

Research Report

No 220



Assembling the Fragments:

A Review of Research on Adult Basic Skills

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ASSEMBLING THE FRAGMENTS:

A REVIEW OF RESEARCH ON ADULT BASIC SKILLS

Executive Summary

The context

In the autumn of 1999, following the publication of *A Fresh Start: Improving Literacy and Numeracy* (the Moser Report), the Department for Education and Employment commissioned the National Foundation for Educational Research to carry out a review of research on adult basic skills.

The review was to cover literacy, numeracy, oracy (speaking and listening skills), English for speakers of other languages (ESOL), and the use of Information and Communications Technology (ICT) to teach basic skills to adults. The age range to be covered was from 18 upwards, and it was envisaged that most evidence would come from Britain and then from other parts of the English-speaking world.

Searches were conducted both electronically (internet, databases) and conventionally (library).

There was most information on literacy, then numeracy, ESOL, and ICT, with least on oracy.

Oracy skills for monolingual English speakers and numeracy skills for speakers of other languages seem to be almost entirely overlooked.

The history of adult basic education in the UK since the 1970s has been one of swift growth and subtly changing philosophies.

The scale of need

National surveys of adults' self-reports of problems in literacy and numeracy show that about 12 per cent of the adult population believe their basic skills are not adequate to meet the demands of everyday life.

National surveys of adults' attainment in literacy and numeracy show that about 20 per cent of the adult population have less than functional literacy, and about 20 per cent have poor numeracy.

The impact of poor basic skills on individuals is pervasively bad, and the impact of poor basic skills on the economy is thought to be substantial.

Though nearly 350,000 people were attending basic skills provision in 1996/97, this represented less than five per cent of those estimated to be in need.

The students

A high proportion of adult basic skills students are white, monolingual English-speaking, unwaged or unemployed, and poorly qualified.

The major motive for attending basic skills provision appears to be a desire for self-development, and the major barrier appears to be the fear of stigma.

Course completion seems to be high (75-80 per cent) for students who stay on a course beyond the first few weeks, and about half of students achieve their goals.

The major reason for drop-out is various forms of dissatisfaction with provision.

Data on progression are lacking for general basic skills provision.

The major motive for parents attending family learning is to help their children. These adults have higher attendance, retention and completion rates than adults in general provision, and their progression to further study and/or employment is high.

Provision

Colleges of Further Education (FE) are the major providers (60 per cent of students), followed by Local Education Authorities (LEAs) (20 per cent) and prisons (11 per cent).

Basic skills support for students pursuing another course as their main objective, and 'dedicated' provision for students for whom improvement in basic skills is the main objective, are the principal types of programme (60 per cent together).

Basic skills support, introduced after the 1992 Further and Higher Education Act which incorporated Colleges of FE as independent of LEAs, has been systematically developed and has had some success in lowering drop-out and non-completion rates.

Teaching and assessment

Tutors are mainly female and part-time. They tend to be well qualified, but professional development for them seems patchy.

There had never been a national curriculum for basic skills until that published in early 2000.

Little is known about what basic skills teaching is like on the ground.

There is considerable ferment and debate within the numeracy field, including attention to out-of-school learning.

There was little research information on assessment, and criticisms of external awards

demonstrated the need for a more rigorous framework.

Impact studies

There was very little information on the impact of ESOL or of the use of ICT in basic skills, and none on oracy.

Combining evidence from Britain and the United States,

- There was evidence that basic skills tuition benefits basic skills students' reading and writing
- The average gains in reading and writing in general basic skills provision were undramatic but worthwhile
- Worthwhile gains in reading and writing also occurred for parents in family literacy programmes
- Gains appeared to be greatest in approximately the first 70-100 hours of tuition
- After approximately the first 70-100 hours, gains can be sustained by further study
- The evidence on the impact of general adult numeracy tuition was sparse and unreliable
- There was suggestive evidence that family numeracy courses benefit parents' numeracy skills.

Other benefits

There is substantial evidence of other benefits from a range of types of literacy and numeracy in both Britain and the United States, including workplace provision.

Other benefits include: self-reported gains in literacy, numeracy and self-confidence, gains in employment, further study and (particularly in family learning) gains in parents' ability to help their children and gains for the children.

In family learning, other benefits seemed to be reliably related to gains in basic skills and might therefore serve as indirect indicators of such gains; but there is no evidence yet to show that this can be done in general provision.

The evidence on costs and benefits was small and unreliable.

Principal gaps in knowledge

The biggest single gap is the total absence of intervention studies exploring what factors in teaching basic skills cause progress in learning basic skills.

Very little is known about adults with special educational needs in basic skills provision.

National surveys of basic skills were frequent for several years up to 1996 but have ceased, for no apparent reason.

Other gaps in knowledge have been noted above.

Principal recommendations

Above all, there should be an immediate, structured programme of studies exploring the factors thought to cause progress in basic skills.

The research programme could immediately cover literacy, general numeracy and ESOL. Investigations of oracy for monolinguals and numeracy for speakers of other languages will need to await developments in the conceptualisation of the field.

These studies need to be undertaken with as much rigour as students' and tutors' sensitivities will allow; research paradigms other than control-group designs need to be considered.

Information on costs should routinely be gathered so that cost/benefit analyses can be improved.

The research programme needs to be informed by a vigorous debate on content, taking account of students' views and the need to reach adults with poor basic skills and special educational needs.

Providers in the currently smaller sectors (employers, voluntary organisations, community-based provision) need to be encouraged, especially through steadier funding.

The implementation of the Moser Report's strategy for improving basic skills should be monitored and evaluated.

ASSEMBLING THE FRAGMENTS: A REVIEW OF RESEARCH ON ADULT BASIC SKILLS

PART ONE: WHERE ARE WE COMING FROM?

Chapter 1: The context

1.1 Aiming for a fresh start

The report *A Fresh Start: Improving Literacy and Numeracy* (Moser Report, 1999) from the Moser Working Group on Basic Skills highlighted the problems in adult basic skills in England, began to identify some of the gaps in existing knowledge, and recommended a detailed strategy for improvement.

The central problem was the percentage of adults with less than functional literacy and with low numeracy skills – estimated at about one adult in five in both cases (literacy: Carey *et al.*, 1997; numeracy: BSA, 1997b).

The concern about adult basic skills was not confined to England:

On February 14-15, 2000, approximately 150 leaders from the adult education and literacy field ... convened in Washington, DC, for the National Literacy Summit 2000. The goal ... was to begin developing a vision and action plan that will move America toward achieving literacy for all of our nation's adults... The ... Summit was first envisioned in 1998 and builds on ideas generated at other literacy related events. In January 1999, Vice President Gore convened a Summit ... on 21st Century Skills for 21st Century Jobs. Soon after ..., Senator Paul Simon and First Lady Barbara Bush convened a Literacy Symposium... And Congressman Tom Sawyer convened a Literacy 2000 Pre-Summit Conference. (National Institute for Literacy, 2000)

1.2 Starting work

Even while this review was being compiled, many elements of the strategy recommended in the Moser Report were being put in place. New Adult Basic Skills Standards were drafted in the summer of 1999, put out for consultation (QCA, 1999), revised, and put out for further consultation in early 2000. About the same time the White Paper *Learning to Succeed* (GB. Parliament. HoC, 1999) announced that from April 2001 a new Learning and Skills Council (LSC), together with 47 local LSCs, was to be established, subsume many of the functions of the Further Education Funding Council (FEFC) and take on a broader remit. In November 1999 the Education and Employment Minister, Tessa Blackstone, announced several measures including the development of a curriculum and a national test for basic skills and enhanced training for basic skills teachers. The Basic Skills Agency (BSA) and the Qualifications and Curriculum Authority (QCA) developed the curriculum, and this went out for consultation in the spring of 2000. The University of Nottingham developed the national test, while in addition the BSA developed a rapid screening test. The BSA and the Further Education National Training Organisation began work on enhancing teacher training.

In the spring of 2000 it was decided to hold an international conference on the teaching of adult basic skills in September of that year. About the same time a decision was made not to participate in the international Adult Literacy and Life Skills Survey (ALL) being planned for 2002, but to mount a UK baseline survey of basic skills. A new centre on the Wider Benefits of Learning was established jointly at the Institute of Education and Birkbeck College of the University of London. In April 2000 the Secretary of State for Education and Employment, David Blunkett, announced the setting up of an Adult Basic Skills Strategy Unit within the Department for Education and Employment (DfEE). In the same month the University for Industry (Ufi) Ltd awarded the London Institute of Education a contract to investigate the use of information and communications technology (ICT) with adults with basic skills needs and its impact. And the BSA and the National Institute of Adult and Continuing Education were asked to take forward a £4 million project to support community-based programmes.

1.3 The need for information

As a further part of the strategy, and in order to begin to fill some of the main gaps in existing knowledge, the Department for Education and Employment (DfEE) commissioned four reports:

- a report from a Working Group on the basic skills needs of adults with learning difficulties and/or disabilities (LDD Working Group, 2000)
- a report from a Working Group on the basic skills aspect of English for Speakers of Other Languages (ESOL) (ESOL Working Group, 2000)
- an analysis of the economic returns to individuals of academic, vocational and basic skills qualifications (Dearden *et al.*, 2000)
- this review of research on adult basic skills, carried out by a team at the National Foundation for Educational Research (NFER).

The aim of this review was to provide as complete a picture as possible of current research knowledge on basic skills, and on effective methods of teaching basic skills to adults

The four main areas of basic skills which this review was to cover were literacy, numeracy, oracy (speaking and listening skills), and ESOL, now also known English as an Additional Language (EAL). The age range to be covered was from age 18 upwards; however, where data, especially from the further education (FE) sector, included 16- and 17-year-olds, no attempt was made to filter out data on that age group. Geographically the main focus was to be England, though where available information covered England and Wales, or the whole of Britain or of the United Kingdom, that information would be used. Gaps in the British evidence would be covered where possible with information from the rest of the world, especially other English-speaking countries. Remaining gaps in knowledge were to be identified, and recommendations made for further research and the development of the field.

The methodology of the review is described in Appendix A. As may be deduced from the previous section, a deluge of information became available even while this review was being written, so a decision had to be taken on when no more data would be incorporated: the ‘guillotine’ date was 30 June 2000.

The information which was found has been organised in four parts:

- **Part One: Where are we coming from?** - covering all the preliminaries, the context for this review, what kinds and quantities of information were available, definitions of basic skills, the history of the field, and competing philosophies.
- **Part Two: Where are we now?** - in terms of the need for basic skills, the impact of poor skills, who basic skills students are, what their motivations for participating are, how many drop out and why, where those who complete courses go on to, what the field of basic skills provision is like, teaching and learning, assessment and accreditation.
- **Part Three: What works?** - evidence on how much progress students make, the bonus effects of participation, factors related to effectiveness, costs and benefits.
- **Part Four: Where next?** - what are the gaps in our knowledge, and which most urgently need filling?

In each of chapters 2 to 13 the more specific questions to be addressed are summarised in an initial section on the aims of that chapter. Then comes a summary of the main sources of information used, usually including a note of what information is missing, and an indication of the structure of the chapter. Following the substantive sections, each of those chapters ends with a summary and a list of recommendations. The review concludes by identifying the major gaps in knowledge (chapter 14) and making a number of strategic recommendations (chapter 15).

1.4 The availability of information

Very early in the review it became apparent that the amounts of information available on the four main areas differed substantially. Literacy was covered best, then numeracy, then ESOL, and lastly oracy. For oracy there was an almost total dearth of information, except a little from Australia. The literature on ESOL was potentially enormous, since this is a very large industry – except that most of the literature concerns ESOL in general and not

basic skills in English for speakers of other languages. The amount of relevant information for ESOL was therefore greater than for oracy, but not as substantial as for literacy or even numeracy.

There were two possible areas of research in which the basic skills field was apparently totally deficient, but where the absence of information might be seen as a qualified advantage: aetiology (the origins and causes of basic skills problems within individuals) and the cognitive processes which operate within the brain when basic skills are being used. These seem to be areas which are studied only in developmental contexts up to about age 18. Where these areas are studied in connection with developmental learning problems they seem to dominate the field, so that other aspects which need investigation, such as what works, and why, receive little attention. The study of developmental dyslexia in particular exemplifies this imbalance. In the most recent comprehensive analysis of dyslexia research (Tansley and Panckhurst, 1981), hundreds of pages were needed to cover aetiology and cognitive processes, while just seven sufficed for intervention studies. Little seems to have changed in that field in the intervening years. Thus the intensive and long-term attention to aetiology and cognitive processes seems to have delivered very little in the way of testable applications in teaching.

Very little research was found on the aetiology and cognitive processes of *developmental* adult basic skills problems. Some research of this sort may therefore be overdue, but it would be an error to reproduce in this field the imbalance evident in research on developmental dyslexia.

There is, however, a very large literature on *acquired* dyslexia in adults, that is, on people whose difficulties are the result of trauma (brain injury, stroke, etc.). Though an imbalance between fundamental and applied research was evident in this field also, there did seem to be more payoff in terms of remediation in clinical settings. However, this review is concerned with adult basic skills outside those settings, and the literature on acquired dyslexia is therefore not covered.

1.5 The major contributor to the field

The list of references in this report contains about 150 items, of which 39 were published and/or commissioned by the BSA, either since it adopted that name or under its previous title, the Adult Literacy and Basic Skills Unit (ALBSU). Moreover, these have tended to be the more significant, quantitative and worthwhile research works. Without this sustained contribution over many years there would have been rather little British research to analyse. And the BSA's contribution to the development of the field continues: at the time of writing it was (among other things) developing a range of programmes with the Trades Union Learning Fund, working with Investors in People nationally to introduce guidance on basic skills within the IiP process, administering the Adult and Community Learning Fund which was instigating a range of innovative programmes, working with 11 National Training Organisations to map their standards to the new Basic Skills Standards, and collaborating in the European Basic Skills Network with partner agencies in Scotland and five other EU member states.

Chapter 2: Definitions, history and philosophies

2.1 Aim

In order to decide what counts as research evidence on basic skills, a view had to be taken not only on what counts as research (section 1.4) but also on what counts as basic skills. This chapter therefore opens by considering definitions of the field. It continues with a very brief history of basic skills in England and Wales since 1970, which leads into a discussion of the contested philosophies (sets of values) that have been held by practitioners.

2.2 Sources

The main source was the review by Hamilton and Merrifield (2000) of adult learning and literacy in the UK. The definitions analysed were mainly taken from work by the BSA and from the International Adult Literacy Survey (IALS).

2.3 Definitions

The BSA's definition of basic skills is:

the ability to read, write and speak in English and use mathematics at a level necessary to function and progress at work and in society in general. (BSA, 1997c, p.4)

This is the definition of the field which was adopted for this review. It is a comprehensive definition, since it encompasses not only literacy but also oracy and numeracy, and implicitly applies equally to native and non-native speakers of English.

In this review, 'literacy' is used to cover reading and writing. Though this was the original sense of the term, it is a more conservative and narrower usage than some now current. For instance, in the new Adult Basic Skills Standards issued for consultation in 1999 (QCA, 1999), 'literacy' was used to cover not only reading and writing but also speaking and listening. To purists this is a category error (they would use 'communication' to cover all aspects of language use), but for the devisers of the Standards it may have been a strategic ploy intended to encourage more attention to speaking and listening than was currently given.

The term 'oracy' was coined in the 1960s to be parallel to literacy and to cover both speaking and listening. Most definitions of basic skills (including the Moser Report's, see below) omit oracy, and many treat ESOL as a separate field. Unlike basic skills for monolingual speakers of English, ESOL seems universally to be taken to include competence in spoken language; but on the other hand the question of whether provision for speakers of languages other than English should include numeracy seems to be universally ignored. In this review, both oracy in general and numeracy for speakers of languages other than English are covered.

The term 'numeracy' was introduced in the 1950s, as a concept of basic mathematical skills to parallel the reading and writing skills of literacy. Definitions of numeracy tend to emphasise the practical application and use of mathematics: 'To be numerate is to function effectively mathematically in one's daily life, at home and at work' (Willis, 1998). Within the UK, numeracy has been regarded as comprising not only arithmetical/number skills but also 'elements of geometry and statistics' (Foxman, 1998, p.1).

A theme which cuts across the 'content' areas of basic skills is the use of Information and Communications Technology (ICT) in the teaching and learning of basic skills. This is not mentioned in the BSA definition - but this aspect of the field needed to be, and has been, addressed at many points in this review as a special topic.

Thus this review attempts to cover three aspects of basic skills (oracy, literacy, numeracy), for both native and non-native speakers of English, and with the use of ICT highlighted as a special cross-cutting theme relevant to all six of the areas just defined.

The BSA definition is silent about routes to achieving the ability levels it mentions – but this could be seen as leaving all such questions (including the use of ICT) open. If there is an omission from the BSA definition, it might be that people's need for adequate basic skills for their personal, private lives also needs acknowledgement.

IALS, carried out in the UK in 1996 (and in about 20 other countries between 1995 and 1999), took its definition of literacy from the 1980s US Young Adult Assessment (Kirsch

and Jungeblut, 1986 a and b), which defined literacy as:

using printed and written information to function in society, to achieve one's goals and to develop one's knowledge and potential. (cited in Carey *et al.*, 1997, p.13)

Both this and the BSA's definitions take a functional approach. What is useful about them is that they recognise literacy (and by implication other basic skills) 'not ... as something people have or do not have, but rather as a broad range of skills required in a broad range of contexts' (*ibid.*).

Within IALS, literacy encompassed three strands: prose literacy, document literacy and quantitative literacy. Where adult numeracy figures are quoted from IALS, they are actually based on the results of quantitative literacy, which are derived from text-based arithmetic and number problems.

Other surveys have tended to look separately at literacy (comprising reading skills only, or a combination of reading and writing skills) and numeracy. There is consequently an overlap between the quantitative aspect of literacy as defined within IALS, where numbers may be presented in lists or in textual or graphical form, and the arithmetical dimension of mathematics. It is important to bear this in mind when considering any apparent discrepancies between IALS and other numeracy survey results. There is an issue here relating to the accessibility of 'embedded' arithmetical concepts which are presented verbally, as compared with those presented 'mathematically'.

In considering *basic* skills it is necessary to look at a range of skills and contexts, and to judge the levels of skill required by individuals to function in particular situations, in order to establish levels of functional literacy, oracy and numeracy. This raises the problems of agreeing working definitions of functional oracy, literacy and numeracy, and of whether the required levels and definitions are the same for native and non-native speakers of English. Individuals in society may have different basic skills needs depending on the situations in which they find themselves, and this is perhaps why, in surveys that have relied on self-reported assessment of skills, even some adults with A-Level or equivalent or higher qualifications have regarded themselves as having poor literacy or numeracy (ALBSU, 1987, p.8). Ekinsmyth and Bynner (1994, p.23), whose remit did not include oracy, observed that 'whether a literacy or numeracy problem is perceived as important probably has more to do with its centrality to individuals in their daily lives than the objective level of performance reached.' In the event, Ekinsmyth and Bynner found a high

correlation, though not a complete correspondence, between self-reported difficulties and low assessment scores for both literacy and numeracy.

The approach to definitions of basic skills adopted in the Moser Report (1999, in particular Annex A) was pragmatic. It did not address the question of basic competence in oracy at all, and had little to say on speakers of languages other than English (areas where the literature is wholly or partly deficient). It did express considerable encouragement for the use of ICT in basic skills (even though the research literature in that area is not extensive either). It took the threshold of functional competence in *literacy* as being the approximate equivalent of the minimum standard required for the award of Level 1 in the (then) Communication Standards of the BSA, while the threshold of basic competence in *numeracy* was equated approximately with Entry Level (formerly known as Foundation Level) in the BSA Numeracy Standards. The establishment of different threshold levels for literacy and numeracy was based on the fact that surveys have suggested that adults are generally able to function in society with lower levels of numeracy than of literacy (see, for example, Ekinsmyth and Bynner, 1994).

Finally in the context of functional literacy and numeracy, it is relevant to question whether threshold levels should be regarded as constant over time. Clearly, a constant definition such as that provided by the BSA, based on performance criteria and on an '80 per cent mastery' model of assessment, has enormous advantages in permitting comparisons over time. Nevertheless, there is a school of thought which suggests that a modern technological society makes increasing demands on individuals' skills, so that the threshold of functional skill is actually higher now than it was, say, at the time of the National Survey of Health and Development nearly thirty years ago.

And in fact the new draft Adult Basic Skills Standards (QCA, 1999), which were developed as a result of a recommendation in the Moser Report, re-set the boundaries between basic skills levels. In particular, the new boundary between Entry level and Level 1 was aligned with the boundary between IALS Levels 1 and 2, which was higher than the Entry level/Level 1 boundary in the previous BSA Standards. Thus a need to raise basic skills expectations was implicitly recognised and implemented in the new Standards.

The new Standards were developed in 1999, and the only research project completed

recently enough to have used them was the 1998-99 study of progress in adult literacy carried out for the BSA by NFER. All other references to 'the BSA Standards' are to those in use up to 1998.

2.4 A brief history of adult basic education in the United Kingdom

This section draws heavily on Hamilton and Merrifield (2000). As they showed, the modern history of adult basic education (ABE) in the United Kingdom effectively began with the *Right to Read* literacy campaign of the mid 1970s:

Ad hoc provision of adult literacy education by community groups and local education authorities had been rising unremarked during the late 1960s. By 1972, the eve of the campaign, more than 230 literacy schemes in England and Wales served about 5,000 learners (Haviland, 1973)...

In 1973 ... *Right to Read* was launched... This was the first adult literacy campaign to take place in a Western European country ... In 1974, the central government released £1 million to the campaign. This, combined with an enormous volunteer effort, quickly established adult literacy services throughout England and Wales... The BBC ... develop[ed] a series of [television] programmes, *On the Move*, intended to publicise learning opportunities and help recruit learners. (Hamilton and Merrifield, 2000, pp.249-50)

Over the years the scope of basic skills has been steadily widening. Literacy was the exclusive early focus, and remains the predominant aspect, but the field has expanded to take in numeracy, oracy (at least for non-native speakers of English) and ESOL. Hamilton and Merrifield (2000, pp.251-3) pointed out that:

In England and Wales, ESOL was developed under the Home Office ... as a response to immigration and took a path separate from literacy... [It] was not included in the *Right to Read* campaign. Concern for the language needs of linguistic minority groups ... has always been quite limited in the United Kingdom. Alan Wells, director of the BSA, acknowledges that no real [ESOL] policy has ever emerged and that there are no universal opportunities for new citizens to learn English (Wells, 1996).

This would help to explain the shortage of research in the ESOL section of basic skills.

When ... *Right to Read* ... began, the consensus was that the issue of adult literacy was a temporary problem, requiring only short-term funding for its solution. By 1979 adult educators were arguing that ABE [adult basic education] should be funded as a permanent part of adult continuing education... [Eventually], with the

passage of the Further and Higher Education Act of 1992, ABE was made a permanent part of further education in England and Wales. (Hamilton and Merrifield, 2000, p.252)

and its task, so far from being to put itself out of work, seems to increase exponentially.

This can be seen clearly from the increase in enrolment:

In 1973 only 5,000 people were receiving help with reading and writing in England and Wales. By 1985 the number had risen to 110,000, and by 1995-96, 319,402 people were receiving help with literacy and numeracy in England (BSA, 1997)... (Hamilton and Merrifield, 2000, p.256)

It is worth noting that inter-agency approaches are increasingly being used to achieve enrolment and participation targets.

The context of further education has continued to change throughout the 1990s... [T]he focus ... has shifted from simply growing to targeting learners, particularly those from areas of social and economic deprivation. To attain targets, further education colleges are increasingly forming partnerships (sometimes with community groups and voluntary organizations) and joining in local and even regional planning efforts. (Hamilton and Merrifield, 2000, pp.251-2)

2.5 Philosophies

In parallel with its expansion, the basic skills field has changed its ethos and approach, at least according to Hamilton and Merrifield (2000, pp.251, 281-4):

ABE initially became part of the existing adult education service, funded and led by LEAs. It took on the ethos of that service: a broad liberal curriculum aligned with personal self-development rather than social goals. Along with that sense of purpose it adopted its basic characteristics: informal, student-centred teaching and assessment, part-time staff, and mainly evening classes without dedicated space or facilities (often housed in schools)...

People who have been involved with literacy work since the early campaign have seen a major shift in the culture of the field. Changes in accreditation, professional status, and the institutional location of ABE have inevitably led to changes in the discourse of literacy, what is defined as good or bad practice, and what counts as goals for literacy work...

Through the 1980s an ideology of social control became more dominant. Public discussions about literacy increasingly invoked the vocational discourse of human resource investment. In areas such as prison and army education, the functional-instrumental aspects of literacy had always been stressed, but during the 1980s and

1990s these came to dominate mainstream ABE...

Some people emphasise the benefits of change – the importance of structure and progression, the positive effects of quality standards and statutory status for ABE, which encourage better resourcing and create pathways for people to continue their education and training rather than ghettoising them within basic education...

Other practitioners, and some policymakers, regret the loss of an approach to literacy as a right and a means of empowerment. They also regret the loss of the flexibility and openness of relationships that characterised the old approach, even if these ideals were not always realised in practice...

Hamilton and Merrifield's account was both a history and an analysis of competing philosophical stances in the field. Data to be presented in chapter 8 will question the extent to which the 'broad, liberal', almost community service ethos has in practice been displaced by 'functional, instrumental social control'. But that these competing philosophies exist is undoubtedly true; and they colour all aspects of the research to be analysed here. In particular, surveys of the scale of need, and analyses of the impact on society, have tended to emphasise functional uses of literacy and numeracy. Most current assessment instruments have a similar character. On the other hand, many students' motivations seem to have more to do with personal goals, and recent evidence suggests that adult literacy tutors' practice and professional knowledge are in tune with that and with an enduring liberal ethos. Within the BSA's family literacy programmes certainly there was no conflict between tutors' urge to take account of students' needs and goals, and the need for tutors (who know how to address students' needs) to set the agenda by which students would reach those goals.

2.6 Summary

Basic skills encompasses not only literacy and numeracy but also oracy and English for speakers of other languages (ESOL), and the use of ICT in all those areas.

The basic skills field has broadened considerably in the last 30 years, both in terms of numbers of students and because its definition spread out from literacy to take in the other areas just named.

The values of some practitioners in the field tend to reflect a ‘liberal, student-centred’ philosophy, while others have integrated this with the need for tutors to teach students how to reach their goals.

2.7 Recommendations

There needs to be a renewed debate on the place of oracy in basic skills for monolingual English speakers, and on the place of numeracy in provision for speakers of languages other than English.

If there also needs to be a renewed debate on the values embodied in the field, then it should recognise that the best student-centred way of empowering adults may well be to enable them to function adequately for both their own and society’s purposes.

PART TWO: WHERE ARE WE NOW?

Chapter 3: The scale of need, and the impact of poor basic skills

3.1 Aim

So much for the context of basic skills, and of this review. Part Two describes the current basic skills scene in some detail. This chapter reviews, first, the survey evidence on how many people have poor basic skills, and therefore basic skills needs; secondly, what effect poor basic skills have on people's lives, with some indications of the origins of poor skills.

3.2 Sources

The first national survey of any aspect of adult basic skills in Britain took place in 1972, and to date there have been 12 such surveys involving adults in England, eight of them (for no apparent reason) in six years in the 1990s. Summaries of the evidence from all these surveys are provided in Tables 3.1-3. None of the surveys covered only England; all of them also covered Wales, and most also covered Scotland. To extract data for England alone would in most cases be impossible. But since the population of England represents 84 per cent of the population of Britain, and 94 per cent of that of England and Wales, the view has been taken here that separate data for England would not differ markedly from those given.

Some survey data for ESOL were found. Though discussed separately below, they are included with those for the general population in the Tables. Very few survey data were found on oracy, and none on ICT and basic skills.

This pattern, of there being considerably more information on literacy and numeracy than on the other topics, persists through most of this review. Because of this, and in order that the less-documented areas should not be lost sight of by being relegated to the ends of chapters, ICT, ESOL and oracy are usually dealt with (as in this chapter) first, followed by literacy and then numeracy.

The survey data so far mentioned all come from direct surveys of the adult population.

That information is then supplemented by data on employers' views on basic skills needs in the workplace. This information is indirect evidence on the topic and is therefore not integrated with the direct survey evidence but placed after it.

In the last two substantive sections of the chapter, which consider the evidence on the impact of poor basic skills and life factors associated with poor skills, a range of sources was used.

3.3 Assessing the scale of need

3.3.1 ICT

No information.

3.3.2 ESOL

There have been three surveys of the scale of need among members of linguistic minorities, two commissioned by ALBSU/BSA, in 1989 and 1994-95, and one by the Department of Employment, in 1992, plus a recent estimate by the ESOL Working Group. The 1989 survey (ALBSU, 1989a and b) relied on self-report. It estimated the number of adults whose mother tongue was not English as between 1.66 and 1.88 million, of whom the estimated number needing help with English was 500,000; at the time 44,000 (nine per cent) were receiving help. Between a quarter and two-fifths of linguistic minority adults reported difficulties with understanding, speaking, reading and writing English. Slightly lower figures were reported from the 1992 study by Sargant (1993), who used the same questions as the ALBSU survey – but the discrepancy may have been due to differences in sampling since Sargant studied particular linguistic/ethnic minorities (South Asians, Chinese, Africans, plus a very small sample of Afro-Caribbeans).

The 1994-95 study (Carr-Hill *et al.*, 1996) was a combined self-report and performance survey based on a sample of adults from particular linguistic/ethnic minority groups (South Asians, Chinese, recent refugees) and contained 19 literacy tasks but only two oracy (listening) tasks. It therefore did not permit generalisation to the whole of the 'ESOL population', and had little to say about oracy. Nevertheless, it showed that the level of need was higher in certain minority language communities than in others, and higher

among all the groups approached than in the general population, with between 14 and 40 per cent of different minority groups assessed as being below 'survival' level, i.e. below BSA Entry Level.

The ESOL Working Group (2000, p.13) pointed out that the 1991 Census showed that just over 2.5 million people then living in Britain (4.7 per cent of the population) were born in countries where English is not the national language, and estimated (p.14) that '1- 1.5 million people need to improve their English language skills if they are to participate in education, work and society.'

3.3.3 Oracy

No survey information on oracy was found other than that just mentioned under ESOL. It is as though the speaking and listening skills of the monolingual majority of adults are invisible to researchers. This is despite the speaking and listening element of the National Curriculum and GCSE English, the presence of Communication Skills in NVQs and in the BSA's existing Communication Standards, and the regular polls of employers (see below) and other groups showing the importance they attach to these skills. Research in this area is admittedly more difficult than in literacy, but in the 1980s the Assessment of Performance Unit Language Monitoring Project successfully developed oracy tests for 15-year-olds and used them in national monitoring surveys (Brooks, 1987; Gorman *et al.*, 1983, 1988, 1991).

3.3.4 Self-reported problems in literacy and numeracy

There are difficulties in comparing different literacy and numeracy surveys because of differences in approach and the different standards applied. Where need has been assessed on the basis of *self-reported* problems with literacy *and* numeracy, figures have usually been around 12 per cent - about one in eight - of the adult population (ALBSU, 1987; Ekinsmyth and Bynner, 1994; and see Table 3.1).

Table 3.1: Surveys of the scale of need: self-reported problems

Survey	Date	Age(s)/Group	Reported in	Type of problem	Rate (%)
NCDS4	1981	23	ALBSU (1987)	Reading	4
				Writing or spelling	9
				Numeracy	5
				Any difficulty	13
<i>A Nation's Neglect</i>	1989	linguistic minorities	ALBSU (1989a and b)	Able to understand English 'a little or not at all'	26
				Able to speak English 'a little or not at all'	29
				Able to read English 'a little or not at all'	36
				Able to write English 'a little or not at all'	40
BCS70	1991-92	21	Ekinsmyth and Bynner (1994)	Reading	3
				Writing or spelling	9
				Numeracy	4
				Any difficulty	12
Learning for a Purpose	1992	linguistic minorities	Sargant (1993)	Able to understand English 'a little or not at all'	19
				Able to speak English 'a little or not at all'	23
				Able to read English 'a little or not at all'	26
				Able to write English 'a little or not at all'	31
Older and Younger	1993-94	22-74	BSA (1995b)	Writing	13
	1994-95	linguistic minorities	Carr-Hill <i>et al.</i> (1996)	'Not at all' able to read English	26
Lost Opportunities	1995	37	Bynner and Parsons (1997b)	'Not at all' able to write English	30
				Reading	3
NCDS5	1995	37	Bynner and Parsons (1997b)	Writing or spelling	12
				Numeracy	4
				Any difficulty	12
				Reading	3
IALS	1996	16-65	Carey <i>et al.</i> (1997)	Poor reading skills for job	2
				Poor writing skills for job	4
				Poor number skills for job	4

In round numbers, this implies that 5.4 million people in the adult (18+) population of the United Kingdom (4.5 million in England) believe that their basic skills are not adequate to meet the demands of everyday life.

3.3.5 Performance surveys

Other surveys have gone beyond self-report and assessed adults' performance on actual literacy and numeracy tasks, but these then raise the issue of how boundaries are defined and how satisfactory the assessment instruments used are. The age 21 phase of BCS70 (the British Cohort Study 1970), for example, carried out in 1992, used tasks which were difficult for all adults at lower levels of literacy, and included only one item designed to discriminate between those at higher levels (Ekinsmyth and Bynner, 1994, pp.19-21). In relation to literacy, Brooks (1998, pp.7-8) nevertheless concluded that 'a significant proportion of the population ... have poor or very poor literacy skills, and this seems to have persisted for decades'.

Table 3.2: Surveys of the scale of need: performance surveys of literacy

Survey	Date	Age(s)/ Group	Reported in	Definition of very low literacy	Rate (%)	Definition of functional illiteracy	Rate (%)
NSHD	1972	26	Rodgers (1986)	less than 11/35 on Watts- Vernon reading test	1		
BCS70	1991-92	21	Ekinsmyth and Bynner (1994)	below BSA Entry Level	13	at BSA Entry Level but below Level 1	19
<i>Older and Younger</i>	1993-94	22-74	BSA (1995b)	below BSA Entry Level	4	at BSA Entry Level but below Level 1	15
<i>Lost Opportunities</i>	1994-95	linguistic minorities	Carr-Hill <i>et al.</i> (1996)	below BSA Entry Level	25		
NCDS5	1995	37	Bynner and Parsons (1997b)	below BSA Entry Level	6	at BSA Entry Level but below Level 1	19
Writing Skills	1995	16-60	BSA (1996)	(results were not scaled)		(results were not scaled)	
IALS	1996	16-65	Carey <i>et al.</i> (1997)			IALS Level 1	23

Table 3.2 shows reasonably consistent evidence that

- about one adult in five or six is below the threshold of functional literacy, with skills below BSA Level 1; and
- at least one adult in twenty has such a low level of literacy as to be below BSA Entry Level.

The IALS survey of 1996 (Carey *et al.*, 1997; cf. OECD, 2000) rated slightly *more* than one adult in five as having Level 1 literacy, an apparent discrepancy that is explained by the fact that the IALS levels were not designed to correspond directly to BSA levels. As Carey *et al.* (1997, p.16) pointed out, IALS Level 1 included some tasks rated as *within* (the lower end of) BSA Level 1 for reading, and not just tasks rated as *below* that level.

The IALS tests contained very few items at Level 1, and therefore provided very little detail on what adults with poor skills *could* do – Level 1 was mainly defined by all the things that people at that level could not do. One of the aims of the 1998-99 NFER study of adult literacy for the BSA (Brooks *et al.*, forthcoming, 2000) was to attempt finer differentiation within Level 1. Very simple items were included in the reading test used, and statistical discrimination was achieved to about four standard deviations below the national mean established by IALS – see the results summarised in chapters 10 and 11.

However, what IALS did indicate convincingly for the first time was that the level of literacy performance in the UK was lower than in several other major European countries (cf. also European Basic Skills Network, 2000), and this in itself suggested that there was a need to be addressed.

A reasonable average between the IALS and pre-IALS estimates would (as the Moser Report suggested) be that about one adult in five has less than functional literacy. Again in round numbers, this is about 9 million people in the adult (18+) population of the United Kingdom (7.6 million in England).

Table 3.3: Surveys of the scale of need: performance surveys of numeracy

Survey	Date	Age(s)	Reported in	Definition of very low numeracy	Rate (%)	Definition of low numeracy	Rate (%)
ACACE	1981	16-65+	ACACE, 1982; Social Surveys (Gallup Poll) Ltd (1981)	less than 6/11 on very simple test	21		
BCS70	1991-92	21	Ekinsmyth and Bynner (1994)	below BSA Entry Level	20	at BSA Entry Level but below Level 1	57
Older and Younger	1993-94	22-74	BSA (1995b)	below BSA Entry Level	15	at BSA Entry Level but below Level 1	39
NCDS5	1995	37	Bynner and Parsons (1997b)	below BSA Entry Level	23	at BSA Entry Level but below Level 1	48
IALS	1996	16-65	Carey <i>et al.</i> (1997)	IALS Level 1 'quantitative literacy'	23		
International Numeracy Survey	1996	16-60	BSA (1997b)	less than 6/12 on simple test	22		

Key to Tables 3.1-3: BCS70 = British Cohort Study 1970; NCDS4 = National Child Development Study, 4th sweep; NCDS5 = National Child Development Study, 5th sweep; NSHD = National Survey of Health and Development; ACACE = Advisory Council for Adult and Continuing Education. For other acronyms see main text.

In relation to numeracy (see Table 3.3), the results suggest that the level of very low numeracy in the adult population is similar to the level of functional illiteracy, i.e. that

- about one adult in five has very low numeracy, with skills below BSA Entry Level. Both the ‘quantitative literacy’ section of IALS and the simultaneous International Numeracy Survey in 1996 indicated that the proportion of adults in Britain with very low numeracy skills was substantially higher than in other developed countries (cf. also European Basic Skills Network, 2000).

It should also be noted that there was a substantial overlap in these findings. Many adults with basic skills problems have needs relating to both literacy and numeracy.

3.4 The needs of subgroups

3.4.1 Regions

Few surveys have looked specifically at levels of need within geographical areas, although the general picture to emerge from national surveys is that adults with basic skills needs are most likely to be found in areas that suffer deprivation. Areas with the highest levels of deprivation have ‘roughly one quarter more adults with poor literacy or numeracy than other areas’ (GB. Parliament. HoC, 1998).

A national project on literacy and numeracy levels at electoral ward level was carried out for the BSA (1997a) by the Opinion Research Business (ORB). ORB carried out 17 local surveys comprising over 8,000 interviews in areas chosen to make up a nationally representative sample. These local surveys were used to make *predictions* about the level of basic skills in almost every ward in England. This means that for most areas the resulting scores were *imputed* rather than based on direct measurement. However, the data did confirm a substantial relationship between areas of social exclusion and low levels of basic skills.

3.4.2 Age groups

In BSA (1995b; cf. Brooks, 1998) it was suggested that the profile of need changes with age, in that young adults' literacy and numeracy skills tend to improve into middle age, plateau, and then decline towards retirement age. The same trend was evident for both literacy and numeracy in IALS, for spelling in the *Writing Skills* survey (BSA, 1996), and for numeracy in the ACACE (Advisory Council for Adult and Continuing Education) survey of 1981 and the International Numeracy Survey of 1996; also for linguistic minorities in all three relevant studies. Therefore the need for basic skills provision tends to increase, not diminish, for older age groups.

3.4.3 Socio-economic groups

In surveys where the relationship of skills to socio-economic status (SES) was investigated, lower SES groups tended to have poorer skills than higher SES groups.

3.4.4 Educational levels

In surveys where the relationship of skills to level of educational qualifications was investigated, people with poorer qualifications tended to have poorer basic skills than those with better qualifications.

3.4.5 Women and men

Women appear more likely to have numeracy problems than men (see, for example, Bynner and Parsons, 1997b, p.25). Among linguistic minorities, women's command of English is substantially weaker than men's. The *Writing Skills* survey showed no difference in punctuation ability, but that women's spelling (of the 15 words tested) was better than men's.

3.4.6 Linguistic minorities

For oracy and literacy see under ESOL, above. No data at all were found on the numeracy needs of linguistic minority adults. It seems to be assumed that speakers of languages other than English have only language (oracy and literacy) needs, when it seems likely that many also have numeracy needs.

3.4.7 Travellers

No information was found except one mention of their additional educational needs (GB. DfEE, 1997, p.18).

3.4.8 The unemployed

Unemployed people tend to have worse spelling and punctuation than those in work (BSA, 1996). There was also some evidence of loss of skills among adults who are out of work (Bynner and Parsons, 1998). This tended to be more acute, and to start sooner after loss of employment, for numeracy than for literacy.

3.4.9 Prisoners

A small-scale survey (BSA, 1994) involving 12 per cent of the prisons in England and Wales was carried out into the need for basic skills instruction among people in prison. This appears to have provided the framework for the Prison Service to carry out comprehensive surveys of new prisoners; some results of the BSA survey and of two by the Prison Service are shown in Table 3.4. Also included are figures from a detailed Prison Reading Survey in seven men's prisons in 1997-98 (Rice, 2000). Here, as throughout this chapter, poor literacy skills are defined as '*below* level 1 of the BSA Communication Standards' – it should be noted that other published comparisons giving higher percentages of poor literacy among prisoners have used the criterion '*at or below* level 1 of the BSA Communication Standards'. The level in the general adult population (see Table 3.2) is shown for comparison.

Table 3.4: Incidence of poor literacy among prisoners

Year	N	Literacy below level 1 (%)
1994	416	52
1998	47,298	33
1999/2000	97,681	39
Rice (2000)	203	14?
level in general population		15-19

Sources: BSA (1994), Prison Service (2000), Rice (2000), Table 3.2 above

Key: N = sample size

Notes: (1) The 1998 and 1999-2000 percentages are averages of those given for reading and writing in Prison Service (2000); the sample size for 1998 is that for reading, while that for 1999/2000 is for writing – in both cases the sample size for the other skill was somewhat smaller.

(2) The percentage for Rice (2000) is estimated from his Figure 1, p.4.

It proved impossible to add a column of properly comparable data for numeracy to Table 3.4 because the Prison Service (2000) document did not give figures for prisoners *below Entry level* for numeracy, this being the definition of poor numeracy skills used here.

However, that document did give the figures of 70 per cent (N = 59,440) and 67 per cent (N = 89,572) for those with numeracy skills *below level 1* in 1998 and 1999-2000 respectively; and the corresponding figure in BSA (1994) was 76 per cent (N = 416). (Rice did not investigate numeracy.) Table 3.3 above showed that the three estimates for the general population on this criterion ranged between 39 and 57 per cent. Indirectly, this suggests that the incidence of poor numeracy skills also was higher among prisoners than in the general population.

The incidence of poor literacy skills was somewhat lower among women prisoners (but they formed less than 10 per cent of the samples; Rice's sample contained no women) than among male prisoners, but (on the indirect criterion just mentioned) the incidence of poor numeracy skills was similar in both groups.

The prison population thus appeared to contain a higher proportion of people with poor basic skills than the general population. However, as Rice (2000) pointed out, prisoners

are not representative of the general adult population: they are predominantly men, and probably disproportionately represent lower IQ, educational and SES levels.

Rice's estimate of the incidence of poor literacy among prisoners was much lower than others, and very close to estimates for the general population. His testing was very thorough, and it may well be that the Prison Service's testing of its tens of thousands of new prisoners was less so. Nevertheless, Rice's claim that his data showed that the incidence of poor literacy among prisoners is substantially lower than is usually claimed was based on too small a sample.

Rice did, however, provide firmer information on prisoners with dyslexia, who were a main focus of the Prison Reading Survey. A Prison Service parliamentary briefing (Robson *et al.*, 1998) stated that the Service was 'work[ing] with specialist educational consultants on how best to screen prisoners for dyslexia and then how best to support prisoners with this learning need', and more recent documents supplied by the Prison Service stated that this policy was being implemented. By detailed testing Rice diagnosed 11 (five per cent) of his sample of 203 prisoners as having been dyslexic since childhood. Since he was comparing this with estimates of dyslexia in the general population averaging five per cent, he concluded that 'the prevalence of dyslexia in the prison population appears to correspond to estimates of its prevalence in the general population' (Rice, 2000, p.2). He again pointed out that his estimate was much lower than some that have received publicity: 'Estimates that one in two of the male offender population is dyslexic have been quoted in Parliament' (*ibid.*). Such estimates may have been based on high estimates for poor literacy among prisoners and on the faulty assumption that most literacy problems are caused by dyslexia or merit that label. In this respect, Rice's data seem sounder.

Rice went on to insist that 'this purpose of [his research] ... is not ... to undermine any useful work being done under th[e] misapprehension [that the incidence of dyslexia among prisoners is high] but to provide it with a more rational basis' (Rice, 2000, p.3, footnote 3). Whether dyslexic or not, there are many prisoners who would benefit from basic skills tuition, and there is a considerable chance that effective provision of such support would benefit society at large. The BSA (1994) report noted that there is a clear, but poorly researched, link between poor literacy and crime, and argued that ensuring that inmates

have access to improving literacy and numeracy skills while in prison would make it easier for them to get and keep a job on release and/or to gain a vocational qualification. As will be shown in section 6.5, the Prison Service has set itself a target in terms of reducing the incidence of poor basic skills.

3.4.10 Adults with special educational needs

The work with prisoners with dyslexia was the only research found on any group of adults with special educational needs. Otherwise, such people are a group who do not seem to have been identified clearly in surveys, although it seems reasonable to suppose that their needs in terms of specific provision might be different from those of adults who, for example, missed a substantial amount of schooling through illness, truancy, or constant changes of school.

3.5 Employers' views on basic skills needs in the workplace

3.5.1 The perception of need

Research in this area relates to *employers'* perceptions of *employees'* basic skills needs within the workplace. Concerns about the basic skills needs of the workforce were raised by an employer-focused study conducted by Atkinson and Spilsbury (1993). This was a large-scale study conducted in England and Wales in 1991-92. It involved a postal questionnaire survey of 73 Training and Enterprise Councils (TECs) covering 1.3 million jobs in 24,000 establishments. One in ten of the establishments surveyed reported that their employees' basic skills were '*just adequate or worse*', and this dissatisfaction was most marked at the bottom of the labour market. Nearly one in four employers reported that job applicants' basic skills were '*just adequate or worse*', and this dissatisfaction was spread across all levels of job. In particular, Atkinson and Spilsbury found that employers valued oral communication skills.

In 1992, ALBSU commissioned Gallup to conduct a survey of UK-based companies (ALBSU, 1993). This study involved 400 telephone interviews with personnel/training managers or equivalent, in firms with 51 or more employees. The sample was randomly selected and was then grossed up and weighted to reflect UK industry as a whole. Thus, it can be seen as a fairly representative study of firms with 51 or more employees.

Employers were asked to rate employees' basic skills needs on a scale of one to five. One in seven manual workers were perceived as having problems with reading, one in six problems with verbal communication, one in five problems with numeracy, and more than one in four poor writing skills (ALBSU, 1993, p.15).

Frank and Hamilton (1993) surveyed 73 companies in the north-west of England. They found that 39 per cent of employers saw a need for basic skills training in their companies (p.129). Interestingly though, 61 per cent of these employers could not see a need for such training. The respondents also highlighted the small percentage of manual jobs that did not require any basic skills (pp.123-6). Only five per cent of respondents felt that there was very little or no reading required in the jobs they were discussing, and only seven per cent said there was no writing. In addition, only five per cent said that no mathematical skills were required in manual tasks.

Similarly, a Department for Education and Employment report (GB. DfEE, 1997, p.4) suggested that only one job in 10 below technician level had no requirement for literacy skills at any level and only one in four had no requirement for numeracy skills. And most recently, the National Skills Task Force (GB. DfEE, 1997, p.31) reported the Skill Needs in Britain survey for 1998 as saying that 'significant numbers of employers ... said that their employees lacked basic literacy and numeracy skills'.

However, Robertson (1997, especially p.23) argued that these concerns needed to be seen in perspective. In his opinion, a 'significant strength' of the Skill Needs surveys was that

the responses on literacy and numeracy problems come from a lengthy questionnaire which is asking about a whole range of issues to do with skills and training. This is important because a specific survey on literacy and numeracy problems will tend to sensitise employers to the problem and lead to a higher level of response in terms of concern about these issues.

Robertson then took

the results from a question in the 1994, 1995 and 1996 Skill Needs surveys which asked a large sample of employers with over 25 employees whether they believed

that a significant gap existed between the skills that their current employees had and those needed to meet their business objectives.

Robertson averaged the findings for those three years to give the results shown in Table 3.5.

Table 3.5: Proportion of employers believing that there was a significant gap between the skills of their current employees and those needed to meet their business objectives, 1994-96

	Percentage of employers reporting a skills gap	Percentage of all employers responding
Skills felt to need improving		
Computer literacy and knowledge of IT	59	11
Personal skills, e.g. motivation	58	11
General communication skills	60	11
Practical skills	51	9
Management skills	57	11
Basic ability that can be built on	47	9
Basic skills, e.g. literacy & numeracy	23	4

Source: Robertson (1997, Table 6, p.32)

Thus only four per cent of employers overall felt that their business objectives were being impeded by a lack of literacy and numeracy among their employees, though the 11 per cent for 'general communication skills' could be taken as evidence for a larger concern over oracy.

However, the Skill Needs surveys still showed that some employers placed a great deal of importance on basic skills, in particular oral communication skills. They felt that their companies would benefit from improving the basic skills of the workforce in relation to enhancing communication skills and improving efficiency, for example.

3.5.2 The changing workplace

Atkinson and Spilsbury found that the level of demand for basic skills was changing and that basic skills had become more important to employers in the previous five years. In their sample, nearly half of employers cited an increase in the importance of oral communication skills, and employers perceived an increase in demand for basic skills related to the increasing need to work with ICT and changing work organisation.

The role of basic skills in the changing workplace was also an issue explored by Frank and Hamilton (1993). Seventy-five per cent of their respondents highlighted an increase in the need for basic skills in manual jobs over the previous five years, as opposed to 25 per cent who said there had been no changes in basic skills needs.

In the DfEE (1997) report, 45 per cent of employers said that literacy and/or numeracy had increased in importance.

3.6 The impact of poor basic skills

A number of surveys have looked at the situation of adults with basic skills needs, and drawn inferences about the impact poor literacy and numeracy have on individuals' lives, and on the economy.

3.6.1 The impact of poor basic skills on individuals

The issue of 'malaise' was raised in relation to basic skills problems by Ekinsmyth and Bynner (1994, pp. 57-8) who observed that

a clear relationship is apparent between well-being and literacy and numeracy ... this reinforces the suggestion ... that self-reported literacy and numeracy problems are an important feature of overall self-esteem.

Potts and Paull (1995, p.169) also commented that:

most educators agree ... [that] strong motivation and frequent positive reinforcement are essential for adults who often have low self-esteem and pressing responsibilities.

Studies have also highlighted the personal costs to workers of poor basic skills in terms of the jobs available to them and the lack of promotion prospects (Atkinson and Spilsbury, 1993; GB. D/EE, 1997). Atkinson and Spilsbury established the levels of reading, writing, numeracy and oral communication skills required for a wide range of jobs using the BSA Standards. A directory showing the basic skills requirements for 49 types of job was published - people with the poorest skills would be excluded from 48 of them.

Similarly, in the 1993 ALBSU study, around a quarter of respondents felt that poor basic skills affected the work of manual workers and 14 per cent of respondents felt that poor basic skills affected the work of managerial/professional staff (ALBSU, 1993, p.17).

The Moser Report (1999, Table 3.1, p.23) showed that low literacy scores were associated with low earnings, and that the association was even stronger between low numeracy and low earnings. In addition, low level skills tended to be associated with poor job opportunities and high levels of unemployment, as well as poor housing, poor health and depression (particularly among women), and even imprisonment (see, notably, Ekinsmyth and Bynner, 1994; Bynner and Parsons, 1997b; Parsons and Bynner, 1998).

Dearden *et al.* (2000, especially pp.7-8) reported the first detailed analysis for the UK of the economic returns to individuals of basic skills qualifications. Their findings are summarised in Table 3.6.

Table 3.6: Estimated economic returns to individuals of basic skills qualifications

- People who have numeracy skills at or above Level 1 of the BSA Standards earn around 15 to 19 per cent more than those whose numeracy is below this level;
- Even when education and qualification levels and family background are controlled for, people who have numeracy skills at or above Level 1 of the BSA Standards still earn around six to seven per cent more than those whose numeracy is below this level;
- People who have literacy skills at or above Level 1 of the BSA Standards earn around 15 per cent more than those whose literacy is below this level;
- When education and qualification levels and family background are controlled for, the evidence is inconsistent, one dataset suggesting that people who have literacy skills at or above Level 1 of the BSA Standards still earn around 11 per cent more than those whose literacy is below this level, while another dataset suggested an advantage of only one to three per cent;

- People with Level 1 numeracy are about five percentage points more likely to be employed;
- Even when education level is controlled for, people with Level 1 numeracy are still about two to three percentage points more likely to be employed;
- The evidence for literacy is mixed, one dataset suggesting a five percentage points advantage for employment (zero after controlling for other factors), the other a 13 percentage points advantage (10 percentage points after controlling for other factors).

In addition, low-level skills in parents tend to be associated with low-level skills in children in what is generally known as the *intergenerational effect* of poor basic skills (see especially Parsons and Bynner, 1998).

The ESOL Working Group (2000, p.v) pointed out that ‘There are no data on the number of second language speakers who are out of work and the impact of low English on their chances of employment.’

Other aspects of life on which poor basic skills were said to have an impact, not only in England but also in other countries, were social benefits, health, participation and citizenship (European Basic Skills Network, 2000).

With all these factors, it is appropriate to observe that the direction of causality is not necessarily clear. It is not clear, for example, whether those who suffer from depression (often associated with multiple problems, including poor health and dysfunctional relationships) find it more difficult to acquire basic skills, or whether their lack of basic skills contributes to their depression. Nevertheless, the most likely explanation is that there is a cyclical relationship. As Bynner and Parsons (1997b, pp.75-6) reported in their survey of 37-year-olds, ‘There were strong signs of vicious circles of deprivation and disadvantage in which the basic skills problems had a major part.’

Some research in Spain (European Basic Skills Network, 2000, para.35) indirectly tackled the question of whether there is a causal relationship between poor basic skills and life problems. Five indicators of social exclusion were established (poverty, unemployment, overcrowding, poor basic skills, illness). Those with poor basic skills were more likely to

suffer from two or more additional indicators of exclusion than adults in the other groups: 13 per cent with poor literacy accumulated two or three additional problems, whereas only two per cent of the unemployed and three per cent of the ill did so.

3.6.2 The impact of poor basic skills on the economy

The 1992 ALBSU study sought to calculate the costs of poor basic skills to industry through, for example, lost orders and inefficiencies. These costs were estimated to be £4.8 billion (ALBSU, 1993, p.35). However, as Robertson (1997, p.24) pointed out, only 15 per cent (120) of the 400 firms surveyed were able to provide a monetary estimate of the cost to them of basic skills deficits – but the figures from these 120 employers were then grossed up to represent the over 40,000 companies estimated to have more than 50 employees. Moreover, as Frank and Hamilton (1993) highlighted, this sort of calculation can lead to the ‘blame’ being placed on the worker with poor basic skills rather than to employers being encouraged to implement or improve basic skills provision within their enterprises. Frank and Hamilton argued that it also gives employers further justification for not employing workers with poor basic skills. Furthermore, it should be noted that 71 per cent of respondents in the ALBSU study did not feel that they had experienced a financial loss due to the poor basic skills of their employees (ALBSU, 1993, p.37).

Whether or not there is actually an increase in the levels of basic skill needed to function in society, there is certainly a perception that to be competitive a country needs as highly educated a workforce as it can produce. It is important to mention in this connection the cautionary note sounded by Harrison (1995, p.224): ‘If everyone in the United Kingdom were literate, it is still likely that unemployment would be serious if the economy were weak.’ Harrison maintained that an emphasis on functional skills tends to go hand in hand with a ‘deficit’ model, whereby individuals or groups are identified by the skills they lack. This is in contrast to what he called a ‘wealth’ model of skills, which starts from the assumption that individuals have skills that can be developed and built on, and has been central to family literacy initiatives. Given the success of family literacy schemes in general (see Brooks *et al.*, 1996, 1997, 1999; Poulson *et al.*, 1997) it is worth reflecting that, whatever the pragmatic value of assessing need through a deficit model, the value of a wealth model may well be in enabling effective provision.

3.7 Factors associated with poor basic skills

The major and powerful source on this topic was Parsons and Bynner (1998). Their findings were based on data from the National Child Development Study, which is a longitudinal study of a cohort of people born in Britain in a week in April 1958. They were studied at birth and at ages 7, 11, 16, 23, 33 and 37. Factors which Parsons and Bynner found to be predictive of poor basic skills at the adult ages studied are shown in Table 3.7. Factors which are not labelled as applying only to men or to women applied to both.

Table 3.7: Life factors associated with poor adult basic skills

<i>At birth:</i>	low social class of the parents (men) mother having left full-time education early
<i>At age 7:</i>	low cognitive test results low parental interest in cohort members' education poor reading performance poor copying design skills (women) not being read to (women) poor school attendance (men) overcrowding in the home (men) poor maths performance
<i>At age 11:</i>	low cognitive test results free school meals poor maths performance
<i>At age 16:</i>	poor reading performance poor public examination results low parental interest/support disruptive behaviour (women) poor maths performance (women) having attended a coeducational school (men) having attended a working-class school (men) poor school attendance (men) overcrowding in the home
<i>At age 23:</i>	poor qualifications lack of work-related training number of months unemployed
<i>At age 33:</i>	poor qualifications number of months unemployed

The associations with poor basic skills were a blend of cognitive, social and educational factors, often mutually reinforcing. Parsons and Bynner (1998, pp.15-16) commented:

The kind of vicious circle revealed can be seen as an accelerating process beginning early in life and speeding up as children move through education and on

to work. Those who fall behind at school subsequently miss out early on in the labour market and this reduces their chances of catching on the basic skills. Unemployment reduces their opportunities further... Set again this negative cycle is the positive one identified with the prospect of improvement when opportunities are present [such as] training and ... the everyday functions of employment [where] basic skills are called upon and practised... At every stage ... educational intervention to enhance basic skills has relevance and can be effective.

3.8 Summary

Surveys of adult basic skills began in 1972. Following a period in the 1990s when there was an average of just over one basic skills survey a year, there have been none since 1996.

About 20 per cent of the adult population are estimated to have less than functional literacy, and about 20 per cent are estimated to have poor numeracy.

Among older people, those in lower SES groups, those with poorer qualifications, linguistic minority adults, the unemployed, and prisoners (at least), the need is greater.

Many employers place a great deal of importance on basic skills, in particular oral communication skills, and consider that work demands on basic skills are rising.

The impact of poor basic skills on individuals is pervasively bad, and the impact of poor basic skills on the economy is thought to be substantial.

The origins of poor basic skills can be traced from adverse family circumstances at birth through poor performance at school into lower success in employment.

3.9 Recommendations

There need never be a return to annual frequency, but there should be periodic national surveys of adults' basic skills, and the next one is needed soon. It is therefore appropriate that the DfEE is about to commission a baseline survey.

That survey could attempt to include representative samples of linguistic minorities, and

should incorporate some pilot items on oral skills and ICT. Background variables should include special educational needs so that the skill levels of groups with special needs can be estimated. Though some items could be in self-report form, the majority should be direct measures of attainment.

There should be a clearly articulated relationship between the instrument to be used in the baseline survey and both the new Adult Basic Skills Standards and the new national test of basic skills. Account should also be taken of the need to find out what adults with poor literacy and numeracy *can* do.

Chapter 4: The students

4.1 Aim

Though the evidence is incomplete in other areas, the scale of need in literacy and numeracy at least is clear, and massive. Chapters 6 to 9 will analyse what is being done to meet the need, but before that we need to ask: Who are the students who attend basic skills provision in England, and what are they like? The surveys that revealed the scale of need were based on national or quasi-national samples, not on those actually attending. The purpose of this chapter is to analyse the available evidence on the background characteristics of adults attending basic skills provision. (Students' motives for attending, and patterns of dropping out and moving on are analysed in the next chapter.)

4.2 Sources

Every year for many years the BSA and its predecessors have collected outline national data on the basic skills field in England and Wales. According to their latest returns (BSA, 1999b), the total number of adults attending literacy and/or numeracy and ESOL provision in England was 319,402 in 1995/96 and 345,437 in 1996/97, an 8.2 per cent increase between those two years alone.

However, the BSA does not routinely collect data on students' characteristics. The FEFC does do this, and its database contains information on students' gender, age, ethnicity, learning difficulties and/or disabilities, and destination. The only published analysis of this information was the FEFC (1998) report. This gave data on over 200,000 students – about 60 per cent of all those in basic skills provision – for 1995/96, but only on gender, age and ethnicity. For comparisons with the FEFC data and for other characteristics, information on samples in various research studies (all commissioned by the BSA) was used:

- For dedicated adult literacy provision in LEAs and Colleges of Further Education: the 1998-99 NFER study (Brooks *et al.*, forthcoming, 2000)
- For parents participating in family literacy and numeracy programmes: three studies of pilot programmes (Brooks *et al.*, 1996, 1999; BSA, 1998)
- For students in general basic skills provision: a study by the London Institute of Education (Kambouri and Francis, 1994)

- For ESOL students: a further study by the London Institute of Education (Kambouri *et al.*, 1996).

All the sources named collected data on students' characteristics direct from students, and therefore at the level of the individual student. One other source (ALBSU, 1992) was used for some comparisons even though its information was gathered from *tutors* and its survey was carried out in 1991-92, and therefore when the bulk of basic skills provision was still the responsibility of LEAs (see section 6.4). The ALBSU survey also did not cover ESOL provision. The survey covered 22 LEAs and 'almost 10,000 students', but the number of tutors who responded was not stated (survey forms were sent to over 350 tutors).

4.3 Students' characteristics

All the information (except that from the ALBSU report) is presented in Table 4.1. The sample sizes are numbers; all other figures are percentages. The FEFC sample is fully representative of the FE sector; among the rest, even the largest sample (in the NFER study) represents only about two per cent of the total number of students attending the relevant forms of provision, and all those data therefore need to be interpreted with caution. Information on age distributions was given in the two London Institute of Education reports, but in a form incompatible with the other reports; that information is therefore not shown. Information on qualifications was not gathered in the London Institute studies. Under 'occupational status', 'employed' includes both full-time and part-time and both employed and self-employed people; the category 'unwaged' includes those looking after the home and family, retired people, students, and the temporarily or permanently sick and disabled. Under London Institute 1 the percentages for ethnicity are in brackets because they were derived from a different sample (N=176).

'Family literacy 1' denotes the BSA's original Demonstration Programmes, in which very few linguistic or ethnic minority families participated, but all families had at least one child aged between 3 and 6. 'Family literacy 2 and 3' are from the BSA's New Groups initiative: group 2 is linguistic minority families with at least one child aged between 3 and 6 (therefore cf. 'London Institute 2'); group 3 is families with a child in Year 4.

Table 4.1: Background characteristics of adult basic skills students

	FEFC 95/96	NFER study	Family literacy			Family numeracy	London Inst.	
			1	2	3		1	2
Sample size	205200	1915	361	411	153	142	1218	713
Gender (%)	All figures below are percentages							
Men	43	45	4	1	6	3	47	30
Women	57	56	96	99	94	97	53	70
Age distribution (%)								
16-19	23	15	1	1	0	0		
20-24	17	9	14	10	0	13		
25-29)		10	37	28	18	31		
30-34)	37	14	28	38	35	34		
35-39)		15	12	13	27	14		
40+	23	37*	8	9	21	9		
Ethnicity (%)								
White	67	84	92	1	90	89	(72)	14
Other	33	16	8	99	10	11	(28)	86
First language (%)								
English		82	98	0	86	88		0
Other		18	2	100	14	12		100
Occupational status (%)								
Employed		29	17	3	32	23	39	14
Unemployed		26	11	4	10	11	47	47
Unwaged		45	72	93	58	66	14	39
Highest qualification (%)								
Below CSE/GCSE		57	46	61	52	56		
CSE/GCSE		14	32	10	13	15		
O-Level		2	11	10	13	7		
FE/A-Level		26	9	10	18	17		
Higher education		2	1	9	3	5		

*Note: For more detail, see text.

Table 4.1 shows that there were rather more women than men in general provision (FEFC, NFER study, London Institute 1). However, the ALBSU (1992) survey reported 52 per cent men in 1992 and cited an earlier survey its predecessor (the Adult Learning and Resources Agency) had conducted in 1976 as reporting 65 per cent men. Table 4.1 shows that family learning courses attracted far more mothers than fathers. ESOL provision also attracted more women than men, probably because of the less secure grasp of spoken English among women of south Asian origin.

As would be expected, the age distributions in family learning tended to bunch in the range 25-34, with parents of Year 4 children slightly older on average than those with a child between 3 and 6; all these groups evidently included a few grandparents. The largest proportion of under-20s was of course in FE Colleges. In the NFER study the 'over 40' group included people in their 40s (20 per cent of the full sample), 50s (10 per cent), and 60s (five per cent), with one per cent over 70; a few students were in their 80s. The ALBSU survey reported that 62 per cent of students were between 21 and 40.

In family learning (except family literacy 1, for the reason already given) and in general provision (NFER study) the percentage of linguistic minority students was somewhat higher than in the general population; this may mean that some ESOL students were attending non-ESOL provision as a means of improving their command of English.

ESOL programmes (family literacy 2, London Institute 2) by definition consisted exclusively of non-native speakers of English; they also consisted largely of members of ethnic minorities – the white students here were from Europe or Latin America. In the NFER study, the range of other languages spoken covered the globe. They included Sign, Esperanto, and several languages from each of Europe, south Asia, Africa and the Far East.

The ALBSU survey reported that 27 per cent of students were employed, 24 per cent were unemployed and 49 per cent were unwaged – very similar proportions to those in the FEFC report. The proportions of unwaged students were particularly high in family learning, especially among linguistic minority families (family literacy 2). This reflects the still predominant pattern of child-rearing as a female occupation. Otherwise, there is no obvious explanation for the variations in occupational status.

The majority of students had no previous paper qualifications, and in the family literacy studies it was found that many of those with CSEs or GCSEs had very few, and at low grades. Many of the FE qualifications were in 'service' occupations (secretarial, construction, etc.). Those with A-Levels or degrees tended to be ethnic/linguistic minority adults who had obtained their qualifications before migrating to Britain.

The major missing piece of information was that none of the studies reviewed attempted to gather data on how many students had special needs, and the FEFC report did not report on this aspect of its database. In the NFER study, 10 students gave their first language as Sign, and fieldworkers on that project noted or were informed about Downs people and students with visual impairments, learning difficulties, epilepsy, and so on. But this information is unsystematic.

4.4 Match between need and enrolment

Discrepancies between overall need and numbers in provision will be highlighted in section 6.3. Here, a few comments are made on the match or otherwise between the needs of subgroups for whom national (FEFC) data are available and their representation in provision.

In general, women have slightly better literacy skills than men, but slightly worse numeracy skills, and the proportions of the sexes with basic skills needs might therefore be roughly equal. The pattern of fewer men being in general provision may simply reflect the fact that men are more likely to be in employment and therefore less able to attend.

The tailing off of older age groups in provision definitely does not reflect the distribution of need: as was shown in chapter 3, higher percentages of people in older age groups have poor skills.

The proportion of people from ethnic minorities in provision is distinctly higher than in the general population. This probably reflects the greater basic skills need among linguistic minorities.

4.5 Summary

Except for the limited information in the FEFC report, there were no nationally representative data on students in all forms of basic skills provision, and most information therefore had to be drawn from a number of less comprehensive sources.

However, the composite picture was plausible:

- a high proportion of adult basic skills students are white, monolingual English-speaking, unwaged or unemployed, and poorly qualified
- parts of this description do not, of course, apply to special groups
- the age distribution bunches in early middle age in family learning; in general provision every age from 16 to 80+ is represented.

Older people are under-represented in provision in relation to need.

The major gap is the lack of information on students with special educational needs.

4.6 Recommendations

Accurate information is needed on the percentages of basic skills students who have special needs, differentiated by category.

Evaluations and intervention and progress studies should continue to gather background data on participants, including their special needs, to add to and update the picture presented in this chapter (as well as for the main purpose of analysing learning gains against background data).

However, an accumulation of small-scale studies cannot be a full substitute for nationally representative figures. It is known that the FEFC has unpublished information on students with special educational needs; it should consider publishing an analysis of that information soon.

Regular, national, accurate data are needed on basic skills students in general and their characteristics, covering as high a percentage of students as possible. It is therefore appropriate that the Learning and Skills Council (LSC) to be established in April 2001 will

have responsibility for gathering and publishing data not only on the 60 per cent of basic skills students who are in the FE sector, but also on those in provision by LEAs, prisons and voluntary organisations.

The LSC's data system should cover not only the student characteristics currently logged in the FEFC database (gender, age, ethnicity, learning difficulties and/or disabilities, destination) but also languages, occupational status if other than full-time education, and prior qualifications and study.

Chapter 5: Motivation, attendance, drop-out and progression

5.1 Aim

The information in chapter 4 gave a picture of what students in basic skills provision are like. But what brings them there? What keeps them away? How long and often do they attend? Why do some drop out? Where do the rest go next, and why? These are the topics covered in this chapter.

5.2 Sources

Most of the evidence on these topics related to the FE sector, and very little to Local Education Authority (LEA) or other types of provision, except some for family literacy. In terms of the main basic skills areas, most of the evidence was about literacy and numeracy. There was one report on ESOL, nothing on oracy, and nothing specifically on ICT. For some subtopics, specific information on basic skills was lacking and general information on FE was used instead. The FEFC database (see section 4.2) is known to contain information on students' destinations, but no published analysis of this was available.

The most useful single source was Kambouri and Francis (1994). They reported a project designed to obtain better information about the attendance, drop-out and progression of students leaving literacy and numeracy provision in the FE sector. Their research objectives were to survey a large sample of people who left basic skills provision, to report patterns of attendance and leaving, to seek reasons for ceasing tuition, and to identify the variables influencing the incidence and timing of drop-out and progression. Collection of data was problematic. At the time, the academic years 1991/92 and 1992/93, 'good records of leaving were not always available' (Kambouri and Francis, 1994, p.8). For example, tutors of 43 per cent of the students who left a course in 1991/92 did not know why the student had left. The findings were nevertheless based on a sufficient sample to justify the attention given to them here.

Other sources will be mentioned at the appropriate points.

5.3 What brings people to adult basic skills provision?

Kambouri and Francis (1994, p.54) found that:

Most students came to basic skills to improve their basic knowledge, or as the students often put it ‘To better myself’ (36 per cent). Another 20 per cent came to learn or develop a specific skill or task. About 15 per cent came to increase their maths skills, and 13 per cent their literacy skills. Very few admitted that they came to build self-confidence, although this seemed to be implied in their more detailed answers.

Abell (1992, pp.23-4) provided detailed reasons why adults sought help to develop their skills in literacy. Responses to open-ended questions of the sort to ensure that students were not being directed to offer pre-selected views fitted into clearly defined categories (Table 5.1).

Table 5.1: Adult literacy students’ reasons for seeking help

Reason	%
lacked confidence because of their literacy skills	39
wanted to improve their employment situation or found their employment situation difficult because of lack of literacy skills	38
felt a need to gain a qualification or to participate in further training	35
needed to develop literacy skills in order to find employment	34
needed to increase their independence	9
felt embarrassed or ashamed about their literacy	7
felt they hadn’t achieved their full potential at school	6

Notes: N=174. Each student’s response could provide more than one code.

To summarise Abell’s findings, nearly all of the responses related to the felt need in students to stimulate development, whether personal, social or occupational.

Brooks *et al.* (1996, pp.29-30) found that the predominant reason for parents joining family literacy programmes was to help their children – but this is a special motive which is much less likely to apply in general basic skills provision.

Kambouri *et al.* (1996) focused entirely on ESOL courses and asked students their reasons for joining a class. Their results need to be interpreted in the light of the fact that 70 per cent of their respondents were women not employed outside the home, and that respondents were offered only the choices mentioned:

- 48 per cent indicated that they needed English classes to help them with 'everyday life'
 - 16 per cent to 'study further'
 - 7 per cent for 'work'
 - 7 per cent for all the above reasons
 - the remainder (22 per cent) reported combinations of two of the three possible reasons
- (Kambouri *et al.*, 1996, p.14).

The LDD Working Group (2000, p.5) quoted very disparate motivations of people with learning difficulties and disabilities: to help their own children at school, read the Bible, read what was available in shops, read instruction at work, recognise the tool bar on the computer, recognise the coins needed for the launderette.

From most of these reports it seems that the quest for a positive self-image was a major factor influencing students seeking basic skills. Moss and Bergin (1993) reported the work of Brüninghoff who argued that, as a consequence, training in counselling should become an essential part of the staff development of basic skills tutors.

Abell (1992) attempted to study different styles of adult literacy provision, namely group, individual, open learning, workshop and drop-in, but conceded (for example on p.5) that different styles of provision could not be reliably distinguished on the ground. However, she found that, for the students she studied, the *perceived* style of the provision did not significantly affect students' decisions to join and that they 'chose to attend provision which was most convenient to them rather than choosing a particular style.' It seems, then, that basic skills students may (have to?) exert less discrimination than other students in selecting their course provision.

The ALBSU (1992) study reported that, in 1991/92, 33 per cent of literacy and numeracy students referred themselves, 13 per cent were referred by a relative or friend, and three per cent were referred by an employer. (The proportions had been almost one in two self-referrals and almost three quarters self-referred or referred by a relative or friend in 1976.)

The ESOL students studied by Kambouri *et al.* (1996) were generally either self-referred (32 per cent) or referred by a friend or a relative (34 per cent). Only 17 per cent were referred from other provision and 12 per cent by an employer or social worker. In general, Kambouri *et al.* (1996, p.5) found that the ‘most critical variable of provision was whether it was organised as an intensive course (more than 17 hours per week) or as a non-intensive course (less than 3 hours per week)... [In intensive courses,] 31 per cent of students were referred from other provision compared with only 18 per cent of students in non-intensive courses.’ (Comparisons between intensive and non-intensive provision will recur at various points in this review.)

The reports cited so far in this section suggest that most students came to basic skills provision of their own volition, and that only a minority were referred by others. However, these reports were compiled before or just after the Further and Higher Education Act 1992 came into force, and Kambouri and Francis (1994) predicted that changes to adult basic skills provision would come about as a result of the Act. Nankivell (1996, p.50) began to document such changes, reporting the development of college-wide written policies on basic skills support which ‘were largely confined to the areas of need for all students, [through screening] and entitlement of all students to basic skills support.’ Nankivell reported also the advent of ‘basic skills support managers’ who were developing other policies and strategies to negotiate support linked to students’ primary learning goals. Thus colleges moved their emphasis towards identifying, by on-site screening, those learners who require basic skills support.

No more recent analysis of entry specifically to adult basic skills was found. For FE as a whole, McGivney (1999) pointed to additional factors that needed to be considered as the post-1992 changes took root. For example, as FE, including basic skills, extended its modes of provision, it became increasingly necessary that there were opportunities for both formal and informal modes of provision on the same site. McGivney also listed the characteristics of provision that ‘make learning accessible to people with few qualifications who traditionally have not participated in post-school education or training.’ The characteristics were: targeting at specific groups, informal community venues, low or no cost, provided after consultation with prospective learners, tailored to group or individual needs, flexible in terms of delivery and content, and offered with a range of support services.

5.4 What keeps people away from basic skills?

Nearly all the relevant documents referred in some form or other to factors that might prevent an adult returning to education, and most of these are likely to be magnified for prospective returners who have previously experienced difficulty in learning. As Firth and Goffey (1996, p.50) reported, 'Responders with a wide learning experience would for example: know where to go to find information; be able to ask the right question/know the jargon; have experience of the intrinsic rewards associated with learning, and so on.'

Despite the increasing emphasis on recruitment through on-site screening noted at the end of the previous section, there remain whole series of basic skills courses that require external advertisement to attract students. The diversity of relevant courses on offer, the greater diversity among the learning groups that need to be attracted, and the documented lack of confidence of the potential members of those groups are major factors that have to be considered when 'marketing' courses. When this marketing is successful, it attracts students and should rightly have been considered in the previous subsection; because it identifies difficulties it is reported here.

How, for example, would prospective basic skills students who might benefit from a course entitled 'Spectrum' easily discover from an FE prospectus largely advertising A-Level and GNVQ courses that this course is the one that is at an appropriate level for them (example taken from a 1999/2000 college prospectus)? Many of the reports noted other marketing issues related to the provision being researched. Among the barriers encountered by women returners, McGivney (1999) reported 'insufficient information and guidance on training opportunities'. Brooks *et al.* (1996, 1999) documented the care that was needed to attract appropriate groups of parents and children to family literacy programmes.

There are also barriers and hurdles to be overcome for on-site screening:

A number of barriers deter students from using basic skills support services. These include not only practical barriers such as timetabling difficulties, but also sensitivity to stigma attached to having poor basic skills and students' lack of recognition of the level of basic skills required for successful completion... Sometimes students are not told the results of assessment or don't understand what

the results mean. Sometimes a student's timetable makes it hard to take up support. However, the *most important barrier is often attitude. Young adults in particular, are sensitive to the stigma attached to poor basic skills and this acts as a real deterrent.* Just as importantly they may also doubt whether improving these skills is essential to getting through their course. (BSA, 1997c, pp.3, 18, emphasis added)

5.5 How long and often do basic skills learners attend?

In the ALBSU (1992) survey, tutors reported that 67 per cent of students had been receiving help for a year or less, seven per cent for three years or more, and (by subtraction) 26 per cent for one to three years. About a quarter of the FE basic skills students studied by Kambouri and Francis (1994) were continuing a class from the previous year. Kambouri *et al.* (1996) found that most of the ESOL courses they surveyed ran for an academic year, with about half the students continuing into a second year. Brooks *et al.* (forthcoming, 2000), in a sample of adult literacy students in dedicated provision, found that 64 per cent of those attending in 1998/99 were returners, and 40 per cent had been attending before 1997/98. Informally, it is known that some students attend for many years.

In Kambouri and Francis' (1994) study, the average rate of attendance was between 40 and 60 per cent, with attendance for persisters being only slightly better than for leavers while they were attending. Drawing on various sources of evidence, the Moser Report (1999, p.31) stated that 'Nearly all learners are in part-time programmes, and 70 per cent attend for between 2 to 4 hours per week (an average of 90 hours per year).' While it is clear that the usual pattern of attendance is non-intensive - a few hours a week over a year or more, sometimes many years - there were various pieces of evidence on intensive courses. Kambouri *et al.* noted a systematic distinction between intensive and non-intensive ESOL courses. The 1998-99 NFER study found that about a quarter of students were attending more than one form of basic skills provision, and within that study there was also a subset of students who attended somewhat experimental intensive courses of 60 hours' tuition run by nine providers during March 1999.

In this respect as in others, family literacy and family numeracy provision was a special case: courses lasted only one term, and each parent had only one opportunity to attend. There were eight hours of classes per week - so that these were inherently intensive courses - and attendance rates were typically very high (see Brooks *et al.*, 1996, 1999; BSA, 1998).

The only exception was the failed pilot family literacy programmes for families with a child in Year 7, where the parents' attendance rate was just under 50 per cent.

5.6 Why do some basic skills learners drop out?

5.6.1 Patterns of leaving

The ALBSU (1992) survey found that 27 per cent of students left after less than a month. More than half the FE basic skills students studied by Kambouri and Francis (1994) enrolled during the first two weeks of the autumn term. Half of the joiners left the class during the year. Most leavers stayed only two or three weeks in a class. Kambouri and Francis (1994, p.73) suggested that this 'indicates a need for improvement in monitoring and attention to student needs over this period of time.' About a third of the students who left in the autumn term either found the class unsuitable or were put on a waiting list. Most of these leavers had attended for only one week.

Kambouri *et al.* (1996) noted that about 25 per cent of ESOL students in any one year dropped out. However, drop-out from intensive courses was half that from non-intensive courses. On the intensive courses evaluated within the 1998-99 NFER study, of the 210 students pre-tested, 196 returned for the post-test, but this was less than a month later. (A drop-out rate for the non-intensive students in that study could not be calculated.)

The most comprehensive figures about drop-out and completion rates of basic skills students in FE in England came from the FEFC (1998) report. This estimated that 81 per cent of the 205,200 students stayed to the end of the course, and that 60 per cent of those who stayed to the end of the course (or about 50 per cent of those who enrolled on *courses*) achieved the qualifications or learning goals they were aiming for. Slightly different figures came from another FEFC report (FEFC, 1999): this suggested that about 75 per cent of students in FE Colleges who were enrolled for basic skills *awards* in 1996-97 stayed to the end of the year, and that about 50 per cent achieved the award for which they had enrolled.

There are several possible reasons for the discrepancy between the FEFC's figures of 81 or 75 per cent course completion and Kambouri and Francis' 50 per cent. Their sample was small and may have been skewed; retention may have improved dramatically between

1993/94 and 1995/96; or the very early leavers noted by Kambouri and Francis may never have been recorded in the FEFC database. Further investigation would be needed to resolve this.

Retention rates in family literacy and family numeracy were high, typically over 90 per cent and almost always over 80 per cent (Brooks *et al.*, 1996, 1999; BSA, 1998). The only exception was again the failed pilot family literacy programmes for families with a child in Year 7, where scarcely any parents returned for the post-test.

5.6.2 Reasons for ceasing tuition

The ALBSU (1992) survey reported students' reasons for leaving, with the caveat that the evidence was second-hand – gathered from tutors. The reasons stated by tutors for students leaving are summarised in Table 5.2.

Table 5.2: Reasons reported by tutors for students leaving provision

Reason	Reported percentage of students
Personal/domestic reasons	18%
Achieved their goals	16%
Went on to other course/training	13%
Found or changed employment	13%
Moved away	7%
Dissatisfied with provision/progress	2%
No information	31%

Kambouri and Francis (1994, p.53) listed the reasons for leaving cited by FE basic skills students who responded to a questionnaire survey. The report listed the citations ungrouped and in rank order. Here, the citations have been re-organised and presented in three groups, two negative and one positive (Table 5.2). Negative reasons were much more numerous than positive ones.

Table 5.2: FE basic skills students' reasons for dropping out

NEGATIVE REASONS

Factors probably beyond college control	Factors possibly within college control
citations	citations
I had not been well	I did not feel I was learning
31	*29

I could not attend at that time	30	I was expecting more class teaching	23
I had family problems	22	I did not get enough help in that class	*21
I moved from the area	21	The work was too easy	17
Doing homework was a problem	19	I did not like working in a group	9
I could not afford the course fee	11	I did not like working on my own	9
I could not afford the bus fare	10	The work was too hard	9
Travelling to the centre was difficult	10	We did not have enough materials	8
I had child-minding problems	8	I was on the wrong course	7
		Course did not run smoothly	*6
		The classroom was too cold	4
Total	162	Total	133

of which, 56 (marked *) judged as entirely within the power of the tutor to rectify

POSITIVE REASONS

	citations
I started work	29
I achieved all I wanted from the class	16
I went into a more advanced class	11
I went into another basic education class	11
I went into Further Education	10
I went into training	5
Total	82

In the Kambouri *et al.* (1996, p.39) study also some ESOL students gave their reasons for leaving a class (Table 5.3). Here, positive reasons far outweighed negative ones. The negative reasons cited were such things as ‘I have child-minding problems’, ‘I cannot afford the bus fare’, ‘I have family problems’. It was probably significant that proportionally more

students from intensive ESOL courses (38 per cent) reported reaching their goals than did those from non-intensive courses (14 per cent).

Table 5.3: ESOL students’ reasons for dropping out

POSITIVE REASONS	Number of citations	
	Intensive	Non-intensive
I shall go to another college	16	38
I intend to travel/leave the country	2	28
I shall be looking for a job	8	26

I have achieved what I wanted from this class	10	16
I will move from the area	1	10
Total	37	118

NEGATIVE REASONS **Total** **22**

In both these studies tutors and leavers differed significantly in the reasons given for leaving. In particular, many more students said they were dissatisfied with the course or with their progress than were thought by their tutors to be dissatisfied.

5.6.3 Variables influencing drop-out

Kambouri and Francis (1994) studied both the relationships between ‘objective’ factors about tutors and tutoring on the one hand and drop-out on the other, and tutors’ opinions on this. Within ‘objective’ factors the strongest factor related to drop-out was the tutor variable, and within that the largest single factor was tutor qualification: absence of degree qualifications in tutors correlated with student drop-out. However, the mode of basic skills provision did not appear to be a significant factor in drop-out.

Tutors’ views were different from the ‘objective’ factors but consistent in themselves. The most important factor preventing drop-out was the need for the student to identify and be satisfied with the progress being made. Without this, confidence would not build, and without confidence drop-out would occur. Second in order of importance was the peer and group support that was offered. In addition, but at a lesser level, was the need for a purpose or goal - perhaps some form of accreditation - and the determination and self-motivation of each student.

As will be shown in section 6.9, the BSA helped to develop basic skills support for students in FE Colleges during 1993-97. The BSA (1997c) then studied the relationship between receiving or not receiving basic skills support on the one hand and drop-out and course completion/achievement on the other. The study was carried out in 18 FE Colleges in 1995-96; of the 2,013 students receiving basic skills support, only 10 per cent dropped out (left the College) during the year, whereas, of 2,457 students not receiving support, 30 per cent dropped out. Conversely, 75 per cent of those receiving support completed their course and/or achieved a qualification, whereas only 54 per cent of those not receiving

support did so. The introduction of basic skills support had therefore achieved considerable success.

5.7 Where do basic skills learners go next?

For basic skills students especially, it is essential to distinguish completion and progression. Completion can be defined as ‘finishing a course with or without a final certificate or other accreditation as well as reaching individual goals.’ This is a broad definition of achievement and does not necessarily imply progression. Many basic skills learners may leave provision having achieved their personal goals (as some of the reasons cited in the previous section show) and without a certificate - for them, accreditation may simply be irrelevant. Progression, on the other hand, is normally defined as leaving a course (either during or on finishing it) in order to move on to further provision or training, or upon finding or changing employment.

No *representative* data on students in general basic skills were found, and none at all on ESOL provision.

One example was obtained of *local* information on progression from a mainstream adult literacy provider. From 1996 Thurrock Adult Community College worked in partnership with Thurrock Council Direct Works Services to provide learning programmes (mainly basic skills) for over 80 (by early 2000) frontline workers such as cleaners, refuse collectors and maintenance staff. Retention was reported as good, and ‘many students have stayed with the College and are on courses of their own choice’ (Townley, 2000). Then in early 1999 the College was approached by the BSA to be one of the nine providers of its pilot intensive courses (see above, section 5.5) which were evaluated by the NFER within its 1998-99 study (Brooks *et al.*, forthcoming, 2000). The aim was to deliver 60 hours of tuition during March 1999 for 30 learners; 30 people were recruited, and the curriculum included literacy, numeracy, oracy and problem-solving, with an emphasis on ICT methods. Townley reported that 12 of the students stayed on at the College afterwards to complete their Wordpower certificates, and that in May 2000 over half of the students were still learning at the College. This was a small-scale example, and the data-gatherers had the advantage that the students were all employees of one organisation. However, it showed

that, with care and in certain circumstances, providers can track learners' progression. Indeed, the fact that data on this exist in the FEFC database shows that providers make returns on this to the FEFC.

In the two London Institute studies, progression information was obtained only from students who dropped out. The figures are therefore unrepresentative. However, in the data from Kambouri and Francis (1994) in Table 5.2, all but 16 of the positive reasons cited mentioned progression, as did at least 54 of those from Kambouri *et al.* (1996) listed in Table 5.3.

In the evaluation of the Family Literacy Demonstration Programmes (Brooks *et al.*, 1996, 1997), at the end of the courses, over 80 per cent of parents planned to go on studying, and 12 weeks after the courses 70 per cent were actually doing a further course. Two years later, 24 per cent more than before of the 154 parents re-contacted were in work, 60 per cent had taken at least one further course of study, and 51 per cent had achieved a further qualification. In research on smaller family literacy schemes (Poulson *et al.*, 1997) progression to employment, vocational training or further education was reported for more than half of parents in 10 of the 18 programmes evaluated.

5.8 Why do they go there?

Since so little information on destinations was found, it is not surprising that evidence on learners' reasons for their decisions about progression was virtually non-existent. The Thurrock students just mentioned, and the parents re-contacted in the family literacy follow-up (Brooks *et al.*, 1997), gave the impression of having been bitten by a studying bug after finding that they were not incapable of learning, but those are researchers' impressions, not quantitative findings.

5.9 Summary

The major motive for entering basic skills provision appears to be a desire for self-development (including work-related motives) and a better self-image, and the major barrier appears to be sensitivity to the stigma attached to poor basic skills.

In general basic skills provision, many students attend for more than year, a few hours a week, and attendance rates average 50 per cent. Intensive courses and high attendance rates are rare, except in special initiatives such as family learning and the BSA's pilot intensive courses.

Data on course completion rates are contradictory, except in family learning, where they are high.

Most reasons for drop-out from general provision are negative, especially dissatisfaction with the course.

Published data on students' progression from general provision to employment or further training are scanty. Progression rates from family literacy to employment or further courses are high.

5.10 Recommendations

The FEFC should consider making available soon an analysis of its unpublished information on students' destinations.

In the transition from the FEFC to the LSC, information-gathering should continue to include destinations.

Chapter 6: Provision and programmes

6.1 Aim

Chapters 4 and 5 provided an outline of what basic skills students are like, why they come into provision, why some stay away, and why some drop out. Less information was available on where the rest progress to or why. Once students turn up, what is provision like? This chapter aims to sketch the scale of and changes in provision and, where possible, give some detail on programmes. The section on programmes is descriptive, not evaluative. Evidence and judgements on what makes for effectiveness are summarised in chapter 12.

6.2 Sources

As notes in the various sections will show, information for this chapter was patchy. There was a satisfactory amount for the scale of provision, types of provider, the FE and LEA sectors and family learning, but for other sections it varied from skimpy to non-existent.

This review was the first part of a two-part project. The second part was a mapping of adult basic skills provision in England which was intended to provide more detailed and/or up-to-date information on basic skills provision to supplement that summarised in this chapter.

PROVISION

6.3 The scale of provision

Basic skills students in England in 1996/97 were distributed by type of provision as in Table 6.1 (BSA, 1999a).

Table 6.1: Numbers of students in main types of provision in England, 1996/97

Type of basic skills provision	N	%
Literacy only	113,470	33
Numeracy only	44,227	13
Literacy and numeracy	97,215	28
ESOL	90,525	26
Total	345,437	100

It was estimated in chapter 3 that about 20 per cent of the adult population (9 million people in the UK; 7.6 million in England) have basic literacy needs. As Table 6.1 shows, the number of people in adult literacy provision (literacy only/literacy and numeracy/ESOL) in England in 1996/97 was just over 300,000. **This represented 4.0 per cent of those estimated to be in need.**

It was also estimated in chapter 3 that, again, about 20 per cent of the adult population (9 million people in the UK; 7.6 million in England; largely, but not entirely, the same people who have basic literacy needs) have basic numeracy needs. As Table 6.1 shows, the number of people in adult numeracy provision (numeracy only/literacy and numeracy) in England in 1996/97 was just under 160,000. **This represented 2.1 per cent of those estimated to be in need.**

The BSA (1997c) undertook a study in 1995-96 of 18 FE Colleges which used its instrument *Assessing Reading, Writing and Maths* (BSA, no date) to assess students on entry against the BSA Communication and Numeracy Standards. A total of 15,579 students were assessed; 30 per cent scored at or below level 1 and were therefore classified as needing basic skills support. However, the research also found (p.18) that ‘Just under half (45%) of students assessed as needing support with basic skills received support ... The majority of students assessed as needing help with basic skills didn’t get any additional support.’

6.4 Changes in provision

In 1990, Local Education Authorities were the major providers, because they owned the FE Colleges. Under the 1992 Act, the Colleges became independent and LEAs were no longer statutorily required to support basic skills provision, though they could choose to do so. As a result, by 1996/97 LEAs supplied only one fifth of provision in England, and the now independent FE sector was by far the major provider (Table 6.2). The FEFC now has the statutory obligation for the provision and discharges it, in the main, by funding colleges within its sector, directly or through TECs, to provide courses.

From April 2001 the situation will change again, when the LSC takes over. Its remit will include not only the broader data-gathering responsibilities mentioned at the end of chapter 4, but also 100 per cent funding responsibility for basic skills provision by employers.

Table 6.2: Percentages of students by type of provider, England, 1996/97

Type of provider	Proportion of students (%)	
	1996/97	[1995/96]
FE College	58.6	[59.8]
LEA	20.4	[23.2]
Prison	11.8	[12.6]
Training organisation	6.0	[1.8]
Voluntary organisation	1.3	[0.7]
Employer	0.3	[0.2]
Other	1.6	[1.8]

Source: BSA (1999a)

6.5 Provision in prisons

The 1992 Act brought changes in other sectors, too. The story of prison education in the early 1990s, as set out in Flynn and Price (1995, pp.41-2), was as follows:

- Following the 1992 Act, an advisory report suggested that prison education should be contracted out from LEA control, and given to competitive tender
- In 1993 new contracts were awarded for prison education, amidst criticism about the speed with which the tendering had been settled
- In 1994, the Prison Service awarded a consultancy contract to the National Prison Consortium charged to ensure comparability of provision across prisons, and to focus attention on ‘outputs ... and the achievement which prisoners secure through the education process’.

Flynn and Price, writing for the Prison Reform Trust, had reservations about the way that basic skills would progress in prisons. The authors of a 1998 briefing published by HM Prison Service Regime Services for the All Party Parliamentary Group on Adult Education (Robson *et al.*, 1998), thus writing from within the system, presented a more positive

picture. A new contract for education in prisons was due to come into effect in January 1999 and would 'offer governors even greater flexibility to order the education provision their inmates need and their resources allow.' A number of initiatives were being undertaken, including:

- 'incorporating key skills [including communication and number] into the curriculum
- 'work with the BSA to ... deliver basic skills training to prisoners in the workplace, where it has more effect ... and to develop family literacy projects and prisoner literacy mentoring
- 'work with specialist educational consultants on how best to screen prisoners for dyslexia and then how best to support prisoners with this learning need.'

Information provided by the Prison Service showed that this programme had been implemented. New contracts for prison education came into force on 1 January 1999, involving 28 contractors delivering education in 135 prisons in the UK, of which 25 were Colleges of FE, two were LEAs, and one was a private company. All teaching staff were required to have both a general teaching qualification and a nationally recognised qualification in teaching basic skills to adults. Particular attention was being given to the identification and support of prisoners with dyslexia, family literacy projects were being developed at young offender institutions, some prisoners were being trained to support (mentor) others in basic skills, Ufi-learndirect sites were being piloted in six prisons to evaluate the use of ICT to improve basic skills, there was collaboration with the BSA in producing sports-related materials, and materials incorporating basic skills, key skills and ESOL were being produced for women prisoners. To monitor the impact of this programme, a key performance target had been set:

To reduce by 15% the proportion of prisoners discharged from their sentence who are at level 1 or below for basic skills by March 2002.

At the time of writing it was too soon for information to be available on progress towards this target.

6.6 Provision by voluntary, training and 'other' organisations

In the case of the voluntary sector, it seems that the 1992 Act caused disruption (Hamilton and Merrifield, 2000, p.280). The switching of most funding to the FE sector left voluntary organisations with no reliable source of funding for their basic skills work, and they have not yet recovered their pre-1992 position.

No information was found on provision by training organisations or by those logged in the BSA report as 'other'. Hamilton and Merrifield (2000, pp.266-7) sketched the involvement of a few trade unions in basic skills provision, particularly in workplaces, but this appeared to have been a very small part of overall provision.

6.7 Provision by employers and in the workplace

Estimates of the extent of provision by employers varied. A 1993 survey quoted by the DfEE (GB. DfEE, 1997, p.17) suggested that, of the 88 per cent of employers providing some sort of training, only 14 per cent had policies to address basic skills needs. In contrast, a study by ALBSU (1993, p.22) found that 39 per cent of employers said they offered training in basic skills. But this study focused on larger companies which employed over 50 people and which might reasonably be expected to have greater training provision because of their size. Two of the BSA's statistics for 1996/97 seemed at first sight contradictory:

- Provision by employers accounted for only 0.3 per cent of students, while
- Workplace training (see Table 6.3) accounted for five per cent of programmes.

However, the explanation is evidently that much workplace training was supplied by providers other than employers.

Workplace Essential Skills provision has existed since the beginning of the 1990s. Initiatives have included the 'Basic Skills at Work' programme which ran from 1991 to 1994 and sought to establish workplace basic skills programmes in England and Wales with TECs and LEAs working in partnership (Frank and Hamilton, 1993, p.24). But continuity

seems to have been lacking. The Moser Report (1999, p.32) stated: 'The Basic Skills at Work project increased basic skills training in the workplace and made TECs more aware of basic skills needs. Unfortunately, in spite of positive results, funding was not available to continue the programme, and to replicate the successful models elsewhere.' Where continuation of central funding cannot be guaranteed, neither can the continuation of the provision - even of programmes acknowledged to be successful.

One reason for discontinuity in basic skills provision in the workplace could be the climate of opinion that existed in the early 1990s. A major survey commissioned by the Employment Department and published by the DfEE reported findings on individuals', employers' and providers' commitment to learning (Tremlett and Park, 1995; Tremlett *et al.*, 1995a and b), but made little reference to basic skills in the context of employment.

There were attempts in 1998-99 to give workplace provision a much higher profile. It was included in the government's consultation document 'The Learning Age', the University for Industry was established (Marquand, 1999), and the Moser Report gave this topic considerable attention. However, Marquand (1999) also suggested that workplace training initiatives have met with limited degrees of success, in terms of employers accepting that they should include basic skills in their training programmes. And the Moser Report was at its most pessimistic in considering the provision of work-based programmes which support basic skills (including ESOL), not because of the quality, but because of the paucity, of programmes currently provided. The Group found that there was little provision at the workplace: 'We start from a position where workplace provision is regrettably limited. Many employers do not see it as their responsibility to take on the improvement of basic skills' (Moser Report, 1999, p.48).

And the barriers may be increasing. A radio news feature during the drafting of this report (BBC Radio 5 Live, 4 February 2000) cited an opinion that, with the introduction of the statutory minimum wage, employers are becoming increasingly reluctant to appoint employees who might cause them to incur additional costs for supervision or training.

PROGRAMMES

6.8 Distribution of programmes by type of provider

The BSA report (BSA, 1999a) also provided a table (reproduced here as Table 6.3) summarising the number of programmes by type of provider (other than prisons) in England during 1996/97. Dedicated programmes and basic skills support accounted for about 30 per cent of programmes each, and all other programme types for the remaining two-fifths.

Table 6.3: Numbers of programmes by programme type and type of provider, England, 1996/97

Programme Type	Type of provider						TOTAL		
	FE Coll	Tr'ng Org	LEA	Vol'tary Org	Emp-loyer	Other	N	%	
	Numbers of programmes								
'Dedicated' Progs	526	49	129	21	3	38	766	31%	
Basic Skills Support	500	87	58	17	4	25	691	28%	
Family Literacy	108	1	71	2	1	8	191	8%	
Youth Training	79	175	12	9	1	11	287	12%	
Training for work	63	160	27	14	3	8	276	11%	
Workplace Training	58	33	18	6	4	6	125	5%	
Other	86	11	32	6	1	7	143	6%	
Total	1420	516	347	75	17	103	2479	100%	

Source: BSA (1999a, Table 9, p.8)

No information was found specifically on youth training (in any case, where this involves 16- to 18-year-olds, it would strictly speaking fall outside the scope of this review), training for work or programmes in prisons. No source was found which described dedicated provision as programmes – but see much of section 8.5 on teaching within dedicated adult literacy provision. The next four sections deal in turn with basic skills support, family literacy and numeracy, basic skills in the workplace, and community-based programmes. Community-based programmes are not listed as a separate category in the BSA's data, probably because (apart from family literacy and numeracy, which could very properly be considered to be community-based) they form only a tiny sector. However, they are treated separately here because of their potential importance and the attention given to them in the

Moser Report. The four sections are uneven and disparate: information on what programmes are actually like is not routinely collected and, when collected, differs from situation to situation.

6.9 Basic skills support

Basic skills support for students in FE Colleges whose main aim was completion of some other course was systematically developed in 1993-97 by the BSA in conjunction with a number of the newly incorporated Colleges. BSA (1997c, p.21) summarised the developments: 'Colleges have introduced assessment, established workshops employing specialist staff to provide support and deployed specialist staff to liaise and work with course tutors.'

Nankivell (1996) offered the most comprehensive information on basic skills support in FE colleges, derived from research between May 1994 and October 1995. The information was gleaned from 206 colleges providing basic skills support, and from a more detailed case study of eight colleges selected to represent both the variety in FE and an appropriate geographic spread through England and Wales. The research nevertheless presented two problems for the current review: it focused on a period only two years after the 1992 Act (i.e. before the new structure could reasonably be expected to have taken full effect), and it acknowledged that the statistical information it required from the colleges was not always available. It may therefore present a picture that is no longer entirely accurate. However, the general conclusions of the report seem relevant. They are quoted below re-ordered and with additional sub-headings, but otherwise almost in full (Nankivell, 1996, pp.49ff.):

on the type of provision

Basic skills support was provided through timetabled workshop classes, drop-in facilities and on-course support.

Most students received support both on-course (usually provided by course tutors) and off-course (usually provided by basic skills support specialists).

Support was delivered by basic skills support specialists or vocational/academic tutors or by both working together.

Teaching of basic skills support was provided one-to-one (mainly by basic skills specialists) and to small groups (mainly by vocational/academic staff).

on inequality in provision

Basic skills support was not equally available at all college sites, nor to all groups of students.

Full-time students were more likely than part-time students to have available and accessible basic skills support .

Basic skills support specialists were not equally available across all college sites.

Staff used the teaching method they believed most appropriate to their students or which their students preferred.

on resourcing the provision

Support specialists were working with vocational/academic tutors to develop subject-specific teaching materials for basic skills support.

Such materials were available in almost two-thirds of cases.

The research found evidence that expected expansion was being planned for, in the form of extra space and staff.

College management recognised the need for expanded basic skills support provision, anticipating an increase in the numbers of students requiring support.

Managers were also trying to cater for an expanded basic skills support service by securing FEFC funding for supported students.

In the case studies, new posts of basic skills co-ordinator or similar were often established immediately prior to, or during, the research.

on developing the provision

Basic skills support was a relatively new service in much of the FE sector when this research project began.

In many colleges it was developing rapidly and the research findings demonstrated this development and the associated change and difficulties for FE.

Colleges which had a service providing primary basic skills programmes often used this as the basis of their basic skills support service.

But basic skills support was becoming a discrete service, separate from primary provision.

on evaluating the provision

Attendance and progress monitoring appeared to be a weak element of basic skills support services in the case studies.

Attendance registers were kept but little evidence was found of action taken by staff on non-attendance.

Individual Learning Plans were used to monitor progress but scant evidence was found to suggest joint student/tutor completion of progress reports.

The majority of colleges did not have data on the withdrawal, completion and achievement rates of students identified as needing basic skills support.

Many colleges reported that they were developing management information systems. These needed to incorporate data on basic skills support need, take-up and progress.

on the outcomes of the provision

The higher the exposure to basic skills support the more likely students were both to stay at college and to achieve qualifications or progress to the second year of their courses.

GNVQ students, especially at Foundation level, were more likely to leave college than students from other courses.

Students were largely satisfied with the support they received, both on-course and off-course.

Stent (1998) documented the work of only one college. Nevertheless her study revealed that, at her college, the pattern of provision for basic skills had changed and developed (Stent, 1998, p.4): ‘Students can now come to the Key Skills Centre at any time throughout the year ...’ and ‘Learning plans are negotiated with a tutor and drawn up for approximately 10 hour periods’, and ‘Centre materials are being constantly designed and upgraded to support this type of tutor-assisted self-access.’

6.10 Family literacy and numeracy

Family literacy and numeracy programmes aim to boost not only children’s learning and their parents’ ability to help their children but also the parents’ own literacy and numeracy. It is therefore appropriate to include such programmes here.

The principal initiator of family learning programmes has been the BSA. Its Family Literacy Demonstration Programmes began in 1994. At the same time it provided support

for a large number of small-scale local family literacy initiatives. Its family numeracy pilot programmes began in 1997, as did pilot family literacy programmes for 'new groups', those under-represented in or not covered by the Demonstration Programmes. All these initiatives have been fully documented and evaluated in research reports (BSA, 1998; Brooks *et al.*, 1996, 1997, 1999; Poulson *et al.*, 1997), and this section is a brief summary of that evidence.

The BSA's programmes always involved local partnerships. For example,

The lead partner in the Family Numeracy pilot programmes was the LEA except in two of the pilots where the lead was taken jointly by the college and the LEA and in one case by the City Council Policy Unit. The other partners included Adult Basic Skills Services within the LEA, Social Services, TECs, EBPs, Library Services, voluntary and community groups, supermarkets and other local companies. (BSA, 1998, p.106)

Typically, parents attended a course near their home, sometimes at a special but familiar centre, often at their children's school, and their fellow students all came from the same neighbourhood, quite small in extent. The most common model for the programmes was an intensive three-strand course offered over a school term. In one strand (roughly six hours per week) the children were given additional support in language or number work; in the second (again roughly six hours per week) their parents were both helped with their own basic skills and introduced to activities they could use to help their children progress; in the third strand (about two hours per week) adults and children together put some of the activities into practice.

The preceding description applies to the family literacy and numeracy programmes for families with a children aged 3 to 6, to family literacy programmes for families with a child in Year 4, and to both general programmes and those for linguistic minority families. The small-scale programmes studied by Poulson *et al.* (1997) were more varied, but tended to be much less intensive.

Information on course content and effective sessions on the Family Literacy Demonstration Programmes was given in Brooks *et al.* (1996, especially chapter 3).

Information on the wider implementation of the BSA's family literacy and numeracy models was supplied by the BSA: by 2000 both family literacy and family numeracy were being funded by the Agency in all 22 LEAs in Wales, in financial year 2000/01 Standards Fund funding was available to all LEAs in England for both programmes, and the percentages for retention and progression to other courses remained close to those found for the Demonstration Programmes.

Little information was found on family learning initiatives or programmes funded by other agencies or established on different lines.

6.11 Basic skills in the workplace

Very little information describing such programmes was found. In the wake of the BSA's Family Literacy Demonstration Programmes an innovative family literacy scheme was set up for parents working at Ford of Dagenham – this brought in a much higher proportion of fathers than usual. It is not known how the 1999-2000 turmoil in the European car industry affected this scheme. The programme in Thurrock summarised in section 5.6 seemed an exemplary piece of workplace provision.

Several measures to boost workplace programmes were announced in early 2000 (GB. DfEE, 1999), including support for the Union Learning Fund and the Workplace Basic Skills Training Network, the establishment by the BSA of a workplace pilot project, and the development of workplace-based learning materials.

6.12 Community-based programmes

It was known that many projects of this sort existed, including some set up as part of the Millennium Skills Challenge. Also, BSA was channelling money to many programmes through administering the Adult and Community Learning Fund (Mearing, 2000), which was in turn being evaluated by the University of Warwick. Within ACLF projects, there was a great deal of joint working, especially partnerships where the community which was being served was the lead partner; also many linked materials, for example money management through numeracy (Mearing, personal communication). However, not many community-based schemes had been written up formally, and so the information located on such programmes consisted of documentation of two initiatives representing good practice.

Bilston Community College, as part of its mission, tasked itself to reach as many as possible of the estimated 10,000 people in its area who were estimated to be likely to benefit from basic skills support. In doing so it rejected some of the more conventionally held views of the benefits of basic skills and saw its role as assisting the community to confront the issues it faced: 'high unemployment with little potential to regenerate local economies' (Frankel *et al.*, 1998, p.191).

But the focus was not entirely upon increasing employment opportunity through improving basic skills: the college recognised that there were within the community groups of people (for example, senior members of linguistic minority groups) for whom employment was not a requirement. And the focus was not entirely upon literacy and numeracy: the programme worked on an assumption 'that basic skills are best acquired through a broader curriculum built on student interest' (Frankel *et al.*, 1998, p.171).

The realisation of these wider goals involved both considerable partnership and co-operation within the community and explicit attention to the individual needs and individual progress of each student participant. As well, charging itself with the task eventually to reach all who are likely to benefit meant that the college had to invest in considerable outreach work.

Millman (in Frankel *et al.*, 1998, pp.171ff.) charted the college's progress and the growth in the scope and extent of its basic skills provision. The college through its Basic Skills Unit:

- set up a basic skills drop-in centre
- added an open learning centre in the middle of Wolverhampton
- took up BSA national research, including workplace basic skills and family literacy initiatives, and applied it
- offered training opportunities with a variety of employers including Cadbury, Bournville
- greatly expanded Family Learning, which started through the BSA initiative, Family Literacy, without losing the essential quality and effectiveness of the original ideas
- set up another partnership in which 200 parents are actively involved in helping their children in school and at home
- established ALL AGE (Access to Lifelong Learning - Action Group for Education)

- collaborated with Age Concern to enable older people to gain or regain confidence with basic skills and everyday skills including using the latest technology.

Millman indicated, also, something of the negotiation and commitment that is necessary if collaborative provision is to be achieved. The format of delivery for each new partnership had to be negotiated. For example, at Cadbury there were major logistical problems around the shift patterns. These were overcome by an evaluation of the problems in consultation with the unions and the employees. The outcome was an 'Open all hours' learning centre.

The other example of good practice is ROWA!:

Read On Write Away! (ROWA!) [is] a literacy campaign initiated by an LEA in Derbyshire that aims to develop a more literate community by co-ordinating initiatives in different institutions and groups. ROWA! is a partnership between two LEAs, two Training and Enterprise Councils, and two national literacy agencies (the BSA and the National Literacy Trust), which together bid for funding from the single regeneration budget. In its first year, 1997, ROWA! sponsored a series of consultative forums to bring together representatives from all local agencies involved in literacy efforts with different groups in the community. As a result of these consultations, ROWA! has developed five initiatives: books for babies, family literacy, reading interventions in primary and secondary schools, vocationally related basic skills work with unemployed adults, and basic skills courses in workplaces. (Hamilton and Merrifield, 2000, p.264)

Examples such as Bilston and ROWA! indicate that negotiation, flexibility and partnership are key concepts in the development and delivery of community-based programmes. This is because there is no single identifiable group of the population with exclusive need of basic skills, neither is there a single identifiable route through the provision to meet those needs.

The Moser Report identified the other main qualities of community-based programmes:

- They can reach out to individuals and groups not attracted to more traditional programmes;
- They can avoid the stigma associated with formal educational institutions.

The £4 million which the government announced in 1999 would be put into community-based programmes (GB. DfEE, 1999) offered the prospect of greatly strengthening this sector.

6.13 Summary

The 300,000+ students in provision represent less than 5 per cent of those estimated to be in need.

FE Colleges are the major providers (60 per cent).

FE Colleges and LEAs offer a wide assortment of provision.

Provision by voluntary organisations, and direct provision by employers, is on a very small scale. Workplace provision has been intermittent, perhaps at the mercy of economic cycles.

Family learning courses tend to be intensive and focused. Other community-based programmes have been rare but appear to be spreading rapidly.

6.14 Recommendations

Even more encouragement needs to be given to providers in the smaller sectors. Steadier funding may be the key, and the national and local Learning and Skills Councils should adopt this as a high priority.

Chapter 7: Tutors and professional development

7.1 Aim

So far in Part Two of this review, dealing with ‘Where are we now?’, the four chapters have covered the scale of need, the students and their motives and attendance, and the overall shape of the provision they enter. This chapter asks, ‘Who are the people who deliver that provision? How are they prepared for their task?’

7.2 Sources

As usual, a BSA report provided outline national data. Most of the information on adult literacy tutors and their professional development came from the 1998-99 NFER study. No other information on tutors was found. One (Australian) document was found with implications for professional development for teaching oracy. There seemed to be no information directly on professional development for ESOL or ICT, but there was a little on numeracy.

7.3 Numbers of basic skills staff

The BSA report for 1996/97 (BSA, 1999a) provided the only national data on basic skills tutors, and then only on the numbers of paid basic skills staff and volunteers in England and Wales in that year and the teaching hours of paid staff (Table 7.1). ‘Paid staff’ here included both tutors and paid assistants – these categories were separated in the 1998-99 NFER study, see below.

Table 7.1: Paid basic skills staff in England and Wales, 1996/97

	Full-time	60-100%	Up to 60%	6hrs+	Up to 6hrs	Total
Literacy/Numeracy	901	505	1628	2963	3671	9668
ESOL	399	243	289	1316	1286	3533
Total						13201

There were 9,715 volunteers in literacy and/or numeracy, and 2,331 in ESOL (total 12,046). There had been a significant decrease (12.1 per cent) in the number of volunteers in 1996/97 compared with 1995/96. This has been a consistent trend since 1976 when there was a waiting list of volunteers.

Some evidence confirming the largely part-time status of the teaching force came from the 1998-99 NFER study (Brooks *et al.*, forthcoming, 2000). This included a questionnaire survey of adult *literacy* tutors designed to gather, among other things, information about the tutors themselves and about their professional development. A total of 263 questionnaires were sent out, and 177 (67 per cent) were returned. Except where stated, percentages mentioned below are based on the full responding sample of 177.

Fifty tutors (28 per cent) were currently teaching adult basic skills full-time and 125 (71 per cent) part-time. Just over half the respondents were teaching less than 15 hours per week overall, and almost half were teaching less than 10 hours a week of adult literacy; many were teaching just a few hours a week.

7.4 Some characteristics of adult literacy tutors

No national data on adult basic skills tutors' characteristics were found, and no studies at all of ESOL or adult numeracy tutors, or on tutors with a specific remit for or specialism in the use of ICT in basic skills provision. However, in the 1998-99 NFER study the great majority of the adult *literacy* tutors (90 per cent) were women. Over half (56 per cent) were graduates, 75 per cent had a general teaching qualification (PGCE, Teacher's Certificate or Bachelor's degree with Education), and 87 per cent had a qualification in teaching basic skills, mainly C&G (City and Guilds of London Institute) certificates. Among the graduates' degree subjects the major categories were English and then Education, with Humanities (broadly defined) third, and very few reporting mathematics or science – but these were adult literacy tutors.

Just under a third of the tutors (57; 32 per cent) had full-time experience in adult literacy ranging from one year to over 20 years, and 156 (88 per cent) reported having part-time adult literacy teaching experience.

7.5 Professional Development

The amount of information located on this topic was small, and most of what there was concerned literacy and numeracy, with a little on oracy. There was none on ESOL or ICT.

7.5.1 Oracy

As will be shown in chapter 9, the Australian state of Victoria seems to be the only place in the world to have developed a curriculum approach for the oracy competencies of native English-speaking adults. The relevant document, *Talking Curriculum: A Practitioner's Guide to the CGE for Adults Oral Communication Stream* (Goulborn and Manton, 1995), provided both the basis for a curriculum and a step-by-step process of professional development. It deserves to be matched by a parallel development in Britain.

7.5.2 Numeracy and literacy

The 1990s saw the development in Britain of a national accreditation framework for basic skills tutors at two levels: pre-service and in-service. The first version of a scheme was launched in 1990; it was then reviewed and the certificates revised. The C&G 9281 Initial Certificate is a pre-service level of certification, while C&G 9285 is a National Vocational Qualification in Teaching Basic Skills Levels 3 and 4.

In the mid-1990s take-up at both these levels was thought to be low. Joseph (1997) calculated the numbers of qualified paid and volunteer tutors in literacy and numeracy per 1000 students in that subject, using the ALBSU/BSA Reports for 1993-94 and 1994-95 and information from City and Guilds. This presented a picture of the relative unpopularity of the numeracy teaching qualification in comparison with that for literacy amongst paid staff, though in contrast more volunteers were achieving the Initial Certificate in numeracy than literacy (Table 7.2).

Table 7.2: Relative proportions of basic skills staff with qualifications in numeracy and literacy

	Numeracy	Literacy
Initial Certificate (Volunteers)	33	25
Initial Certificate (Paid staff)	9	13
C&G 9285 Certificate (Paid staff)	0.8	1.9

Note: The tabulated figures are numbers of staff possessing the qualification per 1000 students.

However, throughout this period the BSA promoted good practice in every aspect of basic skills in England and Wales. Through its Quality Mark it set standards for professional development, and providers who wished to acquire that Mark had to include professional development. Through *The Starter Pack* (BSA, 1999c) it also provided good basic guidance in teaching literacy skills.

Since 1998 the Prison Education Service has required all its basic skills providers to have the Quality Mark. More and more general providers also acquired the Mark, and therefore required their basic skills staff to possess a basic skills qualification or, in the case of volunteers, be working towards one. Customised versions of the C&G Certificates were devised – for the workplace and basic skills support in FE Colleges, for instance. Evidence provided by C&G on 23 June 2000 showed that, from the time of the first awards of C&G 9281 in 1991 up to 19 June 2000, 46,337 C&G 9281 certificates had been awarded, plus 1,874 at C&G 9285 level. These numbers were considerably greater than the 25,247 paid staff and volunteers logged by the BSA as working in literacy, numeracy and ESOL combined in 1996/97 (see section 7.3). Though the C&G figures covered 10 years and the BSA figures only one, they nevertheless suggested that possession of a C&G certificate was very widespread.

Also, in 2000 work began on five-day and three-day intensive training courses for tutors teaching more than six hours a week, with pilot programmes due to take place in July.

7.5.3 Literacy

In the NFER study, 156 tutors (88 per cent) said they had attended some professional development (in-service) activities (such as courses, conferences, seminars) in the three academic years 1996-99. The areas covered are shown in Table 7.3; the range covered the field of literacy.

Table 7.3: Areas covered in adult literacy tutors' professional development, 1996-9

Area	%
Recent research in literacy	44
Teaching of reading	42
IT and literacy	39
Teaching of writing	38
Phonological awareness	22
Other	44

Note: The percentages shown are based on the full sample of 177, and do not sum to 100 because tutors could give more than one response.

Asked what types of support they received from their line managers, 13 tutors (seven per cent) said no support was provided. Among the rest, 55 per cent reported receiving out of hours support, 45 per cent received visits to their class, and 34 per cent could use drop-in provision for tutors. Most tutors had at least one formal meeting and at least three informal meetings a term to discuss and/or plan the curriculum or teaching approaches, but some had such meetings very rarely, and small proportions never had such meetings.

The questionnaire also included an indirect question on professional knowledge: tutors were given a list of 14 authors (mainly British) who have published widely on literacy, and asked to indicate whether each author's name was familiar to them. The numbers and percentages of tutors saying they were familiar with the authors' work are shown in Table 7.4 in decreasing order.

The two 'gurus' of the whole language movement, Ken Goodman and Frank Smith, were the most familiar names – but their reputations were made in the 1960s and early 1970s. They were also the only two non-British authors on the list. The two authors whose work has been most concerned with adult literacy, David Barton and Mary Hamilton, were in middling positions. It is perhaps more understandable that the three whose work has been most concerned with details of initial teaching of literacy to children (Sue Lloyd, Henrietta

Dombey, Liz Waterland) should have been least familiar. However, authors whose writings have been prominent in general debates about literacy teaching in recent years (Roger Beard, Peter Bryant, Usha Goswami) seemed to be known to rather few adult literacy tutors.

Table 7.4: Adult literacy tutors' familiarity with particular authors' work

Author	Familiar	
	N	%
K. Goodman	47	27%
F. Smith	44	25%
M. Snowling	37	21%
R. Beard	35	20%
P. Bryant	32	18%
L. Bradley	31	18%
D. Barton	29	16%
U. Goswami	24	14%
N. Bielby	20	11%
M. Hamilton	20	11%
M. Meek Spencer	16	9%
S. Lloyd	10	6%
H. Dombey	10	6%
L. Waterland	9	5%

Note: The percentages are based on the full sample of 177.

7.6 Summary

About 90 per cent of paid basic skills staff work part-time, and about 90 per cent of adult literacy tutors are women.

Majorities of adult literacy tutors have each of: a degree, qualified teacher status, a qualification in teaching basic skills, and experience in the field.

Only the Prison Education Service requires all its basic skills providers to have the BSA's Quality Mark.

Professional development is most widespread in literacy, and even there it seems patchy.

7.7 Recommendations

The basic skills profession is under-professionalised and needs to become more professional.

The fact that the BSA and the Further Education National Training Organisation have begun work on enhancing teacher training is therefore to be welcomed.

Chapter 8: Teaching

8.1 Aim

Until 2000 there had never been an explicit national curriculum for adult basic skills. Hamilton and Merrifield (2000, p.254) saw this as a positive feature: ‘To its credit, ... ALBSU never produced ... a fixed ABE syllabus.’ However, there were accreditation systems, and these appear to have strongly influenced what was taught. For instance, research carried out amongst UK members of *Adults Learning Maths - a research forum* (ALM) concluded that accreditation was driving rather than following the numeracy curriculum for both tutors and students, and that the pressures of the current climate militated against good practice in adult numeracy work (Joseph, 1997). In the 1998-99 NFER study (Brooks *et al.*, forthcoming, 2000) many of the adult literacy tutors who said they followed a defined curriculum derived it in part from an accreditation framework. Similar points were made in two FEFC reports (FEFC, 1998, 1999). Hamilton and Merrifield (2000, pp.254-5) conceded that ‘ALBSU’s accreditation system, Wordpower and Numberpower, in practice amounted to a curriculum, as inexperienced teachers looked to it to structure their teaching.’

The Moser Report (1999, p.27) concluded that the absence of a core curriculum meant that there was ‘no clear idea of what learners should be aiming to achieve’, and recommended that one be developed (p.64). In late 1999/early 2000 the BSA and the QCA drafted a curriculum, and this was put out for consultation in the spring of 2000 (QCA, 1999). A debate on it began immediately – for instance, the Spring 2000 issue of the *RaPAL Bulletin* was almost entirely concerned with this.

Because of the publication of the draft national curriculum for basic skills, this chapter does not attempt to analyse what the implicit curriculum might have been up to 2000, or the influences on it. Instead this chapter draws attention to information that may contribute to the debate on the national curriculum, in terms of curricula developed elsewhere, and of pedagogy and teaching materials. Included towards the end of the chapter is a brief section dealing with students’ views on the teaching they receive.

8.2 Sources

The sources used for this chapter were unusually disparate:

- There was very little information on ESOL or oracy, apart from one very useful document from Australia on oracy.
- For literacy the 1998-99 NFER study provided most information.
- For numeracy a wide range of sources was uncovered, mainly via the proceedings of the fifth conference of *Adults Learning Mathematics* (van Groenestijn and Coben, 1998). The information came from Scotland, England, the United States, Brazil and Australia.
- For the use of ICT with adults with basic skills needs there was more information than usual (though still not a great deal). The information came from Britain, New Zealand and the United States.

8.3 ESOL

No general description or analysis of the teaching of ESOL within basic skills was found. Within the evaluation report on family literacy for new groups, there were two pages (Brooks *et al.*, 1999, pp.8-10) on adapting the parental and joint sessions for linguistic minority participants – this mainly consisted of selecting culturally appropriate content, using interpreters or bilingual staff where possible, and explaining language points more fully than would have been necessary with a monolingual English-speaking group. Otherwise, family literacy for linguistic minority adults was very similar to ‘mainstream’ family literacy. It may be suspected that the same adaptations are typical of general ESOL provision in comparison with mainstream adult literacy, but also that ESOL provision would pay more explicit attention to command of spoken English.

8.4 Oracy

The single (but powerful) relevant document discovered was *Talking Curriculum: A Practitioner’s Guide to the CGE for Adults Oral Communication Stream* (Goulborn and Manton, 1995). This publication was the outcome of a project funded by the Adult, Community and Further Education Board of the Australian state of Victoria. The ERIC abstract reads:

This guide provides information on developing and implementing a class on oral communication for adults in literacy education in Australia. It is organised in five chapters.

Chapter 1 puts the course in the context of changes in literacy education policy and provides information on oral communication competencies.

Chapter 2 provides the teacher with knowledge about language – a theoretical and historical background to the oracy competencies. Activities in this chapter aim to develop knowledge about spoken and written language differences, the social context of talk, research and reflection on one's own language development, [and] critical language awareness, and values clarification on attitude to varieties of language.

Chapter 3 is about curriculum design. It outlines a concept of curriculum consistent with the needs of students, systems, and institutions, and presents a model of curriculum that incorporates competencies without being competency driven.

Chapter 4 puts together knowledge about language and knowledge about curriculum. A four-step curriculum planning model takes teachers through the process of designing oracy curriculum specific to a given context. The activity section of this chapter gives teachers an opportunity to try out the four-step model and provides an example of two types of teaching approach relating to class discussions and making telephone calls.

The final chapter contains some case studies from adult literacy oracy classes.

The guide contains a list of 81 references and an annotated bibliography containing 44 citations.

Inspection of the full document revealed it as by far the most advanced piece of curriculum development on teaching oracy to native English-speaking adults. It deserves attention within the debate in Britain on the oracy section of the new curriculum.

8.5 Literacy

8.5.1 Curriculum content

In the 1998-99 NFER study, the tutors were asked how often they included certain items (spelling, students writing for their own purposes, explaining the reason behind an answer, etc.) in their scheme of work. The general picture was of tutors focusing predominantly on students' writing skills, in the context of writing for their own purposes, and on their ability to read and reason. The rather more mechanical skills of literacy seemed to receive less, though still substantial, attention.

8.5.2 Pedagogy

Abell (1992) attempted to study different styles of adult literacy provision (small group, drop-in, one-to-one, etc.) and relate them to effectiveness in terms of student progress, but the different styles could not be reliably distinguished.

In the 1998-99 NFER study, a total of 110 tutors (62 per cent) said they had people working with them. The great majority of these tutors had assistance most of the time, and the major tasks the volunteers and assistants helped with were support for individual students, and support for students with lower levels of literacy.

Four-fifths of tutors reported group sizes of between six and ten students usually *present* (not the number on roll). A few reported very large numbers of students taught – these appeared to be tutors who taught drop-in or resource-based provision. Over half of the tutors (55 per cent) said they taught the group of students who were tested for the NFER study two hours per week – but the great majority of students were reported to be attending other provision as well.

Individual teaching was said by the tutors to be the most frequent teaching mode, and teaching groups selected by ability the least – half of the respondents never taught their students in such groups. About one-third of tutors taught individually all the time; the rest appeared to blend this mode with class teaching and teaching of small mixed-ability groups, with some also using ability grouping occasionally.

Tutors were next asked, 'To make progress in literacy, how important do you think it is for students to ...', followed by a list of possible contributory factors. The results revealed a

split between a highly-rated group of items having to do with general principles which are applicable to all forms of learning (developing students' self-confidence, students working on topics which are relevant to them, etc.), while those rated rather less important overall were those which have to do directly with literacy. Thus tutors appeared on average to rate the ethos of their students' learning circumstances as somewhat more important than the specifics of content. This would seem to indicate the persistence among adult literacy tutors of a very strong 'broad, liberal, student-centred' ethos, with less emphasis on a functional attitude, despite the impressions reported by Hamilton and Merrifield (2000).

Some supporting evidence for this inference can be drawn from the Winter 1999-2000 edition of the *RaPAL (Research and Practice in Adult Literacy) Bulletin*. Almost the entire issue was devoted to student writing, including two articles (Gardener, 1999; Mace, 1999) telling the history of student writing as a predominant learning mode in the 1970s and 1980s. Clearly, therefore, some practitioners maintain what they consider to be student-centred approaches aimed at empowerment.

8.5.3 Differentiation

In terms of the practical reality of teaching basic skills to adults, the guide *Teaching Basic Skills to Adults with Learning Difficulties* by Sutcliffe (1994) gave a very comprehensive account of this; it was designed to support people working towards ALBSU Standards for Basic Skills Teachers. Whilst not an item of research, it was a very comprehensive and practical guide written by someone who had undertaken research in this area. It began by commenting that literacy and numeracy are not appropriate options for all adults with learning difficulties; people must be motivated to learn to read. Many have adopted strategies to enable them to get by without these basic skills. The book covered planning learning programmes, selecting learning materials, ways of teaching, ideas for communication, literacy and numeracy; developing themes and projects; and evaluation, accreditation and progression.

The guide stressed the importance of building on the strengths and interests of the students; an example of a strengths and interests profile was given. Learning materials need to be relevant to the experiences and lives of the students; they need to be real-life rather than

simulated and they need to be adult to reflect their adult status – again, many examples of what this means in practice were given. Within ideas for communication, literacy and numeracy, many aspects were covered, and both examples of work and practical hints were given. A suggested topics list was included, and a further chapter looked to build on the communications and numeracy work to develop project, themes and group work, according to the interests of the students, for example, students writing or taping their own life stories and illustrating them with photographs. A range of methods that can be used for evaluation purposes was discussed.

Another group of adults with special educational needs receiving attention was prisoners with dyslexia. A Prison Service parliamentary briefing (Robson *et al.*, 1998) stated that the Service was ‘work[ing] with specialist educational consultants on how best to screen prisoners for dyslexia and then how best to support prisoners with this learning need’, and more recent documents supplied by the Prison Service stated that this policy was being implemented.

The LDD Working Group (2000) report throughout stressed the need to take account of disabled students’ opinions, and quoted them frequently. It also (pp.4, 6) recommended a flexible curriculum, especially at pre-entry level, for adults with very limited skills, and differentiation according to learning disability/difficulty because people with learning disability or difficulties are not a homogeneous group.

8.5.4 Teaching materials

In the NFER study the tutor questionnaire contained questions about (1) textbooks or other commercially produced materials; (2) materials the tutors devised themselves. Tutors were asked whether they used/devised such materials for teaching adult literacy to the group visited for the study and, if so, to state approximately what percentage of their adult literacy teaching time they based on the materials. In all, 161 (91 per cent) said they used published materials, and 170 (96 per cent) said they devised their own, so the great majority did both. Only about one tutor in seven said they based more than half their teaching time on published materials; the corresponding proportion for tutor-devised materials was about two-fifths. The overall picture was of a blend of materials.

8.6 Numeracy

8.6.1 Curricula: widening the debate

Even before the publication of the draft national curriculum, the adult numeracy field seemed to be in the midst of a profound re-think.

An example of what might be seen as the ‘old’ situation was a piece of research aiming at studying the teaching processes in adult mathematics classrooms, and the way in which factors beyond the teacher’s control (frame factors) affect the teaching process (Nesbit, 1995). The study was carried out in what was considered a typical setting for adult mathematics education, a community college providing a range of basic skills mathematics courses for adults. Although it was a small-scale study, Nesbit found that the role of the teacher within the classroom was paramount, and that little consideration was given to the needs of the students. Teachers adopted a largely teacher-centred, didactic approach, giving few opportunities to the adult learners to relate the maths they were learning to their own lives, reinforcing the distinction between ‘formal’ classroom mathematics and ‘informal’ real-life mathematics. The effects of certain ‘frame factors’, such as the institutional setting, could be discerned. Nesbit discussed the rigidity of this approach, where learning mathematics was presented as an acceptance of the authority of others rather than a process of discovery or understanding, and learners were socialised into believing that their own life experiences were irrelevant. He suggested that this rigidity in mathematics contrasted with that of any other subject area.

Since then, the approach to numeracy has not simply been broadened beyond the notion that it consists solely of narrow computational skills, for theories about numeracy have been much further developed. There has been a growing interest in the area of adults learning mathematics as a distinct research domain, lying between adult education and mathematics education. The research forum *Adults Learning Mathematics* (ALM) was set up in July 1994, at the initiative of Diana Coben, with the following aim: ‘To promote the learning of mathematics by adults through an international forum which brings together those engaged and interested in research and developments in the field of adult mathematics learning and teaching’, understanding the term ‘mathematics’ to include ‘numeracy’ (van Groenestijn and Coben, 1998). It was felt that ‘adults learning mathematics’ had been a hitherto neglected area.

There is an on-going debate about the nature of this new research domain. By including numeracy within the definition of mathematics, it was noted that: ‘We have moved out of the mathematics teaching in school and into society and adults’ lived life’ (Wedege *et al.*, 1998, p.56). Thus ALM practice and research may lie on the border of sociology as well as that between adult education and mathematics education. Looking at the three classical subject fields in the didactics of mathematics, in ALM: “‘Teaching” includes “math-containing teaching”, “learning” includes “learning in everyday life”, and “knowing” includes “adults’ mathematical capacities and competencies developed in everyday life and their attitudes to mathematics”” (Wedege *et al.*, 1999, p.57).

8.6.2 Shifting the focus

Furthermore, as the name *Adults Learning Mathematics* suggests, the focus is seen as shifting more to learners, both in terms of giving more consideration to their needs, and involving them in developments in the field of adults learning mathematics. *Adults Count Too*, a book by Roseanne Benn (1997) which brought together research and commentary, argued for including the adults themselves in the debates about mathematics and numeracy education. In the *Framework for Adult Numeracy Standards*, drawn up by the Adult Numeracy Practitioners Network in the USA (Curry *et al.*, 1996) the views of adult learners were elicited along with those of teachers and other stakeholders.

The emerging theory overall is that of empowerment, and Benn argued strongly in her book for mathematics to be seen as a means of empowerment. More specifically, whilst empowerment was a construct that had been gaining attention in many fields, it was now time to link this with numeracy. Thus adults could gain power by managing their affairs in terms of numeracy more effectively. There are various assumptions associated with this notion, not least that in addition to acquiring certain skills and knowledge, empowerment involves: ‘The acquisition of positive self-perceptions and a sense of self-efficacy, a critical awareness and other dispositional and motivational elements without which any competencies or knowledge may not be put into action in a given life domain’ (Gal, 1998).

As an aside, it may be considered that in the UK adult numeracy teaching at its roots was more concerned with empowerment than in its more recent past, with a student-centred approach and a concern for women and minority groups.

Both confidence in and attitudes to numeracy and are both important considerations in the acquisition and application of numeracy skills; perhaps there have been earlier perceived failures in this area. An adult may have the necessary skills but not sufficient confidence to successfully confront new numerical situations. Moreover, in terms of handling real-life situations, numerate behaviour has to be managed (Gal, 1998). This may involve identifying the course of action, deciding to estimate rather than calculate; indeed the situation may well require the integration of literacy and numeracy skills. The links between literacy and numeracy (see below) are an area which has been identified as needing further research.

The search for meaning and understanding underpins much of the above. It is interesting to bear in mind that, from findings of research into adults' mathematics life histories (Coben and Thumpston, 1995, 1996), the mathematics that adults could do they dismissed as 'just common sense', while only that which they could not do was regarded as 'mathematics'. The mathematical skills used in everyday activities go unrecognised. 'They are so embedded in other activities that subjects deny having any other skills' (Nunes *et al.*, 1993). In a basic skills setting, adult learners acknowledged that they approached problems differently from 'real-life' because 'this is school'.

Thus within current theories about adults learning maths it is important to consider the motivational as well as the skills elements. Gal has used empowerment theory to suggest a framework which is useful in terms of thinking about the ideology, desired goal state and change process with regard to numeracy education, the core of which can be used to focus on the nature of the research that has been carried out in this field (Gal, 1998).

His framework suggests that the following are needed:

- The possession of essential skills and knowledge
- The application of those skills and knowledge
- The development of a sense of self-efficacy – that is a positive self-perception that certain quantitative situations can be coped with effectively.

Finally, underlying all the above are the implications for teaching and learning.

8.6.3 The possession of essential skills and knowledge: what are the skills and knowledge?

There are two different approaches to this question. First, what are society's requirements in terms of skills and knowledge? The Cockcroft Report (1982) represented this approach. A more recent illustration is the survey entitled *Literacy and Numeracy in the Workplace* (SCAA, 1997). This research was undertaken in 1997 to help establish whether there is any difference between the types of literacy and numeracy skills which are taught in schools and those which are typically required in employment. Although small scale, the study found that learning maths 'on the job' seemed to be easier than learning it at school, because its relevance is obvious and the skill is reinforced by use, although this refers to the subset of maths skills required in the work situations analysed for the study. A great deal of research in Brazil on maths learning outside formal situations (summarised by Carraher, 1990 and Schliemann, 1998 and in the Annex to this chapter) strongly reinforces this conclusion.

Secondly, this question can be approached by looking more at the requirements of the adults themselves. Benn (1997) argued for the priorities and lives of individuals to be at the heart of curriculum development. If so, then any core curriculum would need to be flexible enough to be adapted to individual needs.

In the USA, as part of the Equipped for the Future project (EFF), the National Institute for Literacy funded work by the Adult Numeracy Practitioners Network (ANPN) which, in July 1996, produced *A Framework For Adult Numeracy Standards: the Mathematical Skills and Abilities Adults Need to be Equipped for the Future* (Curry *et al.*, 1996). This set out to augment work already done in this area, including that by the Massachusetts ABE Math Standards (cited in Curry *et al.*) to refocus the adult numeracy curriculum. The work in Massachusetts only reflected the input of adult education teachers, and further input from adult learners was sought. Adults were asked what they needed to know and be able to do to be productive citizens, workers and parents; they were also asked how they felt maths instruction should be changed. The sample in this research included 21 Learner Focus Groups from seven states, with 171 adult learners participating in these, five Stakeholder Focus groups and five Teacher Study groups (the smallest group because of the use made of teachers' views as represented by the Massachusetts work).

From an analysis of the results, seven overall thematic areas were found; affective issues were also looked at and, in terms of maths instruction, Recommendations for System Reform were given. The seven themes were:

- Relevance/connections, to the workplace or real life or previous knowledge (as in the SCAA study)
- Problem-solving/reasoning/decision-making
- Communication, as the bridge to finding and exchanging ideas
- Number and number sense
- Data – analysis, probability and statistics and graphing were found to be essential in the workplace
- Geometry, because of the importance of measurement skills
- Algebra: There was a widely held notion amongst most adult workers that algebra is not practical, relevant or useful. Employers and other workers did see application to today's workplace, however, because algebraic thinking skills are crucial in the global economy.

Beyond these seven key themes, adult learners shared positive and negative experiences of maths. A key finding in this area of competence and self-confidence was that the loss of self-confidence in maths, the lack of understanding of particular maths concepts, and fear of maths inhibits power. It was found that confidence builds competence in maths and competence builds confidence. Overcoming a lack of belief in one's ability can be helped by good learning environments - within the family, at work or in school.

The ANPN group also put forward 'Recommendations for System Reform'. It was hoped that these standards would guide adult learning programmes as curricula were updated; that assessment models would be developed to provide evidence of the skills and knowledge called for in the Learning Standards; and that there would be ongoing staff development and changes in instructional practice and a revision in the maths material used for adult learners. All this would need to be underpinned by sufficient resources.

The numeracy themes identified above were intended to serve as a map for adult education practitioners. The group noted a lack of research in certain areas, including the

effectiveness and impact of adult numeracy education (see chapter 10 below), but identified the support of a research base as essential if major reform was to be embarked upon.

In Australia, a new numeracy and mathematics curriculum framework has been developed for adults and has been widely used across Australia since 1997 (Tout and Marr, 1998). The main emphasis within adult literacy and basic education had been literacy until recent years, since when there have been significant developments in adult numeracy. Certificates in General Education for Adults give adults credit for having improved in a range of skills, one component of which is mathematics and numeracy. They were first accredited in 1992 and redeveloped for re-accreditation in 1996. The original Certificates Maths stream was not considered a success; during its implementation it became increasingly apparent that

The aspect of presenting maths in relevant and meaningful contexts was vital to the emerging idea of numeracy as distinct from mathematics. So much so that the purpose and use of mathematics within meaningful contexts was made the focus of the new learning outcomes for this version of the CGEA. (Tout and Marr, 1998)

The learning outcomes are organised into four different domains, according to the different purposes of using mathematics: Numeracy for Practical Purposes, Numeracy for Interpreting Society, Numeracy for Personal Organisation, and Numeracy for Knowledge.

Learning outcomes within these are achieved when the learner can demonstrate competence in all the assessment criteria.

8.6.4 Pedagogy

Meanwhile, Ginsburg and Gal (1996), drawing on research, identified a number of instructional strategies for teaching adult numeracy skills. They recognised that the motivations and prior educational and life experiences that adults bring to their studies are important and therefore that the goals and institutional practices of adult education are not always the same as those of younger children and adolescents. Ginsburg and Gal's strategies were built upon what is known about how people learn maths, and how adults

learn and what is important as a foundation for further mathematical learning. The strategies included:

- Address and evaluate attitudes and beliefs regarding both learning maths and using maths - that is, bear in mind that many adults feel that maths is a subject which they cannot do, and they may have negative attitudes towards it.
- Determine what students already know about a topic before instruction - draw on their background of life experiences.
- Develop understanding by providing opportunities to explore mathematical ideas with concrete or visual representations and hands-on activities.
- Encourage the development and practice of estimation skills and emphasise the use of mental maths.
- View computation as a tool for problem-solving, not an end in itself.
- Encourage the use of multiple-solution strategies.
- Develop students' calculator skills and foster familiarity with computer technology.
- Provide opportunities for group work.
- Link numeracy and literacy instruction by providing opportunities for students to communicate about mathematical ideas.
- Situate problem-solving tasks within meaningful, realistic contexts in order to facilitate transfer of learning.
- Develop students' skills in interpreting numerical or graphical information appearing within documents and texts.
- Finally, assess a broad range of skills, reasoning processes, and dispositions, using a range of methods.

The implications of the above were that the numeracy class may not often resemble the traditional maths class where a teacher makes a presentation and the students watch and then 'practise'; rather, continuous interaction between the teacher and the student may be required.

Many implications for learning/teaching arose from the work of the ANPN, above:

- Teach maths in the context of real-life and workplace situations; use learner-centred approaches to teaching to ensure that learners see the relevance of what they are learning; link new maths to previous learning, and teach new concepts before rules.
- Use an interdisciplinary approach to teaching. Integrate reasoning and problem-solving in all teaching.
- Provide opportunities for learners to work in groups.
- Increase the focus on mathematical communication, and encourage its use through group discussions.
- Teach and learn about numbers in context, provide hands-on experience collecting, organising and interpreting data and introduce more work-related charts and graphs and statistical information to better prepare adult learners for the world of work.
- Improve instruction of algebra by providing effective staff development.

8.6.5 Materials

Rather surprisingly, given the ferment of debate about numeracy just analysed, very little was found about materials for teaching it. The exception was a project known as the ‘Adults Returners Key Skills’ or ARKS Project (Pullen, 1998), funded through the European Union’s Socrates programme. The 2nd Chance programme, a voluntary sector body in Edinburgh, was the UK participant, and there were partners elsewhere in Europe. This sought to develop teaching/learning packs, including in the area of numeracy, by involving the adult learners themselves in the process. The adult learners in this case were those who had been previously excluded from lifelong learning, for a range of reasons. Adult learners were asked to look at materials that they found suitable, and were asked what learning techniques worked for them, and indeed what strategies they already used to deal with problems.

8.7 Literacy-numeracy links

The question of the relationships between literacy and numeracy is one on which further research is needed. Pedagogical relationships which exist between adult literacy and numeracy were examined in a study in Australia (Lee *et al.*, 1996). The crucial factor in determining these relationships was found to be context, that is, the more context-embedded the instruction was, the more close and specific the relationship was, and the

conception of numeracy as the use of mathematics in the achievement of social tasks means that numeracy

can never be conceived of outside a context of use. The project, combining classroom-based investigation and theoretical discussion, represented one of the first formal research investigations into this area.

8.8 The use of ICT in teaching basic skills to adults

The use of Information and Communications Technology (ICT) is clearly an extremely important area. When proposing a national strategy for adult basic skills, the Moser Report (1999, p.14) included the benefits of new technology as one of its ten elements:

Information and communications technologies are a powerful tool in the process of raising levels of literacy and numeracy ... with computers and multimedia software providing attractive ways of learning ... so ICT needs to be a staple of basic skills programmes.

The report noted the range of technologies that can be brought within the fullest use of the term ICT: computers and multimedia software, the Web, the Internet and digital TV technology.

The search for evidence on the use and impact of ICT in the teaching of basic skills to adults showed that, in brief, there is a lot of anecdotal evidence but not much in terms of rigorous research, which is still in its infancy in this country. The initiative funded by Ufi Ltd which began in April 2000 should help to remedy this.

In the 1998-99 NFER study, adult literacy tutors were asked how frequently students had access to computers and other IT equipment; 54 per cent said their students had such access every session, 29 per cent some sessions, and 17 per cent never.

Lavery *et al.* (1998), working in New Zealand, provided details of research in North America on a system called SYNERGY. This was an instructional management system for remedial education developed in 1994 after research conducted by 39 faculty members at four institutions. The system allowed students to create a personalised literacy curriculum,

and to ask for assistance from other students or the instructor at any time during the learning process. From feedback, thus anecdotal evidence, it was noted that:

- The role of the instructor changed to that of a facilitator, but the computer did not replace the instructor;
- Collaborative learning was critical, both student to student and student/instructor;
- Features that facilitated success included mature, independent learners, a relevant curriculum with clear learning objectives, realistic expectations and assessment procedures and an institutional commitment to technology.

From their own research in New Zealand, which specifically looked at the use of ICT within the context of adult literacy and numeracy, Lavery *et al.* suggested characteristics of computer-assisted instruction which are likely to appeal to, in this case, adults who may well have negative feelings towards traditional instruction:

- flexibility: not having to wait for assistance or teacher approval before continuing
- control: the adults feeling that they are in charge of their own learning
- individualisation: they can work at their own pace
- privacy: only the adult and the teacher need to know the level which is being worked at
- immediate feedback.

Horsburgh and Simanowitz (1999; Simanowitz and Horsburgh, 1999) carried out research in Britain funded by the EU Socrates programme on using ICT with adults with basic skills needs. The project looked to use CD ROM and learning materials to structure learning experiences for students with basic skills needs in literacy, and to identify best practice in the use of ICT and multimedia in the teaching of basic skills. Intended outcomes of the project included:

providing guidelines for the use of multimedia for basic skills students with a variety of particular learning needs

providing a review of current multimedia resources available in basic skills

developing teaching strategies for literacy teaching and other basic skills teaching associated with using multimedia

authoring materials to accompany the multimedia resources available and to pilot and test the teaching strategies and the resources with student groups.

Having undertaken research into which products were currently available on the market, and having drawn up a list of criteria on which to base their evaluation, Horsburgh and Simanowitz selected two programs for further use and developed paper-based materials to accompany one of these. The paper-based materials were developed to complement the learning situations found on the disk and to provide some structure for the students to work within. The levels of difficulty ranged from very basic to more complex.

One outcome of the research was 'A Framework for Evaluating Multimedia CD-ROM for Basic Skills'. This was structured around twelve main questions and looked at what the student needed in order to make the best use of a specific CD-ROM, and then what the tutor's needs were. A further outcome was a guide for producing paper-based materials for learners to accompany CD-ROMs. It was noted during the initial search for CD-ROM resources that could be used to develop literacy that very little was available on the market. Even the resource the researchers used, which was generally well received and which offered tasks of varying difficulty, did not accurately meet the needs of all its potential users. It could be that a greater range of resources is required, or ones that target particular levels of literacy learning. Much depends on the skills of the tutors in plotting suitable courses through CD-ROMs for their learners.

Next, Horsburgh and Simanowitz set up a number of sites where the CD-ROM and associated learning materials could be tested. A variety of sites were chosen - FE Colleges, libraries for open learning, also schools (the work was extended to look at developing reading skills with the 14-plus age group at one stage); not all sites were given the learning materials to use with the CD-ROM. A hundred plus adults were involved at this stage.

As a further outcome of the research, clear and detailed guidelines were produced identifying good practice that had emerged from the work of the project, in relation to the

teachers, the learners, the technology, the learning materials and management. The following points were noted:

- The importance of tutors in the learning process is not diminished by the use of ICT;
- Learners need to be given induction and training in the use of multimedia;
- Learners need to receive consistent and high quality support from tutors at critical times during their learning;
- It is important that multimedia should be used with clear learning goals... The use of multimedia must represent an efficient use of time... It is seen as attractive and motivational to many because it allows self-paced working... Also, learners are able to fail in private;
- Learners should have access to appropriate print-based materials that will help them navigate through CD-ROM multimedia products that they are using;
- Conditions should enable social interaction and the sharing of ideas with other learners as well as independent learning.

Other findings of note from this work included the following:

The main points when using ICT with adults for basic skills needs are relevance and compatibility - the ICT must map relevantly into whatever the particular need is. As a resource, its use needs to be carefully planned. The use of multimedia for teaching must be part of an integrated teaching strategy, not just an 'add-on'. The use of this technology with teaching adults is going to become of tremendous value. (Simanowitz and Horsburgh, 2000)

This work highlighted very clearly the need to move beyond the question of computer-assisted versus traditional learning, to maximising the benefits of the former.

Another area where the use of new technology was being harnessed was with those who have learning difficulties. Bilston Community College, for example, used Voice Recognition technology extensively with dyslexic adults.

The Ufi Basic Skills in the Workplace pilot project (Gourley *et al.*, 2000) suggested that the fact that the CD ROM which was used was very unsophisticated (no sound, simple layout, few images, moved through tasks slowly) was an element in its popularity with learners.

The project team also concluded that ‘a learner will not learn effectively by being placed in front of a computer and left to “get on with it”.’

The Birmingham Core Skills Development Partnership (Yates and Watts, 1999) appeared to be the best developed project in this area in Britain. It used a range of ICT media at 17 sites across the city and targeted adult literacy, numeracy and ESOL learners. Tutors were offered training, and students were offered accreditation through Wordpower, the Open College Network, Pitmans written and oral ESOL examinations, and the National Inter-Action Computing Award Scheme (NICAS). Quality Standards were developed, and the need to measure the specific benefits in literacy, numeracy and oracy was recognised.

The question, for research as well as in general, is therefore not whether to use the new technology, but how. In addition to having structured and appropriate ICT resources, one of the keys seems to be success in changing the role of the tutor. The required new role is not the didactic pedagogue at one extreme, but nor is it a ‘hands-off’ attitude at the other, since learners need guidance and support in using the technology. The required role is therefore very much that of a facilitator.

The general impression of the ICT and basic skills field was that it was developing rapidly. In this respect it was showing the way for adult literacy, but it had yet to engage in quite the sort of debate that seemed to be gripping adult numeracy.

8.9 Students’ views

This review provides copious documentation of the views of employers on basic skills, and information is frequently gathered from providers, especially tutors. A lot of that information is about students (chapters 4 and 5), and impact studies of course rely on their willingness to be tested. The voices of students themselves are less often heard. The topic on which most student opinion will be found in this review is the effectiveness of provision - on that, see the self-report data in chapters 10 and 11. The current debate within the numeracy field (see section 8.8 above) shows that numeracy practitioners are taking students’ views on curricula into account.

Stent’s (1998) report of the work of the Key Skills Centre at Barking College included, in Appendix G, a revealing selection of students’ responses to three prompts:

The best thing about the Key Skills Centre is

The thing that could be improved about the Key Skills Centre is

Any other comments about the Centre/Tutors/Materials/Facilities/Your feelings?

From their responses to these prompts, and from the analysis of their questionnaire answers (also to be found in Stent's Appendix G), it is clear that what students most appreciated (after friendly, approachable tutors) was ready access to ICT and to the Internet, and sufficient space within the centre to work efficiently and with minimum disturbance. Many other providers could profitably carry out such an investigation.

The NFER evaluation of the BSA's Family Literacy Demonstration Programmes collected students' views on the tuition they received (Brooks *et al.*, 1996, especially pp. 83-93). Parents' views on their teachers and the tuition they received were solicited both in interviews and in writing and were strongly positive. Very few other works among the largely quantitative research reviewed here gathered students' views.

However, beyond this there is a large but barely tapped ethnographic literature on students' experiences of and views on literacy and literacy programmes. Though there has not been time to analyse it, there needs to be acknowledgment here of the work of Jane Mace over many years, especially her most recent book *Playing with Time* (Mace, 1998), of the Literacy Group at the University of Lancaster, and of the London Language and Literacy Unit now at South Bank University.

8.10 Summary

Until 2000 there was no core curriculum for basic skills. A draft curriculum was published in spring 2000 covering oracy in addition to literacy and numeracy, but not ESOL.

An alternative oracy curriculum exists in Australia which could contribute to the debate in Britain.

Little is known about what basic skills teaching is like on the ground.

Within adult literacy teaching the liberal, student-centred ethos seems to endure.

There is considerable ferment and debate within the numeracy field over curriculum and pedagogy and involving learners.

ICT within basic skills needs to be precisely targeted, and seems also to be in a period of rapid development. The existence of ICT changes and does not supersede the tutor's role.

Students' views are rarely collected systematically.

8.11 Recommendations

The draft national curriculum for basic skills should be vigorously debated, taking account of

- developments in oracy in Australia
- the existing ferment in the numeracy field
- the need for a parallel debate on literacy
- students' views
- the need for targeted use of ICT respecting the teacher's role.

The international conference planned for September 2000 should also be designed to contribute significantly to this debate.

Annex to chapter 8:

Out-of-school learning of mathematics

It is clear that both children and adults learn mathematics out of school, in a range of contexts. Contrasts are often made here between learning in and out of school, but it is also looked at in terms of formally or informally acquired learning.

Much research work has been done in this area in Brazil (Carraher *et al.*, 1985). Research has been carried out at the place of work, with the results analysed in cognitive psychological terms. Carraher has tried to link the mathematical meaning within the practices of both schooled and the unschooled workers, with the aim of promoting a transition between symbolic representation and meaning. Many activities such as buying and selling, carpentry, and agriculture appear to facilitate the development of mathematical understanding outside that of formal instruction. For example, sugar farmers in Brazil's North-East (Abreu, 1993) employed a system of measures different from the metric system introduced in schools; rather they worked with *bracas*, a wooden rod with a unit length of 2.20 metres. All kept written records, but 11 of the 32 farmers studied by Abreu had never been to school and, with the exception of their own record-keeping, did not know how to read. For those who had been to school, the procedures for determining land area actually went against what they were taught there. Here, therefore, is a clear illustration of how something important has been learned or discovered outside school. The sugar farmers must calculate the areas of plots of land being worked on in order to purchase correct amounts of fertiliser and to determine a worker's pay based upon the amount of clearing and tilling that he has done.

In another study, Carraher interviewed 17 Brazilian construction foremen with between zero and 12 years of schooling, who, in practice, were given many responsibilities relating to building construction. The study showed that advanced concepts such as proportionality could be learned on the job. In general, it is important to acknowledge mathematical understanding that has developed outside schooling to further develop adults' mathematical knowledge. How exactly can such previous knowledge and understanding be drawn upon?

Contrasting results

Furthermore, studies consistently show a contrast between results in school contexts and in problems that are part of everyday work contexts, with both children and adults (Carraher *et al.*, 1985). A Brazilian street vendor aged 10 years was unable to correctly determine the sum of 420 plus 80 when interviewed in his own home. However, he was able to give the correct change at his fruit and vegetable stand to a customer who asked for two coconuts at Cr\$40.00 each and who paid with a Cr\$500 bill.

A body of research has been carried out to investigate the characteristics of the mathematical knowledge learned outside school. The study of 'street mathematics' referred to above (Carraher *et al.*, 1985) found that the vendors used procedures which were qualitatively different from those taught in school and yet, despite the presence of real objects, the mathematical demands of the problems were such that concrete reasoning in itself couldn't account for relative success on the streets.

Subsequent studies in Brazil have shed further light on the nature of everyday mathematics, with researchers going to the place where the child or the adult is actually doing the activity, such as the market or the workplace. From this body of work Schliemann (1998) draws the following distinction. In schools, there is not always a general understanding, as the emphasis is on computation algorithms which are often used without reference to physical quantities. On the other hand the mental computation strategies developed in work contexts are rooted in the meaning of the situation and the sense of the solution. Carraher suggests that the failure in school arithmetic here seems to be related to the apparent arbitrariness of the conventions taught at school. As the failure in school mathematics is not due to deficits in mathematical reasoning, there being evidence of this out of school, everyday mathematics can constitute a meaningful basis for the development of such reasoning in more formal contexts.

Problem-solving

In terms of making sense of solutions, Carraher (1990) analysed some of the data from a study of 14 farmers from the south of Brazil by Grando which compared their mathematical problem-solving with that of students from the same region. One of the findings was a

difference in how problems were approached. In a problem which involved contents relevant to farming, farmers tended to provide answers which, when incorrect, were generally sensible, that is within a reasonable range for the information at hand. The students, however, although they consistently displayed a much greater variety of strategies than the farmers, in solving problems were far more likely to lose the meaning or sense of the problem, giving answers that were absurd. Carraher argued that ‘these differences reflect different approaches to problem-solving: while oral mathematics generates computation strategies on the basis of semantic relations, written mathematics generates solutions on the basis of rules for exchanging values from one column to another.’

At the heart of this mathematical development built upon the challenges which work provides is meaningfulness. Thus reasoning and appropriateness can be checked. It may be necessary to self-invent methods, but it is likely that this can only be done if the problem has been understood, and the merit of the self-invented method will be that it is rooted in meaningfulness. Indeed, the first numeracy theme within the Framework for Adult Numeracy Standards (Curry *et al.*, 1996) is Relevance/Connections, and one of the first key findings there is that ‘Math takes on greater meaning and understanding when it is directly applied to the workplace or in real-life situations.’ With this comes the recommendation that maths should be taught in the context of real-life and workplace situations.

Everyday maths: strengths and limitations

The research carried out into everyday maths moves on from considering its characteristics, and in addition seeks to discover its strengths and limitations, to consider how far mathematical understanding can be developed without formal school instruction, how far self-instruction can take people. Related to this is the role of schooling in this process of learning more generally. The mathematical understanding of Brazilian lottery bookies was investigated (Schliemann and Acioly, 1989). Within their work, they needed some understanding of permutations of numbers and how this was brought to bear on dealing with problems investigating letters was looked at. The results of the tasks set showed a significant relationship to schooling: the higher the level of schooling, the better the performance.

A study on proportionality amongst fisherman in North-eastern Brazil (Schliemann and Nunes, 1990) looked at whether a deeper understanding of the procedures would facilitate application of strategies to other contexts. It was found that the fishermen's understanding of proportional relations - they frequently needed to compute the price of a certain number of items to be sold from the price of one item - went beyond the use of a memorised procedure. They were able, for example, to compute the price of one item given the price of more than one.

Thus, further studies suggest that strategies developed to solve problems in one context can be applied to other contexts, although factors may interfere with this process.

If strategies developed in everyday maths can be applied to other contexts, does this happen?

It has been noted that when problems are given in school or school-like settings, children (Carraher *et al.*, 1985) and adults (Lave, 1988) usually choose to use algorithms learned at school. It has been argued by Abreu (1993), having documented the failure to use everyday strategies at school, that the higher status accorded to formal mathematics seems to prevent students from using everyday maths in the classroom.

Furthermore, there are limits to the development of mathematical understanding without formal instruction; mention is made above of factors which affected the application.

In everyday maths, the presence of physical quantities is referred to when adopting problem-solving strategies, but this in itself imposes limits. Indeed, formal mathematics should aim for more generality, but then the important question arises of how to deal with meaning within the teaching of formal mathematics.

In practice, students will continue to be required to use symbolic representations before developing a full understanding of their meanings. The work in Brazil, however, by studying how people make sense out of mathematical ideas outside school, aims to use this to further the development of students' knowledge from the procedural to the conceptual.

Meaning in mathematics

In pursuance of bringing more meaning into mathematics instruction, Schliemann and others more recently examined how meaning can emerge from socio-interactive contexts. Whereas school learning focuses on individual cognition, out of school learning is characterised by ‘shared cognition, tool manipulation, contextualised reasoning and situation-specific competencies.’ Schliemann’s analysis of how a woman with very little schooling came to understand graphical information (Carraher *et al.*, 1995) showed how understanding of the graph was furthered when discussion took place about its context - a socially relevant situation. In this case, the graph was that published in a major Brazilian newspaper two months before the 1994 Brazilian presidential elections. The favoured candidate of the woman in question had been leading in all but the last of the polls taken and represented on the graph. The woman’s previous knowledge was brought into play, but it was through dialogue with the interviewer that the woman’s reasoning process was refined. Schliemann believes that ‘the use of mathematics as a tool to achieve socially relevant goals is a main characteristic of everyday maths that should inspire the design of more school activities’ (Schliemann, 1998).

Although research has been carried out with children and adolescents to show how they make sense of graphs without teaching, there is in fact little comparable research about adult learners. Accordingly, a pilot classroom study in Massachusetts was designed to explore a range of ideas in an adult education programme (Leonelli *et al.*, 1998). This drew on the use of everyday experience, and the opportunity for developing reasoning was provided by social interaction. This work paid particular regard to how everyday experiences and sense-making resources are brought to bear by the students.

To return almost full circle, with the focus more firmly now upon empowerment, and not least drawing on the strengths adults already have, some recent work looks at what exactly this everyday knowledge is, what these everyday strategies are. A pilot study undertaken by Schmitt set in an adult learning centre in Massachusetts asked what strategies adults use in their out-of-school mathematics and whether these could be uncovered in a basic skills setting (Schmitt, 1998). Furthermore, in what way can teachers make use of these strategies, once uncovered? To this end, Schmitt hopes to develop a protocol to facilitate communication between students and teacher about how the students did their maths

outside school, in addition to the main aim of eliciting authentic testimony from adults. Schmitt notes that most research about everyday maths strategies has been conducted where the activity is taking place. Findings suggest that adults use personal and workable strategies in the maths used in their everyday lives, although not enough data had been gathered at the time to tell if patterns were emerging.

Chapter 9: Assessment and Accreditation

9.1 Aim

Assessment is a necessary part of successful teaching, and the appropriate and effective use of assessment for formative, diagnostic and summative purposes is the trademark of a skilled, professional teacher. The previous chapter mentioned that, until now, the lack of a core curriculum for basic skills had permitted, even encouraged, the use of accreditation systems (notably Wordpower and Numberpower) as curriculum frameworks. However, as with teaching, so with assessment, the situation was changing rapidly even while this review was being compiled. In particular, government-commissioned tests of adult literacy and numeracy were being developed for the first time, following yet another recommendation in the Moser Report, and in early 2000 the BSA developed a rapid screening test. Several assessment and accreditation instruments known to have existed in the field had been superseded, and all instruments needed to be revised in line with the new Basic Skills Standards with their somewhat higher level boundaries, and sub-divisions within Entry level.

Because of these developments, this chapter does not attempt to analyse existing assessment and accreditation instruments. Instead attention is drawn to research that may contribute to these developments. Only systems for assessment of students' learning providing results to be reported to students are analysed; instruments used only in research studies are not considered.

9.2 Sources

No information was found on diagnostic assessment or screening, or on the assessment of ICT use by basic skills students. A little was found on oracy – which is assessed as part of Communication within, for example, Wordpower – and on formative assessment, though only of literacy – this is considered in the next section. The bulk of the information concerned nationally available awards for literacy, numeracy and ESOL, and that information came almost entirely from one report (FEFC, 1999).

9.3 Formative assessment

A little information on this was available from the 1998-99 NFER study (Brooks *et al.*, forthcoming, 2000). A set of questions asked adult literacy tutors how much weight they gave to various forms of evidence when assessing their students' progress. The great majority of tutors gave continuous assessment most weight for this purpose. In particular, almost all gave student self-assessment and students' portfolios, written assignments and oral work some or a great deal of weight. Although just over two-fifths of respondents gave no weight to published tests for assessment purposes, and about three in ten gave no weight to tests they devised or to listening to students read aloud, still a majority gave some or a great deal of weight to these forms of evidence.

9.4 Summative assessment and accreditation

Accreditation is one way of recognising the value of students' learning. A national framework of accreditation is potentially a means of supporting flexibility and movement within and between courses that may themselves be tailored to specific needs, while at the same time providing the safeguard of quality assurance in terms of comparability of standards. As Hamilton and Merrifield (2000, p.271) observed: 'Accreditation addresses policymakers' concerns about accountability and control of programme outcomes... many students want credentials, both to boost their self-confidence and to gain access to further training and education.'

As Hamilton and Merrifield went on to say, however: 'The tensions lie in the way the system actually works and in the impact it has on teachers and students.' McGivney (1999) observed, too, that accreditation may not be appropriate for all adult learners (a point also made in the FEFC report), and for some students the need to follow an accredited course may in fact be a barrier to learning. In a survey organised by the Campaign for Learning and MORI, for example, 37 per cent of respondents said the current emphasis on qualifications had put them off learning (MORI, 1998).

In 1998-99 the FEFC Inspectorate carried out a study (FEFC, 1999) of the awards for literacy, numeracy and ESOL available to and used for students in the FE sector. Awards at BSA Entry level and Level 1 were covered. The report showed (p.3) that in 1997-98 at least 107,000 students in FE Colleges in England were enrolled for such awards and (Annex B, p.14) that about half of those enrolled for such awards in 1996-97 had achieved

them. The major providers (in alphabetical order) were Associated Examining Board, City and Guilds of London Institute, English Speaking Board, London Chamber of Commerce and Industry, National Open College Network, Northern Examining Association, the Oxford, Cambridge and RSA Examinations Board and Pitman Examination Institute.

The FEFC report (p.2) analysed the major awards available, and described the situation as ‘a plethora of different awards, supposedly at the same level, but in reality requiring very different skills, competences or understanding.’ Levels differed not only between providers of qualifications but even between different colleges giving the same award, and there were significantly different achievement rates for different certificates supposedly accrediting the same level of the same framework. Even where oracy was included within first-language ‘literacy’ awards its importance was underplayed.

The report did not make recommendations, but its closing description (p.43) of effective awards could be read as such:

‘Awards in numeracy, literacy and ESOL at entry level and level 1 are most effective when they:

- provide an appropriate curriculum framework and structure for organising learning
- define standards accurately and align them to national levels
- specify learning outcomes and performance criteria
- have assessment linked to the standards
- ensure consistent application of standards through rigorous verification
- provide opportunities for dual accreditation of key skills and basic skills within the same scheme
- encourage the development of both functional and creative language, and both functional and conceptual numeracy

- allow some flexibility for teachers to match content, context and assessment mode to the learning needs of their students.’

This report was completed when the new national curriculum for basic skills was ready, but before the new national tests became available. Debate on the tests had therefore not begun, though the implications of the new standards for testing had. For example, Arnett and Fowler (2000) questioned the need for any assessment of oracy for native speakers of English.

9.5 Summary

Little information was available, and criticisms of existing external awards demonstrated the need for a more rigorous framework.

9.6 Recommendations

Assessment systems, both formative and summative, will need to be evaluated once the new systems are in place.

PART THREE: WHAT WORKS?

Chapter 10: Impact studies

10.1 Aim

Chapter 3 summarised the evidence on the scale of need in basic skills. The rest of Part Two (chapters 4 to 9) in effect analysed the size and ramifications of the basic skills 'industry'. Given the scale of the effort, how much effect does it have, and why? Those are the questions addressed in Part Three. Chapter 12 summarises the evidence on why programmes are effective, and this and the next chapter analyse the evidence on how effective different forms of provision are.

The reason for devoting two chapters to the evidence on effectiveness is that it falls into two categories: direct evidence on benefit (or not) to learners' attainment in basic skills, as shown by direct, numerical measures such as tests; and evidence on a range of other benefits, such as growth in self-confidence, further study, gaining employment, etc. The view is taken here that how much impact provision has on learners' basic skills is the central question; and therefore that all other benefits are indirect evidence of effectiveness.

In particular, some British evidence on workplace training in basic skills is summarised in the next chapter, because it contains no evidence of impact on trainees' basic skills but does provide evidence of other benefits. Also, self-report data, even where they concern progress in basic skills, are analysed in the next chapter because they are not direct evidence of benefit to attainment.

10.2 Sources

The evidence summarised in this chapter is drawn from a variety of sources: British evidence on family literacy and numeracy courses, and general adult literacy provision; and US evidence on adult basic education programmes in a range of settings. The little evidence on ICT, ESOL and oracy is placed first; the US evidence second; then the British evidence on literacy, followed by that on numeracy and by a brief note on basic skills in prisons.

10.3 ICT

A curious gap in the literature should be mentioned. Despite the exponential increase in the use and importance of computers, and the fact that ICT is known to be in use in a number of basic skills courses, no British attainment evidence was found on the impact of ICT on basic skills. For the United States, Rosen (2000, p.312) similarly concluded that ‘Almost no research exists on the effectiveness of technology in adult literacy education.’

At the time of writing, the BSA was known to be funding a number of Innovative Development Projects in this area, but it was too early to expect outcome data from those projects. Also, Ufi Ltd launched an investigation in this area in April 2000, and Ufi-learn**direct** sites were being piloted in six prisons to evaluate the use of ICT to improve basic skills.

An article from New Zealand (Lavery *et al.*, 1998) referred to a range of work in the United States during the 1980s and the first half of the 1990s reporting the effectiveness of the role of computers in adult education, in terms of academic gains, reduced drop-out rates and increased feelings of self-confidence. For example, there was some work using the second tier of a system called INVEST which focused on Adult Basic Education, with mathematics, reading and writing and life-skills instruction available. Results from investigations during the early 1990s using a pre- and post-test design showed that student gains were achieved in both reading and maths, but that the gains in reading were not significantly different from those made by students in traditional programmes. However, the increase in mathematics achievement using the INVEST system, particularly in the areas of mathematical concepts and problem-solving, was greater than the gains using traditional methods.

10.4 ESOL

The main evidence for impact on the basic skills of adults for whom English is an additional language came from the NFER evaluation of BSA family literacy courses for linguistic minority families (Brooks *et al.*, 1999, especially chapter 5). Pre- and post-test data were collected on 163 parents, of whom all but two were mothers. Although it proved impossible to collect standardised performance data on the parents’ progress in spoken English, the tutors were all of the opinion that the parents’ command of spoken English had

improved, to varying degrees. In literacy, the parents made on average a statistically significant improvement equivalent to 10 per cent of their starting level. However, parents who at the beginning were at the lowest level of the assessment scale used made hardly any progress (but this subsample was very small).

In the 1998-99 NFER study of adult literacy in England and Wales commissioned by the BSA (for the main results, see below), the progress of ESOL students in reading was statistically significant, but their progress in writing was not.

10.5 Oracy

Yet again, there was no information on oracy for the general British population, in terms of attainment evidence of progress in using spoken English.

10.6 Evidence on adult literacy and numeracy from the United States

10.6.1 Cautionary tales

Much more research has been done in the USA than in Britain on adult basic skills, including a large number of impact studies. Early in the literature search for this review an abstract was found for a US report called *The Outcomes and Impacts of Adult Literacy Education in the United States* (Beder, 1999). Despite its title, the report turned out to cover numeracy as well as literacy. Part of the abstract read:

Through a comprehensive literature search, approximately 115 outcomes and impacts studies were identified... [T]he 68 ... that were found to have an outcomes component were abstracted. Each study was then evaluated ... Based on this evaluation, 23 studies were selected as being the most credible, and ... [f]rom the studies, inferences about program effectiveness were made.

This held out the promise of a much more thorough review and analysis than could be based on the skimpier British evidence. The full report was obtained, but proved to be revealing mainly in ways other than had been anticipated.

The first surprise was the author's conclusion that 'As measured by tests, the evidence is insufficient to determine whether or not participants in adult ... education gain in basic

skills' (Beder, 1999, p.5). Table 1 (op. cit., p.69) showed that of the 23 'most credible' studies only eight had tested learning gain directly. The other 15 studies had been selected, it seems, because they reported some of the 12 other forms of outcome data collected. Across the 23 studies (no single study collected all of them) these were: gains in employment, acquisition of a better job, increased income, continued education, termination of or reduction in public assistance, acquisition of the General Education Diploma (GED), self-reported gains in reading, writing, maths and self-confidence, impact on children's education, and attainment of learner's personal goals. All of these are classified in this review as 'other benefits' and evidence on them will be summarised in the next chapter.

What can be made of the attainment data? Beder's account of that evidence (eight studies; all tested reading, four also maths; none tested writing) makes mainly doleful reading. In the past 30 years there have been two attempts in the USA to carry out national surveys of the effectiveness of adult basic skills programmes by gathering test data on progress:

- 1) A 1972 study used two tests, one for reading comprehension, the other for basic arithmetic; both appear to have had ceiling effects. The pre-test was in February-March 1972 and the post-test in May 1972. Of the 1,108 students pre-tested, only 441 (40 per cent) returned at post-test. The gains expressed in fractions of a grade level (roughly equivalent to months of reading/maths age) were half a year or less, but were statistically significant. However, the data appear unreliable because of the poor retention rate and the small sample size relative to the population.
- 2) The National Evaluation of Adult Education Programs was carried out in 1990-94. It suffered massive data-collection problems, mainly through attrition, and of such severity that the US government called in a new group of consultants to re-analyse the data. The target pre-test sample was 19,796 adults, but the achieved pre-test sample was 11,354 (57 per cent of the target). Post-test data were obtained from 2,333 people (21 per cent of those pre-tested, 12 per cent of the target sample). But 1,719 post-tests had to be withdrawn from analysis because of non-completion or floor or ceiling effects, so that gains were calculated on only 614 cases (5 per cent of those pre-tested, 3

per cent of the target sample). The new group of consultants quite reasonably concluded that the test data were unusable.

There has been one other US national survey, which however was not a progress study but a single-occasion 'snapshot'. Sheehan-Holt and Smith (2000) re-analysed data from the National Adult Literacy Survey (NALS) of the early 1990s (Kirsch *et al.*, 1993) in which a sample of 24,944 people representative of the full ability range participated. By appropriate statistical methods, Sheehan-Holt and Smith (2000, p.227) were able to compare adults 'at the lower end of the literacy skills continuum' within the survey who had participated in adult literacy provision with directly comparable people who had not. The main finding was that 'no association was found between participation in [basic skills] programs and literacy skills' (p.227).

Beder (1999) also listed six *local* programmes which measured learning gains, and these can be summarised as follows:

- 3) A 1965-68 study was entitled 'national' but sampled courses only in small areas of New York, New Jersey and California and was therefore not genuinely national. Only reading was tested. The test used (in the absence then of instruments designed for adults) was a school-level test of doubtful validity for adults. The first and second post-tests were conducted 6 and 12 months after the pre-test. The numbers of people on whom post-test data were gathered were 1,641 and 1,425 respectively, but the number pre-tested was not stated. Adults who had been pre-tested but had not attended classes were treated as a control group – but their refusal to attend means that they were not a genuine control or comparison group. Both they and participants made equivalent gains, and the participants' gain was therefore statistically non-significant – but the comparison seems unreliable.
- 4) A study in one city in Wisconsin in 1973-75 had a pre-test sample of 593 and a post-test sample of 270 (45 per cent retention). Only reading was tested; there was a statistically significant average gain.

- 5) A study in six California counties in 1994 had a pre-test sample of 1,719 and a post-test sample of 1,119 (65 per cent retention), all welfare clients attending under compulsion. Only reading was tested; the overall average gain was statistically non-significant compared to the control group. However, the results varied considerably between counties: in two, controls outperformed participants, while in San Diego participants outperformed controls by 34 per cent. No details are available on why these differences occurred.

- 6) *Steps to Success* was studied in Oregon in 1990-94. The target sample was 920 (all welfare clients attending under compulsion, but those tested volunteered to do so), but achieved samples were 53 for reading and 127 for maths. Gains were significant on both tests, but the small sample sizes reduce confidence in these results.

- 7) A study in New York City in 1989-90 gathered basic education data from five workplace programmes. Three showed statistically significant gains.

- 8) A national evaluation of the Even Start family literacy programme was carried out in 1990-93. Although over 10,000 families were in programmes across the 50 states, the in-depth control-group study had a target sample of 200 participants and 200 controls; the achieved pre-test samples were 98 and 101, or barely 1 per cent of the target population; and the post-test samples were 64 and 53. Only reading was tested; both groups gained significantly but equally. But some participants had not in fact remained in classes, while about a quarter of the controls had been in adult literacy provision. A possibly more reliable finding came from the non-controlled general study of Even Start parents (sample size not given): gains were small, but statistically significant after 70 hours of instruction.

Beder's (1999, p.5) conclusion from the evidence he analysed (both national and local) was that 'As measured by tests, the evidence is insufficient to determine whether or not participants in adult ... education gain in basic skills.' However, this seems too sweeping. The national data were clearly unreliable, as was the tiny amount of information on maths; and there were no data at all on writing. But the evidence on reading was mixed: several

studies showed no impact or had ambiguous results, but others (Wisconsin, San Diego, three out of five in New York, the Even Start general study) did suggest real gains.

10.6.2 Better grounds for optimism

Another US source had rather more optimistic findings, even though many of the studies cited may be among those not even found credible by Beder (only one study was mentioned in both sources). Sticht and Armstrong (1994, pp.143-50) listed data on *reading* gains (only), all of which were statistically significant, from the following programmes:

- California's federally-funded basic skills programmes for the seven academic years 1985-92, based on more than 1,000 students per year. In an average of 100 hours of instruction, students gained about half to one year of grade level.
- 16 programmes across the USA studied between 1982 and 1992, most small but including two with student numbers of 8,461 and 62,000. Gains ranged between 0.5 and 1.5 'years' in programmes whose average hours of instruction ranged between 20 and 229 – though most were well under 100 hours. One of these programmes was a family literacy study listed by Beder as having no data on adults' learning gains. Sticht and Armstrong gave the sample size as 500, and the adults' average gain as 1.5 'years'.
- 23 literacy programmes in Illinois in 1988, with an average of 87 students per programme. Hours of instruction varied between 1 and 62.5, the average being 36 hours. On average, 6.5 'months' of gain were made. Even in the programme which gave 1 hour of instruction the 78 students gained just under half a 'year' on average.
- Programmes in New York City supported by the Literacy Assistance Center (LAC), for the five school years 1985-90, based on an average of over 17,000 students per year. In an average of 100 hours of instruction, the average gain was about one 'year'.

Sticht and Armstrong (1994, pp.151-2) also cited longitudinal data from the Illinois and New York studies just mentioned. In both, some students continued to attend literacy classes beyond the one academic year mentioned above, and were given two further post-

tests. Gains were greatest between pre-test and first post-test, and then tended to plateau, though they were sustained.

The following conclusions from the US evidence seem justified:

- **The amount of evidence on numeracy was small and unreliable.**
- **There was no evidence at all on writing.**
- **There was no *national* evidence that basic skills tuition benefited students' reading.**
- **However, the *local* evidence suggested, on balance, that basic skills tuition benefited students' reading to a modest extent.**
- **Gains in reading occurred in a variety of programmes: state, welfare, workplace and family.**
- **Most gain seemed to be made in approximately the first 70-100 hours of instruction.**

The last conclusion should not be taken to mean that instruction after 70 or 100 hours is not worthwhile: there was little evidence beyond that point, but what evidence there was suggested that

- **After approximately the first 70-100 hours, gains can be sustained by further instruction.**

10.7 Evidence on general adult literacy from Britain

To the best of the reviewers' knowledge, there have been no large-scale impact studies of general adult numeracy provision in Britain, and just two large-scale impact studies of general adult literacy provision.

10.7.1 The 1976-79 adult literacy study

In 1976-79 NFER carried out for the Department of Education and Science a survey of progress and attainment in adult literacy schemes in England (Gorman, 1981; Gorman and Moss, 1979). The target sample was set at 2,000 students; pre-test materials were despatched in December 1977 to 1,831 students; by March 1978, 1,238 sets of materials (68 per cent of those distributed) had been returned. The materials contained tests of reading, writing and spelling. Post-testing was undertaken in June 1979. Because not all items were common between the two occasions, a one-parameter Item Response Theory (IRT) statistical model (Rasch scaling), with a mean of 50 and standard deviation (s.d.) of 10, was used to calibrate all items on a common scale via the items that were common. Scheme organisers were asked to distribute the post-tests to those students from the pre-test sample who were still receiving tuition. The tests were administered at both stages by basic skills tutors. A total of 1,158 students (94 per cent of the pre-test sample) were traced; 378 (33 per cent of those traced) were no longer receiving tuition; and 194 (17 per cent of those traced) failed to respond; so that post-tests were received from 586 students (51 per cent of those traced). However, some students returned incomplete sets of post-test materials. The final numbers on whom pre-/post-test comparisons were based were therefore as shown in Table 10.1.

Table 10.1: Retention rates in 1976-79 adult literacy study in England

	N	Percentage of pre-test sample
Reading	541	44%
Writing	485	39%
Spelling	440	36%
Overall	562	45%

Note: The figure for spelling, and various others to be quoted here, are not given in the published article (Gorman, 1981), but are culled from the unpublished full research report (Gorman and Moss, 1979), of which archive copies are kept at NFER.

Given the low retention rates, the results (Table 10.2) need to be treated with some caution.

Table 10.2: Results of 1976-79 adult literacy study in England

Skill	N	Average scaled scores		Average gain	s.d. of gain	z-score	Probability	Effect size
		Pre-test	Post-test					
Reading	541	51.4	52.9	1.5	6.5	5.4	p<0.001	0.15
Writing	485	53.7	56.3	2.6	4.6	12.4	p<0.001	0.26
Spelling	440	54.0	57.0	3.0	5.5	11.4	p<0.001	0.30
Overall	562	51.3	53.4	2.1	4.6	10.8	p<0.001	0.21

Key: N = sample size; s.d. = standard deviation

Sources: Tests of statistical significance and effect sizes from Brooks *et al.* (forthcoming, 2000); otherwise Gorman and Moss (1979, Table 7, p.7.17)

All four gains were statistically significant. However, from the effect sizes the gains in writing and spelling appear educationally significant (greater than a quarter of a standard deviation), those for reading and the overall score less so.

10.7.2 The 1998-99 NFER adult literacy study

In 1998-99 NFER carried out for the BSA a study of the progress made in literacy (reading and writing) of adults in mainstream, dedicated basic skills provision in England and Wales. Here 'mainstream' meant 'provided by a College of FE or LEA'; 'dedicated' meant 'not as support for some other course'. Pre-testing was carried out between October 1998 and April 1999; post-testing between March and June 1999 (post-testing began in some areas before pre-testing had been completed in others). The pre-test sample was 2,135 for reading and 1,724 for writing; the post-test sample was 1,224 for reading (57 per cent retention) and 937 for writing (54 per cent retention). The post-test samples were found to be satisfactorily representative of the full pre-test samples. Within the main sample there were 210 students attending the pilot intensive courses funded by the BSA and run in March 1999 by nine providers, including Thurrock College.

All testing of reading at both stages was carried out by fieldworkers trained by NFER. The writing tasks were administered by basic skills tutors.

Writing was assessed according to a set of analytic categories (grammar, orthography, spelling, style and handwriting), and the length of script (number of words) was also noted. The reading tests contained a number of items taken from the 1995-99 International Adult Literacy Survey (IALS). Britain took part in that survey, which provided the only instrument from which standardised (norm-referenced) scores could be calculated for British adults. For the NFER study, standardised reading scores were calculated via the two-parameter IRT model used in IALS, and the effective range of the scale was extended to cover adults with low reading scores. The scale had a mean of 300 and an s.d. of 50. Table 10.3 gives the overall results.

Table 10.3: Overall results of 1998-99 adult literacy study in England and Wales

	N	Pre-test mean (s.d.)	Post-test mean (s.d.)	Gain	Significance	Effect size
Reading	1224	214.3 (76.8)	225.4 (72.1)	11.1	p<0.001	0.22
Writing (length of script in words)	937	23.0 (19.4)	25.1 (19.1)	1.9	p<0.003	

Note: No effect size was calculated for writing because the test was not standardised and there was no control group.

For writing, there was also a small but significant increase in the quality of handwriting; none of the error categories showed any significant change. The gain in writing (length of script), though small, was statistically significant, partly no doubt because of the large sample size. The gain in reading was almost equivalent to a quarter of a standard deviation, and probably educationally significant.

10.8 Family literacy in Britain

The main research in the area of family literacy (Brooks *et al.*, 1996, 1997) was the NFER evaluation of the Basic Skills Agency Demonstration Programmes in 1994-95. A total of 361 parents with a child aged 3 to 6 were studied. There was an overall increase of five per cent in reading scores and 10 per cent in writing scores, both of which were statistically significant, and a very high (95 per cent) rate of full or partial accreditation of a level of Wordpower. Some parents continued to make statistically significant gains in the three months after the course, and the gains were sustained nine months after the courses. When

154 parents were re-contacted between 20 and 34 months after their course, 133 (86 per cent) thought that their literacy was continuing to benefit.

NFER also evaluated the BSA's family literacy courses for new groups in 1997-98 (Brooks *et al.*, 1999). The results for linguistic minority parents have been mentioned above under

ESOL. Parents of Year 4 children also significantly improved their literacy – their average final score was 6 per cent higher than the average starting score. Again, this was statistically significant. However, courses for parents of Year 7 children were largely unsuccessful, and the NFER team concluded that attempting to reach parents with poor literacy through their secondary-age children was not the way to go.

Other research into family literacy (Poulson *et al.*, 1997) considered a range of schemes implemented at local level, which varied in length, organisation and content. Accreditation of learning was reported for more than half of parents in 10 of the 18 schemes evaluated.

The following conclusions from the British evidence on adult literacy (including family literacy) seem justified:

- **There was plausible evidence that basic skills tuition benefited students' reading and writing.**
- **The average gains in reading and writing in general basic skills provision were undramatic but worthwhile.**
- **Worthwhile gains in reading and writing also occurred for parents in family literacy programmes.**
- **There was no evidence on amounts of tuition above 100 hours.**

Again, as with the US evidence, the last conclusion should not be taken to mean that continued study is not worthwhile. Family literacy parents sustained their gains once their courses ended – but a high proportion of them continued to study, and this would have required further exercise of their literacy skills. Bynner and Parsons (1998) showed that

unemployed people started to lose their literacy and numeracy skills, presumably because of lack of practice. The report from the LDD Working Group (2000, especially pp.4, 8) stressed the need to maintain the hard-won gains of some adults with learning difficulties and disabilities. And within the 1998-99 NFER study, the fieldworkers gained the strong impression that many adult students need continuing support to maintain their skills – these would be particularly people with very basic levels of skill and/or low levels of self-confidence. It therefore seems likely that further learning would maintain students' skills.

10.9 Evidence on adult numeracy from Britain

The only evidence found on adult numeracy came from the BSA's family numeracy initiative. The Agency's research into family numeracy looked at 62 schemes across the country. Across a variety of provision, in courses that offered accreditation, 84 per cent of parents obtained one unit or more of accreditation in Numberpower (or the equivalent), and tutors reported that over half of parents had improved their numeracy skills 'significantly' or 'a great deal' (BSA, 1998, p.88).

- **There was no evidence on the impact of general adult numeracy tuition from Britain.**
- **There was suggestive evidence that family numeracy courses benefited adults' numeracy skills.**

10.10 Basic skills in prisons

A one-page note received from the Prison Service (undated but apparently written during 1999) summarised family literacy and numeracy projects run in collaboration with the BSA in two prisons, one for men and one for women. The number of people involved was 43, all aged between 18 and 24; 91 per cent had no formal qualifications in English or maths. Forty-four children of the prisoners were involved, the majority being under three years of age. As with all the BSA projects in this field, these were intended to boost both the parents' and the children's skills, including the parents' involvement in and ability to assist their children's development. The stated outcomes included improvement in the participants' basic skills and accreditation of some participants' learning.

Another one-page note received from the Prison Service (and dated 14/12/99) mentioned that, between April 1998 and April 1999, Peer Partner (literacy mentoring) projects were run in eight prisons. Full results had yet to be published, but the brief note stated that there had been an increase in accreditation of basic skills, and that the ‘tutored’ prisoners had improved their basic skills, particularly reading.

10.11 Summary

There was a small amount of attainment evidence showing impact on ESOL, and of the use of ICT, but none for oracy.

Combining evidence from the United States and Britain,

- **There was plausible evidence that basic skills tuition benefited students’ reading and writing.**
- **The average gains in reading and writing in general basic skills provision were undramatic but worthwhile.**
- **Worthwhile gains in reading and writing also occurred for parents in family literacy programmes.**
- **Gains appeared to be greatest in approximately the first 70-100 hours of tuition.**
- **After approximately the first 70-100 hours, gains can be sustained by further study.**
- **The evidence on the impact of general adult numeracy tuition was sparse and unreliable.**
- **There was suggestive evidence that family numeracy courses benefited adults’ numeracy skills.**

10.12 Recommendations

Much more evidence is needed, since only for literacy is the evidence even close to adequate.

One reason for the paucity of evidence may be tutors' and researchers' reluctance to subject those with poor basic skills to being tested. If so, this suggests a need to develop student-friendlier ways of measuring or giving an account of students' gains. This may include less direct measures such as those summarised in the next chapter.

Chapter 11: Other benefits

11.1 Aim

So in certain circumstances adult learners make statistically significant progress in literacy and numeracy. This chapter asks, 'What other benefits do students gain, and how does that evidence match up with the attainment data?'

11.2 Sources

Most of this chapter is organised in much the same order as the previous one: ICT, ESOL, oracy, US evidence on literacy and numeracy, British evidence on literacy and numeracy. However, there is an extra section towards the end, on the impact of workplace basic skills provision. This is treated separately because the workplace evidence could not be analysed in a way which fitted that for the other sources of evidence.

Some of the evidence cited here is qualitative, and much of the quantitative evidence is from participants' self-report. But because, by definition, none of the evidence in this chapter directly concerns impact on adults' own attainments, only some statistics are quoted – others are available in the source documents – and the evidence is mainly summarised qualitatively.

11.3 ICT

There have been three pieces of work in Britain yielding non-attainment evidence on the use of ICT with adults with basic skills needs. Yates and Watts (1999) provided a short article on the Birmingham Core Skills Development Partnership. They polled the views of 49 adult basic skills students: 50 per cent said ICT improved their spelling, 32 per cent said it helped with writing or handwriting, and 40 per cent said it helped with speaking skills.

Horsburgh and Simanowitz (1999; Simanowitz and Horsburgh, 1999), in the Socrates-funded basic skills project, found a high level of satisfaction, if a range of ICT-based products was used in a rich learning environment. For the older adults in particular, it was noted that just the use of ICT itself boosted their confidence in this area.

Gourley *et al.* (2000) reported briefly on the Ufi Basic Skills in the Workplace pilot project which ran in Gloucestershire in 1998-99. It used identical paper-based and ICT teaching packs with participants from a variety of employment sectors. The principal finding was that 92 per cent of participants preferred the ICT pack.

11.4 ESOL

In the *Family Literacy for New Groups* study (Brooks *et al.*, 1999), it was found that in participating linguistic minority families:

- The parents' ability to help their children improved;
- Many of the parents planned to go on further courses;
- Many became more involved with their children's schools;
- The children made substantial progress in literacy.

11.5 Oracy

There was no evidence under this heading.

11.6 US evidence on other benefits of adult basic skills tuition

As mentioned in the previous chapter, Beder (1999, especially pp.5, 69) also analysed the other benefits of the 23 'most credible' adult basic skills evaluations in the United States. His data have to be interpreted in the light of his own conclusion (p.5) that 'As measured by tests, the evidence is insufficient to determine whether or not participants in adult ... education gain in basic skills.' Given that caveat, his conclusions on other benefits can be summarised as follows:

- In general, it was likely that participants in adult education received gains in employment (11 out of 14 relevant studies);
- In general, participants in adult education believed their jobs improved over time (4 studies out of 7). However, there was insufficient evidence to conclude that participation in adult education *caused* job improvement;

- In general, it was likely that participation in adult education resulted in earnings gain (5 studies out of 6);
- Although the evidence suggested that participants in *welfare-sponsored* adult education did experience a reduction in welfare dependence (6 studies out of 8), the evidence was inconclusive as to whether adult education *in general* reduced welfare dependence for participants;
- Participation in adult education had a positive effect on learners' self-image (6 studies out of 8);
- According to learners' self-reports, participation in adult education had a positive impact on parents' involvement in their children's education (6 studies out of 8);
- Learners perceived that their personal goals were achieved through participation in adult education (6 studies out of 7);
- 'In general, adult ... education provides gains in GED acquisition for participants entering at the adult secondary level.' That is, adults whose aim was to complete their previously uncompleted secondary education mainly succeeded in doing so (5 studies out of 6);
- Self-reported gains were positive in all but one of nine relevant studies for reading and maths, and in all but one of eight for writing;
- In general, adult education had a positive influence on participants' continued education (10 studies out of 10).

The overall picture on other benefits was therefore very positive, and a strong contrast to Beder's (perhaps excessively) gloomy conclusion on the test evidence on attainment. That contrast was subjected to further analysis for this review. The last three of Beder's other benefits could be considered as (indirect) evidence of growth in behaviour related to basic skills. If so, then that increased basic skills-related behaviour might have been expected to be related to measurable improvement in attainment. Beder's evidence on this point proved to be inconclusive:

- In only six of the 23 studies he analysed were there data for both attainment and basic skills-related 'other benefits', and two of these were the unreliable national studies;
- The Wisconsin study (N=270) showed a significant gain for reading and self-reported gains in reading, writing and maths;
- The Oregon study (N=53 for reading, 127 for maths) showed significant gains for reading and maths, plus significant GED acquisition and self-reported gains in reading, writing and maths;

- Both the California study (N=1,119) and the Even Start control-group study (N=64 experimentals and 53 controls) showed significant GED acquisition but no overall gain in reading compared to the control group.

This provides no firm basis for concluding whether other basic skills-related benefits were reliably associated with attainment gains or not.

Sheehan-Holt and Smith's (2000) re-analysis of NALS data provided a further relevant finding. Having (as shown in the previous chapter) established no impact of participation in basic skills on literacy attainment, they also analysed the association between participation in basic skills and several types of reading practice, and found that it was positive: 'Participants read more magazines, books, personal documents and document materials for work than nonparticipants' (p.240). They then went on to investigate the hypothesis that increased reading would over time lead to improved reading attainment; their analysis revealed, however, that there were 'no differences in literacy proficiencies between those who participated in basic skills programs more than one year prior to the NALS assessment and those who were enrolled within one year of the NALS' (p.240).

Thus the US evidence provided another cautionary tale: evidence of benefit to behaviours related to basic skills may not be good evidence of benefit to basic skills themselves.

11.7 British evidence on other benefits of adult basic skills tuition

11.7.1 General adult basic skills tuition

There have been two British studies of general adult literacy provision which were intended to be relatively large-scale and which gathered evidence on other benefits. The earlier study (Jones and Charnley, 1978, carried out in 1975-77) was a survey of the views of organisers, tutors and students. No exact figures were given in the report for the numbers of people interviewed, but the number of research areas was six (Jones and Charnley, 1978, p.9) and at a later point (p.73) the numbers of students interviewed in two of these areas appear to be given as 41 and 39; perhaps about 240 students took part in all. No attempt was made to measure students' progress directly. However, Jones and Charnley (1978, pp.93-95) provided nearly three pages of quotations from interviews with students testifying to their progress, and then (p.96) gave this summary:

[R]elatively few students were found who were ready to exercise their skills in public. They might sign a cheque in public with confidence, but only after the details had been filled in at home. This reluctance was most noticeable in writing. Students generally believed that they had made more progress with reading than with writing; but that most progress of all had been in feeling better about themselves. And this was seen more frequently in those who had attended groups than among those under tuition at home.

Later (p.110) they made this judgement based on all the evidence in the survey:

The main body of those who persevered in tuition made progress in their skills that was slow but steady, and there were a very few examples of astonishingly rapid progress towards reading and writing.

In 1989/90, Abell (1992) sent out questionnaires to basic skills organisers, tutors and students. Tutors' and students' perceptions of the students' progress were compared, and further triangulated against independent assessors' reports 'on progress identified in the writing of 50% of the students in the sample' (Abell, 1992, p.48). The report (p.7) claimed that:

96% of students who had completed a course or who had remained in provision throughout the study were firmly convinced that they had made progress. Reports from tutors and independent assessors supported these claims.

However, these claims rested on a very small base (see especially Abell, 1992, Figure 10, p.81). The number of questionnaires sent out initially to students in September 1989 was 221, of which 174 (79 per cent) were returned. Of this group, 78 (45 per cent) returned the follow-up questionnaire in April/May 1990. Thus the '96% of students who ... were firmly convinced that they had made progress' amounted to 75 people. And the 50 per cent of the sample whose writing was assessed appears to have consisted of 39 people.

Thus the earlier, self-report evidence on students' progress in general adult literacy schemes in Britain, though positive, rests on a total of perhaps 300 people in two studies, and is unsupported by attainment evidence from those studies.

More recently, the BSA commissioned a qualitative evaluation of the intensive programmes which were mounted in March 1999 (in addition to the NFER quantitative investigation of progress made). The resulting report was due to appear soon after this review (Basic Skills Agency, forthcoming, 2000b).

11.7.2 Family literacy

In the original evaluation of the Family Literacy Demonstration Programmes (Brooks *et al.*, 1996), it was found that:

- Over half (52 per cent) of the parents interviewed referred to a growth in their confidence, and many reported other improvements in social skills;
- The number of parents actively involved in their children's schools increased significantly;
- At the end of the course, over 80 per cent of parents planned to go on studying, and 12 weeks after the courses 70 per cent were actually doing a further course.
- The parents' ability to help their children's language and literacy development improved significantly;
- The children's language and early literacy development benefited.

In 1997, 154 parents were re-contacted (Brooks *et al.*, 1997), and of these

- 66 (43 per cent) were in work, up from 29 (19 per cent) in 1994/95;
- 92 (60 per cent) had taken at least one further course of study, whereas none were studying in 1994/95;
- 78 (51 per cent) had achieved a further qualification;
- 146 (95 per cent) thought that their ability to help their children with reading and writing was continuing to benefit;
- 87 (56 per cent) said that they were involved with their children's schools;
- 42 had become literacy helpers in the classroom;
- The rate of involvement of Family Literacy parents with their children's schools was double that of parents of children in a control group;
- 141 (92 per cent) thought that they were continuing to benefit from Family Literacy in other ways, especially in confidence and in communication skills.

In the 'New Groups' study (Brooks *et al.*, 1999), in families with a child in Year 4 (as already reported, above, for linguistic minority families) it was found that:

- The parents' ability to help their children improved;

- Many of the parents planned to go on further courses;
- Many became more involved with their children's schools;
- The children made substantial progress in literacy.

In other research into family literacy (Poulson *et al.*, 1997) progression to employment, vocational training or further education was reported for more than half of parents in 10 of the 18 schemes evaluated.

Since the overwhelming majority of parents on family literacy courses were mothers, the courses had therefore also acted as women's access courses to further study.

11.7.3 General adult numeracy provision

No evidence was found under this heading.

11.7.4 Family numeracy

The BSA (1998) research showed that parents became distinctly more involved with their children's schools, and better able to help their children with mathematics. The level of numeracy-related activities in the home increased, and the children's early mathematical development benefited.

11.7.5 Basic skills in prisons

Two projects in prisons were summarised in section 10.10. Stated non-attainment benefits were that:

- Participants in the family literacy and numeracy projects improved their family links, self-esteem, motivation to learn and ability to help their children (Prison Service, 1999?);
- ‘Tutees’ in the Peer Partner projects made friendships, felt more valued and gained confidence, while the ‘tutors’ gained in confidence, self-esteem, study and organisational skills, and accreditation (Prison Service, 1999).

11.7.6 Relationship between attainment and other benefits

In section 11.6 it was shown that the US evidence was inconclusive on whether improvements in basic skills-related behaviours were reliably related to attainment gains in basic skills themselves. It is therefore important to point out that the British evidence was much more positive in this respect. The 1976-79 and 1998-99 general adult literacy progress studies analysed in section 10.7 did not collect data on other benefits and therefore do not contribute here, and there was no evidence either way on adult numeracy, oracy or ICT. However, in this section (11.7) and section 11.4 other benefits have been logged for programmes of the following types, all of which also found (or at least claimed) attainment gains:

- family literacy in general
- family literacy for linguistic minority families
- smaller family literacy projects
- family numeracy, and
- two pilot projects in prisons.

Thus in Britain it may sometimes be possible to accept evidence of other benefits as reliable indirect evidence of gains in basic skills – but it is important to note that this is so far arguable only for family learning, and has yet to be shown for general adult literacy and numeracy.

11.8 The benefits of workplace basic skills provision in Britain

A study commissioned by the BSA in 1995 examined the contribution workplace training made to improving the basic skills of workers, the impact this had on their performance at work and in turn on the company's or employer's performance, and the indirect benefits associated with workplace basic skills provision (BSA, 1995a). The research focused on 17 employers in a range of companies including the service sector. These case studies were pilot projects funded under the Basic Skills at Work Programme begun in 1991 and also managed by ALBSU/BSA. The study allowed the researchers to develop a typology of company involvement in workplace training and to make **qualitative** assessments of the effectiveness of each model. Three models were identified:

The *employee-centred model* - the company believed all employees should have opportunities for advancement per se.

The *company strategy model* - training was seen as an intrinsic component of the company being able to achieve its goals.

The *problem-centred model* - training needs were identified because of a specific issue or difficulty facing the company.

Not surprisingly perhaps, this research highlighted the benefits associated with the company strategy and employee-centred models, rather than the problem-centred model. Training implemented within a context of choice (for the company and/or employee), rather than coercion (because of problems), was likely to be more effective. Similarly, training implemented when there was a perception of need, on the part of the employee and/or the company, was also likely to be more effective.

The study also suggested that the 'company strategy model' was the most cost-effective type of training because there were clear and direct benefits for both the company, e.g. increased production efficiency, and the employees, e.g. increased confidence, motivation and self-esteem (BSA, 1995a, p.39). There were also a number of unforeseen benefits associated with workplace training: students felt valued by the company and training was a positive learning experience, often in contrast to negative experiences they had had at school. Employee-centred and company strategy models were seen to offer the greatest contribution towards the achievement of national targets for education and training.

However, company-centred models needed to be implemented with the full support of employees rather than be perceived as imposed by management. As Holland *et al.* (1998, p.34) suggested, in a context where employees and their poor basic skills are frequently ‘blamed’ for industry’s failings, workers may resist employers’ attempts to ‘educate’ them. Holland *et al.* (1998, p.60) quoted Jurmo’s (1995) discussion of the benefits of a ‘participatory approach where workers are consulted and asked for input into designing, monitoring and evaluating the programme.’

Frank and Hamilton (1993) carried out case studies in a manufacturing company, supplemented by a wider telephone survey and postal questionnaire of a total of 73 employers (the majority also in manufacturing) in the north-west of England. Whilst this research cannot be claimed as representative of industry as a whole, it included a range of companies in terms of size, location and output. The benefits associated with workplace basic skills provision were related to industrial and personal benefits. Amongst the benefits identified were greater accuracy on the job, improved promotion prospects, and greater ability to adapt to change in the workplace.

11.9 Summary

There was substantial evidence of other benefits from a range of types of literacy and numeracy provision in both Britain and the United States, including workplace provision.

There was much less evidence of other benefits of oracy, ESOL or ICT provision.

The question of whether other benefits were reliable indirect indicators of gain in basic skills attainment was examined from both US and British evidence. The US evidence was inconclusive. The British evidence suggested that other benefits were reliable indicators of gain in basic skills in family learning, but that this has not yet been demonstrated for general adult basic skills.

11.10 Recommendations

Evidence of other benefits should continue to be collected where possible, for two reasons:

- Other benefits are useful for informing and developing policy and practice;

- The evidence may be less troublesome to collect because it puts less strain on students' abilities and willingness to cooperate
- In the case of family learning other benefits may be reliable indirect evidence of gain in basic skills attainment.

The investigation of other benefits needs to be extended to ICT, ESOL and oracy.

The question of whether other benefits are reliable indirect evidence of gain in general basic skills provision needs urgent investigation.

Chapter 12: Factors associated with progress

12.1 Aim

Chapters 10 and 11 have shown that adult basic skills provision can produce both direct impact on adults' performance in basic skills, and benefits for other aspects of their lives - but why? What evidence is there on the factors that lie behind the gains? This chapter seeks answers to those questions.

One very significant finding needs to be stated immediately. If the question is put as 'What factors have been shown by research to be *causally* related to progress in adult basic skills?', the answer is **NONE**. For a factor thought to be causally related to progress to be proven so it is necessary to set up an intervention or training study. Matched experimental and control groups must, over a period of time, receive treatments that differ only in the factor being investigated (all other factors being controlled), and must be tested both before and after treatment. Only if the experimental group makes statistically significantly more progress than the control group can it be validly inferred that the difference in treatment *caused* the difference in progress. It is clear from the analysis of impact studies in chapters 10 and 11 that *barely a single intervention or training study has been successfully carried out in the adult basic skills field.*

This is the most significant gap in the research literature identified in this review.

(The one possible exception was the US ICT study using the INVEST program mentioned in section 10.3. This had a control group, and the experimental group's gain in maths was said to be statistically significantly greater than the control group's. However, the available report was not sufficiently detailed to judge whether this was a fully controlled training study.)

The implications of this finding are discussed towards the end of the chapter. The immediate consequence is that much of the evidence cited in this chapter is based on *statistical relationships*. Certain factors were shown to be statistically related (or not) to progress, but where there was a statistically significant relationship the nature of the relationship could not be inferred: the factor might have caused the progress, or both the

progress and the differences in the related factor might have been caused by some unknown third variable.

In addition to statistical relationships, some of the evidence cited in this chapter is based on researchers' or practitioners' *judgements*. These have been used only where they are known to be grounded in detailed knowledge of particular research projects or of the basic skills field.

The caveats in this section need to be borne in mind throughout this chapter.

12.2 Sources

There was no evidence to summarise on ESOL or oracy, and none from the United States or the rest of the English-speaking world. This chapter therefore deals exclusively with British evidence.

12.3 Basic skills in general

The BSA (2000a, p.11) published its own conclusions on what is most effective in enabling adults to improve their basic skills, namely programmes that:

- deliver clearly structured teaching
- provide for the acquisition of skills in a range of contexts that meet the motivation and interests of learners
- have high expectations of learners' achievements
- produce for each learner a learning plan that lists and provides activities and material to meet specified individual need
- regularly assess and review learner progress, and adjust individual learning plans accordingly
- enable learners to gain credit and accreditation for their learning and enable them to study further

- adjust the length of programme to the level of skills required.

These features were derived both from research and from practitioners' insights, and conform to models of good educational practice in general.

12.4 Basic skills in prisons

The Moser Report (1999) concluded that the Prison Education Service in 1998 was a good example of how an effective strategy can work. Moser suggested that the Service had overcome some of the drawbacks that arise elsewhere for basic skills because of the lack of a national strategy.

Since 1998 the Prison Service has required that:

- All providers hold the Basic Skills Agency Quality Mark;
- All prisons have plans to assess how prisoners with basic skills needs will be supported in the workplace;
- There is training for civilian instructors and prison officers to support these needs;
- That some challenging targets are set for improvement in basic skills.

The Quality Mark, though widespread, is not compulsory for other providers. However, its requirements for quality assurance, assessment and support, appropriate training, and targets appear appropriate for all providers, as recommended by the Moser Report.

12.5 General adult literacy

The main source of evidence here was the 1998-99 NFER study. The overall average amount of progress of the adults in the study was small, and it could therefore not be expected that many strong relationships with other variables would emerge. However,

numerous statistical relationships were investigated, and the detailed findings of the study were as follows:

- *No statistically significant relationships* were found between progress in literacy and
 - the following student characteristics: gender, age group, English as first or additional language, different occupational statuses, levels of qualification, or amounts of previous basic skills tuition
 - the following tutor characteristics: having a degree or not, years of teaching experience
 - the following aspects of teaching: students' access to IT, the percentage of time tutors used textbooks or their own materials, whether tutors followed a defined curriculum or scheme or work, what the basis of the curriculum or scheme or work was, how tutors planned their work, tutors' emphasis on different aspects of literacy, amount of time spent teaching individually or to the whole class or to mixed-ability groups or to ability groups, aspects of students' progress considered in planning lessons or in making assessments
 - the following aspects of management support: the amount of support tutors received from their line managers, the frequency of formal or informal staff meetings.
- But statistically significant relationships with progress **were** found for the following:
 - whether tutors had qualified teacher status or not: where all the tutors in a particular provider had QTS, students made more progress than elsewhere
 - whether tutors had support from volunteers or paid assistants: where all or some of the tutors in a particular provider had such support, students made more progress than where no tutors had support. On average, students in providers where no tutors had support made no gain.

There was one other significant finding. Data were collected on the number of hours of literacy tuition students had received between pre- and post-test. The largest average improvement was shown by the 51-60 hours of tuition group. Since the pre- and post-test were never more than 20 weeks apart, this group of students would be those who attended very regularly. This group's average gain was 23.8 scale points. **This was the largest subgroup gain in the study and, at nearly half a standard deviation, probably the most educationally significant.**

Care is needed in the interpretation of the evidence just summarised. Factors for which no statistically significant association was found may still be important – it was just that the statistics did not pick this up.

12.6 General adult numeracy

No specific evidence was found under this heading.

12.7 Family literacy and numeracy

In the research on the BSA programmes, numerous factors were judged by the researchers to be associated with progress, but the associations were based purely on judgement – no statistical tests were carried out to investigate relationships between progress and the factors thought to be associated with it. Subject to this caveat, over the three main reports on family literacy (Brooks *et al.*, 1996, 1997, 1999) and the BSA (1998) report on family numeracy, factors contributing to the success of such schemes were thought to include:

- voluntary participation
- parents' commitment to improving their children's chances
- clear information about goals, including subsequent progression
- clear focus on literacy/numeracy development, regarding other benefits as 'bonuses'
- nationally recognised accreditation of learning
- careful selection of courses and staff, and quality of teaching
- time-limited courses to focus achievement (with a minimum of 40-45 hours specified for numeracy courses)

- support of key personnel within institutions (e.g. primary headteacher)
- inclusion of talking and writing, as well as reading, in literacy schemes
- teaching sessions for parents only and children only, as well as for parents and children together
- improved parent confidence.

The original family literacy evaluation (Brooks *et al.*, 1996) also identified a number of possible barriers:

- Unrealistic aspirations by a few parents for their children
- Variation in effectiveness of visiting speakers
- Resistance to withdrawal of children from school classes.

12.8 Workplace basic skills provision

Even more than with the forms of provision already discussed in this chapter, the evidence on factors associated with effective workplace provision relies on judgement, since there is no performance evidence of the effectiveness of such provision.

Frank and Hamilton (1993, pp.174-6) emphasised the importance of consultation between all stakeholders from implementation, to curriculum design, to evaluation of the schemes. Nieduszynska (1992), in discussing her experiences of being a workplace basic skills tutor, reinforced the importance of commitment from *all* sides. She highlighted that without the support of management and shop stewards during a time of redundancy and negative publicity the scheme would not have survived. The image of basic skills training within the workplace was also a crucial factor in the implementation of a successful programme. The often negative attitudes expressed within the workplace towards individuals with basic skills needs means that programmes should focus on students' progression rather than deficiencies, and that the term 'basic education' should not be used (Nieduszynska, 1992; Frank and Hamilton, 1993, p.161).

The literature also highlighted barriers to the successful implementation of workplace basic skills training. The importance of attitudes towards implementation on the part of employers and employees and the need for participation at all levels has already been highlighted. Other significant barriers to successful implementation included a lack of perceived need for such programmes, a lack of a suitable training ethos within the organisation, and the costs and time associated with making such provision (Frank and Hamilton, 1993, p.138).

The costs in terms of training costs and lost production were crucial issues for employers - who is going to pay for such training? Nearly 75 per cent of employers in Frank and Hamilton's study said they would be looking for alternative sources of funding for basic skills training schemes and were not 'willing or able to fund it themselves' (Frank and Hamilton, 1993, p.133). This was reinforced by the ALBSU study (1993, p.39) which found that most companies felt that the education system should have the main responsibility for ensuring workers had adequate basic skills (91 per cent agreed with this statement and 74 per cent agreed strongly).

The timing of provision may also have a crucial impact on employees' ability to access such provision. Classes which run within work time may mean that workers are unable to attend sessions because of the demands of their jobs and/or because supervisors are unwilling to release them. This highlights the need for commitment to provision from *all* levels of staff. Conversely, holding classes in private time may serve to exclude certain sectors of the workforce. Holland *et al.* (1998) highlighted that in the 1980s the majority of workplace basic skills provision was in company time but that in the 1990s it was increasingly provided, at least partially, in employees' own time. This had a detrimental impact on those workers, for example part-time and peripheral staff, who might be most in need, and traditionally were least likely to have received training. This change in timing of provision also had a negative impact on women's (as primary carers) opportunities to access education and training (Holland *et al.*, 1998, p.61).

The 1995 BSA-commissioned study highlighted that 'company awareness' was one of the most significant barriers to the successful implementation of workplace basic skills programmes (BSA, 1995a, p.39). The research suggested that managers needed to be aware of the importance and relevance of basic skills amongst all staff as a way of

improving company competitiveness. It also highlighted that employers need to be aware of the basic skills needs within their workforce in order to make suitable provision. This latter point was reinforced by Mace (1992) who suggested that employers were not always aware of employees' skills, yet increasingly funding for basic skills training was based on the assumption that they are.

The literature revealed the potential for conflict and divergence in the provision of workplace basic skills programmes, which can, in part, be seen to reflect power relations within the workplace. There may be divergence between what employees and employers want from work-based training. Holland *et al.* (1998) suggested that workplace training needs to be viewed in wider economic, social and cultural contexts. However, traditionally it has been viewed in the context of increasing productivity and competitiveness within the marketplace. Castleton (1999, p.16) argued that a functional interpretation of literacy in the workplace which emphasises the deficiencies of individuals and their negative impact on industrial performance fails to acknowledge 'how work is actually achieved through the sharing of information and skills rather than by individual performance.'

12.9 Implications

This chapter has so far assumed a particular model of educational research, and it is time to call it in question. The model is positivist, akin to the 'medical model' of research: interventions are devised and tested, data are gathered and causes investigated. Experiments are designed according to scientific principles, and can be ranked according to their conformity to preferred designs (above all the randomised controlled trial); and their results can be accumulated and weighted in relation to sample size and effect sizes.

Precisely this approach is explicit in the most recent comprehensive analysis of the literature on the initial teaching of reading (National Reading Panel, 2000), and in that instance it has yielded results, though no surprises.

But adult basic skills research has not been like that, and perhaps cannot be. Adults with low skills almost by definition are least likely to tolerate being subjected to forms of testing which overface them and put their fragile self-confidence under threat.

The newly-established Centre for the Wider Benefits of Learning at the London Institute of Education and Birkbeck College aims to supply evidence on non-economic outcomes of learning, e.g. modelling and measuring civic participation, family/intergenerational benefits, health, and ICT; methodological problems in evaluating lifelong learning initiatives; and analysing the impact of implementing the Moser targets (RaPAL, 2000, p.35). Also the LDD Working Group (2000, p.4, etc.) report recommended finding alternative ways of recognising the achievements of adults with special educational needs. The simplest method is to ask students what helps them learn, but ‘soft’ evidence such as this has not usually convinced policy-makers and funders.

The non-attainment benefits summarised in chapter 11 may represent one way of finding non-threatening measures of achievement. But, as also shown in chapter 11, though it may be possible for some types of programme (especially family learning) to accept evidence of other benefits as reliable indirect evidence for attainment gains, this link has not yet been demonstrated, or even investigated, for general basic skills courses in Britain, and the US evidence is inconclusive on the matter. So for some investigations there may be no convincing alternative to asking students to undertake a performance test both before and after a course of learning.

The search for factors related to progress in basic skills therefore faces a dual challenge: to define very clearly priorities within the research questions to which answers might be wanted; and to find ways in which relevant evidence can be gathered without alienating students (and tutors). The way forward, methodologically, may be to investigate alternatives to the randomised or matched control group design. Two quasi-experimental possibilities are time-series studies, and evidence from non-experimental variation.

However, time-series studies are feasible only where an innovation is introduced at a known point and good data have been collected beforehand as well as afterwards; there seem to be no good candidate datasets of this sort in basic skills. Abell’s (1992) attempt, mentioned in section 8.5.2, to study different styles of adult literacy provision was in effect

an attempt to study non-experimental variation in adult literacy teaching – and her inability to distinguish them reliably on the ground is an indication of the difficulties inherent in this form of research.

12.10 Summary

Not a single factor has been proved to be causally related to progress in basic skills, and this is the most significant gap in the research literature identified in this review.

Perhaps the most significant factor statistically related to progress in literacy is a sufficient number of hours of tuition (about 60 hours).

Other factors found to be related to progress in literacy were tutors having qualified teacher status and tutors having classroom assistants.

Other key features suggested by experts in the field were clearly structured teaching, meeting students' needs and having high expectations of them, and clear ideas on progress and assessment.

Positivist research methods may not always be suitable, but indirect measures of attainment may be less convincing.

12.11 Recommendations

The research community's most immediate and urgent tasks should be to:

- **define the questions about progress in basic skills to which answers are most needed**
- **determine which measures (performance indicators, students' views, performance tests) can deliver convincing answers**
- **proceed with investigations, including intervention studies.**

Chapter 13: Costs and Benefits

13.1 Aim

Funders, including governments, and providers need to know if money for educational provision is being well spent, yet of all the aspects of basic skills provision this is the least well researched. This chapter is therefore a placeholder which presents just a few relevant data and some of the arguments.

13.2 Sources

Very little hard evidence on costs was found, and the amount of information attempting to link costs and benefits was vanishingly small.

13.3 Funding for basic skills

The Moser Report (1999, p.79) summarised the sources and amounts of funding for basic skills for people over 19 in England in 1997/98:

Table 13.1: Spending on basic skills in England, 1997/98

Source	£m
FEFC	180
National Lottery	32
European Social Fund	27
Prisons	23
Other government initiatives	7
Family literacy	4
Adult and Community Learning Fund	3
TOTAL	276

13.4 Unit costs

In 1996/97, the FEFC (1998) funded about 205,000 basic skills learners at £750 per head. Each learner was studying for 1.6 qualifications on average. The FEFC also estimated that about 50 per cent of students who enrolled achieved their learning goals. Not all of these were qualifications - some were personal and did not lead to a certificate. But if all the learning goals achieved had been qualifications, and if therefore learners had achieved 0.8 qualifications each on average, this would imply that the cost of each qualification achieved was £900. This seems a reasonable return on investment (ROI).

For England and Wales, the only other report in which an estimate of the cost of provision was found was the NFER evaluation of the original BSA family literacy programmes (Brooks *et al.*, 1996, pp.96-7). Considering only direct costs (that is, excluding development and research costs), it was estimated that in these courses the cost per participant-learning hour was £3.47 (in 1994-95). This estimate covered not just the parents but also the children who participated, and indeed younger siblings being minded in the crèche which every family literacy course routinely provided. Multiplied up by the nominal 96 hours of course time (this figure was used in the original calculation from which the figure of £3.47 was derived), this represents £333 per parent. Since 95 per cent of parents achieved a literacy qualification (almost all achieved another, non-literacy qualification, e.g. First Aid), this would represent £351 per literacy qualification, which seems an excellent ROI.

Beyond this, there was a little evidence from Scotland. Wilson *et al.* (1991; also summarised in Wilson, 1992) attempted to study the costs and benefits of basic skills in Scotland and were able to calculate the cost per student hour for six programmes, of which three focused on adult literacy:

<u>Organisation</u>	<u>Course</u>	<u>Cost per student hour</u>	<u>Excluded costs</u>
Regional community education service	One-to-one	£4.74	Crèche, exam fees, teaching costs
Regional community education service	Small group	£10.78	Crèche, exam fees, subsistence
Voluntary trust	Small group	£11.20	Staff training, travel for seconded worker

Source: Wilson (1992, p.5)

Wilson *et al.* were, however, right to point out that the basis for calculation was different in every case, and that the excluded costs in particular made the calculations dubious.

The only relevant US document found was a short piece by Sticht (1999) on ROI. He argued that the best way for governments to maximise ROI in adult basic education is to put money into the types of programme for which evidence of effectiveness already exists. He cited various examples, probably valid within the US context. The general principle might be applicable to Britain, but the examples may not be because of the different contexts and the much smaller amount of reliable British evidence. Evidence for the effectiveness of family literacy and family numeracy has certainly led to widespread adoption of the BSA models, but it is worth noting that:

- There is no British information on what factors might relate to progress in general adult numeracy;
- The number of factors (derived from British evidence) that are statistically *associated* with progress in general adult literacy is small; and
- None of these factors has been proved to be *causally* related to progress in evidence from anywhere in the world.

Even if much more evidence were available, and ROIs were found to be poor, there would still be a need to relate costs to non-financial benefits, e.g. a fall in recidivism associated with basic skills provision in prisons.

13.5 ICT

Perhaps the most problematic area when discussing costs and benefits is ICT. In the very opening paragraph of *Motivation, Access and the Media* (Sargant and Tuckett, 1997) the authors noted that ‘developments in media technology are affecting education at every level ... they have different costs and different benefits’. One key reason they gave for difficulties in beginning to consider actual costs was the extent to which these relate to the amount of personal assistance required on the part of the learner.

The authors of the Socrates Basic Skills Research report provided useful insights into this issue. As part of their initial conclusions, they commented that cost-effectiveness had yet to be established in the context of their work, but noted that ‘the use of this technology does appear to add value to the learning process and may therefore justify initial costs on this base alone’ (Simanowitz and Horsburgh, 1999). Here again it was noted that learners vary enormously in the amount of intervention required by a tutor. In general, one of the report’s authors (Horsburgh, personal communication, 2000) acknowledged that, with really expensive multimedia products, a number of teachers would challenge the costs. However, if one is looking to obtain a range of multimedia at a reasonable price, the trend is that costs are coming down (with possibilities such as **learndirect** from the University for Industry), so that using ICT will become increasingly cost-effective. Furthermore, anything which is web-based with a level of interactivity will become increasingly so. The more that the ICT used maps relevantly into and is compatible with the particular need, the more carefully planned it is as a resource, the more cost-effective it becomes.

In a more general discussion of cost-effectiveness of using ICT with adults, Clarke (1997) noted the increasing pressure to justify the cost of learning programmes, particularly with ICT with its innovative nature. He argued that the whole range of benefits obtained when using ICT in a particular situation needs to be considered. According to Clarke, ‘There is a number of published claims for both costs and benefits of learning technologies. Cost savings of between 30 and 90 per cent, linked to a range of benefits, have been reported.’ In addition, the costs of learning are being increasingly shifted onto the learner when a change in the method of delivery occurs.

Thus there has been some discussion of costs and benefits in using ICT, but apparently no attempt to attach actual figures.

13.6 Summary

The information on costs and benefits was minimal and unreliable.

13.7 Recommendations

In the area of costs and benefits, both with respect to ICT and generally, even more than in any of the other topics covered in this review, there is an urgent need for clear and reliable information. This would ideally come from intervention studies where cost/benefit analysis is built in from the start and the basis of calculation is full, clear and unambiguous. Even then, comparative cost/benefit analyses will be possible only when a substantial number of studies has been carried out and provided full information from which equitable comparisons can be calculated. And gathering of data on costs and benefits should be built in also to less stringent designs than intervention studies.

PART FOUR: WHERE NEXT?

Chapter 14: Gaps in existing knowledge

Simply to list all the areas in this review where information was found to be limited would occupy several pages. Not only would this be tedious, but it would give the impression that a massive amount of descriptive information-gathering is the primary research requirement. It is not - the need for intervention and other studies of progress is the most urgent task. Therefore this chapter presents only the main gaps in knowledge, organised by topics.

14.1 Causes of Progress

The biggest single gap is the total absence of intervention studies exploring what factors in teaching basic skills cause progress in learning those skills.

14.2 Special educational needs

Adults with special educational needs and poor basic skills may well be the hardest to reach and the most difficult to serve. But they are also the group about whom least is publicly known, in terms of their presence both in the population as a whole and in current provision, and of how teaching and assessment are adapted for them.

14.3 Routine data-gathering

National surveys were frequent for several years up to 1996 but have ceased, for no good reason. The FEFC and BSA information-gathering systems, though excellent for some purposes, provide insufficient information directly about students and their characteristics, or about their destinations when they leave provision.

14.4 Extra data-gathering

Not enough is known about:

- levels of attainment in oracy and ESOL
- the smaller provider sectors
- tutors' professional development

- what programmes and teaching actually look like on the ground
- the impact on attainment or other benefits of current numeracy and ESOL provision and of the use of ICT
- costs and benefits.

Chapter 15: Recommendations

This review concludes by presenting a set of strategic recommendations. As in chapter 14, only major items are stated here. Less significant recommendations can be found at the end of certain chapters. Many other recommendations that might have been made solely on the basis of published research have not been included here or anywhere in this review, because so much of the strategy set out in the Moser Report has already been put in place.

15.1 Causes of Progress

As might be predicted from the previous chapter, the overriding recommendation has to do with investigating the causes of progress in basic skills:

There should be an immediate, structured programme of studies exploring the factors thought to cause progress in basic skills. No other research in the field should be given priority over this.

These studies need to be undertaken with due regard to what the most appropriate measures of progress are. The studies should where possible incorporate not only quantitative measures of progress but also control and/or comparison groups so that hypotheses can be rigorously tested. However, the programme of research should take due account of students' sensitivities, and of possible alternative research paradigms such as investigations of non-experimental variation.

The research programme could immediately cover literacy, general numeracy and ESOL as it stands. Investigations of oracy for monolinguals and of numeracy for speakers of languages other than English would have to await developments in the conceptualisation of the field and (in the case of oracy) of appropriate instruments.

Information on costs should routinely be included so that cost/benefit analyses can be improved.

Investigations of aetiology and cognitive processes should be pursued where they offer hope of better and more testable applications to teaching, but should not cause imbalance in the overall research effort.

Perhaps the most immediate focus of intervention studies should be possible differences in progress according to style of provision attended – drop-in versus timetabled, intensive versus non-intensive. Studies of effective professional development and its impact on students' attainment should also be high on the agenda.

15.2 Debating the field

Such a research programme would automatically sharpen the need for and the terms of the debate that is needed and which has begun. The debate should have at least three aspects:

- **On content:** Does the proposed national curriculum take sufficient account of developments elsewhere in oracy and numeracy? To what extent are basic skills in oracy the same or different for first- and second-language adult speakers of English? Should there be numeracy provision for speakers of languages other than English?
- **On inclusion:** How can students' views best be heard? How are adults with poor basic skills and special educational needs to be reached and served?
- **On assessment and accreditation:** How can they be aligned with curriculum and pedagogy to ensure their validity? How can reliability best be reconciled with this?

All parts of the debate should take account of, could even be led by, the current ferment in the numeracy field. The section of the debate on oracy needs to take account of work done in the Australian state of Victoria. Developments in assessment and accreditation must arise from, and not lead, the national curriculum.

15.3 Innovative data-gathering

In order to assist the debate on content, three urgent research tasks would be to:

- define oracy skills, for both first- and second-language speakers of English, and investigate how these might be assessed;

- study the extent to which the numeracy needs of linguistic minority adults are the same as or different from those of the monolingual majority;
- establish good estimates of the numbers of students with special educational needs.

15.4 Routine data-gathering

The baseline national survey of basic skills levels in the population should attempt to incorporate representative samples of linguistic minorities, and include some pilot items on oral skills and ICT. Background variables should include special educational needs so that the skill levels of groups with special needs can be estimated. Similarly, items to show with adults with poor skills can do should be included.

In the transition from the FEFC to the LSC, the data-gathering system needs to be broadened.

15.5 Policy

Providers in other sectors (employers, voluntary organisations, training organisations), who make a useful, though at present small, contribution to basic skills provision need to be encouraged, especially through steadier funding.

15.6 Monitoring Moser

Finally, it was pointed out at the beginning of this review that the whole basic skills scene is changing rapidly as a result of the Moser Report and its recommendations. The implementation of those recommendations deserves to be the subject of a detailed evaluation over several years.

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A REVIEW OF BASIC SKILLS AND MAPPING OF THE TEACHING OF BASIC SKILLS TO ADULTS

Appendix: Search methodology for the review

General Approach

Initial discussions were held with the project team, including Sara Whittaker of NFER library, to establish the parameters for the review. Information was sought both electronically and by conventional literature search; also by contacting a number of relevant researchers in the field, mainly by telephone but in a few cases by face-to-face interview. Following initial electronic searches, additional key terms were suggested, and the search terms were then refined.

Inclusion / Exclusion Criteria

Study Design

The review is of published literature, which informs the body of knowledge on basic skills and the effective teaching of basic skills to adults. Current research is included where appropriate.

Target Population

The review covers research pertaining to the age range of 18 and above. Upper secondary is not included.

Time and Place

Studies in this review date from 1990, covering research undertaken in the UK, the rest of Europe, in the USA, Canada, Australia and New Zealand. Where a large number of records were found, the time limit was shortened in order to manage the set of results. This is stated clearly next to the search term in the search strategy.

Only material written in English is included.

Electronic Search Strategy

As the primary method of identifying published literature for this review, staff at the NFER Library searched a range of educational and psychological databases: British Education Index, ERIC and PsycLit. The Library's own internal databases were also searched, including the *Register of Educational Research in Britain*, alongside a comprehensive search of the World Wide Web.

Due to limited resources, other recommended means of searching, such as handsearching of journals, were not undertaken.

Search strategies were developed using the controlled vocabulary pertinent to each database. Each database has its own standardised search terms and search strategies were developed to maximise consistency.

A record of the searches undertaken for the databases has been documented, and is outlined below.

Conventional Search Strategy

Five researchers/consultants contributed to the literature analysis. They used both materials located by the electronic searches and those they located by following references back through the literature. In addition, certain organisations and individuals were contacted or visited; these are listed at the end of this Appendix.

Analysis

The analysis of the literature amassed largely followed conventional qualitative, or 'best-evidence synthesis', lines. More comprehensive and more recent sources were preferred to smaller and older ones. Wherever possible, alternative sources of information on the same topic were compared, and quantitative information was tabulated. A very small amount of computation was undertaken, e.g. in providing percentages where the source gave only

numbers. Above all, the evidence was critically weighed and analysed, and interpretation was restricted, as far as humanly possible, to clear implications of the findings.

LIBRARY SEARCH STRATEGIES

DATABASES

BRITISH EDUCATION INDEX

- #1 Basic Skills
- #2 Adult Basic Education
- #3 Literacy **OR** Literacy education **OR** Adult Literacy *1995-1999*
- #4 Numeracy *1995-1999*
- #5 ESL **OR** ESOL **OR** TESOL *1997-1999*
- #6 Reading skills
- #7 Writing skills
- #8 Oracy
- #9 SSSR (Society for the Scientific Study of Reading)
- #10 NICHD (National Institute of Child Health and Human Development)
- #11 Department of Education
- #12 National Research Council **AND** Literacy

Author search: Moser
Purcell-Gates, V.

ERIC

- #1 Basic Skills
- #2 Adult Basic Education *1998-1999*
- #3 Literacy **OR** Literacy education **AND** Adult Literacy *1997-1999*
- #4 Numeracy
- #5 ESL **OR** ESOL **OR** TESOL *1997-1999*
- #6 Reading skills
- #7 Writing skills
- #8 Oracy
- #9 SSSR (Society for the Scientific Study of Reading)
- #10 NICHD (National Institute of Child Health and Human Development)
- #11 Department of Education
- #12 National Research Council **AND** Literacy

Author search: Moser
Purcell-Gates, V.

PSYCLIT

- #1 Basic Skills
- #2 Adult Basic Education **OR** Adult education **OR** Adult learning
- #3 Literacy
- #4 Numeracy
- #5 ESL
- #6 Reading skills
- #7 Writing skills
- #8 Oracy
- #9 SSSR (Society for the Scientific Study of Reading)
- #10 NICHD (National Institute of Child Health and Human Development)
- #11 Department of Education
- #12 National Research Council **AND** Literacy

Author search: Moser
Purcell-Gates, V.

INTERNET

Keywords searched:

- #1 Basic Skills
- #2 Adult Basic Education
- #3 Literacy
- #4 Numeracy
- #5 Reading skills
- #6 Writing skills
- #7 ESL **OR** ESOL **OR** TESOL

Adult Literacy and Numeracy Australian Research Consortium (ALNARC)
<http://www.staff.vu.edu.au/alnarc/>

Adult Numeracy in Australia
<http://sunsite.anu.edu.au/language-australia/numeracy/index.html>

Adult Numeracy Network
<http://www.std.com/anpn/>

Adult Numeracy Themes
<http://literacy.kent.edu/Oasis/Resc/Educ/ANTindex.html>

Adults Learning Maths
<http://www.euronet.nl/~groenest/alm/index.htm>

American Association for Adult and Continuing Education

<http://www.albany.edu/aaace/>

American Institute for Research (AIR)

<http://www.air-dc.org/research/>

Adult Returners Key Skills (ARKS)

<http://www.ed.ac.uk/~calarks/arks/indexe.html>

Association of Teachers of Mathematics

<http://www.atm.org.uk/>

Australian Council for Adult Literacy (ACAL)

<http://www.acal.edu.au/>

Basic Skills Agency

<http://www.basic-skills.co.uk/>

Blaise Web – British Library National Bibliographic Service

<http://www.portico.bl.uk>

Centre for Language Teaching and Research

<http://www.lingua.cltr.uq.oz.au/>

Centre for Longitudinal Studies – at the Institute of Education

<http://www.cls.ioe.ac.uk>

Copernic 2000 – software to search multiple Web search engines simultaneously

<http://www.copernic.com>

DfEE – Department for Education and Employment

<http://www.dfee.gov.uk>

<http://www.lifelonglearning.co.uk>

Educational Testing Service (ETS)

<http://www.ets.org/>

European Basic Skills Network

<http://www.eurobasicskills.org/>

European Society for Research on the Education of Adults (ESREA)

<http://www.helsinki.fi/jarj/esrea/>

Institute for the Study of Adult Literacy

http://www.ed.psu.edu/isal/nfrm_frontpage.html

International Association of Applied Linguistics

[Site visited 20/12/99 – no longer working 07/01/00]

<http://www.education.uts.edu.au/AILA>

The Internet TESL Journal

[Site visited 25/10/99 – no longer working 07/01/00]

<http://www.aitech.ac.jp/~iteslj>

Language and Literacy – Electronic Journal

<http://educ.queensu.ca/~landl/>

Language Australia National Resource Centre (LANRC)

<http://langoz.anu.edu.au/>

Literacy Link

<http://www.pbs.org/literacy/>

Literacy Online

<http://litserver.literacy.upenn.edu/>

Literacy Resources/Rhode Island

[http://www.brown.edu/Departments/Swearer_Center/Literacy Resources/](http://www.brown.edu/Departments/Swearer_Center/Literacy_Resources/)

Mathematical Association

<http://www.m-a.org.uk/>

National Adult Literacy Agency

<http://www.nala.ie>

National Adult Literacy Database

<http://www.nald.ca/>

National Center for Educational Statistics

<http://www.nces.ed.gov/>

National Center for Family Literacy

<http://www.famlit.org/>

National Center for the Study of Adult Learning and Literacy (NCSALL)

<http://qseweb.harvard.edu/~ncsall/>

National Centre for English Language Teaching and Research

<http://www.nceltr.mq.edu.au/>

National Clearinghouse for ESL Literacy Education (NCLE)

<http://www.cal.org/ncle/>

National Council of Teachers of Mathematics

<http://www.nctm.org/>

National Institute of Adult Continuing Education (NIACE)
<http://www.niace.org.uk/>

National Institute for Literacy (NIFL)
<http://www.novel.nifl.gov/>
<http://www.nifl.gov/nifl/summit/agenda>

National Literacy Trust (NLT)
<http://www.literacytrust.org.uk/>

New Horizons in Adult Education – a scholarly electronic journal
<http://www.nova.edu/~aed/newhorizons.html>

Northern Light Research – Search engine
<http://nlresearch.northernlight.com/research.html>

Quality assessment and accountability systems (CASAS)
<http://www.casas.org/>

Research and Practise in Adult Literacy (RaPAL)
<http://www.literacy.lancaster.ac.uk/rapal/RaPAL.htm>

TESOL Online
<http://www.tesol.edu/>

PEOPLE CONTACTED VIA E-MAIL

The following people/organisations were sent an e-mail asking if they knew of any research in the UK on Adult Basic Skills especially:

- 1) any quantitative studies of progress
- 2) local studies of the scale of need.

National Adult Literacy and Learning Disabilities Center
<http://www.aed.org>
admin@aed.org

Research and Practice in Adult Literacy Group (RaPAL)
<http://www.literacy.lancaster.ac.uk/rapal/RaPAL.htm>
m.hamilton@lancaster.ac.uk

National Institute of Adult Continuing Education
<http://www.niace.org.uk>
niace@niace.org.uk

Education and Research Centre in Ireland (Gerry Shiel)
Gerry@erc.ie

Northern Ireland Council for Curriculum, Examinations and Assessment
<http://www.ccea.org.uk/index.htm>
info@ccea.org.uk

Scottish Consultative Council on the Curriculum (Scottish CCC)
<http://www.sccc.ac.uk>
reception@sccc.ac.uk

Angela Napuk (0131 650 6913)
nap@holyrood.ed.ac.uk

Further Education Development Agency (020 7436 0020)
<http://www.feda.ac.uk/information@feda.ac.uk>

Scottish Council for Research in Education (SCRE)
<http://www.scre.ac.uk>
scre@scre.ac.uk

Her Majesty's Prison Service
<http://www.hmprisonservice.gov.uk/feedback.asp>

Scottish Community Education Council
carol.swan@scec.dircon.co.uk

Educational Research Unit
Scottish Executive Education Department (0131 556 8400)
<http://www.hmism.scot.nhs.uk/>
brian.semple@scotland.nhs.uk

Adult Basic Skills Resource Centre
adultbasic@unite.co.uk

Margaret Connelly
abess@egsa.dnet.co.uk

Barking College
admissions@barking-coll.ac.uk

Scottish Further Education Unit
sfeu@sfeu.demon.co.uk

Community Learning Scotland
info@cls.dircon.co.uk

Adult Literacy and Numeracy Australian Research Consortium (ALNARC)
beverley@dingo.vut.edu.au

European Society for Research on the Education of Adults (ESREA)
tuomo.aalto@helsinki.fi

Centre for Longitudinal Studies
dm@cls.ioe.ac.uk (Dina Maher – Secretary)
<http://www.cls.ioe.ac.uk>

SE Development Project – Adult Literacies in Scotland (Tel: 0131 668 3020)
scotlit@globalnet.co.uk (Catherine Macrae)

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31/01/00

ORGANISATIONS AND INDIVIDUALS CONTACTED

Most of those named below were contacted by telephone, but the group at the University of Lancaster was visited by one of the research team (SK). The project team are grateful to all those named, and to any others who were contacted but whose names do not appear.

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