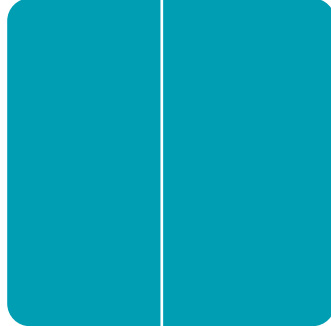




National Research and Development Centre
for adult literacy and numeracy



NRDC

Generating knowledge and transforming it into practice

Three years on: what the research is saying

Contents

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.

The NRDC is a consortium of 12 partners, led by the Institute of Education, University of London. It brings together the best United Kingdom (UK) 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 (BSA)
- Learning and Skills Development Agency (LSDA)
- LLU+, London South Bank University
- National Institute of Adult Continuing Education (NIACE)
- King's College, University of London
- University of Leeds

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NRDC's vision is:

to become, within five years, an internationally recognised centre of excellence for research and the development of effective practice in literacy, numeracy, English for Speakers of Other Languages (ESOL) and related fields of education and training for young people and adults.

To achieve this, NRDC's strategy is:

- to create a coherent and reliable research resource which helps develop policy for 14-19 year olds and adults, improves practice and identifies further research needs.
- to establish reliable and useful research evidence drawn from quantitative, qualitative and experimental methods and develop a strong international dimension to our work.
- to engage with, refresh and help take forward the *Skills for Life* strategy in supporting wider policy initiatives which promote effective learning and skills development in all contexts.
- to create new theory, scholarship and innovative thinking in the field, engaging interdisciplinary and multi-disciplinary approaches.
- to contribute to establishing a strong professional identity for teachers and other practitioners, through new training and development frameworks.
- to devise new ways of transforming research and development, so that they are effectively and routinely used to develop policy and practice, and support researchers in communicating with practitioners about research findings.
- to build research capacity, reflective practice and career development, through the systematic engagement of teachers and education practitioners in the Centre.
- to engage systematically the users of research – particularly: employers and unions, teachers, leaders, managers, inspectorates, policy makers and other agents of change.
- to draw on research and good practice from across the world, sharing ideas and comparing methods and findings.

The values, principles and aims of NRDC's activity are set out in full in "**Strategy 2003-2007: generating knowledge and transforming it into practice**".

Foreword

NRDC, 2002-2005

Generating knowledge and transforming it into practice

Each year NRDC publishes a report of our progress. At the end of March 2005 we completed the first three years of our contract with the Department for Education and Skills (DfES). Several major projects have been completed and other studies, still underway, are reporting interim findings. So this year, we are taking a different approach to our 'annual report', offering a synthesis of messages and findings accumulating from across all five NRDC programmes. We will also tell you about progress in engaging practitioners and stakeholders and how we are communicating our work. Communication is vital to make sure our research and development activities inform policy and make a strong contribution to efforts to improving literacy, language and numeracy (LLN) practice across the country.

NRDC is a unique centre, engaging with a unique national strategy, *Skills for Life*. We set out to link research and development together to help make a greater impact. It is through development activity that research issues, gaps and critical questions often arise. In turn, research can be actively used to inform teacher education and professional development to help change practice irreversibly for the better. Bringing together research evidence and practitioner knowledge gives us the best platform to transform teaching and learning cultures.

We are well on the road to delivering our strategy and achieving our aims.

As a first step NRDC undertook reviews of research to establish what was known already about our field. Our research and development has been building on those foundations since. The second phase of NRDC's work, 2005-2007, addresses priority issues, ranging from 14-19 year olds' skill levels to apprenticeships, to formative assessment. We are evaluating initiatives for learners with learning difficulties and disabilities and the effectiveness of provision for unemployed people.

Most importantly, three years on we can confidently say significant things about our field, based on evidence from rigorous research and innovative approaches to conceptualising and re-thinking major issues and developing new approaches.

Skills for Life has changed the landscape of adult learning and made a huge difference. But research is showing how much there is still to do to make learning responsive to demand, using Information and Communications Technology (ICT), mentoring and support to offer greater responsiveness and flexibility to young people and adults. We can also endorse the need for a continued, focused drive on quality improvement. Teaching and learning quality are patchy. Teaching strategies need to be further developed for all the subject areas and learning programmes need to be more creative and connected to people's daily lives at home, work and in the community. There is good news for embedded LLN. Properly

supported, it works well to motivate learners and help them persist and succeed.

Quality also means better teacher education. Our research informs initial training and feeds into the *Skills for Life* Quality Initiative and other professional development. NRDC is helping to build capacity and develop teachers' subject knowledge and their ability to use it to create focused teaching and learning strategies. Engaging practitioners in research and development, which is at the heart of our work, is having a positive impact on professional life. Professional networks allow people to share and reflect on their own practice. Changes to classroom practice and provision are already occurring, with teachers and practitioner-researchers co-operating to apply research findings to teaching and learning.

Learners are at the centre of our efforts. We report here on research which has investigated adult learners' lives, bringing out what people value in learning, including strong relationships with patient, rigorous and caring teachers and with other learners; we also report on how learners are responding to *Skills for Life* and how many, young disaffected people and offenders, enjoy informal learning and prefer to learn LLN as part of practical, vocational learning. You will also find out about two major studies about the impact of *Skills for Life* - on many hundreds of teachers and learners. These large-scale

longitudinal studies look at how policy is being embedded in practice over time. They will provide a mine of information for the future development of policy and practice.

Three years ago, numeracy and maths were poor relations in the shadow of literacy, with little provision and practically no research. In 2003 a major DfES survey showed that there are even higher levels of need than for literacy; an estimated 15 million people with skills below level 1. NRDC has been addressing this serious issue. We have produced an authoritative review of numeracy research. We are running a three-year national development programme, Maths4Life, running pathfinder projects and producing materials and guidance for teacher development. We are about to publish reports on teaching and learning, and about the impact of numeracy on people's lives: women are particularly affected by low numeracy and maths skills.

We have learned from research with 10,000 adults and their children, that very low skills affect far more than people's employability. Skills at Entry level 2 and below can seriously affect people's social and emotional well-being and also have an impact on their children's learning. Addressing intergenerational factors is vital to the long-term eradication of basic skills problems. We need to make people with the lowest skill levels a high priority and use successful strategies, including family and community based

programmes, to help them achieve progress to higher learning and skills, and support their children's learning.

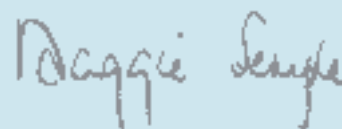
The UK is not alone in addressing these issues. NRDC, with the DfES is actively engaged in international work. Our research shows the value of mutual learning between developing countries and the UK. NRDC set out to become an internationally recognised centre of excellence in research within five years. We have sought out, engaged with and learned from scholars and practitioners across five continents. We have also worked with the other UK countries and the Republic of Ireland to co-operate on national strategies; we are working with the Organisation for Economic Co-operation and Development (OECD), United Nations Educational, Scientific and Cultural Organization (UNESCO) and recently contributed to the European Union (EU) initiative to create and help promote the 'key competences' citizens will need in a fast changing world.

In 2005-2007, NRDC's agenda has moved on. We are working on new policy priorities, continuing to tackle the critical issue of basic skills, but looking at them in broader contexts, engaging with the 14-19 agenda, and working to support the Skills strategy, with projects on successfully embedding basic skills in vocational and work-based programmes and apprenticeships. Our project on family learning, supported by The Centre for British Teachers (CfBT), will focus on

how to ensure learning programmes are relevant and effective. Parents', grandparents' and carers' learning can make a real difference. We will aim to support the goals of *Every Child Matters* and other key policies which aim to help children learn successfully, especially those who are most disadvantaged.

Quality will remain at the heart of our efforts, with guidance for practitioners on effective teaching and learning arising from three-year observational 'what works'¹ studies. Teacher education and continuing professional development (CPD) will be central to our focus. Drawing on clear research messages, we are also informing the DfES' teacher education reforms for the learning and skills sector.

There is much still to do at NRDC to support learning, especially for those with the greatest learning needs. We hope this document will be informative and interesting. We would like to hear what you think. More than that, we would like you to participate in our work. Please be in touch.



Maggie Semple
Chair, NRDC Advisory Group



Ursula Howard
Director, NRDC

¹ 'What works' study for adult ESL literacy students, American Institutes for Research (Concelli, L., et al., 2003)

NRDC 2002-2005.

What the research is saying: summary

1. Economic development and social inclusion

How can we improve life chances and skill levels, and engage employers in *Skills for Life*?

Men and women with poor numeracy, even more than those with poor literacy, tend to be in manual occupations, receive low pay, have low promotion prospects and to have poor conditions of work. They are also more likely to live in non-working households. Numeracy has a stronger relationship than literacy with a range of social and personal attributes: not voting, lack of political interest and not being a member of a voluntary or community organisation. Women with poor numeracy are exceptionally disadvantaged.

Results of the literacy and numeracy assessment of adults age 34 and their children (the cohort study of people born in 1970) show a marked gap in disadvantage between adults at or below Entry level 2 and Entry level 3; the likelihood of social exclusion is particularly high for the first group. However, adults who acknowledge problems with literacy and numeracy are more likely to improve

skills than those who don't. A major challenge for policy is to increase self awareness of literacy and numeracy levels. Improving parents' literacy and numeracy is likely to improve children's acquisition of skills, not only in the pre-school period, where very low parental skill levels are particularly damaging, but throughout their school careers.

Workplace literacy and numeracy programmes attract men, and adults who would otherwise not participate; those who do join such courses tend to persist. Workplace courses rarely focus on numeracy, but the need for adult numeracy/mathematical skills is growing as a result of the demands of business and the introduction of ICT. Union Learning Representatives have a key role in raising participation and retention rates. Poor literacy and numeracy have adverse affects on earnings and employment.

2. Participation, motivation, engagement and persistence

How can we attract more learners and enable them to achieve and progress?

Learner persistence: students in United States (US) adult literacy programs participate an average of 70 hours in a 12-month period, but 100 to 150 hours of participation are required to improve literacy by one General Education Development level²; in the English context that implies that approximately 200 hours are required to improve by one level. US and NRDC research confirms the need for innovative and flexible provision to support adults to persist in learning, including arrangements for self study, distance and ICT- supported learning.

In a study of numeracy teaching, few students gave a perceived deficit in their numeracy skills as a reason for learning. Mathematics does not have to be 'functional' to capture students' interest; many learners want something more abstract. Research underlines the importance of informal learning and innovative ways of hooking learners in. Evidence suggests that integrating LLN in vocational programmes is likely to attract and motivate learners. NRDC studies give evidence of the variety of reasons adults have for learning:

	16-18 year olds	Unemployed	Other adults
Pathway to learning	Referral by support agency	Jobcentre	Random – poster; friend; leaflet
Needs	Complex – life skills; develop routine; self-confidence	Finding confidence in abilities; raising aspirations; getting out of house	Coping with routine literacy demands, e.g. Bills; support children
Experiences	Positive about second chance; positive about tutors	Positive; meeting others; boosting confidence; new skills/achievements	Enjoyment; challenges; interest in content; company
Aims/expectations	Get life in order; create opportunities; closer to employment goals	Increase chances of further learning or job opportunities	Very mixed; personal more than economic

3. Effective teaching and learning

How can the quality of teaching and learning be improved?

Research in schools shows that formative assessment works as support for learning literacy and numeracy. An NRDC/OECD study is underway to see how post-16 learners can benefit. A review of research and practice in teaching writing revealed that the use of learning materials closely related to everyday life was the only variable significantly related to changes in learners' literacy skills and practices. Adult literacy learners' make insufficient progress in reading; too little time is devoted to reading activities and considered teaching strategies. Research showed that learners had difficulties with: word identification, comprehension, phonological awareness, decoding and spelling; most exhibit the scattered pattern of strengths and weaknesses known as 'spiky profiles'. If tutors have clear objectives for both the ICT and the literacy, language and numeracy elements of their teaching they are more likely to achieve both sets of learning objectives. Encouraging tutors to reflect on

assessment methods for both sets of skills enables them to integrate literacy, language and numeracy in ICT classes.

Detailed qualitative accounts of learners' lives – their identity, background and circumstances – provides rich evidence for explanations of learning progress, preferences and trajectories. Well resourced and well taught vocational courses, integrating the teaching of LLN, offer learners both the acquisition of practical skills and a new 'professional identity'. Context matters, as do positive relationships in learning environments. Qualities in teachers such as empathy and patience are no less important than technical competence. Research on ESOL teaching and learning reveals the importance of a high degree of learner involvement and collaboration in groups or pairs in an environment where 'talk is work'.

4. Professional development and the *Skills for Life* workforce

How can initial teacher training, qualifications and professional development enhance provision?

A 2001-2003 study found that more than 80 per cent of literacy, numeracy and ESOL teachers were female; more than half of literacy and numeracy teachers were aged over 46; 75 per cent of ESOL teachers, and over 90 per cent of literacy and numeracy teachers were white. 79 per cent of teachers had a qualification at level 4 or above, 90 per cent at level 3 or above. 56 per cent had recognised teaching qualifications; 7 per cent had only an introductory teaching certificate and 5 per cent had no teaching qualifications at all.

Teachers and other practitioners need a stronger professional identity than in the past. Attracting the motivated and providing coherent routes to fully qualified status remains a priority. NRDC fully engages practitioners in research and development programmes; research will not otherwise benefit teaching and learning. There is strong support amongst teachers for improving teachers' subject knowledge; challenges remain for attempts to integrate the teaching of subject and pedagogic knowledge into teacher training and career professional development. NRDC fully engages

practitioners in research and development programmes; research will not otherwise benefit teaching and learning.

NRDC collaboration with Lifelong Learning UK (LLUK) is building emerging research findings into the development of standards and qualifications for teachers. Collaboration included the development of a pilot scheme for the professional recognition of existing teachers in the sector. NRDC's role in advising the Learning and Skills Council (LSC) *Skills for Life* Quality Initiative (SfLQI) is contributing a research-informed perspective to the professional development of the *Skills for Life* workforce. University partners within NRDC have developed an online community for the sharing of specialist post-graduate programmes. The LENS community (Literacy, ESOL and Numeracy Scholarship) was launched in March 2005.

5. The delivery and learning infrastructure of *Skills for Life*

How do systems, structures and strategies promote or hinder learning outcomes?

Provision is still too often geared to the needs of suppliers; adult learners have a diverse range of learning needs that mainstream provision is not always able to accommodate; more flexible, ICT-supported provision is needed, integrating personal and ICT support for self-study to help learners persist when they can't attend.

NRDC's study of the impact of *Skills for Life* on learners shows that there is general satisfaction with the infrastructure from regional co-ordinators to local providers; learners respond positively to tests as a badge, provided they are handled appropriately by teachers as a mark of progress and to inform further learning. A key challenge for the *Skills for Life* Strategy Unit, local LSCs and others is balancing the supply of provision with demand for learning: the shortage of qualified tutors acts as a brake on provision, and too little is still known about the motives and behaviour patterns of learners. There is widespread agreement that teacher training programmes and the higher profile of literacy, language and numeracy education has been enhancing the professional status of the workforce. However, this was not thought to be matched by improvement in conditions of service.

ESOL needs are growing in rural areas. However, *Skills for Life* is based largely on urban models of delivery and patterns of funding which are often inappropriate in rural areas. Two main barriers hinder effective rural provision, the scattered nature of rural communities and difficulties with transport. The UK has much to learn from developing countries, particularly family and community literacy programmes, conflict resolution, and embedded literacy which support economic activity and social well-being.

Practitioner engagement

Practitioner engagement is central to the NRDC's mission and the Centre is already making an important contribution to building a culture that encourages change based on research, development and innovation. Changes to classroom practice and provision are already occurring with co-operating teachers and practitioner-researchers applying findings to their own educational settings. In 2004/05, six consortia of practitioners, advised by professional researchers explored the theme 'new ways of engaging new learners' and the practitioner magazine, *Reflect*, was launched to a very positive response from readers to the first three issues.

Key messages for policy

Employers. Workplace programmes motivate and engage new groups of learners, in particular men, who would not otherwise participate in learning. We need to promote the benefits of workplace learning with employers, especially numeracy which is neglected in the workplace, although maths skills are increasingly demanded of employees.

Making time to learn. US longitudinal research confirms how much time is needed for learners to move up a level. We need much more flexible provision to help learners persist in busy lives, including intensive courses, supported self-study, ICT and mentoring.

Embedded approaches. Embedded approaches to LLN, integrated into the teaching of vocational skills can transform learners' motivation and persistence, especially when LLN and vocational teachers are given time to work together to plan and develop their course.

Parents' and children's skills; breaking cycles of underachievement. The children of parents with skills at Entry level 2 and below are more likely to have problems with literacy and numeracy: effective, flexible and accessible adult and family LLN interventions can develop adults' skills and help children's education in their early

and school years.

Addressing the lowest level skills. Basic skills problems impact on people's working lives, social inclusion and health. Quantitative research with 10,000 people shows that those with skills at Entry level 2 and below are especially disadvantaged and low maths and numeracy has a particularly strong impact, especially on women.

Teacher education and professional development.

Integrating teachers' knowledge of their subject and how they teach it needs to be a priority, together with encouraging more confident adaptation of core curricula to learners' needs; initial teacher education and CPD needs to support teachers better in pursuing these goals.

Learners' perspectives. Learners are overwhelmingly positive about their learning, and have a very wide range of motivations. They rate their teachers highly and respond well to external assessment as long as it is treated sensitively as part of the learning process. More attention needs to be paid to broadening assessment in writing and maths and to formative methods.





1. Economic development and social inclusion



The penalties of low levels of literacy and numeracy are well known; among other things, poor literacy and numeracy have adverse effects on earnings and employment. Our analysis of intergenerational effects suggests that improving parents' literacy and numeracy improves children's acquisition of skills. We also have evidence of the increasing significance of numeracy: women with poor numeracy appear to be exceptionally disadvantaged.

We need to know more about the effects of workplace literacy and numeracy programmes. Research suggests that few workplace courses focus on numeracy; it also confirms the importance of recommendations from fellow-workers and other known and trusted intermediaries in encouraging enrolment. Union Learning Representatives in particular play a major role in raising participation.

How do we reach the so-called 'hard to reach' learners? Learners have multiple reasons for learning, reasons that also shape trajectories that are frequently far from straightforward, but which are yet well fitted to needs and aspirations. Our research brings out the detail in adult learners' lives, affording insight into ways in which provision could be more responsive to the needs of learners, and correspondingly less likely to have an exclusionary effect.



Programme 1

Main findings →

“I’d like to get an NVQ. Getting an NVQ would make a big difference. It might mean I could get a job as well with an NVQ. But of course my spelling needs to improve and maths as well is useful.”

All the quotes used in this document are from interviews with teachers and learners carried out as part of the NRDC research programme.

Low levels of literacy and numeracy: intergenerational effects

Intergenerational research on the 1970 Birth Cohort Study (BCS70) uses reading and mathematics attainment data collected from half the cohort members’ children. We found moderate correlations between parents’ literacy and numeracy skills and those of their children. For younger children there was a striking gap in children’s performance if their parents had Entry level 2 or 3 literacy compared with those above this level. The correlation was also stronger for the children’s grasp of ‘literacy’ rather than ‘numeracy’, especially for the older children’s performance in the spelling assessment.

This finding points to a high degree of fluidity in children’s basic skills acquisition, in the early years, together with a strengthening component that can be attributed to parents’ skills. Improving parents’ literacy and numeracy is therefore likely to improve children’s acquisition of skills, not only in the preschool period, where very low parental levels are likely to be particularly damaging, but throughout their school careers.

Does numeracy matter more?

Earlier research using data collected in the National Child Development Study (NCDS) - based on a cohort of people born in Britain in 1958 - identified the importance of poor numeracy as an obstacle in modern life, with particular penalties associated with poor numeracy for women. The present analysis takes this work further using literacy and numeracy assessment data collected at the earlier age of 21, in the BCS70 born 12 years later.

Labour market experience over the 17 years since leaving school revealed a greater diversity of statuses between

the 1958 and 1970 cohorts, with far more women in the more recent 1970 cohort engaged in part-time or full-time employment and far fewer engaged in full-time home care. There was also a strong relationship between employment status and both literacy and numeracy, with poor numeracy and/or poor literacy showing strong connections with home care.

Men and women with poor numeracy tended more than those with poor literacy to be in manual occupations, to receive low pay, have low promotion prospects and to have relatively poor conditions at work. They were also more likely to live in non-working households. Numeracy also had a stronger relationship than literacy with a range of social and personal attributes including not voting, lack of political interest and not being a member of a voluntary or community organisation. Male cohort members with poor numeracy were also more likely to have been in trouble with authority at school and with the police. Both sexes were also more likely to report poor physical health, to show symptoms of depression and to feel that they lacked control over their lives.

A notable finding was that women with poor numeracy appeared to be exceptionally disadvantaged. Such women tended:

- to be out of the labour market in full-time home caring roles;
- to live in a non-working household;
- to not vote and not have any political interest;
- to have poor physical health; to be depressed; and
- to feel they lack control over their lives.

Benefits of raising workforce literacy and numeracy skills

Poor literacy and numeracy skills have adverse effects on the earnings and employment prospects of individuals. Large-scale UK surveys show that people with good literacy and numeracy tend to have higher wages and better chances of being in work than people who lack basic skills.

Labour market studies indicate that very few jobs can be performed properly without basic skills, and that the skills required (especially numeracy skills) will further increase in coming years. There is limited information concerning the costs to UK employers of poor LLN among the workforce.

There are few studies of the effects of LLN training in the workplace; details of ongoing NRDC research are given below.

Learning in the workplace

Workplace programmes provide invaluable learning opportunities for adults, whose inconvenient working hours and family commitments often prohibit enrolment on local college courses.

'The workplace is the curriculum': increasingly the workplace curriculum is literacy and numeracy. The need for adult numeracy/mathematical skills is extending throughout the workforce as a result of the demands of business and the introduction of ICT. Employees increasingly need to have broader general problem-solving skills, inter-relating ICT with mathematics.

At the same time, evidence to date suggests that there is little workplace provision focused exclusively on numeracy; the majority of training programmes or courses provided by employers for their employees focus

instead on literacy or ESOL.

Requirements for workplace mathematical skills are examined in *Mathematical Skills in the Workplace* (June 2002, Institute of Education, University of London and STMC). Whilst information technology changes the nature of the mathematical skills required, it does not reduce the need for mathematics. 'Mathematical literacy' refers to workplace mathematical skills and competencies, alongside IT goals, and reflects the skills needed in relation to business goals, and the need to communicate mathematically expressed decisions to others. The report concludes that there is an increasing need for workers at all levels to possess an appropriate level of mathematical literacy.

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 role in the process of learner recruitment and retention once a course has started. Reps are trusted by company employees, and well placed to resolve emerging difficulties with the organisation of training courses.

Adult Learners' Lives: engaging with learners in community settings

The NRDC Adult Learners' Lives project focused on learners in community settings, including a centre for young homeless, an Entry to Employment programme, a drug and alcohol support centre, a tenants' association and a domestic violence self-help group.

There are multiple reasons for people to be involved in provision, from survival to transformation. However, the search for wellbeing is crucial to everyone. Equally, people generally know the

"...everyone in the army... if you haven't got 'O' level English and maths then you have to do the English and maths course before you get selected for promotion."

trigger and the 'right time' to engage in change and moving on, and this needs to be supported by providers.

The majority of people bring negative experiences of school education and of authority; histories of pain, violence and trauma are often invisible. They have a concept of 'normality', referring for example to college students who are supported by home and family, and this may have an exclusionary effect. People have 'ordinary' goals and aspirations: to be safe and healthy, with a settled family life, good relationships and enjoyable work.

- Providers need to take time to get to know individuals and understand their reasons for being there.
- The relative priority of different goals for people, and the place of *Skills for Life* learning within these, needs to be considered. High-priority and immediate goals should be distinguished from those that are longer term.
- 'Progress' should be documented in terms of 'distance travelled', and related to people's own goals. This might or might not involve qualifications.
- People often 'dip in and out' of provision. This is not necessarily failure - it can be an important and brave step.
- Training needs to develop ways of working with learners as whole people. This can be as important as subject knowledge.
- People's responses can change radically from one day to the next, in response to other things going on in their lives.
- It is crucial that provision does not recall previous negative experiences of education and authority. Ownership and shared accountability are important.
- Practical financial support (e.g. transport costs) may be necessary.

Questions and implications for policy

- Skill levels in literacy and numeracy amongst children are fluid, and improving parental skills will improve those of their children long term: how can we develop effective, accessible adult and family literacy interventions in children's early years?
- Women are particularly disadvantaged by poor numeracy: how can we target numeracy provision for women? Are the primary barriers practical (childcare, transport, timetabling), pedagogic (content, delivery, materials) or motivational (confidence, aspiration)? What can we do to overcome these barriers?
- Workplace programmes engage learners, especially men, who would not normally enrol on college based provision. How can we raise the profile of workplace learning with employers, particularly numeracy provision? Which strategies best engage men in workplace learning?
- Learners who are marginalised, in full time work or who carry negative experiences of formal education will take up provision if it is responsive to their needs: what are the characteristics of flexible provision that suits the needs of learners currently thought of as 'hard to reach'?

NRDC in numbers

■ Reaching out

NRDC is working hard to reach key stakeholders with news, think pieces, research messages and findings. A rapidly expanding mailing list of nearly 6,000 people receives hard copies of research summaries, interim reports and the NRDC magazine 'Reflect'.

■ Reports

Findings from NRDC's extensive research and development programme are already reaching the practice, policy and research communities. NRDC has published 27 reports from continuing and completed projects. Through NRDC's distribution and information points at national and regional *Skills for Life* events, more than 85,000 NRDC of these reports have been distributed.





2. Participation: motivation, engagement, persistence





Raising and widening participation are central goals of policy, especially in respect of learners labelled as 'hard to reach'. Their being hard to reach may be a product of constrained thinking: research on informal learning underlines the importance of hooking learners in and understanding their needs and interests. Numeracy research shows that adults engage in and persevere with learning for a plethora of reasons - proving one's own ability, intellectual stimulation, career development and helping children with homework.

There are high hopes of 'embedded' LLN, and early findings point the way towards those elements of provision most likely to attract, motivate and retain learners. Persistence matters as much as engagement: US research underlines the amount of time required for learners to make significant progress. This has implications for funding and provision that will allow learners to succeed.



Programme 2

Main findings →

“I did not go to school very often. Coming here and doing a work placement will help me bring routine in my life. These are small steps but I need to put my life in order before I make bigger plans.”

Engagement: lessons from numeracy and informal learning

‘Making Numeracy Teaching Meaningful’ - an in-depth qualitative study, including interviews with 80 learners - found that few students gave a perceived deficit in their numeracy skills as a reason for learning. Mathematics does not have to be ‘functional’ to capture students’ interest, involvement or imagination. One of the main reasons adults attend their numeracy classes is in order to prove to themselves that they have the ability to study and succeed in a high-status subject which they perceive to be a signifier of intelligence. People want much more from their numeracy classes than knowledge of how to read their gas bills.

But actually it hasn't been the daily application that has caught me, has got me so - it's beyond the daily application, it's so exciting and I don't think you do have to make it daily, practical, mundane. It doesn't have to be just practical.

Informality in learning helps to attract and motivate learners, whose experience of formal statutory education often includes failure and rejection. There is often no clear distinction between formal and informal learning: what matters most is sustaining a suitable balance of formal and informality in the learning environment. Four key elements of working with young adults are:

- hooking learners in;
- engaging learners;
- sustaining involvement; and
- facilitating learning.

The project ‘Success factors in informal learning’ found that:

- Addressing adult’s needs and life experience is far more influential in

guiding learning programmes than environment, funding or accreditation-related targets.

- Engaging young adults is of paramount importance to practitioners, and often more pressing than the literacy, language and numeracy elements of provision.
- There is ongoing debate among practitioners about the benefits of making literacy, language and numeracy explicit in learning programmes rather than ‘teaching by stealth’.
- Across all sectors, ‘embedding’ was widely believed to be the most effective approach in working with young adults.

Embedding literacy, language and numeracy

Achievement at level 2

The national skills strategy aims to increase substantially the number of individuals who have a level 2 vocational qualification. One of the obstacles to this is that a large number of people who might want to study such qualifications have poor LLN skills, which will stand in the way of their success. The *Skills for Life* strategy recognises that lots of people with LLN needs do not want to attend LLN classes. But it is also widely accepted that people’s willingness to work on their LLN skills is enhanced when they can improve them as part of a vocational or leisure programme, which represents their primary motivation.

Case study findings

The case studies describe how LLN learning often takes place when the speaking, listening, reading, writing or calculating are directly linked to a practical task. This is seen clearly in the case studies where there is

observation of numeracy learning. There are many practical tasks in the construction and engineering courses observed which cannot be undertaken without calculation, measurement and estimation as integral parts of the process. Extra help with these processes feels a lot more useful to a mathematical learner when he or she is on task than when in a separate classroom and at a different time.

The case studies describe how "embedding" is not just about interlinking different curricula; it is deeper and more complex. Mapping literacy, language and numeracy skills onto the vocational curriculum can only give a general idea of what has to be learned and provide a starting point. The LLN tutor has to learn, by participating in the vocational classroom, how literacy, language and numeracy are used both for the particular job and in this type of vocational classroom and cannot do this simply by studying the curriculum on paper. The case studies describe how learners need and learn the "situated" learning of LLN skills of their chosen job (Lave and Wenger 1991).

Vocational teachers have a natural legitimacy on their programmes in the

eyes of the learners. They represent the role to which the learner aspires. The LLN teachers lack this immediate legitimacy because their role is one of support and enabling. Learners have to come to recognise the value of the LLN teachers to their aspirations, and here the attitudes of vocational teachers towards LLN are of central importance.

Although all the learners accepted the fact that LLN were elements of the course, the great majority of them would not be prepared to attend stand-alone literacy, language or numeracy classes. However, there are a range of vocational programmes for young people which include key skills and additional learning support. So for these young people one test of the embedded approach is whether they are more likely to succeed with an embedded approach to LLN rather than with discrete key skills and learning support arrangements.

The position is different for the four adult part-time programmes described in the case studies. These courses were specially designed to provide literacy and language integrally combined with preparation in the chosen vocational area. Such programmes, if successful, can be a


powerful strategy to widen participation and start learners on a route which can lead to a Level 2 vocational qualification or to accredited LLN programmes.

Persistence

Research shows that, in the US, learners need on average 100 hours for a lift in level within the General Equivalency Diploma. 100 hours is a long time if you are a part-time learner. How does a learner find this time? In the UK system, colleges tend to be open on weekdays only. For a full-time worker or parent, free time all too often coincides with times when learning centres are closed. Other research from the National Center for Adult Learning and Literacy (NCSALL) in the US suggests that adults do engage in self-study. However, that there is little to support them, such as flexible offers, ICT packages, and other means by which adults can stop and start attendance at college without ceasing to learn. (fn: J. Comings, presentation to NRDC 2005) Persistence study, National Centre for the Study of adult learning and literacy; S. Reder (Literacy Development over the Lifecourse: Participation, Practices and Proficiency).

Questions and implications for policy

- Authentic materials work for some but not all learners; how do we get the balance right between functional maths and abstract problem-solving materials to engage more learners?
- Adults learn for a plethora of reasons: how can we use this knowledge to inform provision that is well adapted to the multiple needs of diverse lifelong learners?
- Embedding literacy, language and numeracy in vocational programmes: what are the characteristics of successful embedded provision, including its content, delivery and learning environment?
- Successful team-work is central to successful embedded provision: what are the most effective models of collaboration between LLN and vocational tutors?
- US research confirms how much time is required for learners to make significant progress: how can we offer provision that enables learners to progress, but which is also accessible to busy adults and supports self study?

A close-up photograph of a Black woman with her hair in dreadlocks, smiling warmly. She is wearing a brown sweater, a gold necklace, and a gold earring. She is sitting at a desk with a silver laptop, holding a purple pen over the keyboard. The background is softly blurred, showing a window with light coming through.

3. Effective teaching and learning



For successful teaching and learning context matters. Positive relationships in learning environments promote progress and achievement. The identity of adult learners is integral to understanding their needs and trajectories and personal qualities in teachers – such as empathy and patience – matter no less than technical competence.

On some questions the evidence does not all point in one direction. Many learners want authentic, practical materials while others are attracted by the challenge of taking something abstract and not remotely practical. There are occasions when teachers value one thing – self expression in writing – and learners another – technical competence. And we assume that reflection about our own learning is a good thing – but not always and not for all learners, as evidence from our ESOL research suggests.

We are beginning to uncover more about how ICT can better complement literacy and numeracy learning. Knowledge of levels of LLN is only as good as the instruments we use to measure them and this section concludes with a summary of our recent review of assessment instruments.



Programme 3

Main findings →

“I’d like to study advanced writing or something like that because I’m quite interested in it. It’s what I’d like to do ideally for a career, but you have to know a lot really.”

Adult literacy learners’ difficulties in reading

NRDC carried out an exploratory study into adult learners’ difficulties in reading, designed to investigate areas of reading difficulty through focused observation of practice and close study of learners. Key findings are presented below:

- Wide range of strategies used to address adult learners’ reading difficulties, but less than perfect match between learners’ difficulties and pedagogy.
- Learners had difficulties with: word identification, comprehension (explicit and implicit), phonological awareness, decoding and spelling. Most exhibited the scattered pattern of strengths and weaknesses known as ‘spiky profiles’.
- Correlations between difficulties in different areas were low; for example large numbers of oral reading errors were not necessarily associated with poor comprehension. This confirms the variability in individual learners’ patterns of difficulty.
- Whilst teaching targeted some of the identified reading difficulties, intensive, focused reading instruction was not a significant component.
- Despite extensive recent research in Britain and elsewhere on the phonological aspects of literacy at school level, no research was found which addressed this area with adult learners.
- Assessment data showed that most learners had poor phonological awareness. In the observation data, much of the phonics teaching was done on the spur of the moment

and there were instances of tutors’ inadequate grasp of phonetics leading to inaccurate phonics teaching.

- Learners may be making insufficient progress in reading because not enough of the class session is spent on reading activities.
- A greater amount of time was devoted to teaching reading during sessions where the teacher worked with a group of similar ability, compared to sessions where the learners worked on reading activities independently and received occasional feedback from their tutors.
- Learners need to engage in meaningful discussions with each other and with a teacher, and be offered a wide range of activities to cover text, sentence and word levels, in order to develop their comprehension skills.

Teaching and learning writing

Our review of research and practice in teaching and learning writing suggests that writing should be viewed as a process in which the writer interacts with what he/she has written. Planning and revising a text are as much part of this process as physically writing it.

There is very little sound research evidence on the factors in adult literacy programmes that enable learners to develop effective writing skills. There is a particular need for research that will help to identify the variables that impact on adult learners’ development as writers.

Use of authentic literacy practices in the classroom was the only variable found to be significantly and positively related to changes in

learners' literacy skills and practices.

Responsiveness to the needs of individual learners and the use of a variety of tasks and approaches were held to be important by the teachers.

Learners placed value on the mastery of spelling and punctuation and identified these as aspects of writing that caused them the most difficulty. The teachers valued the expression of ideas above, or in addition to, correctness in the surface aspects of writing.

Variables that may prove significant in the teaching and learning of writing, to be explored in ongoing research, include:

- authenticity of materials and communication;
- collaborative approaches to writing;
- making the process of writing explicit to learners; and
- contextualisation of writing tasks and relevance of teaching and materials to learners' lives.

Embedding LLN

Young offenders

Many young people participating in our young offenders' project did not respond very well to discrete literacy and numeracy classes ("classroom situation is a problem, big thick books is a problem"). Although the examples used in the classroom may be relevant to their lives, the actual classroom situation proved problematic. Embedding literacy and numeracy into their vocational workshop worked better for them. Initially this is related to the environment being more flexible and like being in the workplace. The young people reiterated again and again that work must be relevant and useful to their lives "make more practical ... relate it to things

interested in ... would be useful".

ICT

We have seen numerous examples of successful embedding of LLN in ICT classes. ICT can be a powerful motivator for students joining courses and can take many guises (e.g. it can be based on musical creation, producing videos, or writing a newspaper but still call on many of the same ICT skills) and so courses can be readily adapted to appeal to a range of audiences. If tutors have clear objectives for both the ICT and the literacy, language and numeracy elements of their teaching then they are more likely to achieve both sets of learning objectives. We have found that encouraging tutors to reflect on their assessment methods for both sets of skills can help tutors embed literacy, language and numeracy in ICT classes.

Identity and social practices

Learning is infused with the complexity of learners' lives. A variety of different factors are interrelated and integrated in the learning-teaching process. A full understanding of learning in adult language, literacy and numeracy must take account of social aspects of learning, including the political and institutional context in which it takes place, the broader socio-cultural context in which learning is situated and the social life in classrooms.

Social interaction is the key mechanism through which learning takes place. Its characteristics need to be studied in detail as a means to understanding the dynamics whereby teaching can facilitate learning. Teaching is best characterised as the creation of 'learning opportunities' through the management of interaction. The concept of 'learning opportunities' accounts for the way in which different learners learn

NRDC in numbers

■ NRDC summaries

NRDC produces simple, concise summaries of all of our research and development publications, these are sent to all those on our mailing list and are available on our stand at events; so far we have distributed more than 220,000 of these.

■ Reflect

The first three issues of the NRDC practitioner magazine, *Reflect*, which engages practitioners in the work of the Centre and embodies its 'research- and development-meets-practice' ethos, have been very well received by practitioners and other groups.

“It’s actually because of the teaching style that we’ve learnt more than I think we might have learnt in school.”

different things from the same learning-teaching event and provides a rationale for approaches to teaching which do not attempt to specify precisely what is to be learned.

From the learners’ point of view

Research from ‘Making numeracy teaching meaningful’ shows that adults can begin to view and understand themselves, and their world, in a different way. As teaching consists of a series of relationships between various identities, and as learners’ identities affect how they relate to the teacher, and also how they learn, it is important to know who the learners are and explore the ways learning changes them.

The embedded case studies describe how well resourced and well taught vocational courses offer learners both the acquisition of practical skills and a new “professional” identity, or, as some of the case studies describe, offer learners membership of a new “community of practice” (Chaiklin and Lave 1996). This means learning to be like a professional; learning what is worth knowing, how far they can draw on their existing expertise and what are the risks and challenges in taking on this new identity. This new professional identity is what motivates such learners and for young people this identity is often in contrast to their former experience as “school pupils”. Tutors are both teachers and mentors. Learners are both “doing things” and understanding the culture of their chosen jobs – the behaviour, values and ways of communicating – for example, as joiners, as child care workers, or as Indian head massage practitioners. This is an apprenticeship model (Lave and Wenger 1991) in which learners are socialised into both vocational skills and the LLN required to be a competent member

of the group. This new identity, in turn, changes learners’ attitudes towards working on “theory” and on LLN because learners can come to see them as an integral part of the learning for the job they are aspiring to. Once learners “value” LLN in this way, they will accept a focus on improving their LLN skills.

Personal qualities and relationships

Effective practice may well be about teacher qualities such as patience, caring or rigour as much as teacher strategies in themselves. Teachers and learners often talk about their classroom experiences in this way, i.e. they focus on the overall experience of how it feels to be learning in a group rather than specific procedures or activities, although it may well be the case that teacher qualities are linked in some way with teacher strategies.

Success factors in informal learning included the personal qualities and attributes associated with effective youth work, such as patience and empathy, were considered essential; whereas LLN training was seen as desirable, but hard to access and sometimes inappropriate to the cohort.

ESOL classes showing progress in post-assessment scores tend to have a high degree of learner involvement. Lessons in these classes consistently score highly on those general teaching strategies which encourage extended learner output, which respond to learners’ concerns as they arise and which provide opportunities for learners to work together. The importance of a high degree of learner involvement and the chance to work collaboratively in groups or pairs in an environment where “talk is work” is reflected in comments made by learners; many ESOL adults have few opportunities

to practise English outside their classrooms and place a high value on lessons which encourage talk. Learners report an increase in confidence gained after a period of formal classroom tuition which they had failed to achieve prior to attending class.

ESOL case studies: control is a key motivation for learning; for people with a negative experience of education this may include an egalitarian relationship with the teacher or determining the pace of their learning; for ESOL learners it may be associated with gaining employment or understanding legal processes. Teachers should seek to understand learners' goals within their particular personal situations, and build respectful, trusting relationships in order that feelings of control and confidence can develop.

In the embedded case studies, qualities possessed by tutors and relationships between them were more important than general curricular models of embedded provision. On all the courses described, the teachers planned and worked closely together. They shared, in their respective roles, the same vocational objective for their learners: they were strongly learner-centred. The case studies also bring out clearly that relationships between learners and teachers have to be based on empathy and respect to be successful, particularly for LLN learning. There was observed to be less of an effective role for the LLN tutor if the majority of the vocational teachers' time was spent in whole class "up front" teaching.

Questions arising

Context and authenticity

Context matters: learners often engage most successfully with real

and situated literacy, numeracy and language practices, directly relevant to their wider goals and circumstances. A major US study showed that 'bringing the outside in' was a central factor in determining the extent of a learner's progress: 'students in classes where teachers used activities that connected what was taught to real-life showed more development in their basic reading skills'.

However, messages about authenticity do not all point in the same direction. On the one hand, our writing study found that the use of authentic literacy practices in the classroom was the only variable found to be significantly and positively related to changes in learners' literacy skills and practices. On the other hand, the use of everyday, culturally-specific situations to contextualise maths problems may act as a barrier to attainment by ESOL learners in numeracy classes. And in our numeracy research we have found that for some learners what is wanted is something difficult and abstract, like algebra, rather than materials thought to have a direct application to their practical lives. There is work to be done to understand the conditions in which practical and authentic learning materials are or are not what is most likely to engage learners and sustain their interest.

ICT

ICT has the potential to engage learners and make learning more interesting and challenging. However, many tutors when incorporating ICT in their teaching for the first time adopt teaching styles which are influenced by the style of working common in ICT skills classes - individual working, detailed breakdown of tasks, and inflexible learning paths. Further involvement

NRDC in numbers

■ Conferences

NRDC is highly visible at all *Skills for Life* and other post-16 events; we have organised 26 separate events including the national *Skills for Life* conferences (1,200 delegates annually) on behalf of the DfES and our own International research conference in Spring each year which has quickly established itself as an influential meeting of the research, practice and policy communities attracting academic and policy researchers from across the world.

■ Lecture series

NRDC's annual lecture series was launched at the Institute of Education, University of London in 2004 with three lectures from international consultant in adult education, Tom Sticht; Professor Steve Reder of Portland State University; and David Sherlock, Chief Inspector of the Adult Learning Inspectorate. The lectures each drew an audience of over 100 practitioners, policy makers and researchers. In 2005 we will have lectures by Professors Ron Carter and Mary Hamilton as well as the Director of the Institute for Public Policy Research, Nick Pearce.

“I have the confidence now to write things ... When we receive a letter I now even write letters back. Before I would ring or wait until I ran into the person in the street.”

with ICT can encourage tutors to reflect upon the way that they are teaching, and to use ICT to transform their teaching in innovative ways. In time tutors can come to adopt styles of teaching that rely on greater collaboration and greater learner autonomy. Literacy and numeracy are themselves being transformed by ICT and learners can engage more directly with new forms of digital literacies.

Competence or self expression?

Writing learners placed value on the mastery of spelling and punctuation and identified these as aspects of writing that caused them the most difficulty. Their teachers valued the expression of ideas above, or in addition to, correctness in the surface aspects of writing. (However, classroom observation revealed a heavy use of exercises focusing on the sub-skills of writing, which may reflect teachers' concern to respond to the needs of learners.)

Reflection on own learning

Learners are encouraged to reflect on and review their own learning, but there is a time and place for these difficult activities, which may sometimes be introduced at times that are not helpful for learners. It may be that the involvement of ESOL learners in the planning and reviewing of their learning through individual learning plans is not beneficial, as language learners appear unable to reflect on and predict their language development, even when they have an advanced level of English.

Diversity

Interviews with ESOL learners reveal the extent of their diversity in terms of their backgrounds, aspirations, level of education and the obstacles to learning many of them face. This is a challenge for teachers wishing to respond to individual needs at the

same time as fostering the optimum conditions for learner involvement through group and pair collaboration, and a major issue when describing effective practice. In a class which may include learners with a high level of education in their first language alongside others whose education has been severely disrupted, or learners who recently arrived in the UK alongside those who have been resident for many years but who have failed to acquire English, the question of what is "effective practice" must also be "effective for whom?"

Assessing levels of literacy and literacy and numeracy

The profession needs valid, reliable and manageable instruments for assessing adult literacy and numeracy, and NRDC in particular needs such instruments for its own research programme.

A total of 15 quantitative, summative instruments used to assess adult literacy and/or numeracy in Britain in the period 1991–2002 were identified, obtained and analysed. The analysis was carried out against a checklist and framework derived from theory, previous analyses, and the research team's experience.

The major criteria for useful instruments were that they should be secure (unpublished, or not readily available), be aligned to the new QCA National Standards, and (for use in research projects), have parallel forms.

No wholly suitable instruments meeting these criteria were found. For the 2004 sweep of the British Cohort Study 1970 it was recommended that the instruments used in the early 1990s be used with some modification.

For NRDC's research projects it was recommended that new literacy and numeracy instruments be commissioned.

During 2003 a new literacy assessment instrument meeting all NRDC's requirements was developed for NRDC by the National Foundation for Educational Research (NFER), and

a review of this is also included. However, for NRDC's numeracy projects a less than fully satisfactory adaptation of items from the 2002/03 *Skills for Life* survey of needs was developed in 2003. A review of this is included, with a recommendation that a better instrument be developed.

Questions and implications for policy

- Intensive work-related provision is successful when learners know what they've got to do and why, and that they have to get on with it, with an opportunity to step out of role and put aside expectations: what are the lessons for designing work-related provision – its intensity, organisation, delivery and content?
- Relationships matter: between teacher and learner and amongst learners. Interaction also matters: 'talk is work' in the ESOL (and literacy and numeracy) classroom; and what are the characteristics of learning environments and teaching practice that promote positive relationships and social interaction?
- Personal qualities in teachers – such as empathy and patience – matters no less than technical competence: what are the characteristics of initial teacher training, learning environments and teaching practices that give due weight to developing both expertise and positive human qualities?
- Speaking and listening in numeracy programmes promoted learners' engagement and progress: is it time for oracy to assume a higher priority in curricula?
- We need to understand more about the elements of effective pedagogy in reading and writing: what are the features of provision – delivery and content – that make for successful teaching and learning in reading and writing?
- Using ICT can motivate learners and improve their learning in literacy and numeracy: what are the lessons from successful innovative practice, and how are teachers to be supported in not overly resorting to individual work?

NRDC in numbers

■ [nrdc.org.uk](http://www.nrdc.org.uk)

The NRDC website

<http://www.nrdc.org.uk> is proving an effective medium of communication and dissemination and plays a key role in engaging practitioners with nearly 2,000 registered users and a total of more than 300,000 visitors and 920,000 page views since its launch in May 2003. All NRDC publications are available as free downloads from the site which also includes details of NRDC research and development projects and information about events relevant to NRDC stakeholders.

■ 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 all NRDC publications and news about events run by NRDC and our partners.

■ E-newsletter

NRDC's new monthly e-newsletter is received directly by more than 4,700 people, many of whom forward it on to colleagues in their organisations.

A photograph of two young men sitting at a table, engaged in a discussion. The man on the right is smiling and looking towards the man on the left. They are both wearing light-colored shirts. The man on the right has a gold watch on his left wrist and a tattoo on his forearm. There are papers and a pen on the table in front of them.

4: Professional development and the *Skills for Life* workforce



Teachers have a pivotal role in raising quality in LLN. We should be ambitious for our workforce and enable them to become fully qualified, with strong subject and pedagogic knowledge. They should be able to facilitate strong classroom relationships and to broker the right pastoral support for learners. Our research presents a revealing profile of the *Skills for Life* workforce. It suggests strong support amongst teachers and trainers for improving subject knowledge, and identifies the challenges facing attempts to integrate the teaching of subject and pedagogic knowledge.

Teacher educators, responsible for the professional development of new and existing teachers, continue to adapt to fresh challenges as the reform of teacher education for the whole of the learning and skills sector follows the introduction of the new qualifications for literacy, numeracy and ESOL teachers in 2002/03.

Teachers and other basic skills practitioners need a stronger professional identity than they have had in the past. We should assist teachers and others in developing old concepts and practices afresh to have access to the thinking and inquiry that creates 'reflective practice'. NRDC's contribution is fully to engage practitioners in research and development programmes, and four models of engagement are described in this section.



Programme 4

Main findings →

“I’ve learned a lot. I can’t believe I was teaching before I did this course.”

Developing high quality teacher education and professional development

Teacher education for the learning and skills sector is in the process of major reform to take effect from 2007. The developments in *Skills for Life* teacher education have much to contribute to this wider development. NRDC collaboration with LLUK, and previously with Further Education National Training Organisation (FENTO), is building emerging research findings into the development of standards and qualifications for teachers. NRDC collaboration with LLUK has included the development of a pilot scheme for the professional recognition of existing teachers in the sector.

New *Skills for Life* teachers need sound knowledge of their subject in addition to firm foundations in pedagogy and how to approach teaching and learning with adult literacy, numeracy and ESOL learners.

NRDC’s role in advising the LSC *Skills for Life* Quality Initiative is contributing a research-informed perspective to the professional development of the *Skills for Life* workforce. NRDC has also worked to create a Foundation Degree Framework for *Skills for Life* practitioners.

University partners within NRDC have developed an online community for the sharing of specialist post-graduate programmes. The LENS community (Literacy, ESOL and Numeracy Scholarship) was launched in March 2005.

The NRDC Professional Development Network supports teacher educators in the nine English regions in the development of effective practice

with the new teacher education qualifications.

***Skills for Life* core curriculum training programmes 2001-2003: characteristics of teacher participants**

This study reported on the characteristics of teachers who attended the *Skills for Life* core curriculum training programmes for literacy, numeracy and ESOL teachers from 2001-2003. The data is based on the substantial numbers of teachers who participated in the training. The numbers are sufficiently large to make the findings significant, and ongoing NRDC research, looking at the impact of the *Skills for Life* strategy on teachers and trainers, will provide a more detailed and comprehensive profile of the *Skills for Life* workforce.

- More than 80 per cent of literacy, numeracy and ESOL teachers were female.
- More than half of literacy and numeracy teachers were aged over 46.
- 75 per cent of ESOL teachers, and over 90 per cent of literacy and numeracy teachers were white.
- 79 per cent of teachers had a qualification at level 4 or above, 90 per cent at level three and above.
- 56 per cent had recognised teaching qualifications, such as Cert Ed/PGCE but many have other specialist professional teaching qualifications.
- 7 per cent had only an introductory teaching certificate in the form of the C&G 9281, and no other teaching qualifications.

- 5 per cent had no teaching qualifications at all.

New initial teacher education (ITE) programmes for teachers of literacy, numeracy and ESOL

This study investigated the new ITE programmes for teachers of adult literacy, numeracy and ESOL in nine universities and, to a lesser extent, two colleges during the first year of implementation, 2002/03.

There was support among teacher trainers and trainees for the policy of raising subject knowledge to improve practice in the three specialisms of literacy, numeracy and ESOL. However, there were concerns about the content, level, depth and breadth of the subject specifications and how they related to the three stages of ITE qualifications.

For university-based teacher trainers from the generic tradition in adult teacher education, the inclusion of subject knowledge alongside pedagogic knowledge was new. For others from the subject specialist tradition, the extension to the full breadth of the generic standards was new.

Many courses adopted an integrated approach to teaching subject knowledge and pedagogic knowledge, some adopted a partially integrated approach and others taught the subject specifications separately.

There was little consistency across the universities in terms of numbers of course hours, the structure of modular programmes and university credit systems. All providers reported that the new programmes involved considerable extra expenditure.

Teacher trainers expressed concern

about having insufficient time to teach the subject specifications and cover the pedagogic standards. Some teacher trainers and trainees said the focus on subject knowledge was in danger of marginalising knowledge of teaching.

Some trainees, particularly those who had little teaching experience, told us that there was too much theory, not enough practice, and little connection made between the two.

The research shows a wide diversity of experience and qualifications among trainees. However, there was little evidence of programmes making use of this prior experience or accrediting prior learning. Experienced and inexperienced trainees often followed similar programmes with little variation in the structure, pace and organisation of learning to meet their particular needs.

All course tutors expressed concern about the difficulty of attracting qualified and experienced teachers to teach on the university-based courses and were looking for new forms of partnerships with colleges. The shortage of suitably qualified teacher educators was reported as particularly acute in the area of numeracy.

Engaging teachers in research

All NRDC projects which include field research or develop new models for learning, or trial and evaluate new products, pay colleges and adult learning centres to release teachers to be 'practitioner-researchers'. Some projects are led by practitioners and supported by researchers, rather than the other way round. We will shortly publish reports on how effective our efforts have been. It is our firm belief that

“I do have a better understanding of the whole *Skills for Life* strategy, how the different aspects inform one another and have become a lot more confident about doing things in a way I judge that is beneficial to my students. I have become more critical a lot more careful with what I teach and how I choose to teach it.”

“I am much more knowledgeable, better at setting targets and planning sessions, doing group work and teaching to individual goals. I am more confident.”

only by engaging practitioners in research - from identifying the research need, to designing the project, through to fieldwork and data analysis – that we will ensure that research makes a difference to teaching and learning.

We have four models for engaging teachers in research. Through the apprenticeship model, teachers are trained in research methods and become members of a team of researchers, usually led by one of the NRDC universities. The second model enables practitioners to conduct research or development projects as part of their professional development – including higher degrees and diploma courses. The third model is the creation of a programme of ‘practitioner-led’ research projects, with stand-alone funding. Groups of practitioners join together to bid competitively for project funding for a theme chosen by a consultative national group of practitioners. Projects are supported by an experienced researcher to ensure quality and validity of findings. Finally, the fourth model is a whole organisation model in which a college or other provider of literacy or numeracy learning

engages a research fellow or development professional to conduct work on a theme identified as essential to the success of the organisation.

We have trained and worked with hundreds of practitioners on our projects. We have developed networks of teachers and teacher-researchers, created practitioner forums, a website and on-line professional development materials and a research-based magazine focused on practice: Reflect.

In ICT we have demonstrated that by working with tutors - enabling them to reflect on their practice and to think about the assessment of learning - the ways in which ICT is used can be transformed. Short courses are not likely to be of much use in raising standards in this area, and much more effective change is likely to be brought about by working with tutors over a longer period of time, and by developing spaces for communication between tutors. We found that even amongst the Institute for Learning and Teaching champions in FE colleges, few had ever seen other people teach using ICT.

Questions and implications for policy

- How best can we create a growing workforce of highly motivated, fully qualified and expert literacy, numeracy and ESOL teachers?
- The profile of learners is often not reflected in the profile of their tutors, especially in ESOL. How do we ensure a workforce as diverse as the profile of post-16 learners?
- How do we broaden pedagogic knowledge to suit the more diverse *Skills for Life* settings and learners?
- It is a priority to integrate the teaching of subject and pedagogic knowledge. How can we best ensure that this integration is a feature of all teacher education?
- Teachers need to be confident to adapt curricula to meet learners’ needs. How can initial teacher education and continuing professional development (CPD) better support teachers in developing this confidence?
- How can teacher educators themselves best be supported in a period of rapid change?
- How can the research messages from *Skills for Life* teacher education be effectively integrated into the Department teacher education reform agenda for the learning and skills sector?





5. The delivery and learning infrastructure of *Skills for Life*



NRDC is running two longitudinal studies that will allow us to comprehensively describe and analyse the impact of the *Skills for Life* strategy on teachers and trainers, and on learners. Below we report on the initial stages of the Learners study, with findings drawn from interviews with stakeholders, providers and learners.

We are collecting national and international evidence bearing on the quality of the *Skills for Life* infrastructure. One dimension of social inclusion is enabling people in rural areas to take advantage of *Skills for Life* provision: how 'rural proof' is the *Skills for Life* agenda? We suggest that people who live in rural areas are not currently the beneficiaries of socially inclusive provision.

In the final section we report on an NRDC research symposium, linking literacy programmes in developing countries and the UK. It is evident how much the UK has to learn from these sources, and examples are provided in such areas as family and community literacy, conflict resolution and embedded forms of literacy.



Programme 5

Main findings →

“It’s benefited me yes, yes definitely and its got to, obviously. I’ve got two young children and it’ll benefit them as well.”

Evaluation of the *Skills for Life* strategy: learners’ study, qualitative strand

The study aims to examine the ways in which the *Skills for Life* learning infrastructure is having an impact on the experience and achievement of learners. It is being undertaken to complement the longitudinal study of those teachers and trainers who are delivering the *Skills for Life* national strategy.

Interviews with stakeholders and providers: emerging themes

The *Skills for Life* programme was thought to have developed through three distinct phases, moving from the opportunistic to the increasingly sophisticated and strategic. The emphasis now was less upon raising awareness and more on matching provision to the economic needs of different localities, and also ensuring that provision was embedded within mainstream education.

One of the factors aiding the implementation and development of *Skills for Life* was a general satisfaction with its infrastructure. This was a view expressed by both regional co-ordinators through to local providers. There were concerns raised about some aspects of this such as targets, and there had been a number of other ‘teething troubles’. But on the whole the infrastructure was viewed as a solid foundation on which to base the strategy.

The main challenge faced by regional co-ordinators in the SfLSU, staff in local learning and LSC offices and others was balancing supply of provision with demand for learning. Two particular issues stood out in this respect. There was a perceived shortage of qualified tutors that was acting as a brake on provision, and there was some degree of uncertainty about the motives and behaviour

patterns of learners. Consequently, providers were never certain whether particular provision would be over or indeed under-subscribed.

Targets were proving to be the most controversial topic associated with *Skills for Life*. Yet most people thought that the strategy needed a focus and were content to work within a targeted framework. However, there were some, especially at the level of providers, who thought that the setting of targets was not being well managed, and they thought that better channels of communication between target setters and target users were needed to establish more appropriate targets.

There was widespread agreement that the tutor training programming and the increased profile of basic skills education was enhancing the professional status of those working within it. However, this had not been matched by improvements in conditions of service. Some felt that until this was addressed it would be difficult to recruit sufficient tutors.

The general opinion was that the *Skills for Life* infrastructure was making a positive impact upon learners. The main evidence used to support this was that it was on course to meet its target. However, it was also recognised that targets alone were not the only indicator of positive impact. Consequently, stakeholders were very supportive of the learner evaluation and were very willing to help with access the learners.

Interviews with learners: emerging themes

We have interviewed in the region of 200 learners in a wide range of settings. To an extent a large proportion of those interviewed are the easier-to-reach because we made contact with them through stakeholders who were enthusiastic

about co-operating with this study. The harder to reach will feature more prominently in later interviews. Emerging themes follow.

Broad range of reasons given for returning to learning (domestic, friends, work) and the broad range of areas in which learning is needed (spelling, punctuation, spoken word, numbers and measurements).

Very strong feedback from learners praising the quality of their teaching, tutors and surroundings.

Most learners are in favour of tests - even those not looking for work such as older learners on numeracy/literacy courses and women taking ESOL classes whose most immediate concern is supporting their children at school and communicating with teachers.

Maths especially – dividing for example. I was never really sure before ... And when I pass I will be even happier. When I pass English as well. And I am doing health and safety. That will help me if I want to get a job with computers or be an electrician. I would never have got that if I never came here, so I am just getting more grades all the time.

Favourable comparisons made between current learning and previous experience of school learning. Mainly due to small groups and individual attention, learning at own pace, support and atmosphere, absence of distractions such as bullying.

A broad range of gains was mentioned by learners. Supporting children was mentioned many times, as is general increased confidence in communicating with people. Improved job chances are important but are not identified as the main gain apart from those studying in a setting where

there is a direct link between learning and promotion prospects such as the army. Social gains such as meeting other people, making new friends are also important.

A great variety of further learning interests such as general interest, domestic skills – food, health, hygiene, D.I.Y., etc. Positive experiences from returning to learning provides confidence and a boost to seek out learning opportunities in a wide range of areas not necessarily obviously linked to earlier classes. The view that learning about computers is important not just for improving job prospects but for generally functioning in the modern world.

I started coming to the learning centre more than a year ago last Easter. I decided to come because my son had problems in school and they threatened to take him out and put him in a special needs class. I did not want this. They put me in a special class and it was horrible. I thought I have to be able to help my son. So I talked to someone in the Citizen's Advice Bureau and they rang and arranged for me to come here ... I have the confidence now to write things, to write whole chapters. When we receive a letter I now even write letters back. Before I would ring or wait until I ran into the person in the street.

The more negative experiences mainly gathered from those who felt pressurised into returning to learning and especially from those who could not see how this would help them e.g. "at my age".

Emerging messages

The *Skills for Life* Infrastructure does appear to be making a positive impact on learners who have made favourable comments about the content of their courses, the facilities, the quality of the teaching and the

NRDC in numbers

■ Downloads

Over 250,000 publications have been downloaded from the NRDC website <http://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).

■ Engaging practitioners - building capacity

NRDC situates practitioners at the heart of the research process: over 200 teacher-researchers have worked on our research and development projects; we have run 18 practitioner-led projects looking at motivation, persistence and creative approaches to teaching and learning; we run active networks of teachers and teacher trainers and through our practitioner forums we regularly interact with teachers, managers and other key stakeholder groups to engage them in debate, respond to their comments and opinions and feed these back into the research agenda.

“I couldn’t read and write when I left school. In my day why educate a farmer’s son, they would only be pulling up the swedes.”

opportunities to obtain qualifications. On the other hand, the reasons why people have returned to learning, and the use to which they wish to put their learning, appear as varied and as complex as the views expressed by other learners in studies over the past 15 years or so. In one respect although a lot has changed since the launch of *Skills for Life*, the key issues remain more or less the same. The wider benefits of learning appear to be just as important if not more so, than the narrow vocational ones.

Rural provision

The notion of ‘rural proofing’ government policies was first suggested in the White Paper *Our Countryside: The Future – A Fair Deal for Rural England* (DETR 2000). Since 2001, all government policy proposals, including those for health, housing and education, are supposed to consider the impact they will have on rural communities and whether the policy have any significant differential impact in rural areas.

How rural proof is the *Skills for Life* agenda? At present, *Skills for Life* is based largely on urban models of delivery and patterns of funding which are often inappropriate in rural areas. There are two main barriers faced in delivering rural provision: the scattered nature of rural communities; and difficulties with transport.

Low levels of population density make it difficult to get enough learners together in any one place at any one time to run cost-effective provision. Funding criteria normally require classes to have a minimum number of learners, usually between eight and ten. In rural areas this is very difficult, if not impossible, to achieve.

Transport infrastructure is a well

documented problem in rural areas. Many rural learners do not have access to a car. They cannot afford a car, or the family has only one which is used by the main wage-earner to get to work or, especially in the case of ESOL learners, they cannot drive. This means that many have to rely on public transport which is often very limited. Where it does exist, it is slow, costly and infrequent. As a result, rural learners find it difficult, if not impossible, to attend provision that is not based in the locality.

Travel is also a major problem for tutors delivering provision. In many rural areas it is essential that the tutor has access to their own means of transport. However, in our research (Atkin, C et al. 2005), we found that tutors, who were often hourly paid, were generally not reimbursed for their travel time or for the costs incurred, such as petrol.

The international dimension: linking literacy programmes in developing countries and the UK: selected conclusions and recommendations emerging from a research symposium held at the Literacy Research Centre at Lancaster University in December 2003.

Practitioners and policy-makers in the UK can benefit from knowing more about practices and experiences in developing countries. Information about literacy programmes in developing countries should be made more accessible to practitioners and policy-makers in the UK. This report is a first step; NRDC might play a larger role - supporting seminars, training materials and networks.

Family and community literacy and numeracy learning could be more widely promoted; this has been a cornerstone of literacy in many countries, and in the UK we are finding many examples of successful

family learning practices. In developing countries the concept of 'family' is often used to embrace a large, extensive family group, something that might also apply to many UK communities, and to the teaching and learning of ESOL.

The techniques of linking literacy and numeracy to conflict-resolution and related reconciliation initiatives could be explored in connection with offenders, socially excluded and disaffected groups, and people with behavioural difficulties or mental health issues.

Informal, embedded and 'organic' forms of literacy, numeracy and ESOL could be developed within the voluntary, cooperative and mutual sectors in the UK. Interesting initiatives have already been carried out under the Adult and Community Learning Fund in England (for example, working with credit unions to support financial literacy). Learning literacy in this context can also foster a sense of social and community belonging, and greater purpose and sustainability can be achieved by organisations which are supporting

the learning of their members and users.

Teacher training and on-going support for teachers are of paramount importance. The arrival of REFLECT in Britain provides an opportunity to review the content and overall philosophy of current provision, particularly in relation to ESOL. The societal and political analysis that the REFLECT approach promotes is relevant to all policies that aim not only to provide people with qualifications, but also to promote informed citizenship, social inclusion and widening participation.

UK policy on supporting adult basic education in developing countries has developed quite separately from policy within the UK. There is little dialogue between DfID and the DfES, the two government departments responsible for these policies. NRDC could have a role in supporting the exchange of information between the departments on their respective approaches and policies.

NRDC in numbers

■ Collaboration

At NRDC we have carried out research projects for a wide range of funders including National Health Service, local and regional LSCs, Centre for British Teachers (CfBT) and the *Skills for Life* Quality Initiative (SfLQI). We are currently increasing our capacity to produce evaluation reports on projects and initiatives within the field of adult literacy, numeracy and language. We have active links with the following projects which form part of the ESRC Teaching and Learning Research Programme:

Transforming learning cultures in Further Education (FE).

Literacies for learning in FE.

Enhancing Skills for Life: adult basic skills and workplace learning.

■ World class

NRDC is fulfilling its mission to become a world-class research centre the presentations, workshops and posters at a range of conferences and forums. Invitations to present at international conferences are frequent and increasing; recent offers have been received from Canada, South America, Singapore, South Africa, Australia, New Zealand, the US and European countries.

Questions and implications for policy

- How can providers better understand the motives and behaviour patterns of learners so as to ensure high-quality provision when and where it is needed?
- There are barriers to delivering rural provision: scattered communities and difficulties with transport. What more can we do to 'rural proof' *Skills for Life* provision in rural areas?
- The wider benefits of learning matter as much as 'narrower' benefits: how should this inform the planning and design of *Skills for Life* infrastructure?
- The UK has much to learn from developing countries, in such areas as family and community literacy, conflict resolution and embedded and organic forms of literacy; what is the role of NRDC, the DfES and other government departments in learning from and disseminating international good practice?



Maths4Life



The Maths4Life project is working to stimulate a positive approach to teaching and learning numeracy and maths. Work began in August 2004 during a period of unprecedented change within the *Skills for Life* sector. The project was heralded by the Smith Report "Making Mathematics Count: The report of Professor Adrian Smith's Inquiry into post-14 Mathematics Education", (London, TSO, 2004) and the government's response to it.

In relation to adult numeracy it is often said 'demand is low but need is high'. During its first year Maths4Life has begun to look into motivations of learners engaged in various types of adult numeracy provision, as well as what motivates practitioners to train as adult numeracy specialists. The report on this work, which formed Stage One of the Pathfinder suite, is due out in Autumn 2005.

We have actively engaged with stakeholders: motivation was the theme of the first very well attended Maths4Life conference held in February 2005; the Maths4Life website was set up early on and we are encouraged by the amount of traffic it receives, the interactive forums and moderated discussions are encouraging lively debate on key issues around teaching and learning of adult numeracy. We have also produced a video of good practice and a multimedia prototype of ICT-based CPD which will be developed in the coming year.

The Stage Two Pathfinder projects are working on a range of adult numeracy issues (from developing practitioners' diagnostic techniques to mapping the numeracy curriculum onto the ESOL curriculum) and in a wide variety of contexts: including a re-integration service for ex drug users, the

workplace, a primary school, and a number of FE settings.

The future

The project will follow, adapt to and support the emerging policy environment following the launch of the two White Papers, "14-19 Education and Skills" and "Skills: Getting on in business, getting on at work". The development of functional mathematics and the emergence of the Framework for Achievement will be given particular attention.

In response to the new policy agenda, and in line with the vision, aims and objectives originally set out, the project will focus on the following areas during its final two years:

- **Effective practice** – working with the DfES Standards Unit to continue their work on improving learning in mathematics
- **Pathfinders** – small trials of teaching approaches, and professional development models within the effective practice project
- **Research** – what does the maths workforce look like? Where does learner identity fit in?
- **Teacher education** – developing initial and continuing professional development
- **Communications** – making sure our messages reach the right people
- **Sustainability** – making sure the work of Maths4Life remains available to the maths community beyond the end of the project

The work of Maths4Life in years 2 and 3 centres on the Stage 3 Pathfinder

project, together with development work on effective practice. The work on effective practice will develop an approach to 'active learning' already successfully used by the Standards Unit. The Pathfinder will trial and develop the approach and associated materials, as well as examining relevant professional development issues. Maths4Life will also bring together the findings of its Stage 1 and 2 Pathfinders in order to inform practitioners and others of approaches to effective practice.

Maths4Life and the new policy direction - critical areas of engagement:

- There is a stress in all recent policy documents on "functional mathematics". Though not yet defined, there is a danger that functional maths may become identified with lower-status pathways.
- Increased targets for learners suggest that the shortage of suitably qualified numeracy teachers is likely to become more acute
- Smith, together with NRDC evidence, suggests that the most urgent need for CPD is on subject-knowledge and subject-specific pedagogies
- There is a need for a National Centre for Excellence in Teaching Mathematics to provide central and distributed infrastructures to support the entire mathematics sector.
- Tomlinson and the 14-19 White Paper raise questions about the extent to which, in the medium and long term, it will be helpful to conceptualise post-16 numeracy, as distinct from post-14 numeracy.

The future

NRDC, 2005-2007

Putting new knowledge into practice in adult learning and skills provision

In 2005-2007, the Centre is pursuing an ambitious plan of work, translating knowledge gained from research into improvements in the quality of teaching, learning, and the training and development of teachers.

Building on work undertaken since its foundation in 2002, this programme represents an integrated body of work that will increase the evidence base on which *Skills for Life* practitioners and policy makers can draw, and provide clear guidance on how to use that evidence to inform policy and practice effectively. It will provide clear and coherent policy advice for government and practical guidance for teachers and all those in the *Skills for Life* workforce.

The new plan responds to some of the central questions in *Skills for Life* engaging employers, enhancing workplace skills, raising standards of provision and boosting learner motivation. NRDC aims to produce high-quality evidence on these issues to help secure positive change in adult learning and skills.

Literacy and numeracy problems affect people's lives. NRDC's analysis of national birth cohorts is revealing the impact on life outcomes for adults and their children. In the period 2005-2007 we will investigate how we can improve people's life chances by raising skill levels and employability; improve job prospects and engage employers in *Skills for Life*. Numeracy skills particularly are in high demand in the modern labour market, to

support IT and problem-solving tasks. NRDC is leading the Department's three-year Maths4Life project and will be linking it to continuing work on effective numeracy teaching and learning.

We are also be investigating the infrastructure of *Skills for Life*; asking how systems, structures and strategies for planning, funding, delivering and evaluating provision help or hinder learning outcomes and how individual learners best interact with systems and structures to maximise progress and achievement. Large-scale studies are investigating the impact of *Skills for Life* on teachers and learners. The three-year teacher study is tracking around 1,000 practitioners, asking teachers how the strategy is affecting classroom practice and career pathways. Around 1,500 learners per year are being interviewed over two years to see how learners' achievement and experiences of learning are changing under the strategy.

A key goal in many of the projects that form the NRDC workplan 2005-2007 work is improvement in the quality of teaching and learning. The development and delivery of learning materials for adult learners is another key area of work. NRDC is looking at how to embed literacy, language and numeracy effectively in learning programmes, whether for vocational, recreational or personal development purposes. We want to

establish how best to attract new learners and help them achieve qualifications.

Our commitment to practitioner engagement continues to run throughout our programme, exemplified not only by practitioner activity in research and development projects, but also in the seminars, conferences and NRDC publications in which practitioners have a key role. NRDC involves practitioners in every stage of its work to ensure it is focused, useful and relevant. Three issues of a new practitioner magazine, *Reflect*, have been published and we have had enthusiastic feedback from the field. The magazine aims to provide a forum for everyone involved in LLN, including practitioners across all subject areas where LLN is embedded, to think about and learn from their own and others' experience. Practitioners also participate through the regional NRDC Practitioner Forums, where research findings and the implications for practice are openly discussed.

NRDC is committed to communication and impact activities that bring policy, practice and research communities together, and take the field of adult basic skills forward. NRDC is all about engaging the 'agents of change' – practitioners, policy-makers, researchers – and we welcome your input. You can find out more about NRDC's work and how to get involved at www.nrdc.org.uk.

NRDC: the broader policy agenda

NRDC has a core remit related to *Skills for Life*. Our research and development is strongly focused on supporting the Strategy's efforts to boost participation, improve practice and build the capacity of the workforce in the basic skills sector. We will continue to help take forward *Skills for Life* as it strives to meet its 2007 and 2010 targets.

Over the three years since our foundation in 2002, we have increasingly tackled areas that, while relevant to *Skills for Life*, engage with broader themes, such as the future of FE, skills, the 14-19 agenda, offender learning and the intergenerational transfer of skills. Our work will respond to the 2005 agenda set out by the two White Papers: *Skills: Getting on in business, getting on in work* and *14-19 Education and Skills. Success for All and Every Child Matters* are other important policy priorities. This work has led to the development of positive collaborations with a wide range of partners, both nationally and internationally, and has increased our capacity and expertise. Much of our work has application to wider fields in post-14 learning, including connections to post-16 learning world-wide. Our practice of engaging practitioners in all our programmes applies to teachers' development whatever their core subject. Wider work includes:

■ **FE.** The Foster Review of FE is addressing the challenges that face the FE sector over the next five years. NRDC is providing professional expertise and management of 'Think Pieces' and has produced a working paper for the DfES on the history of FE.

■ **Embedding basic skills.**

Embedding basic skills in vocational programmes to boost motivation, achievement and progression to higher skills is relevant to many policy areas in education and employment. NRDC is running a three-year project on this theme and is involved in research and development linked with the new *Skills for Life* learning materials. NRDC's work should ensure *Skills for Life* can provide effective support for policy areas such as the *Skills strategy*, the *14-19 curriculum* and *Youth Matters*. We are working on improving models of apprenticeship.

■ **ICT.** NRDC has worked on the development of the ICT curriculum with the Department and partners.

■ **Teacher education.** Improving teacher education is central to the effort to boost the quality of teaching and learning. NRDC work on standards, frameworks, and the content and delivery of teacher education and CPD extends beyond the *Skills for Life* subject specialisms. We have worked closely with a wide range of providers, universities and colleges, with QCA, LLUK, SVUK, OFSTED and ALI. We will meet concerns raised by the inspectorates, ensuring our work engages practitioners and supports the drive to improve the quality of teaching and learning of generic and vocational skills.

■ **Sharing knowledge and working together.** NRDC has developed close working relationships with other DfES-funded research centres, in particular the Wider Benefits of Learning Research Centre, the Centre for the Economics of

Education, LSDA and the Centre for Excellence in Leadership. NRDC is also active in international networks of practitioners, policymakers and researchers across the anglophone world and in developing countries. In the EU, NRDC is contributing to the work to define the basic skills needed to achieve the 2010 Lisbon goals.

■ **ESRC.** We have close working relationships with the ESRC's Teaching and Learning Research programme and specific post-16 projects which address issues spanning the learning and skills sector.

■ **Offender learning.** Preparing offenders for release and/or employment and reducing reoffending are key tasks that bring together policy interests across many government departments. NRDC is involved in work commissioned by the Offenders Learning and Skills Unit reviewing offender education

■ **Evaluation.** Evaluation studies are another key aspect of NRDC's wider capability, in particular the evaluation of the SflQI and the development of Impact Measures, which will have a wider application.

■ **Maths4Life.** Numeracy and mathematics have come to prominence in the policy arena with the demands for number and problem-solving skills in the modern workplace. Maths4Life is a development programme which is part of *Skills for Life*, but in which we work closely with the Standards Unit, and now with the teams at the DfES developing the functional maths qualification.

Glossary

ALI	Adult Learning Inspectorate
BSA	Basic Skills Agency
CfBT	The Centre for British Teachers
CPD	Continuing Professional Development
DfES	Department for Education and Skills
DfID	Department for International Development
DWP	Department for Work and Pensions
ESOL	English for Speakers of Other Languages
ESRC	Economic and Social Research Council
EU	European Union
FE	Further Education
FENTO	Further Education National Training Organisation
GED	General Educational Development
ICT	Information and Communications Technology
IT	Information Technology
ITE	Initial teacher education
LENS	Literacy, ESOL and Numeracy Scholarship
LLN	Literacy, language and numeracy
LLUK	Lifelong Learning UK
LSC	Learning and Skills Council
LSDA	Learning and Skills Development Agency
NCDS	National Child Development Study
NCSALL	National Centre for the study of Adult Learning and Literacy
NFER	National Foundation for Education Research
NIACE	National Institute of Adult Continuing Education
NRDC	National Research and Development Centre for Adult Literacy and Numeracy
OECD	Organisation for Economic Co-operation and Development
OFSTED	Office for Standards in Education
QCA	Qualifications and Curriculum Authority
SfLQI	<i>Skills for Life</i> Quality Initiative
SfLSU	<i>Skills for Life</i> Strategy Unit
SVUK	Vietnamese Students in the UK
TLRP	Teaching and Learning Research Programme
UK	United Kingdom
UNESCO	United Nations Educational Scientific and Cultural Organisation
US	United States

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