types de causes sont retenus:

- l'héritage culturel et social associé à la pauvreté, l'exclusion, la violence, la maladie, etc.
- l'échec scolaire: de l'école, des enfants, des enseignants,
- les handicaps et difficultés d'apprentissage individuels.

Les auteurs privilégient les recherches qui découvrent et expliquent les phénomènes de l'intérieur, qui associent les personnes sur qui on enquête et qui tiennent compte de leurs expériences et de leurs connaissances. Le point de vue et la participation des personnes qui ont des difficultés face à l'écrit sont nécessaires à l'amélioration de la formation.

## TENDANCE 2: LES CHANGEMENTS DANS LES IDEES DOMINANTES SUR L'ALPHABETISME

Trois grandes "écoles" rassemblent les interprétations et les modes d'appréhension de l'alphabétisme, qui peuvent se succéder mais aussi se concurrencer à une même époque: les approches "technique", fonctionnelle et sociologique.

Les approches techniques de la lecture et de l'écriture ont surtout été développées par la psychopédagogie dans le cadre scolaire. Les capacités individuelles d'apprentissage de la lecture et de l'écriture sont étudiées en termes de déficits.

Le réinvestissement de ces connaissances et de instrumentations pédagogiques dans l'alphabétisation des adultes a surtout consisté à développer des méthodes et des outils thérapeutiques. Ce courant fort de recherche sur la lecture a été la tendance dominante il y a une vingtaine d'années.

L'approche fonctionnelle de l'alphabétisation a plusieurs origines et plusieurs significations. Elle peut être par l'approche pragmatique de la formation et de l'application des compétences, aux pays industrialisés, ou encore aux pays en voie de développement de par les politiques internationales (UNESCO). A l'origine, la notion de fonctionnalité désignait surtout la relativité de l'alphabétisme en fonction du milieu où il s'applique, par opposition à des critères normatifs universels de compétence scolaire. Maintenant, la fonctionnalité des compétences ou des apprentissages est surtout associée au travail et à l'emploi.

L'approche sociologique de l'alphabétisme, et non plus seulement des actes de lecture et d'écriture, se situe à un carrefour de disciplines et d'objets de recherche rassemblés sous le générique d'alphabétisme ("littéraire"). La recherche s'intéresse à l'histoire des usages de l'écriture, aux différences culturelles dans les rapports à l'écrit, à l'écrit dans un contexte plus large de moyens de communication, à la distribution sociale des compétences linguistiques, etc.

De ces trois courants qui coexistent aujourd'hui, le premier a donné beaucoup d'applications pédagogiques, le second à élargi le spectre des compétences à considérer dans les communications sociales, le troisième a insisté sur l'importance de la culture et du contexte social dans les usages linguistiques diversifiés. Le résultat est une complexification de la compréhension des phénomènes d'alphabétisme ainsi que la recherche de nouveaux modèles d'alphabétisation.

### TENDANCE 3: LE DEVELOPPEMENT DE PRATIQUES ANDRAGOGIQUES D'ALPHABETISATION

Il n'y a pas si longtemps, le concept de "deuxième chance" ainsi que la recherche pédagogique éducation de base

des adultes faisaient inévitablement référence à l'école. L'alphabétisation s'est progressivement dégagée de la pédagogie en empruntant les méthodes en usage dans l'éducation des adultes, mais aussi en expérimentant des approches originales mieux adaptées aux attentes et à la culture des milieux où elle s'applique.

Par exemple, les ateliers d'écriture jouent un rôle important dans la production d'outils pédagogiques, dans le développement des communications interpersonnelles, dans la création de contextes d'autoformation. Les approches fonctionnelles mettent l'insistance sur les outils, les références et les compétences en lien étroit avec la vie quotidienne. Des méthodes d'évaluation sont expérimentées qui donnent aux adultes des outils d'auto-évaluation suivant leurs propres perceptions des changements. Des modèles divers de formation de formateurs, d'animateurs ou de tuteurs sont souvent expérimentés sur le tas, malgré une tendance à la standardisation de la formation qui accompagne le processus de professionnalisation des alphabétiseurs.

Les approches empiriques de la formation et l'importance donnée à l'autonomie de l'apprenant ou à la responsabilité des groupes de participants ont aussi modifié les pratiques de recherche sur le terrain de l'alphabétisation. Les conceptions, les méthodes, les sujets, les usages de la recherche donnent un grand rôle à la participation, en lien avec les objectifs de la pratique, avec le langage quotidien, avec les "questions ordinaires". La recherche-action contribue à faire de l'alphabétisation un terrain d'expérimentation original en éducation des adultes.

#### TENDANCE 4: LA DIVERSIFICATION DES LIEUX ET DES MODALITES D' INTERVENTION

D'une réponse uniformisée au diagnostic de sous-scolarisation par la voie du rattrapage, de la "seconde chance" ou de l'éducation spécialisée, on est passé à la reconnaissance des différents besoins de publics divers ainsi qu'à la diversification des interventions. Les auteurs passent en revue les principaux lieux où sont appliquées actuellement différentes stratégies d'alphabétisation:

- les parents, la famille, les interventions conjointes auprès des parents et des enfants, à l'école ou dans les communautés,
- les programmes de formation professionnelle, les interventions en milieu de travail, les programmes spéciaux de retour à l'emploi,
- les populations rurales, les travailleurs du secteur primaire, les zones de dépeuplement agricole,
  - des zones urbaines très défavorisées et certaines populations de drogués, prostituées, errants,
- les femmes, les lieux de services destinés aux femmes,
- les détenus, ex-détenus, jeunes délinquants,
- les militaires,
- les personnes handicapées,
- les minorités linguistiques, les premières nations...

L'adaptation des organisations et des stratégies d'intervention face à cette diversité de publics est variable. En général, les organisations communautaires peuvent répondre plus adéquatement aux besoins différents sur une petite échelle. Les organisations nationales et internationales ont tendance à offrir des services plus uniformes, plus orientés vers l'instrumentation et les besoins du marché de la main d'oeuvre.

On observe dans de nombreux pays l'intégration des interventions spécifiques d'alphabétisation, qui risquent la marginalisation, aux dispositifs de formation continue. Cette intégration favorise la liaison avec la formation des jeunes et le développement de mesures préventives dans l'école, dans le milieu familial, les bibliothèques, etc.

On observe également l'élargissement de l'alphabétisation vers une formation plus variée, qui met en jeu d'autres capacités que la communication écrite: la formation de base ("ABE").

#### TENDANCE 5: L'IMPORTANCE CROISSANTE ACCORDER AUX QUESTION DE LANGAGE ET AUX POLITIQUES LINGUISTIQUES

Dans certains pays, la reconnaissance de la diversité linguistique est ancienne, elle se reflète dans les politiques d'éducation notamment. Dans d'autres, la forte immigration a amené les états à changer leurs politiques linguistiques et à offrir des services dans plusieurs langues. Dans les pays officiellement monolingues, la reconnaissance de la diversité linguistique est plus récente et n'a pas beaucoup affecté les systèmes d'éducation. Le champ des études linguistiques prend une importance grandissante dans l'alphabétisation et la formation de base, auxquelles il faut ajouter la formation en langue seconde. La question de la langue d'alphabétisation, traditionnellement associée aux contextes des pays en voie de développement, se pose maintenant dans la plupart des pays industrialisés.

La simplification de la langue et des procédures de communication entre l'Etat et la société civile est une revendication grandissante des milieux d'alphabétisation ("Plain English" dans les pays anglophones). Des expériences, des changements se font dans les administrations publiques, Les compagnies privées, les communautés restreintes et même la communauté scientifique. Ces recherches pratiques affectent la linguistique et les disciplines connexes. Elles commencent à s'appliquer à la communauté académique (la recherche-action suppose aussi un changement de langage). Elles ne sont pas sans effet sur les législations linguistiques. en particulier dans certains pays qui préparent des réformes de l'orthographe.

#### CONCLUSION: QUELLES GRANDES ORIENTATIONS POUR LA RECHERCHE?

Les principales tendances observées indiquent des demandes fortes en terme de recherche ainsi que des lacunes à

comblent. Le problème est de savoir de quel point de vue on se place pour définir ces priorités: celui des décideurs politiques, celui des professionnels de l'alphabétisation, celui des personnes sous-alphabétisées, celui des chercheurs, etc. Les auteurs ont indiqué leurs priorités à partir de leur position de chercheurs engagés dans la recherche-action, valorisant avant tout la participation active des apprenants, les liens à la pratique, l'analyse critique des politiques et des idées dominantes en alphabétisation (par exemple la notion de "crise"). Ils soulignent qu'un changement est nécessaire dans la nature de la recherche, ce qui va des questions posées, aux procédures et méthodes de recherche, jusqu' à l'évaluation et l'utilisation des résultats.

### **1ère tendance: mesure et connaissance de l'alphabétisme**

Il serait utile de développer des enquêtes plus localisées et plus détaillées que les sondages et enquêtes nationales qui répondent surtout à des attentes politiques et au besoin d'information du grand public. Les enquêtes utiles à l'alphabétisation sont celles qui cherchent à répondre aux questions que posent les organismes de formation et les personnes les moins alphabétisées. Une meilleure connaissance de l'analphabétisme suppose aussi qu'on mette à contribution l'expérience et la connaissance des personnes qui sont inscrites et de celles qui travaillent en alphabétisation.

### **2ième tendance: la signification de l'alphabétisme**

Les analyses descriptives et critiques du rôle que joue l'alphabétisation dans la société sont à faire, en particulier en rapport avec les institutions dominantes: l'école, le droit, l'appareil politique, le secteur économique. D'un point de vue historique, en relation avec les autres technologies de communication, dans la vie quotidienne pour différents groupes sociaux. Ces recherches ont intérêt à être multidisciplinaires.

Mériteraient aussi d'être développées les études comparées de l'alphabétisme dans les pays industrialisés, les pays en voie de développement et les pays les moins avancés.

### **3ième tendance: les stratégies d'alphabétisation**

La question majeure est ici l'engagement des adultes

dans le processus de l'alphabétisation et leur participation aux différentes formations de base: comment les encourager à s'inscrire, à participer à la production de matériel d'apprentissage et de sensibilisation, à participer à l'évaluation des programmes, à la définition des orientations et des objectifs à partir de leurs propres points de vue, également à la recherche.

#### **4ième tendance: la diversification des interventions**

Du plan local au plan international, le recensement, la description et l'évaluation comparée des divers types d'intervention sont à encourager. Les études "techniques" -t la création d'instruments à visée universelle pour l'apprentissage de la lecture et de l'écriture sont nombreuses. Beaucoup plus rares seront les études multidimensionnelles qui cherchent à comprendre comment et pourquoi tel contexte, telle organisation, telle philosophie, telle approche auprès de tel public particulier coïncide avec tel résultat. L'expérimentation et le développement de stratégies diversifiées suppose le développement de ce type de recherche-action.

#### **5ième tendance: les questions linguistiques**

Dans chaque pays, la planification de la formation de base suppose la connaissance préalable de la situation linguistique et multiculturelle, en particulier des minorités différemment alphabétisées dans leur langue maternelle. -l est aussi important que le secteur de l'enseignement de la langue seconde soit mis en relation avec celui de l'alphabétisation. Ce domaine de recherche est appelé à être en demande du fait que les migrations de populations augmentent.

En conclusion, les auteurs rappellent l'importance de la coopération internationale, par le moyen des réseaux de communication et d'échange pour multiplier les études comparatives et approfondir les questions prioritaires soulignées dans ce texte.

the  $\mathbb{R}^n$  is a linear space over  $\mathbb{R}$  with the usual addition and scalar multiplication. The inner product is defined by

$$\langle x, y \rangle = x_1 y_1 + x_2 y_2 + \dots + x_n y_n \quad (1)$$

where  $x = (x_1, x_2, \dots, x_n)$  and  $y = (y_1, y_2, \dots, y_n)$  are vectors in  $\mathbb{R}^n$ .

The norm of a vector  $x$  is defined by

$$\|x\| = \sqrt{\langle x, x \rangle} = \sqrt{x_1^2 + x_2^2 + \dots + x_n^2} \quad (2)$$

where  $x = (x_1, x_2, \dots, x_n)$  is a vector in  $\mathbb{R}^n$ .

The distance between two vectors  $x$  and  $y$  in  $\mathbb{R}^n$  is defined by

$$d(x, y) = \|x - y\| = \sqrt{(x_1 - y_1)^2 + (x_2 - y_2)^2 + \dots + (x_n - y_n)^2} \quad (3)$$

where  $x = (x_1, x_2, \dots, x_n)$  and  $y = (y_1, y_2, \dots, y_n)$  are vectors in  $\mathbb{R}^n$ .

The angle between two vectors  $x$  and  $y$  in  $\mathbb{R}^n$  is defined by

$$\cos \theta = \frac{\langle x, y \rangle}{\|x\| \|y\|} \quad (4)$$

where  $x = (x_1, x_2, \dots, x_n)$  and  $y = (y_1, y_2, \dots, y_n)$  are vectors in  $\mathbb{R}^n$ .

The orthogonal projection of a vector  $x$  onto a vector  $y$  in  $\mathbb{R}^n$  is defined by

$$\text{proj}_y x = \frac{\langle x, y \rangle}{\|y\|^2} y \quad (5)$$

where  $x = (x_1, x_2, \dots, x_n)$  and  $y = (y_1, y_2, \dots, y_n)$  are vectors in  $\mathbb{R}^n$ .

The orthogonal distance from a vector  $x$  to a vector  $y$  in  $\mathbb{R}^n$  is defined by

$$d_{\perp}(x, y) = \|x - \text{proj}_y x\| \quad (6)$$

where  $x = (x_1, x_2, \dots, x_n)$  and  $y = (y_1, y_2, \dots, y_n)$  are vectors in  $\mathbb{R}^n$ .

The orthogonal distance from a vector  $x$  to a subspace  $S$  in  $\mathbb{R}^n$  is defined by

$$d_{\perp}(x, S) = \min_{y \in S} \|x - y\| \quad (7)$$

where  $x = (x_1, x_2, \dots, x_n)$  is a vector in  $\mathbb{R}^n$  and  $S$  is a subspace of  $\mathbb{R}^n$ .

The orthogonal distance from a point  $P$  to a line  $L$  in  $\mathbb{R}^n$  is defined by

$$d_{\perp}(P, L) = d_{\perp}(x, S) \quad (8)$$

where  $P = (x_1, x_2, \dots, x_n)$  is a point in  $\mathbb{R}^n$  and  $L$  is a line in  $\mathbb{R}^n$ .

The orthogonal distance from a point  $P$  to a plane  $\Pi$  in  $\mathbb{R}^n$  is defined by

$$d_{\perp}(P, \Pi) = d_{\perp}(x, S) \quad (9)$$

where  $P = (x_1, x_2, \dots, x_n)$  is a point in  $\mathbb{R}^n$  and  $\Pi$  is a plane in  $\mathbb{R}^n$ .