



National Research and Development Centre
for adult literacy and numeracy

Four years on

NRDC 2005-6
FINDINGS AND MESSAGES FOR
POLICY AND PRACTICE



Compiled and edited by John Vorhaus

The National Research and Development Centre for Adult Literacy and Numeracy (NRDC) was founded in 2002 as a cornerstone of the Government's *Skills for Life* strategy in England. Our remit is to provide underpinning evidence and practical guidance for teacher educators, teachers and other professionals. We are working to help improve the quality of teaching and learning so that young people and adults can progress, achieve and develop the skills and knowledge they need to succeed in life and work.

NRDC is a consortium of 12 partners, led by the Institute of Education, University of London. It brings together the best United Kingdom researchers in the field, together with expert and experienced development professionals and a wide range of talented practitioners.

- Institute of Education, University of London
- Literacy Research Centre, Lancaster University
- School of Continuing Education, The University of Nottingham
- School of Education, The University of Sheffield
- East London Pathfinder Consortium
- Liverpool Lifelong Learning Partnership
- Basic Skills Agency
- Learning and Skills Network
- LLU+, London South Bank University
- National Institute of Adult Continuing Education
- King's College, University of London
- University of Leeds

Information about the research and development programmes and projects from which the evidence in this document is drawn can be found at the NRDC website:

www.nrdc.org.uk

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NRDC 2005-6

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Compiled and edited by John Vorhaus

Associate Director (Research Programmes), NRDC

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NRDC is a unique centre, aiming to integrate research and development in a coherent way to help secure positive change in teaching and learning. We are committed to engaging both the policy and practice communities in our work, to ensure we respond to their priorities and concerns in the pursuit of better opportunities and outcomes for more learners

Foreword

Last year we published *Three Years On*, an annual report with a difference, which brought together messages and findings from across the five NRDC programmes for a wide audience. We were delighted to hear the positive feedback from practitioners, policy-makers and researchers, so this year we have decided to follow a similar model.

In *Three Years On* we were able to reveal some interesting interim and emerging findings from our programmes and projects, but a year later we have a much clearer and more complete picture. You will find some selected highlights from our work below but there is so much more we can share and we hope that every reader will take something away from reading this report.

The effective practice studies were a focal point of NRDC's programme of work from 2003-6, and have now been completed. There is much we can say now about the likely features of effective teaching and learning practices, in terms of both common themes and subject-specific findings. For example, there appear to be positive gains in literacy, numeracy and ESOL from adopting strategies that allow learners to work together in pairs or small groups. In ICT, however, it was a higher proportion of individual work that was associated with learners' progress.

NRDC's study of the embedding of literacy, numeracy and language into vocational

programmes has yielded striking results. Embedding was found to have a significant impact on the achievement of literacy and numeracy qualifications. Embedding was also associated with higher course retention rates, particularly for learners on Level 2 vocational programmes. This is a significant finding as we anticipate the Leitch report and its mapping of national skills needs in 2020.

The *Skills for Life* workforce is the focus of some of NRDC's most important work. Our major longitudinal study of teachers and trainers is in the field for its second year of data collection and the analysis from the first dataset will shortly be available on the NRDC website. We are also about to publish our report on initial teacher education, which examines, amongst other issues, the relationship between subject specialist knowledge and pedagogic standards. We recognise that this work is central to the drive to improve the quality of teaching and learning in our sector and we will continue to help shape teacher education reform, working collaboratively with the major national initiatives being launched by the Quality Improvement Agency (QIA).

Now that we are seeing the emergence of some strong findings and developing accessible, evidence-based guides for practitioners, we have become more influential in the sector, a trend we are committed to continuing. Our numeracy work has gained considerable momentum

In Three Years On we were able to reveal some interesting interim and emerging findings from our programmes and projects, but a year later we have a much clearer and more complete picture


over the past year, with Maths4Life publishing innovative materials for use in the classroom. Our work on highlighting the penalties that people with the lowest skill levels pay in life and work has contributed to the rise of Entry Level on the political agenda. We have also drawn in international evidence to the debate on how to engage and support these learners. For example, we know that those at the lowest levels are most likely to study on their own to improve their skills. The challenge now is to put together a flexible offer for learners, embracing classroom provision, supported self-study, e- and m-learning and other learning activities (such as family learning), that can accommodate the shifting demands of adult life.

We have achieved much over the past year, but we are also looking to the future. Our core mission remains the same but we will focus our efforts more sharply as we move into the next phase. We will be conducting fewer projects but they will be on a larger scale. They will aim to rigorously test out some of the key findings both from our work and from collaborating centres, such as the National Center for the Study of Adult Learning and Literacy (NCSALL) in the US. We will continue to expand our quantitative capacity, enabling us to provide fast-response analysis of major datasets to inform policy development. *Skills for Life* has huge achievements, but its agenda is more pressing than ever if we are to enable individuals, employers and

communities to flourish in the coming decade.

NRDC's work needs to have a strong impact on practice, and we will be prioritising development work which puts research findings to work through action research, trialling and demonstration projects. We also aim to take forward our policy-focused work, building on the successes of our policy papers and seminar series. We will work closely with colleagues in the DfES to provide succinct reports on topics of importance to policy-makers, highlighting key findings and drawing out implications and recommendations for policy development.

We hope you enjoy this review of our latest work. As ever, we welcome your comments and contributions and hope you will get involved in the next, critical phase of our activity.



Maggie Semple
Chair, NRDC Advisory Group



Ursula Howard
Director, NRDC

We will be prioritising development work which puts research findings to work through action research, trialling and demonstration projects

Skills for Life: the policy agenda

NRDC's research and development programme has made a major contribution to the knowledge base in post-14 literacy, language, numeracy (LLN) and ICT over the past year. We are committed to supporting *Skills for Life* as an essential part of a cross-Government strategy to create a highly skilled, productive workforce and an inclusive society that enables everyone to take opportunities and realise their potential in life.

Skills for Life has a critical role to play in giving people the skills they need for sustainable employment, for further learning and for full participation in family and community life. LLN and ICT are repeatedly identified in policy documents such as the White Papers on FE reform and 14-19 as underpinning skills, essential for progress and achievement in both vocational and academic learning, and in the workplace. These skills can help increase the employability and hence reduce the likelihood of recidivism for offenders, and, handled correctly, support the re-engagement of disaffected young people into learning. Early messages from the Leitch review place LLN and ICT at the heart of the effort to create a globally competitive workforce by 2020.

NRDC is generating the knowledge and expertise to inform and support policy development in this critically important field. Some of the areas in which we have been involved are set out below.

FE and vocational learning

The 2006 White Paper on FE, building on the 14-19 White Paper and the Skills Strategy, set out a series of reforms that aims to raise skills and qualification levels for young people and adults to world standards. The creation of high-quality, fit-for-purpose

vocational options is a key task, but literacy and numeracy difficulties can present a barrier to success. NRDC has produced important new evidence on how embedding literacy and numeracy – integrating the development of vocational and LLN skills – can boost motivation and achievement in both skill sets.

Effective practice

Raising the quality of teaching and learning is vital to the realisation of policy aspirations for a skilled populace. We need to know 'what works' and NRDC has completed five major studies that reveal the likely features of effective practice in reading, writing, numeracy, ESOL and ICT.

Teacher education

Improving teacher education is central to the effort to boost the quality of teaching and learning. NRDC is shortly to publish a major report on innovative approaches to initial teacher education, which will highlight the importance of training in subject-specific pedagogy, of mentoring and support services, and of placements across the different settings in which *Skills for Life* is delivered.

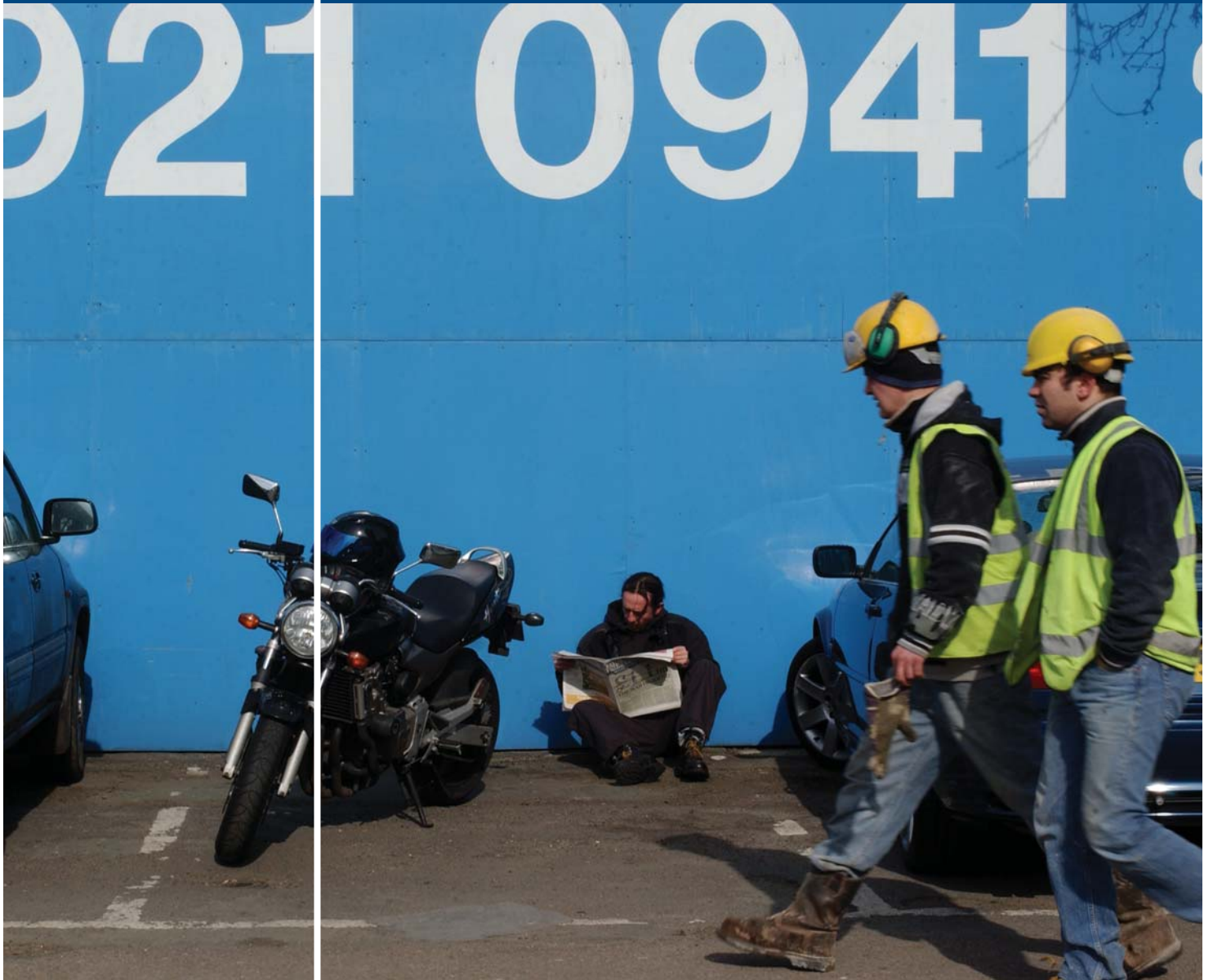
Offender learning

Sustainable employment has been shown to reduce the risk of recidivism, and enabling offenders to learn the basic skills that underpin employability is a policy priority. NRDC conducted a rapid evidence review in the area of offender learning to inform the 2005 Green Paper, Reducing Re-Offending through Skills and Employment.

Provision for the unemployed

More than 70 per cent of the 2020 workforce

Skills for Life has a critical role to play in giving people the literacy and numeracy skills they need for sustainable employment



The gains from learning: individuals and employees

has already left compulsory education. Ensuring that everyone who can work will find and make progress in employment is a policy imperative. Many people will require LLN support in order to do so. NRDC has reviewed provision for the unemployed and job-seekers and found that compulsory provision can be counter-productive. Subsidised jobs may be the most effective approach in terms of getting people into work, but opportunities for support and training in literacy and numeracy for those who need it are also found to be important.

Numeracy and mathematics

The modern workplace is increasingly demanding numerical and problem-solving skills, and we know that people with poor numeracy are particularly disadvantaged not only in their employment prospects and earnings potential but also in a range of other socio-economic outcomes. With the *Skills for Life* Survey of Needs suggesting that around 15 million adults have numeracy skills below Level 1, it is essential to ensure that numeracy provision is accessible and of high quality. NRDC's Maths4Life programme is building innovative principles of effective practice, producing approaches and materials for use in the adult classroom. ▣

The modern workplace is increasingly demanding numerical and problem-solving skills

The high number of adults with low levels of literacy and numeracy is both a pressing concern and policy priority in England, as it is for many industrialised countries with established compulsory education systems. The Government's response, in England, to the International Adult Literacy Survey, and to the inquiry led by Lord Moser, was *Skills for Life*, a national strategy – launched in 2001 – to help people to improve their skills. The approach was informed by the conviction lying behind the wider skills agenda: enhanced skills deliver benefits by enabling fuller participation within the many contexts in which learners function, and these are benefits not only for the individual learner but for society and the economy.

NRDC's remit is to inform policy development by providing robust evidence on these benefits – how and when they accrue, and how they can be measured and maximised. Evidence-gathering is now urgent in view of the recognition in recent White Papers of the importance of literacy and numeracy as underpinning skills, and as an essential platform for the acquisition of the higher technical and professional skills this country needs in order to remain globally competitive.

Early indications are that the Leitch review, commissioned by Chancellor Gordon Brown, will also emphasise the critical role of skills in achieving long-term prosperity and reducing social inequality. Improving the literacy and numeracy of the large 'stock' of adults with low skills will be acknowledged as important alongside the priority of ensuring the 'flow' of suitably qualified young people into the workforce.

Earnings and jobs: the benefits of *Skills for Life*

Skills for Life has benefited from a substantial programme of investment, and as a matter of public accountability we therefore need to know what the benefits – or returns – to learning are; has the learning sponsored by the strategy delivered the socio-economic outcomes expected of it? NRDC has drawn on its own quantitative research, and on reviews of evidence from leading authorities, to produce a 'best evidence' picture of the returns to *Skills for Life* learning. It is on this basis that the case can be made to the Treasury for continued investment in the strategy.

There are substantial returns to learning from literacy and numeracy. Evidence is stronger in relation to earnings than employment (at least as far as numeracy is concerned), and in relation to numeracy than literacy. Returns are greater for numeracy. The costs of poor skills are equally well established. For example, men aged 30 in the British Cohort Study of men and women born in a particular week in 1970 (BCS70 – see Glossary) who were poor in both literacy and numeracy were more likely to be in semi-skilled and unskilled jobs, to have had fewer work-related training courses, to have lower weekly wages and poorer promotion opportunities. Forty per cent of women in this cohort who had low skills were in manual work, a much higher proportion than for all women of this age.

How learning affects earnings

Skills for Life is generating economic returns for adults. Level 1 in literacy is associated with a minimum of 1-3 per cent higher earnings for adults, as compared with earnings for those at lower levels. Indeed, Level 1 literacy is associated with up to 12 per cent higher earnings when compared

with earnings for adults at Entry Level 3. Compared with lower skills levels, Entry Level 3 in numeracy attracts up to 13 per cent higher earnings, whilst workers at Level 1 in numeracy earn at least 6 per cent more per hour than those at Entry levels and below.

The economic benefits of *Skills for Life*, like the social and educational benefits, often take years to become fully apparent. Returns for adult learners are greatest when looking at earnings three or more years after attending a course. Non-graduates attending a basic mathematics course over three years ago earn around 13 per cent more than matched individuals who had not attended a course. A study of learners in further education found that by the third year of the study former learners had an average take-home pay £558 a year more than in the first year, whilst non-learners earned £713 a year less than in year 1.

How learning improves job prospects

Higher levels of literacy and numeracy are associated with increasing employability. This is a finding of the first importance, since it is estimated that by 2020 two-thirds of the workforce will be made up of people currently of working age. If the country is to achieve its goal of developing a high-skilled, productive workforce, competing successfully in the international arena, it cannot afford to leave any section of the working population without the skills they need to enter and progress within the labour market.

At the age of 30, 70 per cent of men in the BCS70 cohort with poor literacy and/or numeracy were in manual jobs, compared with 50 per cent of those who were competent in both. Women at Level 1 literacy are up to 7 per cent more likely to be in the workforce than women at Entry Level 3. Men

NRDC IN NUMBERS ENGAGING MORE USERS

NRDC is continuing its efforts to reach as wide an audience as possible and provide an accessible and useful service for the sector. Via our website, our consortium partners and local networks we continue to promote our wide range of resources. Registrations have risen in the past year with more people registering online and at events. Our mailing list now has more than 7,000 members and the demand for hard copies of our literature has increased. This year has also seen an increase in requests from teacher educators on Level 4 subject specialist courses as well as international colleagues.

7,000



The country cannot afford to leave any section of the working population without the skills they need to enter and progress within the labour market

at Entry Level 1 or 2 are up to 12 per cent more likely to be outside the labour market than men at Entry Level 3.

Level 1 numeracy is associated with a minimum 2-3 per cent higher probability of being employed. Men aged 16-37 who improve their numeracy have a greater probability of being employed, whilst those at Entry Level 3 are up to 8 per cent more likely to be economically active than men with lower skills.

The position of learners is improving relative to non-learners: a study of FE literacy and numeracy learners found that the net increase in the proportion of learners in paid employment was 5.3 per cent, while for non-*Skills for Life* learners it was 3.8 per cent. Furthermore, one year on, *Skills for Life* learners improved significantly more than non-*Skills for Life* learners in terms of self-esteem, perceived improvement in basic skills, attitudes towards education and training, long-term illness or disability, and employment commitment. These are all significant benefits and all of them – not only the last – are established antecedents to improved employment outcomes. Indeed, employers regularly emphasise the importance of attitudinal factors to the success of their enterprise.

The importance of numeracy

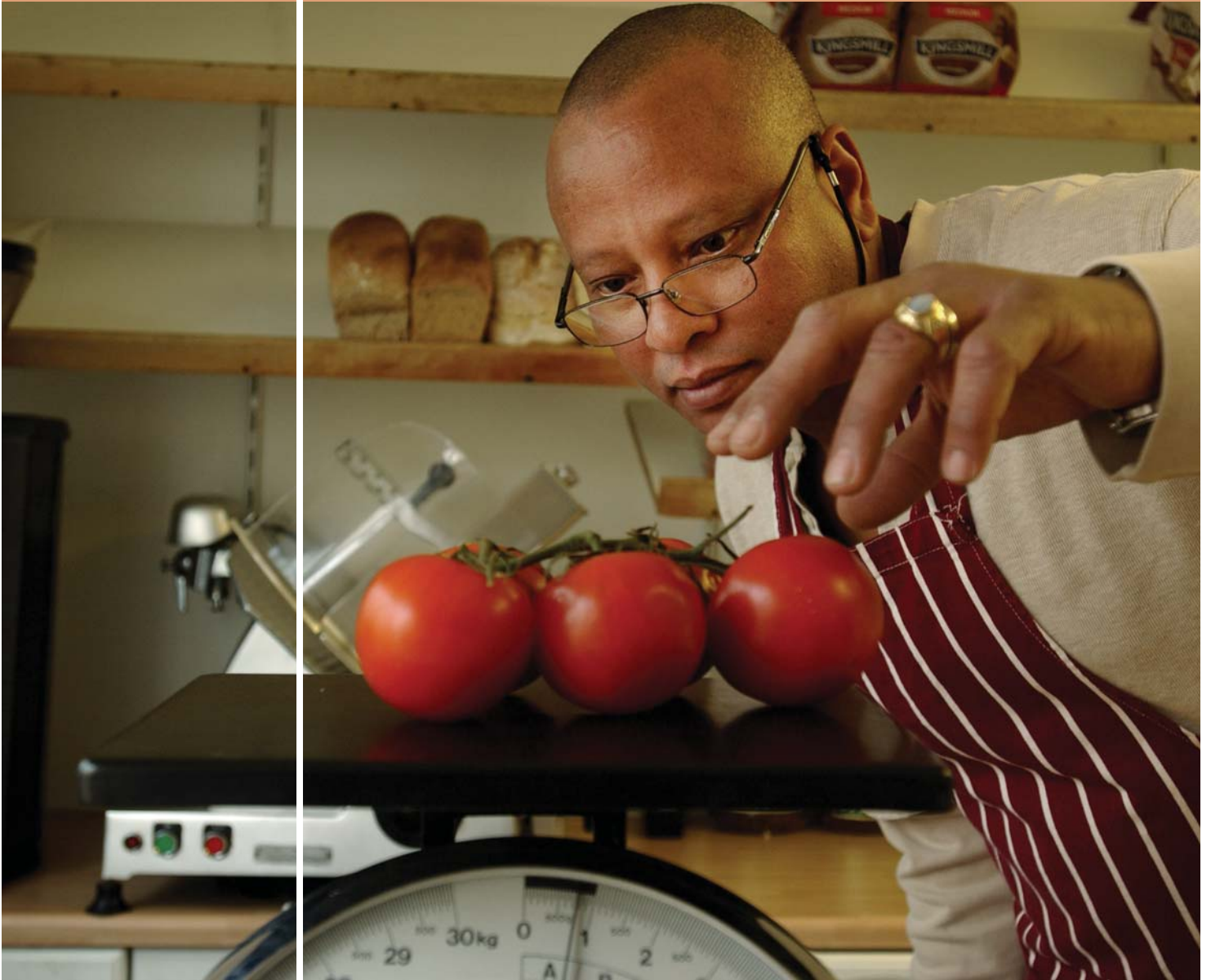
As we reported in *Three Years On*, numeracy is having an increasing effect on socio-economic outcomes, and recent evidence bears this out. Poor numeracy rather than poor literacy was associated with low economic wellbeing at the age of 30 for the BCS70 cohort. Even when combined with good literacy, women's low numeracy is a significant predictor of negative outcomes, whereas poor literacy combined with good numeracy generally is not. For women, while the impact of low literacy and low numeracy

skills is substantial, low numeracy has the greater negative effect, even when combined with competent literacy.

If we do not invest in adult numeracy there are consequences for skills levels, and not only in numeracy but also in related skills that make for employability. For men and women with poor numeracy, skills decline if not used and practised in employment. This can create a vicious circle: poor numeracy leads to limited employment, which leads to declining numeracy, which makes it harder to obtain and stay in employment. There is some good news here, however. The deterioration of skills between the ages of 21 and 34 may have a less significant impact on quality of life at age 34 than the improvement of skills across the same period. Improvement makes more of a difference than deterioration.

For those women in the BCS70 cohort who have competent literacy and numeracy, the proportion in full-time work at the age of 30 grew from 40 per cent to 52 per cent, whereas for those with poor literacy and numeracy it only grew from 30 per cent to 32 per cent. At the age of 30, men and women in the BCS70 cohort with poor numeracy were more than twice as likely to be unemployed as those with competent numeracy. And men with poor numeracy had the lowest hourly rates of pay. ▣

Higher levels of numeracy are associated with increasing employability



Engagement, motivation and social inclusion

The *Skills for Life* strategy has always rested on two basic commitments: economic development and social inclusion. Social inclusion embodies a commitment to tackle the disadvantages faced by many LLN learners, and includes a recognition that the disadvantages are usually multiple, requiring a broad and joined-up response across education and social policy. There are large numbers of disadvantaged, marginalised and otherwise 'hard to reach' learners, whose collective potential will make a significant contribution to the fabric and health of our society. We have evidence, in this section and elsewhere, that both contributes to understanding the detail of disadvantage, and identifies strategies for promoting engagement and persistence in learning.

Unemployed people and job-seekers

Unemployed people and job-seekers are a priority group for *Skills for Life*, with many adults unable to enter the job market or make progress in their chosen occupation owing to their literacy and numeracy difficulties. As the impact of recent demographic shifts begins to reduce the number of young people coming into the workforce, it will become increasingly important that adults who are able to work have the basic skills to secure sustainable employment.

The impact of sanctions

Responsiveness to adults' motivation is a precondition of successful provision. Adults will not participate, or if they do they will not stay, if the provision and teaching is not sensitive to their needs and experience. We have further evidence of this, not in the context of voluntary provision, but in relation to provision where non-attendance is subject to financial sanctions, such as loss of benefits. Many LLN programmes for the unemployed and job-

seekers have sanctions attached to them. But people often learn better when following their own motivation and purposes, and where their learning is self-directed. Adults need to engage in learning if it is to be successful, and attending is not the same as engaging.

In a study of voluntary and non-voluntary adult basic skills learners,¹ the voluntary learners reported wider benefits from learning, such as personal confidence and self-esteem, and they had a good understanding of their basic skills competencies and limitations. Non-voluntary learners, including participants in welfare-to-work programmes, did not demonstrate motivation to develop their basic skills. They did not tend to value the programme or recognise the benefits of attending. They had had little or no choice in the training they attended. Many demonstrated a lack of desire to engage in learning, owing to barriers arising from alcohol, drugs, or housing, domestic requirements and their social environment. Levels of frustration and demotivation amongst teachers were particularly high when they faced classes where some learners wished to engage and others did not.

Evaluations of New Deal programmes suggest that sanctions are looked upon differently depending on who is involved, particularly whether people also had other responsibilities (a caring role, for example), and on the element of the programme to which a sanction is attached. Sanctions applying to initial interviews, for example, are looked on more favourably than sanctions attached to taking up particular options. These studies suggest that while sanctions are not in themselves detrimental, clients should be able to make choices about their participation: they accept the conditions of the programme if these are seen as fair.

¹ O'Grady, A. and Atkin, C. (2006). "Choosing to learn or chosen to learn: the experience of *Skills for Life* learners." *Research in Post-Compulsory Education* 11(3): 277 - 287

Subsidised jobs: a successful approach

Since the 1980s, subsidised training schemes have been available to encourage adults back into employment. NRDC research shows that these schemes have time and again proved to be the most successful approach. However, employers still claim that basic skills needs should be addressed where necessary, and their employees appreciate having the option of such training if it responds to their needs and is delivered well, supportively and respectfully. It might be most effective, therefore, to focus on subsidised jobs as the principal approach, but to offer support and training in literacy and numeracy to adults and young people who need and desire it. This will enable them to develop the skills they need to do their subsidised jobs. The message is: make literacy, numeracy and language training appropriate to people's work situations and aspirations.

Offenders: improving skills for stable employment

The 2005 Green Paper, Reducing Re-Offending through Skills and Employment, recognises the need to deal with factors leading some offenders into a cycle of repeat offending. A majority of offenders have poor skills, with over half having no qualifications at all. Nearly half have experienced exclusion from school and two-thirds were unemployed before prison. *Skills for Life* has made significant progress in terms of providing basic skills tuition to prisoners, with the number of qualifications achieved by prisoners rising from 25,300 in 2001-02 to 63,500 in 2004-05. But there remains work to do to ensure offenders have access to high-quality provision, relevant to their needs after release.

NRDC made a key contribution towards the Paper, conducting a rapid evidence review on

offender learning. Evidence suggests that employment and lower re-offending rates are linked, and that stability and quality of employment are key factors. Raising skills levels will be a critical part of this endeavour, and NRDC has evidence to contribute on the factors that encourage engagement in learning and the characteristics of effective practice in these settings.

Employment reduces re-offending

Offenders have a high risk of unemployment and there is an association between joblessness and recidivism. But studies suggest that, if offenders are in work, the likelihood of (re)offending is reduced. The NRDC review drew together empirical evidence about interventions that focus on promoting employment for offenders. NRDC researchers found that, in six out of seven intervention programmes studied, offenders in the treatment group were significantly more likely to be employed at least six months after completion than those in comparison groups.

Prison work and vocational training are effective and the one community employment programme identified is 'promising'. However, those aged under 26 years may be more difficult to engage in intervention and to help into employment than older people. Education does not emerge as having an impact on employment but the evidence base here is small and the issue undecided.

Various barriers emerge as the main implementation issues for interventions aiming to promote employment for offenders. The barriers are:

- inherent in a criminal justice system that is primarily related to sentencing policy and funding structures
- practical - having a criminal record or a

NRDC IN NUMBERS REPORTS

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In the past year NRDC has launched 12 publications ranging from full research reports to a new format of six-page research digests. This brings the total NRDC publications to date to 39. A new online ordering system on our website has meant that it is easier for people to download publications or order hard copies. NRDC also continues to distribute its publications at events, conferences and seminars all over the UK and abroad.



NRDC IN NUMBERS SHORT REPORTS AND DIGESTS

NRDC is producing shorter summaries of its research findings. The short report *Does Numeracy Matter More?* was well received by policy-makers and practitioners alike and the series of eight *LSC Skills for Life Quality Initiative* six-page research digests were used extensively at events across the country. NRDC will continue to look at ways of condensing its research findings into more user-friendly publications.



8

poor work history means facing negative attitudes of employers

- often worst in the transition from custody to community.

Some prison-based employment has been criticised for employing outdated technology or equipping prisoners for work that is not available in their local areas. Effort is now going into reviewing and improving prison-based programmes, with a view to providing inmates with the skills they need to gain and sustain employment and make the transition to life in the community.

Getting the balance right: formality and informality

Formality emerges as a central theme in our research on teaching and learning with young offenders. But the message is not a simple one: formality of the wrong kind – inflexible and unresponsive to need – has negative effects, and that should not surprise anyone. What is less expected is how the effects of formality are dependent on context: we found that formality had a more positive role in numeracy than in literacy.

The literacy and numeracy classes observed during NRDC fieldwork were overwhelmingly formal and based on worksheets. In some cases, teachers did match tasks to individual pupils' interests, but more often than not the work set was more strongly driven by the need to satisfy assessment demands. This lack of flexibility was observed to be associated with less learner engagement and higher levels of disruption. Where teachers involved students in discussion of topics that interested them, where learners had more choice about what classes they attended or where the skills being acquired were vocational, they were observed to be more involved, attentive and positive.

Formal provision did not appear to be an

advantage for literacy, but for numeracy it was associated with significantly more progress. This is a significant finding, which we are seeking to corroborate. We know that, in schools, teacher effects are significantly stronger for mathematics than for English.

Respondents in our young offenders study were keen to make the transition to adulthood and financial independence. When asked about the courses they would like to attend, most mentioned vocational courses, though a minority revealed a more academic orientation. Around 40 per cent of those we interviewed were happy to take courses in literacy and numeracy, either because they thought they would find them interesting, or even though it would not be interesting, the skills gained would be useful.

Many respondents had either left school of their own accord or been excluded, and their attitudes to school were very negative. How this prior experience is catered for in education and training is critical to its success.

Engaging 'hard to reach' learners

Engaging the hard to reach is one of the core aims of *Skills for Life*. It is getting more difficult to attract these learners: we have evidence that helps to explain why, and it indicates how provision will have to change if we are to attract and retain learners in greater numbers. These efforts are contributing to the policy goals of widening participation and social inclusion.

Awareness of basic skills difficulties remains low. More men perceive difficulties associated with written communication (spelling and handwriting); more women report difficulties with the more advanced mathematical operations (multiplication and division). Heightened awareness is

Many members of hard to reach groups had been bullied at school and saw themselves as belonging outside a world of 'normality'

associated with an interest in improvement: once awareness develops, interest in improvement appears likely to follow. The very low numbers of adults who report difficulties with reading, writing or numbers, and have actually been on a course to improve their skills, need to be viewed against the significant proportion of those who have not been on a course, but who acknowledge a problem and who say they want to improve their skills. A challenge for *Skills for Life* is to develop strategies for engaging these different groups in learning, with a particular emphasis on increasing awareness of skills levels, and on assisting the transition from awareness to some form of LLN learning.

In our research with hard to reach groups the majority of people we spoke to across the different forms of provision had negative experiences of education and authority figures. People carried histories of violence and trauma that were not always open and visible, and living with ill health was common. Many had been bullied at school and saw themselves as belonging outside a world of 'normality', such as the very young people who are forced to live independently following family breakdown and who later become drug-dependent. Feeling apart from the majority had put people off participating in learning in the past.

Adults experienced a range of barriers on engaging in learning, including physical, mental, social and emotional constraints. Social circumstances meant that many experienced turbulence and unpredictable change in their lives. Feelings and emotions shaped people's experiences of learning. For some this made engagement, particularly in more formal, structured learning, very difficult. Other people talked about formal learning provision as a safe haven from other overwhelming issues in their lives.

People had many roles, responsibilities and commitments; they had shifting priorities and circumstances that led to their dipping in and out of learning. Often immediate concerns had to take priority over formal learning. Goals were flexible and changed as circumstances changed, sometimes unpredictably. People needed to feel it was the 'right time' to engage in learning and handle change in their lives; this was something they had to identify for themselves. The challenge for providers and practitioners is then to offer an environment and teaching practices that are most conducive to learners with uncertain lives who have yet to make any commitment to learning.

Learning in the workplace

The workplace is an important setting for *Skills for Life* learning. Concerns are often raised by employers, including recently by the CBI, that many people lack the literacy, numeracy and language skills to perform their job well. Training in the workplace can help to address these issues by creating accessible provision that fits in with the working environment. Available evidence suggests improving the skills of the workforce can increase productivity and staff retention, outcomes that are of great interest within a policy agenda focused on national economic prosperity and competitiveness.

NRDC's workplace study (see Glossary) is looking at the impact of basic skills work-based training on individuals and workplaces. Of the learners in our sample, all had initial training, half further training, and a third had taken workplace courses. Almost two-thirds were male and the average age was just over 40. Almost all were in permanent full-time employment, and the average time spent with current employers was almost eight years. On

Participation, progression and achievement

leaving full-time education, 54 per cent had no qualifications, and 4 per cent were qualified to Level 3 or above when they left full-time education. Twenty-three per cent acquired further qualifications after leaving formal education, and 3 per cent were at Level 3 or above.

ESOL learners were heavily represented in the sample: basic skill workplace learners were 35 per cent ESOL learners, whilst the current UK employed workforce is 3 per cent ESOL. Thirty per cent are white, 50 per cent Asian and more than two-thirds are male.

The task of motivating employees in learning through and at work is best mediated by the employer. Recent work with employers and employees highlights the importance of the manager's role in facilitating or blocking learning opportunities. However, this can be mitigated by working sensitively and creatively with employers and employees to develop learning models that are motivating and fit their needs.

Union learning representatives have a key role in raising participation and retention rates. Literacy, numeracy and ESOL courses are more likely to be successful if trade unions are actively involved in companies and organisations where these are present. Union learning representatives play an important part in the process of learner recruitment and retention once a course has started. They are trusted by company employees, and are well-placed to resolve emerging difficulties with the organisation of training courses. ▣

Knowing what encourages learners to participate and helps them to progress and achieve is vital to the successful development of *Skills for Life*, particularly as it becomes increasingly focused on engaging harder to reach groups and on providing a platform for raising national skills levels. NRDC research is looking closely at what factors influence participation, progression and achievement, both negatively and positively, and we are drawing on international work to produce a comprehensive account of current evidence.

Learners' progression

With policy focused on upskilling the UK workforce, *Skills for Life* has an important role to play enabling people to acquire the literacy, language and numeracy they need to progress towards Level 2 – the platform for sustainable employment – and beyond, whether on vocational or academic learning pathways or into the workforce.

Level 1 to Level 2

Preliminary DfES analysis has led to estimates of numbers of learners progressing from Level 1 to Level 2 in *Skills for Life*. NRDC is currently analysing numbers and profiles of learners progressing from non-counting to counting provision, and will be reporting our findings in March 07. (Not all learners' achievements count towards *Skills for Life* targets; achievement at Entry Levels 1 and 2 does not, for example, although the *Skills for Life* strategy strongly emphasises progression.)

Learners are progressing within *Skills for Life*, but our evidence confirms that pathways are typically neither linear nor uninterrupted. It is rare for a learner to progress from a Level 1 course in one subject in one year to a Level 2 course in the same subject in the next. Much more

Knowing what encourages learners to participate and helps them to achieve is vital



Participation in *Skills for Life* seemed to provide an effective stepping stone

common is the learner who moves up a level over several years, or moves from one course to another over a two-year or lengthier period. And learners will often pursue several courses, not always related, and not always all *Skills for Life*, in the same year. The message is that there is plenty of progression, but it rarely assumes a simple pattern.

Only 1 per cent of those doing a Level 1 *Skills for Life* course in 2003-4 were doing a Level 2 *Skills for Life* course in 2004-05. However, 9 per cent of Level 1 *Skills for Life* learners in 2003-4 were taking some course in 2004-5 (56 per cent of these at a higher level). Of the 367,054 Level 1 learners in 2002-3, 17,083 (4.7 per cent) were doing a Level 2 *Skills for Life* course in either 2003-4 or 2004-5 but again a much larger number - 83,820 (23 per cent) - were taking some course in 2004-5. Forty-three per cent of these were taking a course at a higher level than Level 1, and 47 per cent a course at the same or a lower level.

In 2002-3, 57 per cent of the learners on *Skills for Life* courses were also doing a non-*Skills for Life* course, and in 2004-5 this proportion was 55 per cent. Almost one in ten learners (9 per cent) doing a Level 1 *Skills for Life* course in 2003-4 was studying on an FE course the following year. Of these 65,512 learners, over half (56 per cent) were doing courses at a higher level in 2004-5.

Learners' progress in literacy and numeracy

There are encouraging findings from further education. A longitudinal study, conducted by the National Institute for Economic and Social Research (NIESR), is collecting data annually on literacy and numeracy learners. *Skills for Life* learners tend to persist in education and training, by continuing previous courses and starting new ones. From the sample of learners on literacy and numeracy courses in

2002-3, 72 per cent were on a course in 2003-4 and 57 per cent were on a course in 2004-5. Almost two-thirds (64 per cent) had started a new course for a qualification by 2004-5.

Progression, in the sense of moving to courses at a higher qualification level, was fairly common. Almost a third (32 per cent) of *Skills for Life* learners had done a new course by 2004-5 that was at a higher level than any of those undertaken in 2002-3. Progression was most common in the first year. In starting new courses and progressing to higher-level courses *Skills for Life* learners tended to move from basic skills to vocational courses, in particular, and, to a lesser extent, academic courses. These findings support the policy view of *Skills for Life* as a platform for progression.

The findings identify the importance of progression, rather than of doing new courses, and support the view that progression at one stage leads to further progression. Participation in *Skills for Life* seemed to provide an effective stepping stone to progression. The findings are very positive in relation to improvements amongst the least skilled: progression increased as course level decreased.

A year after first interview, 19 per cent of *Skills for Life* learners had dropped out of their course. Drop-out was higher amongst parents, those with poor spoken English, those with low numeracy competence, and those with qualifications below Level 1. Providing appropriate support to these groups to enable them to maintain participation will be a challenge to the strategy as it strives to meet its 2010 Public Sector Agreement target.

Learner persistence: ESOL

Retention on ESOL classes tends to be lower

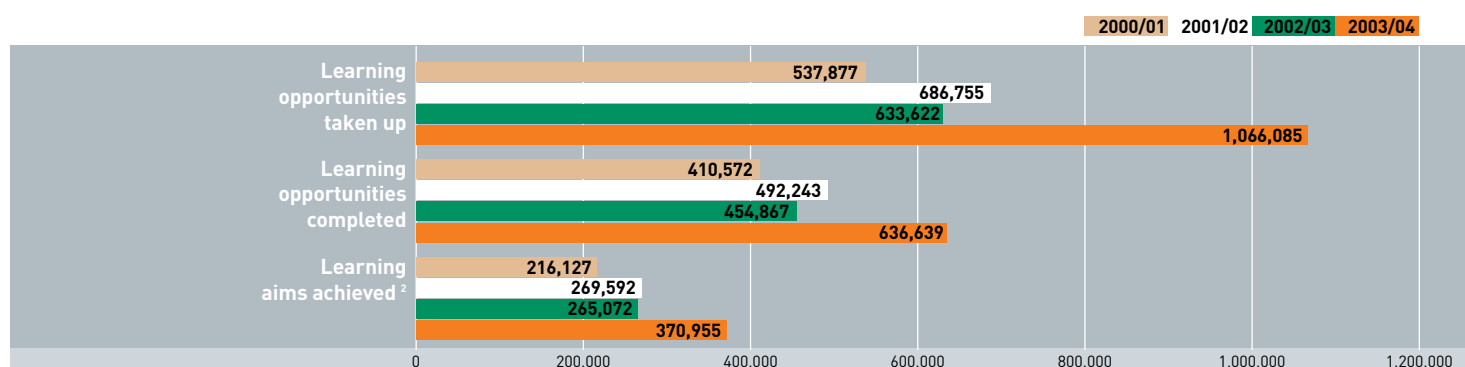


Fig 1. Learners' opportunities and aims by year

than on other adult courses, owing largely to the unpredictability of ESOL learners' lives – asylum-seeker displacement policies and uncertain employment patterns, for example.

However, while retention is an issue for ESOL providers, many learners persist despite the obstacles, and for three reasons. First, self-improvement, and the need to learn English quickly, to a standard that will enable them to enter the workforce or to study. Learners want to create a better life for themselves and their families through further study, higher qualifications or a better job. Second, ESOL learners see the improvement of their language skills as key to their integration into British society. They want to be able to communicate with other people and to function fully in society. The desire to integrate in the host culture is consistently expressed by ESOL learners. The third reason is the need for more independence, choice and control over their lives.

Participation, completion, achievement

Whilst there is encouraging evidence on progression, the messages are more sobering on participation and achievement. Ongoing NRDC analysis of trends over the first four years of *Skills for Life* suggests a pattern of diminishing returns to numbers participating over time, and growing difficulties in engaging 'hard to reach' learners.

Between 2001 and 2004 the number of learners achieving outcomes contributing to the *Skills for Life* target was 862,000 (Learning and Skills Council estimate). Figure 1 shows numbers for learning opportunities taken up, completed and achieved. There is an overall rising trend in participation, completion and achievement. However, the extent of diminishing returns becomes apparent when looking at

percentages – completion as a percentage of uptake, and achievement as a percentage of uptake. In contrast to total numbers for participation, completion and achievement, which rose over the four-year period, there is a downward trend in the percentage of learners completing and achieving. Looking at completion as a percentage of uptake of learning opportunities, there is a reduction of just over 16 per cent over the four-year period, with 76 per cent of learning opportunities completed in 2000-1, dropping to 60 per cent in 2003-4. On learning aims achieved as a percentage of opportunities taken up, these numbers hovered at around 40 per cent for the first three years, and then dropped to 35 per cent in 2003-4. By that year it took a lot more initial participation to achieve the rise in total numbers of learning aims achieved in the final figure for 2003-4.

These findings may be challenging to the *Skills for Life* strategy but they do also suggest where more attention should be focused in the future. There is considerable evidence on the factors that support, or act against, learner persistence, as there is on effective and promising teaching strategies. A key task for partners involved in the development and delivery of the strategy is to consider how to translate these findings into positive change in teaching and learning.

Participation: a new approach

Adults have many demands on their time, with work, family and other commitments that make participation in scheduled provision difficult. If *Skills for Life* is to continue to meet its targets, and reach people who need basic skills support, the offer made to learners may need to be revitalised. Taking account of demands on learners by allowing more flexible patterns of class participation is one option. There is

² "Learning aims achieved" refers to all learning aims achieved in that year, whether or not a learner achieved other learning aims in previous years.

Evidence from the US shows that substantial numbers of adults engage in self-directed learning activities, to improve their basic skills

also evidence on people's self-directed learning, which, if supported and integrated into more formal provision, could have a positive impact on persistence and achievement.

What we can learn from international evidence

We have given evidence elsewhere of how to engage the hard to reach. But we need to think imaginatively, not only about engagement but also about participation and self-study. Evidence from the National Centre for the Study of Adult Learning and Literacy (NCSALL) in the US shows that substantial numbers of adults engage in self-directed learning activities, to improve their basic skills or prepare for the General Educational Development (GED) tests (see Glossary). This is true both for individuals who have previously participated in adult education programmes and for those who never have. One in three (34 per cent) of those who have never participated in adult education programmes have studied by themselves to improve their skills. Nearly half (46 per cent) of those who have previously participated in programmes have also studied on their own to improve their skills or prepare for the GED.

A better understanding of the relationship between programme participation and self-directed study for improving basic skills offers new ways to think about curriculum design, student retention, and lifelong learning.

Participation: from the learners' point of view

Rather than seeing isolated acts of participation in learning we can think of these as part of a broader process of cumulative skills development over time. In the US, 12 hours of class time is often the minimum for qualifying as a fundable act of participation. NCSALL's Longitudinal Study

of Adult Learning (LSAL) quantifies participation in finer detail: 'period of participation' means one or more sessions with the same teacher that ends because the student leaves or the class ends. Among those in the LSAL population who participated in classes, more than half (58 per cent) have done so in more than one period of participation. Individuals attending courses in multiple periods of participation often go on to different courses, varying in intensity, duration, and reasons for starting and stopping.

Moving in and out of different classes might be interpreted as a series of failures, but students can experience this as a process of accumulating participation and development over time. Furthermore, the amount of time spent learning can be more or less depending on how you look at it. Ten per cent of LSAL learners stop participating before completing 12 hours of instruction. But that figure jumps to 22 per cent if we look only at students who completed fewer than 12 hours and whose participation was limited to one attempt. Episodes of learning may appear longer and more varied when seen from the learners' perspective as compared with how they can appear to funders and administrators. A task for NRDC and policy-makers is to consider whether there is a case for a more flexible infrastructure, permitting learners to 'dip in and out' of provision, according to their needs and commitments, and as part of a less than linear learning pathway.

Self-study: the hidden potential

It is no surprise that many individuals who participate in programmes also engage in self-directed efforts to improve their basic skills and prepare for America's GED tests. What is surprising is that such a large proportion of those who never join formal courses also engage in such self-study. This

suggests that substantial numbers of individuals may be actively trying to improve their skills, and that programmes are not reaching or are unable to serve them through their current offer. New ways of supporting and enhancing independent learning (through the use of distance technologies and new media, for example) will better connect these learners with adult LLN.

Instead of the expected finding that individuals with higher skills are more likely to engage in self-study, the figure shows the opposite. Individuals with higher skill levels are less likely to have studied on their own to improve their skills or prepare for the GED tests. Individuals at the lowest levels of skill are the most likely to engage in such self-study efforts. About half of the LSAL population functioning at the lowest proficiency level had previously studied alone. This is an encouraging finding. Reaching those with the lowest skills is a priority for *Skills for Life*. If we can make an offer that builds on their existing inclination to study and engage in self-directed learning, that will represent a major step towards achieving the principal aims and long-term targets of the strategy.

Formal tests and real lives

Practices and proficiency develop at different rates in adult life, if by 'proficiency' we mean the competencies displayed by learners in a formal test, and by 'practice' we mean the things learners can do that are related to their course of study. The evidence from the US indicates that course participation and self-study appear to have positive, time-specific effects on the development of literacy practices. Further, that literacy practices may, in turn, have cumulative effects on the development of literacy proficiency. Equally, intentional learning – whether through participation in formal courses or self-study – has a direct

impact on literacy practices, which in turn may have an impact on literacy proficiency over time. This supports a broader concept of participation that involves both programmes and self-study. The latter acts as a bridge between periods of participation in formal learning, and helps broaden persistence of attendance into persistence of learning.

Building a broader understanding of 'participation'

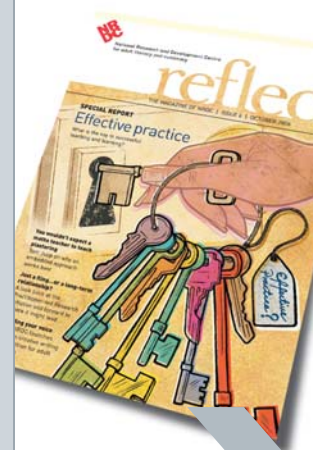
We need a broader understanding of participation that supports and co-ordinates different ways of learning, one which:

- includes courses, self-study and other learning activities
- sees self-study in a continuum of provision strategies along with various types of classroom and tutoring programmes
- conceives of learners as actively deploying resources as well as of programmes delivering services
- includes special types of courses for older adults, with a focus on retention of literacy practices.

In addition to measuring proficiency, we need to measure changes in learners' practices, especially so that we can assess the short-term impact of learning. NCSALL has made a start with identifying measures of engagement in literacy practices, and examples of literacy measures include: read instructions, street maps, entertainment guides, fiction, non-fiction, street maps, magazines or comic books; write a diary, story or poem; write a note, letter or email; read manuals or reference materials. If we think creatively about what we assess, we will have a more rounded, accurate picture of learning progress, whilst at the same time providing an assessment regime that is more responsive to and supportive of learners' achievements. ▀

NRDC IN NUMBERS REFLECT

reflect magazine has been going from strength to strength since the first issue in 2004. *reflect* aims to engage practitioners and policy-makers in the work of the Centre and to provide a forum in which people can discuss and explore issues affecting the sector. The last issue of *reflect* was distributed to more than 14,000 people.



14,000

While many ESOL learners have had no basic education in their home country others are professionals with successful careers



Teaching and learning

As part of the drive to improve the quality of provision, policy-makers need to know 'what works' in basic skills teaching and learning. Key issues to be explored include teaching skills and strategies, teacher qualities, learner-related factors and classroom relationships and organisation. The aim is to provide an evidence-based steer on which factors are likely to promote learner progress and achievement and to consider what bearing the findings may have on teacher education and continuing professional development (CPD), on curriculum and course management and delivery, and on classroom practice. NRDC has been pursuing a broad programme of work in this area and important findings have now emerged, with implications for policy, practice and research.

Researching effective practice: reading, writing, numeracy, ESOL and ICT

Over the past three years, we have explored effective teaching practices in reading, writing, numeracy, ESOL and ICT, in order to understand what enables learners to make progress and become more positive about their learning. We were interested in over 19-year-olds seeking to improve their literacy, language or numeracy, and in each study we set out to recruit and gather data on about 250 learners, assess attainment and attitudes, interview learners and teachers, observe the strategies used by teachers, and to correlate those strategies with changes in learners' attainment and attitudes.

Many findings are unique to each of the studies, and the most significant of these are presented below. But we begin with common themes, selected either because they reassuringly confirm what we already know, or because they were not what we expected, or because they illustrate one of the most

important features of *Skills for Life* - its many contexts, and how much of what constitutes good practice depends on where and with whom it happens.

Defining effective practice: the big themes

The studies brought home the importance of **integrating knowledge of subject and pedagogy** into teacher training and professional development. Indeed, the numeracy study concluded that teacher education and CPD teachers not only need a firm grasp of the subjects they teach and of the best way to teach them, they also need to be on top of their subject-specific pedagogic knowledge. This was not always in evidence in all studies. In reading, several teaching approaches that the literature suggests are effective were hardly seen, such as phonics and developing fluency.

With knowledge comes the potential for **flexibility**. The writing study concluded that a flexible approach to teaching, a responsiveness to learners' concerns as they arise, and a willingness to 'go with the teachable moment' all have a positive impact on learners' progress. In ESOL, effective practice takes place with teachers who can balance the conflicting demands arising from policy and management requirements, on the one hand, and learners' lives and goals on the other. Managing the fragile 'classroom ecology', where so many vulnerable people are gathered together, requires flexible teacher qualities as well as sound teaching strategies.

Diversity is increasing in *Skills for Life*. The classes observed in the ESOL project varied greatly both in terms of the length of time their students have been in the UK, and their immigration status and backgrounds. And while many ESOL learners have had no basic education in their home country and are

We found examples of non-literate learners being placed in classes without literacy support, or without a teacher trained in literacy instruction

often not literate in their mother tongue, others are professionals with successful careers. Most of the classes contained highly skilled, professional people.

We know that **differentiation** increases opportunities for teachers to get to know their students. However, it may be that we ask too much of some teachers, and that differentiation within a general ESOL classroom is not enough to meet the needs of such a diverse group of learners. We found examples of non-literate learners being placed in classes without literacy support, or without a teacher trained in literacy instruction. Despite the best efforts of the teacher, the style of delivery, the material and the speed of the classes mean that the learners' needs are not met.

The difference between **the novice and the experienced teacher** is central to understanding effective teaching and learning. Less experienced teachers are over-reliant on the core curriculum, tending to teach scripted classes not well attuned to classroom diversity. The experienced, expert practitioner, on the other hand, will exhibit a 'professional vision', aware of the wider context in which teaching and learning is embedded, drawing on their experience to take informed action in response to issues in the classroom. This is allied to an ability to plan a learning programme and select appropriate learning materials within it, becoming adept at both long-term planning and moment-by-moment decision-making.

Working in groups was good for some learners and not so good for others. In the reading study, learners who spent more time working in pairs made better progress, as did learners who spent less time working alone. In numeracy, the strongest negative correlations with attainment included a large proportion of individual work. On the other

hand, ICT learners who spent more time on their own showed better gains in ICT than those spending more time in small groups. Working in groups sometimes undermined confidence in writing in a public place or at work.

The role of **confidence** in promoting adult learning is vital but not simple. In our reading study, a significant improvement in learners' self-confidence was not accompanied by improvements in reading. The writing study similarly found no relationship between progress or regress and changes in the degree of learners' self-confidence. The study found that making links between the classroom and life outside, including the use of real materials, can enable learners to become more confident about writing undertaken at home. In numeracy, once learners overcome initial anxiety, and when blocks and barriers are negotiated, courses can have a significant and positive effect on their confidence and self-esteem. They become people who 'can do mathematics'.

Learners' characteristics help determine the effectiveness of teaching practices and learning progress. That includes their motivation and purposes for attending a course, their aspirations, abilities and dispositions towards learning, their socio-cultural background and experiences outside the classroom. This underlines the importance of teachers having a good understanding of adult learners' needs and aspirations, and of positive teacher-learner relationships. We need to understand the characteristics of initial teacher training, learning environments and teaching practices that promote positive relationships and social interaction, and give due weight to developing both expertise and positive human qualities. Qualities, as well as skills, matter.

We know that learners need plenty of **time** to

make progress; the same applies to teachers. Our work with ICT tutors involved one-day-a-week release time for a year, monthly meetings between researchers and tutors, and regular meetings with development officers. Tutors met monthly for one-day workshops, and completed on-line reflective diaries and intervention plans. We found significant learning gains in ICT and in literacy/ESOL, giving support for the Moser claim that 'learners who use ICT for basic skills double the value of their study time, acquiring two sets of skills at the same time'. The process took a lot of time and effort, but having developed robust models, the tutors were able to induct other tutors into these practices with much less effort on the part of inductees, and nevertheless achieve equivalent results.

Subject-specific findings

Context matters: much of what works well in teaching and learning LLN is dependent on where and with whom it takes place. We present some of the most notable findings that apply chiefly to one of the five subjects covered by our studies.

Reading

Several teaching strategies, which the literature suggests are effective, were conspicuous by their absence. That includes reciprocal teaching, where pairs of learners take turns to be 'tutor' and 'student', for example, in formulating questions for each other about a text. It also includes 'word attack skills' - fluency in reading aloud, repeated reading, and explicit comprehension strategies. 'Word attack skills' principally means phonics but phonics teaching seems to be infrequent in adult literacy teaching and, when found, is often inaccurate. Fluency in reading aloud seems hardly to be taught at all. Repeated reading is an extension of that technique: classes and individuals practise reading a familiar

passage aloud until they can do so faultlessly.

Our study reviewed other sources of evidence, whose findings largely confirmed our own. In one influential study of 53 adult literacy learners' difficulties in reading, intensive, focused reading instruction did not comprise a significant amount of teaching. In particular, little work at sentence level or on comprehension beyond the literal was seen. Most learners had poor phonological awareness, much of the phonics teaching observed was done on the spur of the moment, and there were instances of inaccurate phonics teaching. Several studies reported positive findings, for example on the benefits of reciprocal teaching and of a 'diagnostic prescriptive' approach involving formal and informal diagnostic procedures to identify adults' strengths and weaknesses, and use of the diagnoses to develop individual educational prescriptions. Professor Greg Brooks and his colleagues carried out a large-scale study for the Basic Skills Agency in 2001 of the progress in literacy made by adult learners in England and Wales. Average progress in reading was slow and modest, and in writing almost non-existent. Factors associated with better progress in reading (none was found for writing) were:

- All the tutors in an area having qualified teacher status
- Tutors having assistance in the classroom
- Regular attendance by learners.

Writing

Overall, learners achieved a small but significant increase in assessment scores, with younger learners and learners in employment and full-time education making the most progress. The more time learners spend on writing in class the greater the impact on the range of writing tasks they undertake outside class. Teachers and

NRDC IN NUMBERS CONFERENCES

Over the past year we have organised 23 events and exhibited at more than 30 across the UK. Staff also regularly present at seminars and events. NRDC continues to organise the annual *Skills for Life* conferences in London, York and Birmingham (a total of 1,300 delegates over the three conferences). The success of the 2005 conferences has meant that provision for the 2006 London conference has doubled to 700 delegates.



Maths4Life confirms the importance of enabling learners to think through problems for themselves

learners tend to perceive learning to write as a classroom-focused activity that links only indirectly to the learners' uses of writing outside the class. Greater emphasis is placed on learners' diagnosed needs in relation to context-free 'skills' (as set out in the core curriculum for adult literacy and assessed by national qualifications) than on learners' purposes and roles in relation to writing in their everyday lives. For some teachers, pressure for learners to achieve national qualifications in literacy, within the timescale of one course, requires them to teach in ways that conflict with their preferred approach.

The following are likely to be features of effective teaching of writing:

- learners spend time on the composition of texts of different kinds
- meaningful contexts are provided for writing activities
- time is given for discussion about writing and the writing task
- individual feedback and support are provided as learners engage in writing.

Numeracy

Significant progress in terms of test score was made over the duration of the numeracy courses, with an average gain of 9 per cent. However, there was a wide range of average gains between different classes: eight of the 45 classes made average gains of over 15 per cent, and a few had lower than average scores at the end of the course. Significant positive effects were associated with traditional front-of-class teaching of procedures using a whiteboard (interactive or plain), while emphasis on the use of practical activities had a significant negative correlation. These factors may help us to identify effective practice in general; but it may be that these methods are selected by teachers who work with classes that are highly motivated and likely to be successful. By contrast, teachers may elect to use

practical work or individual work mainly with learners who are finding it difficult to learn with more formal teaching.

It might be thought that there is a direct relationship between quality of teaching and quality of learning: the better the teaching, the greater the rises in attainment between two points in time. This was demonstrably not the case. We found classes where researchers with many years of experience of observing classrooms thought that the teaching was good, but learner progress was weak, and some apparently poor teaching of classes where the gains turned out to be relatively large. This suggests that factors which cannot easily be determined in a large-scale survey, in particular learners' characteristics, may have more influence on their learning than previously suspected.

Maths4Life confirms the importance of enabling learners to think through problems for themselves. Students' algebra learning was related to both the number of discussion and reflection activities that were used and also to the manner in which these were used. Greater gains were associated with an increased use of the discussion-based resources and with student-centred approaches. No gains were made in a 'control group' where students had been taught their standard algebra curriculum in teacher-centred ways. The greatest gains were made when the discussion material had been used in student-centred ways in a sustained way. Ofsted inspections are noticing the impact of work that draws on the principles recommended by Maths4Life: There is much good teaching, particularly in mathematics where innovative approaches encourage participation and increase motivation and understanding. Students' contributions are valued and a problem-solving approach is used with an emphasis on developing confidence and mathematical

Lessons involving mobile phones were found to be particularly motivating



Experienced ESOL teachers successfully select and adapt materials according to the specific and immediate needs of their group rather than following a prescribed or generic course

skills. Students work together collaboratively and are reaching high standards. The students said that the activity-based approach helped them to retain their learning and their levels of participation and enjoyment were very high.

ESOL

ESOL teachers aim to create a safe, supportive environment. For learners with a traumatic past, teachers filter out subjects and perspectives that are painful or undermining. When they are in the classroom they can be just a student and temporarily put aside other issues in their lives.

There is a tension between the group processes that teachers and learners value as the natural mechanism for language learning and the need to focus on individual learning goals that has been introduced as part of *Skills for Life*. The most visible element of this individualisation of learning in the ESOL classroom is the use of individual learning plans (ILPs). In interviews and focus groups with teachers, we found that the great majority were critical of the use of ILPs with ESOL learners. There was concern that the focus on individual language learning goals and SMART targets (see Glossary) came at the expense of group processes and classroom interaction. This does not imply that ESOL provision should be entirely group-orientated; learners value the chance to discuss their progress individually with the teacher. They also report that their teacher's ability to give individual attention within the classroom was important, suggesting that learners need to feel that the teacher understands their progression as an individual in the classroom.

Experienced ESOL teachers successfully select and adapt materials according to the specific and immediate needs of their group

rather than following a prescribed or generic course. ITT and CPD programmes should draw on the experience of established teachers to give less experienced colleagues support in strategic planning and also to allow them to observe and understand the type of immediate responses to learner needs that characterise on-line planning and the skill of the expert and experienced tutor.

If teachers are to be able to gain a real understanding of the lives of their learners they need to be given time in the classroom to do this and also the tools, through training, to sensitively understand their learners' lives. This can not only lead to more effective teaching and higher levels of student retention and satisfaction; it can also give teachers a greater sense of achievement and confirm their purpose in entering the profession.

ICT

The study developed ICT-based teaching strategies aimed at adult literacy, numeracy and ESOL learning objectives. We examined both the development of literacy and language (ESOL) skills through the use of ICT, and the development of ICT skills. Learners improved in both literacy/ESOL skills and ICT skills and confidence. The learners' age was significant in predicting learning gains. There was a negative correlation for ESOL skills (older learners made least progress), and for men (but not for women). There were positive correlations for ICT skills and confidence (older learners made most progress). Initial ICT-confidence scores were found to be correlated with learners' persistence. Those with lower scores were likely to attend less frequently, and were more likely to drop out. Most users found the use of ICT motivating. Mobile technologies (such as Tablets and mobile phones) were found to be particularly motivating, and enabled greater flexibility in

teaching, with tutors taking advantage of the mobility of the technology to move outside the classroom. Increased ICT skills and confidence were positively correlated with the amount of time learners spent using technology within the classroom. More specifically, learner use of the internet, PowerPoint and word processing were found to be positively correlated with gains in ICT skills.

ICT can change the focus on the knowledge to be learned. This was evidenced by tutors talking more about managing information, and less about learning it, more about browsing and scanning and less about reading as comprehension. The nature of literacy tasks was also often changed in subtle ways. For example, in the m-learning scheme of work the learners took photographs outside, and then back in the classroom their task was to write captions for the pictures – so what had been previously a task conceptualised as writing short sentences now involved issues around relating image to text.

Messages for practice

Our effective practice studies represent an unparalleled source of evidence on *Skills for Life* teaching and learning, and our findings will be published in five research reports in January 2007. We are also preparing practitioner guides, one for each of the five studies. These will distil the research into messages and materials aimed at teachers and teacher educators, and are to be published in spring 2007.

Key messages for practice include the need for:

- effective but not widely used strategies for teaching reading: for example, balancing reading aloud, phonics and developing fluency
- strategies for teachers of writing to make use of real materials, and to engage learners in authentic tasks that have a purpose in work and life outside the classroom
- strategies for enabling ESOL and other teachers to manage heterogeneity in the classroom
- initial teacher training, learning environments and teaching practices that emphasise technical expertise and positive human qualities
- provision that best encourages learner engagement and persistence
- CPD models that allow adequate time for teacher engagement
- models for integrating the teaching of subject and pedagogic knowledge
- improving teachers' confidence and skills in classroom management (balance of whole group, small group and individual work)
- supporting teachers to become more skilled and flexible with teaching approaches: 'going with the teachable moment'
- training teachers to use the curriculum and not simply to follow it. ▣

NRDC IN NUMBERS AUTUMN LECTURES



Three lectures were held in the autumn 2005 as part of the NRDC annual lecture series. The lectures were given by Nick Pearce from the Institute for Public Policy Research (*Basic skills and social principles: an Anglo-Social model?*); Professor Mary Hamilton from Lancaster University (*Living history: adult literacy and the politics of change*); and Professor Ronald Carter from Nottingham University (*The 'S' in ESOL: speakers and the spoken language*). Each lecture drew an audience of more than 100 practitioners, policy-makers and researchers. The next lecture series is planned for spring 2007.

Embedding LLN in vocational programmes

The 2005 White Paper on 14-19 Education and Skills recognises the potential for practically-orientated learning to promote young people’s engagement, thereby improving rates of progress and achievement. LLN support for vocational learners to enable them to achieve in their chosen programme is nothing new. However, simply delivering this support as a ‘bolt-on’ to vocational learning does not always work. Learners are put off by ‘school-like’ lessons in subjects they had not chosen to pursue. ‘Embedding’ LLN in vocational programmes is a way of meeting this problem. As an integrated approach to developing LLN and vocational skills, embedding allows learners to see how LLN underpins the successful completion of practical tasks and how it also supports their professional aspirations. Embedding can succeed in boosting learners’ motivation and competence, helping them gain qualifications, and later to succeed in the workplace.

Until recently there has been no systematic evidence on what works. NRDC has now

completed a major project on the embedding of LLN in vocational programmes. We looked at the impact on vocational learner achievement, progression, and retention, as well as the implications of embedding on teachers and organisations.

Findings

Our work involved a sample of 1,916 learners on 79 vocational courses, across five English regions. Courses encompassed five vocational areas: Health and Social Care; Construction; Hair and Beauty Therapy; Business; and Engineering. A four-point scale of ‘embeddedness’ was developed based on 30 characteristics of embedded provision. This allowed programmes to be rated on this single scale, from those that showed no characteristics of embedding to those that displayed many or all.

We found a significant positive association between the degree of embedding and achievement of Literacy/ESOL and a similar, though slightly less strong, association with numeracy qualification achievement.

These findings appear to support the hypothesis that learners on vocational courses are more likely to engage successfully with literacy when they recognise its relevance to their vocational study, and that the teaching of literacy is most successful when it is embedded within that study.

The research also found a significant association between the degree of embedding and the overall success rates of the vocational course that the LLN provision supports.

A highly significant finding for the development of embedded practice is that, in the midst of these positive relationships,

Fig 1. Learners achieving a Literacy/ESOL qualification

For learners assessed below L2 in literacy/language and numeracy on initial assessment

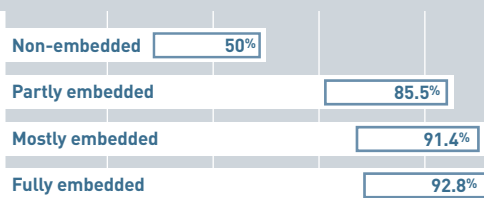


Fig. 2 Learners achieving Numeracy qualifications

For learners assessed below L2 in literacy/language and numeracy on initial assessment

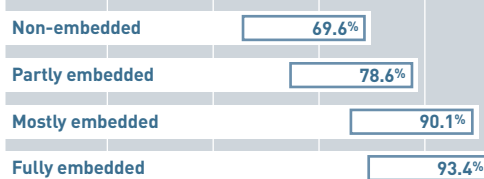
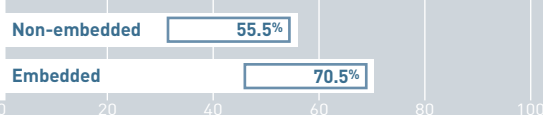
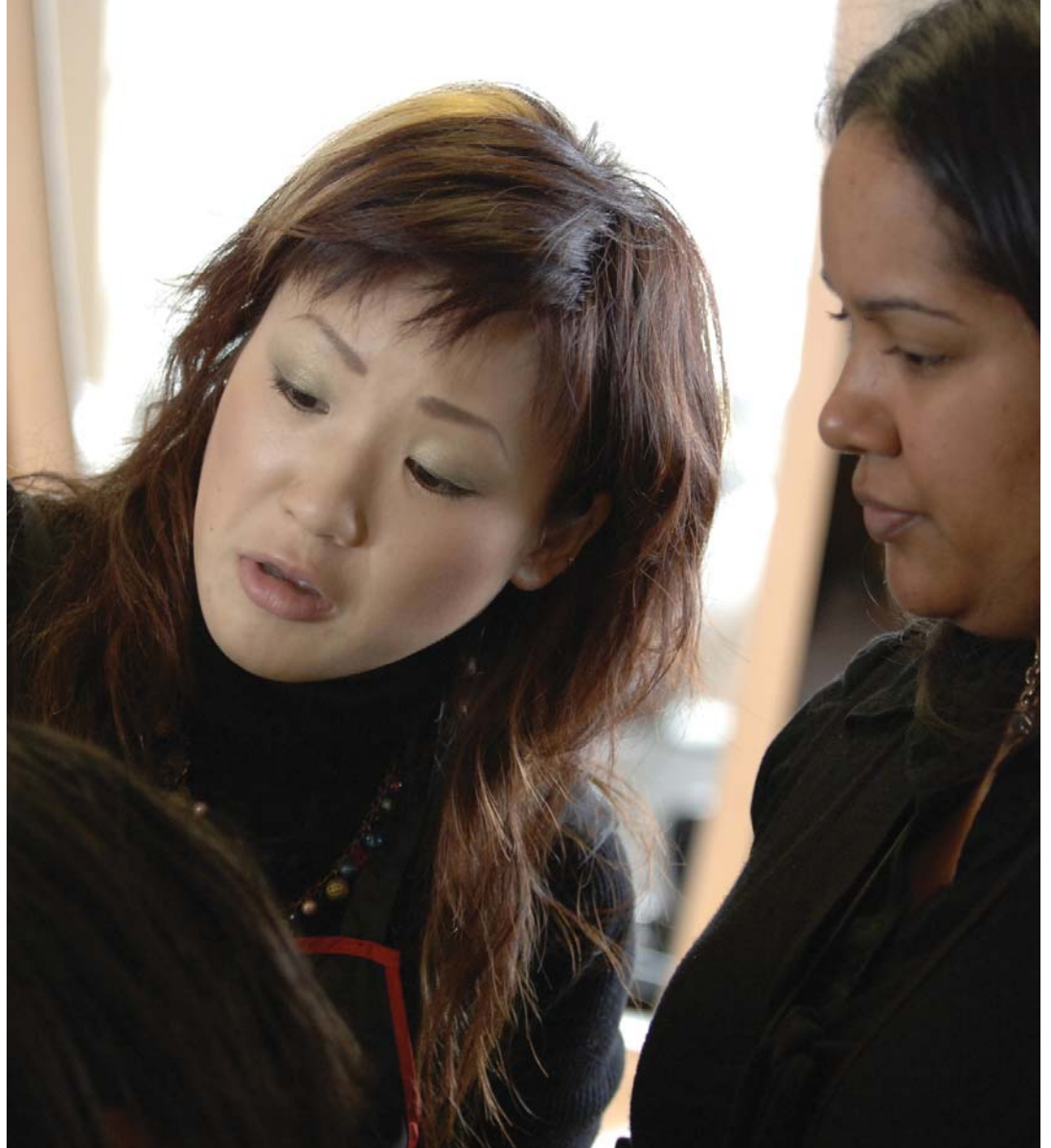


Fig 3. The mean vocational success rate for courses



Learners on vocational courses are more likely to engage successfully with literacy when they recognise its relevance to the world of work



single teachers taking dual responsibility for teaching vocational skills and LLN showed a negative impact on literacy and numeracy achievements. We also found a significant association between the degree of embeddedness and how well learners rated the course as preparing them for their work in the future. This increased from 70 per cent for learners on non-embedded courses to 89 per cent for those on fully embedded courses.

Messages for practice

- Embedding LLN works in terms of LLN achievement and vocational success rates, and is more effective than separate LLN provision in vocational courses.
- The process of embedding LLN in vocational courses is multifaceted, representing a professional challenge for both LLN and vocational teachers, as well as for managers and organisations.
- Embedded practices have various key features, and these show that for successful embedding, LLN has to be treated as: integral to a vocational learning area; a responsibility of the whole team, and genuinely related to learners' aspirations.
- Embedded provision should be promoted and treated as the norm and not the exception for Level 1 and 2 vocational courses by policy, quality and funding agencies and by professional staff development.
- A whole organisation commitment is needed for embedded LLN to be successful and sustainable across the vocational learning areas of a college. ▣

The workforce

The application of effective pedagogy in the classroom is dependent on the knowledge and skills of teachers and trainers. It is therefore of central importance to find out how well practitioners are equipped to do their jobs, the challenges they may be facing and what support they may need. At a time of capacity-building, teachers' career aims, plans and perspectives are also valuable. The development of a highly-skilled, confident and motivated workforce is a priority for *Skills for Life* if it is to become the platform for the success of national skills, employment and inclusion policies.

The impact of *Skills for Life* on teachers and trainers

This is a major longitudinal study exploring the impact of *Skills for Life* on teachers and trainers. We are gathering information on the characteristics of teachers and trainers of adult literacy, numeracy and ESOL, their organisational and teaching practice, career pathways, attitudes to the strategy, and the features of the organisation in which they work. All figures apply to our sample of 1,027 teachers.

Personal characteristics

The majority of respondents are women (78 per cent), and the mean age of respondents is 46.5. More men work in non-FE organisations (24 per cent) than in FE colleges (20 per cent). Eighty-seven per cent of teachers are White British; 3 per cent Asian/Asian British, and 2 per cent Black/Black British. A higher proportion of ethnic minority teachers identify ESOL as their main teaching subject (25 per cent), compared to literacy and numeracy tutors (both 7 per cent). More than half (60 per cent) of the teachers whose first language was not English identify ESOL as their main teaching subject.

Qualifications

One in four (26 per cent) respondents has a post-graduate level qualification as their highest qualification and a further 65 per cent, a degree-level qualification. Therefore, the highest qualification that 9 per cent of respondents have is A-level equivalent or below. Thirty per cent of respondents who work in FE colleges have post-graduate level qualifications compared to 17 per cent in non-FE organisations. Twelve per cent of respondents outside FE have a Level 3 (A-level) qualification as their highest qualification compared to only 5 per cent in FE colleges.

Sixty-one per cent of respondents have a PGCE, Cert Ed or BEd teaching qualification. More females (63 per cent) than males (53 per cent) have these teaching qualifications; and more white British respondents (62 per cent) than ethnic minority respondents (55 per cent). Two-thirds (67 per cent) of FE teachers have a PGCE, Cert Ed or BEd qualification compared to 49 per cent of non-FE tutors.

Only 22 per cent of teachers have gained one of the new Level 4 teaching qualifications based on the subject specialisms, but a further 30 per cent were working towards one. There is no significant influence of either gender or ethnicity on whether respondents have or are working towards a new Level 4 qualification. Five per cent of respondents hold one of the new Level 4 qualifications and were working towards a second (in a different subject specialism).

One in four teachers (26 per cent) has or is working towards both a PGCE/Cert Ed/BEd and a new Level 4 subject-specialist qualification. Forty-five per cent of teachers in FE colleges have or are

working towards a new Level 4 qualification compared to 51 per cent of tutors in non-FE organisations.

Programmes and subjects taught

Forty per cent of our respondents identify literacy as their main teaching subject; for 23 per cent it is ESOL, for 20 per cent numeracy and for 17 per cent a non-*Skills for Life* subject. Around 20 per cent of teachers in this sample had taught in embedded programmes in the three-month period preceding interview. The median number of contact hours respondents have with learners is 17 hours per week.

Work experience

We found that respondents have an average experience in post-16 education of around eight years, excluding a small proportion (3 per cent) of new entrants (those with less than a year's experience). Teachers who work in FE colleges have longer experience (average 10.7 years) in working in post-16 education and training than those who work in non-FE organisations (where the average is 7.6 years). More than half of teachers (53 per cent) also have experience in pre-16 education; the average experience for these respondents is around five years. Nearly 37 per cent of respondents have some experience as a curriculum manager, having responsibility for managing the provision of one or more subjects.

Employment

We found that the teachers in our sample are employed mainly by FE colleges (73.8 per cent), by local education authorities (9.5 per cent) and by private training providers (8.8 per cent). Only 1 per cent of respondents are employed by a teacher supply agency. (This is less than we would expect in a representative

NRDC IN NUMBERS WEBSITE USERS



4,300

The NRDC website www.nrdc.org.uk continues to be an invaluable source for communicating and disseminating the Centre's findings as well as providing an interactive forum for engaging with the *Skills for Life* community. The website underwent a redesign in April 2006, with the aim of making information more accessible. In the past year user numbers have doubled and there are now 4,300 online registered users. The total number of visitors recorded since May 2003 is 790,607 and the total number of pages viewed since May 2003 is 2,353,424. All NRDC publications are available as free downloads from the site which also includes details of the Centre's research and development projects.

NRDC WEB FORUMS

Our website hosts discussion forums on issues of interest to all those involved in literacy, language and numeracy provision as well as providing access to news about events run by NRDC and our partners. Many individual projects also have their own discussion forums and this has proved an invaluable resource to enable project members to share materials and ideas.

www.nrdc.org.uk



sample). The average tenure of respondents in the organisations through which they were sampled is around four years. But the variation across the sample is very high, ranging from less than a year to more than 20 years.

More respondents are working on full-time (58 per cent) than part-time contracts (42 per cent). Of those on part-time contracts, 67 per cent have 'fractional' employment status and the rest are hourly paid. Twenty-six per cent of part-timers would like to convert to a full-time contract. Respondents who work full-time are paid on average for 36 hours per week compared to 18 for part-timers. Furthermore, part-timers with 'fractional' employment status work longer on average (20 hours per week) than those who are hourly paid (14 hours). The average income for those who gave their annual gross salary is around £15,000 and for those paid hourly is £19.63 per hour.

We found that those with a degree-level qualification earn around 12 to 15 per cent more than their less well-qualified colleagues. Those with post-graduate qualifications earn more than colleagues with a degree-level qualification (approximately 8-9 per cent). Women do not earn less than men (controlling for the other explanatory variables). Earnings increase with age at a rate of around 2 per cent per year (but longitudinal analysis is needed to properly investigate this effect).

Thirteen per cent of respondents are employed by another post-16 education and training provider in addition to the employer through which they were sampled, and 11 per cent of respondents have some other employment outside the post-16 education and training sector. Those with other employment within the post-16 education and training tend to be older.

About the learners

The majority of respondents (72 per cent) had taught learners aged 16-19 in the three months prior to interview. For 58 per cent of these teachers, less than half of their learners are aged 16 to 19. This means, however, that for around 300 respondents, more than half their learners are aged between 16 and 19. On average, teachers in FE colleges have taught a higher proportion of learners aged 16 to 19 than teachers in other contexts.

A great many of our respondents had experience in the three months prior to interview of teaching learners with disabilities or learning difficulties. (These were learners identified as such on enrolment, not learners whom teachers might suspect had these kinds of problems):

- 72 per cent had taught learners with specific learning difficulties (such as dyslexia)
- 46 per cent had taught learners with mental health problems
- around 30 per cent had taught deaf or partially hearing learners; 22 per cent had taught blind or partially sighted students; 44 per cent students with mobility problems or disabilities
- 26 per cent had taught learners with autistic spectrum disorders.

Professional community

Seventy per cent of respondents "very often" or "quite often" work in collaboration with colleagues who teach the same subjects as them, and 74 per cent talk often with other teachers or trainers about practice issues. Thirty-seven per cent of respondents "very often" or "quite often" collaborate with teachers of other subjects. Within the previous three months, 48 per

cent of respondents had had an opportunity to observe other teachers of the same subject during their sessions.

Higher levels of collaboration were found amongst White British teachers, those who work full time, teachers with lower qualification levels, literacy tutors compared to ESOL tutors, teachers who have participated more in CPD activities and those with a PGCE, CertEd or BEd.

Eighty per cent of teachers think that there is a shared understanding between themselves and colleagues about the goals and priorities of the organisation or department they work in, and only 8 per cent think that their organisation can be characterised by disagreements and conflicts between members. Slightly more than a half of teachers in our sample believe that they receive “a great deal” or “quite a lot” of help and support from managers in their organisation. Around 60 per cent reported that their line manager supports them “a great deal” or “quite a lot”. Seventy-three per cent of respondents believe their line manager is well informed about their work and the problems they face. Furthermore, 77 per cent of tutors believe their line manager values and recognises their work “a great deal” or “quite a lot”.

Resources and facilities

Fifty-seven per cent of teachers think the physical environment they teach in is “very good” or “quite good”. Fifty-one per cent of respondents apply the same “very good” or “quite good” rating to the ICT infrastructure, 59 per cent to other teaching materials and equipment, and 55 per cent to administrative support. The better the resources and facilities, the higher the job satisfaction.

There was no gender division in job satisfaction but older teachers are generally more satisfied than younger ones

Job satisfaction

There was no gender division in job satisfaction but older teachers are generally more satisfied than younger ones. The level of a respondent’s education does not seem to affect job satisfaction. Higher satisfaction is positively correlated with professional identity, management support, degree of influence on decision-making, and collaboration with colleagues. Teachers who work in non-FE sectors are slightly more satisfied with their job than those who teach in FE.

The main areas where dissatisfaction is revealed include the “proportion of time on administration” (59 per cent mainly or extremely dissatisfied) and “salary and related benefits” (38 per cent). The main areas where teachers express satisfaction are: “appreciation of your work by learners” (85 per cent very or mainly satisfied), “learner progress and achievement” (83 per cent) and “learner behaviour” (81 per cent).

Professional identity and status

Seventy-six per cent of respondents had clear, planned goals and objectives for their job. Furthermore, 55 per cent of teachers feel they know how to divide their time properly, and 68 per cent know what is expected from them in their job. One third of respondents think that they receive incompatible requests from two or more people at their work or do things that are apt to be accepted by one person and not by others. About the same proportion of teachers think that they receive a task without adequate resources and materials to complete it.

Male teachers, White British teachers, and teachers who work in non-FE sectors have a more negative view of their professional

Teacher education

identity. Half the teachers in the sample think that teachers or trainers in their teaching subject are valued as professionals “about the same” as other subject specialists in post-16 education and training. Only 13 per cent think they are valued “more” or “much more” than other subject specialists, and over one-third of respondents believe that they are valued “less” or “much less”. Thirty-two per cent of non-FE teachers think they are valued less than other subject specialists in post-16 education and training compared to 40 per cent of teachers who work in FE colleges.

Future plans

Thirty-seven per cent of teachers would like to be promoted to a managerial or higher managerial post. A higher proportion of those who work full-time and those who have or are working towards Level 4 qualifications would like to be promoted to a managerial or higher managerial post. Around 80 per cent of *Skills for Life* teachers in the sample believe that they will be teaching *Skills for Life* subjects in 1-2 years time. ▣

Around 80 per cent of *Skills for Life* teachers in the sample believe that they will be teaching *Skills for Life* subjects in 1-2 years time

NRDC research in teacher education and professional development has taken place in the context of a professionalisation agenda. From 2000 all teachers in the post-16 sector have been required to gain teaching qualifications, with minimum standards of literacy and numeracy, whilst specialist teachers of literacy and numeracy are required to achieve subject-specific teaching qualifications. In 2004 the DfES introduced a wider reform of teacher education, ‘Equipping our teachers for the future’, with a simultaneous review of teaching standards and subject specifications. This reform takes effect from 2007/8. Inspection has been introduced for teacher education, following successive reports from inspectorates that continue to focus on the quality of teaching. Our research has messages on how to improve teacher education programmes, encourage new teachers and support and develop existing staff.

Entry routes for new teachers

It is not easy for new teachers to find a way into the profession. Many courses are designed for existing teachers and do not accept new trainees until they find work. In contrast, employers need to employ capable staff to ensure the quality of the *Skills for Life* learner experience. Prospective literacy, numeracy and ESOL teachers do not bring with them a vocational identity in the way that others do, which emphasises the importance of appropriate pre-service training. New models of pre-service programmes are needed.

In a sector where most new teachers are employed before they are trained as teachers, the dividing line between initial teacher education (ITE) and CPD is necessarily blurred. A common pattern is for a course to be conceived of as either pre-

Teacher education programmes should develop both trainees' personal skills in the subject and new skills in how to teach it



NRDC IN NUMBERS E-NEWSLETTER



E-mail

NRDC's monthly e-newsletter is received by more than 5,000 people, many of whom forward it on to colleagues. It has proved an effective way of updating practitioners, policy-makers and stakeholders on the latest NRDC work.

5,000

service or in-service, but for the participants to be a mixture of the two, or for them to change status as the course progresses.

There is some evidence of teacher educators equating pre-service with full-time ITE provision, and assuming that all part-time provision is in-service. The predominant mode of ITE is in-service, with limited opportunities for those looking for flexible pre-service programmes, wishing to train before finding work. Feedback from trainees who had struggled to access part-time ITE programmes, which expected applicants to find work first, highlighted the need for more part-time pre-service provision with teaching placements provided as part of the programme.

Merging different traditions

There are benefits to the merging of different traditions in teacher education. Subject-specific qualifications offered a focus on the teaching of adult LLN. Generic qualifications offered a recognised teaching qualification, but little preparation for teaching adult LLN. In the past, teachers often had to choose between a qualification tailored to their particular subject responsibilities and one that would confer formal status, often with salary increments.

The introduction of the DfES/FENTO Subject Specifications for teachers of adult literacy, numeracy and ESOL to complement the FENTO Standards for Teaching and Supporting Learning brought the generic and subject-specific strands together. For teacher educators from the generic tradition, the introduction of a subject focus was new. For those from the subject-specific traditions, the extension to the full breadth and depth of the main teaching and learning standards was new. For both, the attention in the subject

specifications to the teachers' own levels of subject knowledge and competence was new.

Subject-specific pedagogy

Just as the NRDC effective practice studies brought out the importance of subject and pedagogic knowledge so our research on teacher education shows that more emphasis is needed on how to teach – on subject-specific pedagogy. Stronger programmes use integrated approaches to focus on subject-specific pedagogy, and our research raises the question of how far subject knowledge should be included within teacher education programmes.

The introduction of the DfES/FENTO Subject Specifications for teachers of adult literacy, numeracy and ESOL included two different aspects of subject knowledge. Subject specifications detailed the personal skills in either language/literacy or numeracy/maths that teachers need to have. They also identified some of the subject-specific knowledge needed to teach adult LLN. This content was to complement the generic pedagogical knowledge represented in the FENTO Standards for Teaching and Supporting Learning.

Teacher education programmes should develop both trainees' personal skills in the subject and new skills in how to teach it. The pairing of subject specifications with the main teaching standards gave insufficient attention to the subject-specific pedagogy needed by *Skills for Life* teachers. New teachers in particular were asking for much more support and guidance in learning how, for example, to teach an adult to read. There should be closer integration of subject and pedagogy, and of theory and practice.

Teaching in the workplace

Our research has described the inadequate facilities for mentoring and supporting trainee teachers, particularly for isolated trainees in smaller organisations. In these contexts it is not unusual for a trainee teacher to be the only literacy, numeracy or ESOL teacher within their organisation. For these teachers, support and mentoring simply may not be available in the workplace. Teacher education programmes struggle to resource the support needed in these situations.

Trainee teachers need consistent support to develop into excellent practitioners. Arrangements for supporting the development of new teachers' practical teaching skills were found to be very variable. Inexperienced teachers often lack the support and supervision they need. In some cases developmental feedback on observed teaching is limited by coming from someone not experienced in the particular subject being taught.

Practical teaching and learning is central to the process of becoming a teacher, with the workplace being the primary site for gaining experience. However, what we saw was often the reverse, with courses structured around taught sessions to which 'placements' were attached. Teachers should be taught as they are expected to teach. They need to take part in practical professional activities that help them to 'see' the subject from their learners' point of view.

A range of contexts: not just FE

Teacher education programmes need to embrace all contexts to cater for the full breadth of the learning and skills sector. Trainee teachers reported what might be described as an 'FE default' setting on the

Trainee teachers need consistent support to develop into excellent practitioners. Arrangements for supporting the development of new teachers' practical teaching skills were found to be very variable

part of their teacher education programmes. Trainees work in diverse contexts across the sector, but the teacher education programmes all too often assumed FE to be the core context.

Embedded and discrete: Entry to Level 2

Teacher education programmes need to cater for teachers working in both discrete and embedded forms of delivery. Trainee teachers interviewed in the research also reported that although their own work involved teaching on embedded programmes, their trainers too often assumed discrete teaching to be the norm.

Increasingly, teacher education programmes are working to ensure that trainees experience working with learners at different levels. Analysis of levels taught by trainee teachers shows that ESOL and literacy teachers were teaching predominantly at entry levels, but that numeracy trainees were teaching primarily at Levels 1 and 2. In view of the multiple difficulties faced by adults with numeracy skills at Entry Level 2 and below, we need to know more about the numbers of newly trained numeracy teachers developing skills in teaching at Entry Level. ▣

Transforming knowledge into practice

NRDC, four years on, has reached a crucial stage in its development. Its research programme has generated a wealth of knowledge about the contexts, practices and demands of teaching and learning in adult literacy, language and learning. The challenge now is to continue transforming this knowledge into practical, accessible guidance for policy and practice to support improvement in the quality of provision for adult learners of LLN. It is time to make the evidence count. A number of specific initiatives are designed to achieve this.

NRDC practitioner guides

NRDC is producing a series of practitioner guides on key subjects such as: working with young adults and hard-to-reach learners, and effective practice in teaching reading, writing, ESOL, numeracy and ICT. These guides will take relevant messages from across the NRDC research programme and make them more visible, usable and connected to practice. They will provide informed guidance for practitioners as well as other stakeholders such as inspectors and teacher educators. The guides will aim to promote critical debate and will make explicit links between practice and research. It is hoped they will encourage critical thinking and the development of research-informed improvements in practice. A key stage in the development of the guides is a series of forums at which messages from research are assessed for relevance by practitioners. Their views then feed into the writing of the guides.

Engaging practice

The creation of practitioner forums is a practical example of NRDC's commitment to actively involving practitioners in its work. Indeed, interactivity is key to successful impact on practice. This is achieved through

support for activities and products that promote and facilitate dialogue among practitioners and other stakeholders. NRDC publishes a range of reports and discussion documents from continuing and completed projects and draws attention to their findings through high-profile articles in the national and specialist press. Recently, research resources with synthesised messages from across the NRDC programme were produced for the *Skills for Life* Quality Initiative. These eight pamphlets made messages from research accessible to all those involved in CPD and other training activities. Along with *reflect* magazine, which embodies the 'research-and-development-meets-practice' ethos of the Centre and has become required reading for all those in the field, these pamphlets have greatly increased the reach and influence of research in the professional development of teachers of adult literacy, numeracy and ESOL.

Teacher education

Initial teacher education and CPD are important sites for NRDC development work. The final report on the evaluation of the first set of ITE programmes using the subject specifications will be followed by the publication of handbooks for teacher trainers on literacy and ESOL. The teacher education research is already showing great variation in the extent to which teacher educators successfully link the theoretical aspects of the subject specifications with their application in learning environments. These handbooks will bridge this gap by emphasising firm links between, for example, linguistic theory and the specialist pedagogies of adult literacy, numeracy and ESOL teaching and teacher education. There will also be a guide to the structure and organisation of the programmes to enable providers to offer the most complete and effective integration of theory and practice.

Effective practice development projects

The rich, detailed messages from the NRDC effective practice projects will be shared with the field through a series of publications, including the aforementioned practitioner guides. However, there will also be specific development projects in each subject area testing the validity of the findings and exploring ways to make positive, evidence-based changes to practice. As with the research projects themselves, the involvement of practitioners will help to ensure that the outcomes are as relevant and useful as possible.

Informing policy

NRDC development work has not focused solely on practitioners. The centre has also ensured that the messages emerging from research are relayed to the policy-makers. A good example of this has been the work carried out with the DfES and LLUK to feed in messages from NRDC's large-scale research projects on teacher training, even before these have been formally published. NRDC has organised seminars on diverse subjects to provide opportunities for researchers to offer evidence-informed advice to policy-makers directing the *Skills for Life* strategy.

Development through practitioner research

NRDC is committed to engaging practitioners at every stage of the research process. Our sister organisation in the United States, the National Center for the Study of Adult Learning and Literacy, has rightly said that if this was done as a matter of course: 'Research would more likely address the real needs of those working in adult literacy at the grassroots level, and practitioners and policy-makers would be more receptive to the research because they were more involved in advocating for it. In short,

practitioners and policy-makers would become active research consumers.'

Practitioner research supports ongoing professional development. Despite time pressures, all practitioner-researchers on NRDC projects have said they have benefited from taking part in research. Being able to reflect on their own teaching and to research adult LLN practice more widely had provided space and time for professional development. For some this created change in their own classroom and teaching practice, for others it provided evidence to support recommendations based upon their own intuitive practitioner knowledge.

Well-supported and resourced practitioner research can help develop practice by encouraging critical and reflective inquiry, which uncovers, and explores accepted practice and received wisdom. It provides the opportunity to use existing practitioner knowledge and develop transferable skills that underpin good practice.

Practitioners' research also has an impact on the institutions they work in. By looking at local situations and contexts NRDC-funded practitioner research has produced persuasive evidence to support development. One tutor's work on domestic violence and learning raised awareness of the issue in her college and is now being incorporated within tutor training. She demonstrated that women experiencing violence would find it easier to attend classes if more attention was paid to flexibility in learning provision, teaching methods and working with community groups. Another tutor's research on everyday uses of maths prompted colleagues to try his methods. His managers supported this process and have been engaging learners with new creative classes such as 'Get that job' or 'Looking after baby', mapped to the core curriculum.

NRDC IN NUMBERS DOWNLOADS

More than 250,000 publications have been downloaded from the NRDC website www.nrdc.org.uk since May 2003. The most popular reports on the website have been ESOL case studies (35,000), *Assessing adult literacy and numeracy* (22,000) and *Adult numeracy: review of research and related literature* (12,000).



250,000

Practitioner-researchers have shared their experiences and findings nationally and regionally, stimulating discussion about doing practitioner research and what they found

The work of practitioner-researchers reaches different audiences, including researchers, providers and other practitioners. NRDC's practitioner-researchers have shared their research experiences and findings nationally and regionally, stimulating discussion about doing practitioner research and what they found. Practitioner-researchers enabled members of the Adult Learners' Lives (ALL) project to gain access to a variety of classes and learners in college and community settings. Their local and specialist knowledge helped ensure that the ALL research is relevant to practice and grounded in learners' experience.

Working with practitioners also enables research teams to work with learners in a wide range of settings, and encourages the development of new understanding from a practice perspective. The collaborative effort leaves practitioners with a sense of having been valued. For one practitioner this was the most important outcome: 'People who are often at the bottom of the heap get to say something that people are interested in and they feel valued.'

Maths4Life

Thinking Through Mathematics

The Maths4Life project continues to stimulate a positive approach to teaching and learning numeracy and mathematics. Work began in August 2004 during a period of unprecedented change within the *Skills for Life* sector. The project was heralded by Making Mathematics Count, the report of Professor Adrian Smith's inquiry into post-14 mathematics education, and the Government's response to it. In relation to adult numeracy it is often said that 'demand is low but need is high', and Maths4Life continues to try to stimulate demand and provide high quality, meaningful teaching.

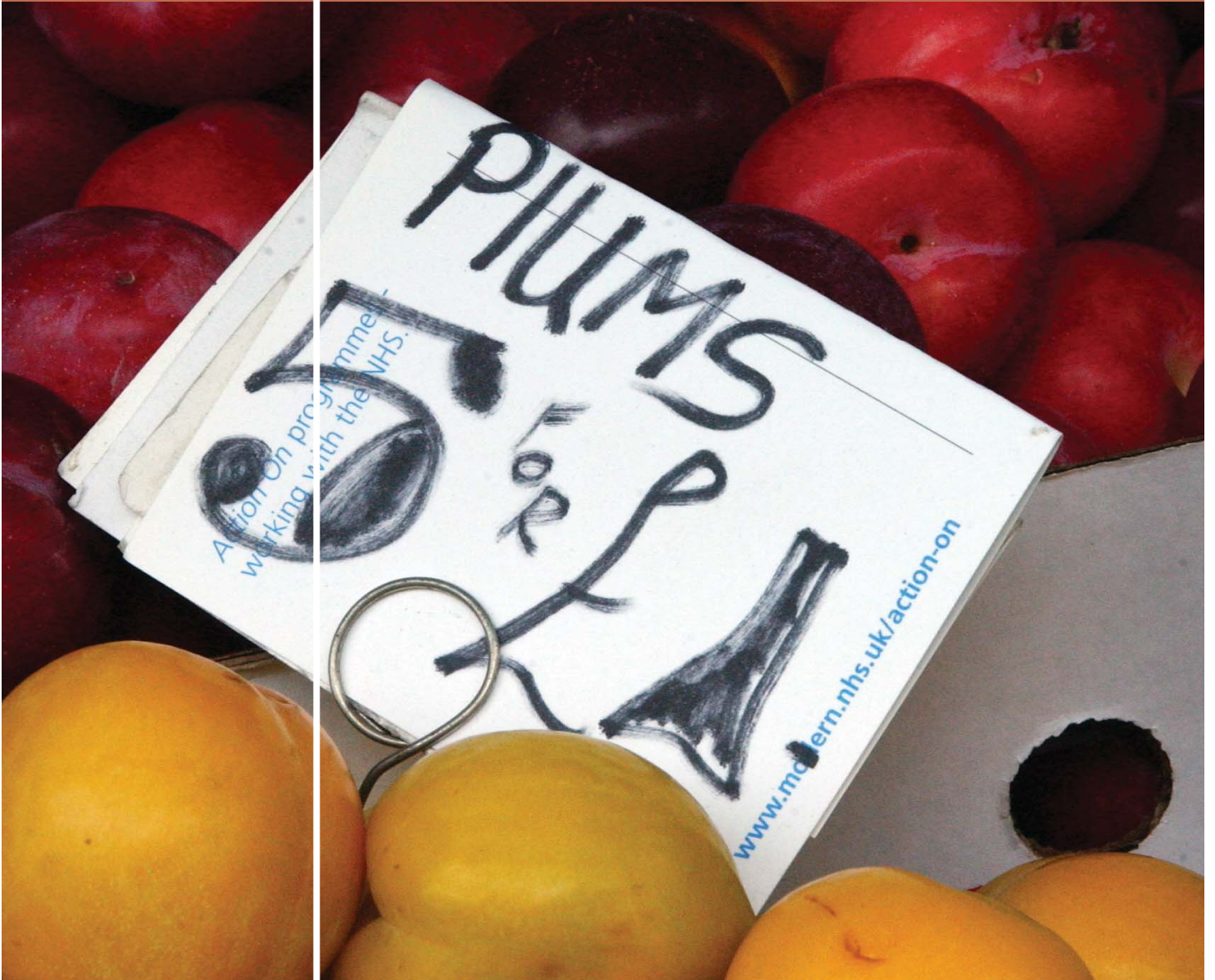
In its second and third years the project has focused mainly on approaches to improving teaching and learning. This continues the very successful work of the Standards Unit, which used approaches researched and developed by Dr Malcolm Swan, University of Nottingham, and Susan Wall, of Wilberforce College, Hull. A pack titled "Improving Learning in Mathematics" is making a significant contribution to improving teaching and learning at all levels in post-16 education. It is based on the following principles for effective teaching and learning:

1. Build on knowledge learners bring to sessions.
2. Expose and discuss common misconceptions.
3. Develop effective questioning.
4. Use co-operative small group work.
5. Emphasise methods rather than answers.
6. Use rich collaborative tasks.
7. Create connections between mathematical topics.
8. Use technology in appropriate ways.

This work has the full backing of Ofsted and professional organisations. A recent Ofsted report, "Evaluating provision for 14 to 19-year-olds" (May 2006), cites the Standards Unit work as offering highly successful approaches to teaching, learning and professional development. It found that one of the factors that made a really significant contribution to high achievement in mathematics was:

"Teaching that focuses on developing students' understanding of mathematical concepts and enhances their critical thinking and reasoning, together with a spirit of collaborative enquiry that promotes mathematical discussion and debate."
The Maths4Life project team (which included

Effective teaching
builds on knowledge
that learners bring to
the classroom



Skills for Life: what the stakeholders think

Malcolm Swan and Susan Wall) has trialled approaches and materials in order to address three levels of question:

1. How do these approaches work up to Level 1?
2. What professional development do teachers need to be effective with these approaches?
3. What relationships need to exist within and between organisations to enable the above?

The project team worked with 24 teachers for one academic year. Early findings highlight the following issues:

- Classroom management skills
- Pedagogical knowledge
- Mathematics knowledge
- Time for preparation of materials
- Understanding the approaches
- Tendency to over-protect learners
- A fragmented approach to teaching mathematics and numeracy across organisations.

The project will seek to address these in its pack of resources, which will be available in February 2007, and in recommendations to the DfES.

Maths4Life is about to publish Malcolm Swan's book, *Collaborative Learning in Mathematics: A challenge to our beliefs and practices*.

The National Centre for Excellence in the Teaching of Mathematics

Maths4Life has also worked closely with the newly-established National Centre for Excellence in the Teaching of Mathematics in championing the needs of the adult sector. It is working with the Tribal Group to design a portal which will allow teachers of adult mathematics and numeracy to discuss issues and share materials. ▣

Two major NRDC studies are building a picture of how *Skills for Life* is being received by learners, and by teachers (see Glossary). The success of *Skills for Life* critically depends upon a positive response from key stakeholders – learners and teachers above all – and we are finding that support is forthcoming in ways that are encouraging for the future of the strategy.

The learners

Learners are positive about the quality of teaching, taking a national test and gaining a qualification. Most learners value social aspects of learning, contrasting their adult experience favourably with their earlier school experience. New skills and growing confidence create broader changes and a culture of learning in life. Learners also report a positive experience of learning, particularly when tutors were able to respond to individual needs. Fitting in with everyday lives in terms of the day, time and place of learning was important for participation. Many valued the social experience of learning, which provided structure and interest in their lives. Learners describe learning new literacy, numeracy and language knowledge as important as well as the more generic skills of 'learning how to learn'. Both sets of skills were seen as transferable to everyday life. Learners also describe short-term and goal-focused plans such as finding work or improving job prospects by studying subjects needed to accomplish this (for example, Level 2 numeracy for promotion). Many also described aspirations including career changes, broadening horizons through more general learning and doing things that promote happiness, wellbeing and a sense of purpose.

Where learning fitted these broad objectives people were able to continue learning or to progress on to other courses and activities. If people felt their learning was relevant and beneficial in achieving their short or long-term goals they continued with their participation.

Participation could be adversely affected when:

- The class/course did not fit in with learners' lives (place or time)
- Their own goal changed (did not want to pursue promotion or became unemployed)
- They were unable to access courses and maintain progress (particularly ESOL provision)
- The employers' learning requirements were at variance with the learners' own goals (particularly work-based learning, for example the Army)
- Learners felt coerced to attend or had sanctions imposed (Job Centre Plus).

A challenge for the strategy will be to respond to these 'disincentives' to participation and consider what steps may be taken to mitigate them. NRDC has an important role to play in the development of an evidence-based response.

The teachers

Sixty-two per cent of teachers in our Teachers Study are generally 'very well' or 'quite well' informed about *Skills for Life* initiatives. Older teachers, those with the new Level 4 qualifications or working towards them, and teachers in full-time employment are more positive about the strategy, as are teachers who are more satisfied with their job and have a stronger professional identity.

Tutors new to literacy, numeracy and ESOL

teaching value the structure the curriculum gave them initially to be able to deliver successful lessons. It was important to have a supportive manager and/ or previous experience to be able to deliver the curriculum creatively and not see it as a constraint.

The challenge of working with an evolving strategy whilst also providing a positive experience for learners was accepted as part of their professional work. Many felt that the learners should enjoy and benefit from learning and their job was to make this as positive an experience as possible.

There was a tension in teaching at the learners' pace and putting people through the test to generate targets and income. Teachers report too much time spent on paperwork and administration rather than on teaching and preparation. Sometimes record-keeping led to good practice but sometimes, in the cases of ILPs where no training had been given, it did not necessarily improve quality.

The training at Levels 3 and 4 required a lot of additional work on the part of busy tutors and many questioned its value in providing an understanding of how adults learn. Several were concerned that the standards would change in the future, requiring further training to top up their professional knowledge.

In response to questions in the Teachers Study about the adult literacy and numeracy tests, 13 per cent of teachers indicated they were 'not familiar' with them or that the question was 'not applicable'. Eleven per cent responded similarly to questions about *Skills for Life* initiatives for hard to reach social groups, 10 per cent to questions about *Skills for Life* development opportunities, and 7-9

NRDC IN NUMBERS WORLD CLASS



NRDC continues its collaboration with international colleagues with the aim of becoming a world-class research centre. In October 2005 NRDC colleagues attended the Woods Hole Seminar in America. The conference looked at longitudinal studies in basic skills, focusing on the Anglo-American dimension. A book of discussions from the conference is due to be published by Routledge. In April 2006 NRDC ran another successful International Conference, attended by colleagues from Europe and further afield. NRDC hopes to build on this success at the 2007 conference by attracting more speakers and delegates from developing countries.

Quality improvements to teaching and learning were felt by many to be supported by the *Skills for Life* infrastructure

per cent in questions about new Level 4 qualifications.

Providers and managers

These groups believed that the strategy had raised the profile of basic skills. Progress was slow because of the radical and complex nature of change – it was felt to be on course but needed more work and time to be implemented successfully. Many stakeholders spoke of rapid change in the time between the first and second interview (10–14 months), though this depended on the type of provision stakeholders were involved in supporting (work-based, community or FE). Stakeholders were unsettled about the future, because of the changes in roles and across agencies. In most sites stakeholders mentioned changes to the Learning and Skills Council (LSC) with the loss of designated local basic skills staff affecting the ability to utilise local networks and to receive information. The demise of the Professional Development Projects was felt to ‘leave a gap’ in local CDP provision when they ‘had only just got going’ and were providing a valuable service.

The standards and core curriculum are seen as positive for learners, so long as these are not applied too rigidly. Capacity is seen to be growing, but there are also concerns about recruiting and developing tutors. Providers wanted to understand learners’ motivation, learning strategies and intended progression. Targets provide a framework for quality but do not always fit with learners’ motivation.

Changes in funding, uneven growth and development made local planning and development difficult. This has also resulted in less funding for community and outreach provision, making some provision difficult to sustain, and resulting in job losses. Similarly, some contraction of provision created by

delayed or insecure funding gives cause for concern. Job Centre Plus staff described having their basic skill roles reduced owing to financial uncertainty. Staff were achieving their own organisation’s employment targets as a first priority even though they could not then deliver wider ‘joined-up’ policy initiatives.

Difficulties in responding quickly to need have been experienced, particularly where migrant populations follow work opportunities (for example, recent Polish arrivals). This has had a significant impact in rural areas where less provision is available. It has proved difficult to provide adequate progression for ESOL learners wanting to access Level 2, since there has been more demand than supply, especially in London.

Quality improvements to teaching and learning were felt by many to be supported by the *Skills for Life* infrastructure. Many stakeholders felt that the strategy had improved the quality of provision through teacher training and CPD. Recruitment and training of staff, particularly at Levels 3 and 4, is recognised as being necessary but thought to be of uneven quality. Many stakeholders expressed concern that tutors had invested in their professional training at a time of uncertainty and job cuts; they were unable to match commitment from tutors with full-time permanent jobs and a career structure. ▀

Glossary

ALL

Adult Learners' Lives project

BCS70

1970 British Cohort Study. This study has followed 16,500 people born in a single week in 1970 throughout their lives.

BSA

Basic Skills Agency. See www.basic-skills.co.uk

CBI

Confederation of British Industry. Subscription-based organisation consisting of small and large companies which claims to be the UK's premier independent business organisation. See www.cbi.org.uk

CPD

Continuing professional development

DfES

Department for Education and Skills. See www.dfes.gov.uk

e-learning

The central concept is learning online, either from software on a computer or accessing materials from the internet, but in general it applies to students learning in a distance learning environment.

ESOL

English for Speakers of Other Languages

FENTO

Further Education National Training Organisation. Since January 2004, its work has been taken over by LLUK - see below.

GED

General Educational Development. A US-based international high-school equivalency diploma, aimed at adults, with a testing programme that evaluates participants' skills and knowledge in reading, writing, mathematics, social studies and science.

ILP

Individual learning plan

International Adult Literacy survey

A 22-country multi-language survey of adult literacy conducted between 1994 and 1998.

ITE

Initial teacher education

Learners Study

NRDC's longitudinal study of the impact of the *Skills for Life* strategy on learners.

Leitch Report

A Government-commissioned review to identify the UK's optimal skills mix in 2020, and to consider the policy implications of achieving the changes required.

LLN

Literacy, language and numeracy

LLUK

Lifelong Learning UK. The Sector Skills Council responsible for the professional development of those working in community learning and development, further education, higher education, libraries, archives and information services and work-based learning. See www.lifelonglearninguk.org

LSC

Learning and Skills Council. Responsible for funding and planning education and training for over-16 year olds in England. See www.lsc.gov.uk

LSC SfLQI

Learning and Skills Council *Skills for Life* Quality Initiative. An initiative funded by the national LSC from 2003-6, carried out by a consortium of organisations led by the CfBT Education Trust. See www.sflqi.org.uk

m-learning

Mobile learning, as in learning whilst in transit using a mobile phone.

NCSALL

National Center for the Study of Adult Learning and Literacy (in the US). See www.ncsall.net

NIESR

National Institute for Economic and Social Research. See www.niesr.ac.uk

New Deal

A Government programme aimed at giving unemployed people the help and support they need to get into work.

Ofsted

Office for Standards in Education. See www.ofsted.gov.uk

PGCE

Postgraduate Certificate in Education

QIA

Quality Improvement Agency. Established in 2006 to improve the quality of education and training in the learning and skills sector, champion innovation and excellence and support self-improvement. See www.qia.org.uk

Skills for Life

The national strategy for improving adult literacy and numeracy in England.

Skills for Life Strategy Unit

The *Skills for Life* Strategy Unit is the section of the DfES responsible for implementing the *Skills for Life* strategy.

SMART targets

Specific Measurable Achievable Realistic Time-bound targets.

Standards Unit

The DfES Standards Unit was renamed the Improvement Group in April 2006.

Teachers Study

NRDC's longitudinal study of the impact of the *Skills for Life* strategy on teachers and trainers.

Tribal

A leading UK provider of consulting and professional support services. See www.tribalgroup.co.uk

Workplace Study (Workplace Basic Skills)

NRDC's study of workplace learning and adult basic skills.

Four years on

NRDC 2005-6 FINDINGS AND MESSAGES FOR POLICY AND PRACTICE

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